

QPSK EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/15/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 12 QPSK 10MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
704.00	8.30	V	0.55	0.0	7.75	9.90	34.77	36.99	-27.1	
704.00	17.61	H	0.55	0.0	17.06	19.21	34.77	36.99	-17.8	
Mid Ch										
707.50	9.26	V	0.55	0.0	8.71	10.86	34.77	36.99	-26.1	
707.50	18.13	H	0.55	0.0	17.58	19.73	34.77	36.99	-17.3	
High Ch										
711.00	9.63	V	0.55	0.0	9.08	11.23	34.77	36.99	-25.8	
711.00	18.33	H	0.55	0.0	17.78	19.93	34.77	36.99	-17.1	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/15/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 12 16QAM 10MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
704.00	7.58	V	0.55	0.0	7.03	9.18	34.77	36.99	-27.8	
704.00	16.97	H	0.55	0.0	16.42	18.57	34.77	36.99	-18.4	
Mid Ch										
707.50	8.37	V	0.55	0.0	7.82	9.97	34.77	36.99	-27.0	
707.50	17.38	H	0.55	0.0	16.83	18.98	34.77	36.99	-18.0	
High Ch										
711.00	8.80	V	0.55	0.0	8.25	10.40	34.77	36.99	-26.6	
711.00	17.63	H	0.55	0.0	17.08	19.23	34.77	36.99	-17.8	
Rev. 10.24.13										

10.1.6. LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/15/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 13 QPSK 5MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
779.50	13.81	V	0.55	0.0	13.26	15.41	34.77	36.99	-21.6	
779.50	20.70	H	0.55	0.0	20.15	22.30	34.77	36.99	-14.7	
Mid Ch										
782.00	14.13	V	0.55	0.0	13.58	15.73	34.77	36.99	-21.3	
782.00	20.89	H	0.55	0.0	20.34	22.49	34.77	36.99	-14.5	
High Ch										
784.50	14.23	V	0.55	0.0	13.68	15.83	34.77	36.99	-21.2	
784.50	21.11	H	0.55	0.0	20.56	22.71	34.77	36.99	-14.3	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company:										
Project #: 16U23366										
Date: 6/15/2016										
Test Engineer: 52279										
Configuration: EUT Only										
Mode: LTE Band 13 16QAM5MHz BW										
Test Equipment:										
Receiving: Sunol T408, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
7.00	12.91	V	0.55	0.0	12.36	14.51	34.77	36.99	-22.5	
779.50	19.85	H	0.55	0.0	19.30	21.45	34.77	36.99	-15.5	
Mid Ch										
782.00	13.41	V	0.55	0.0	12.86	15.01	34.77	36.99	-22.0	
782.00	20.16	H	0.55	0.0	19.61	21.76	34.77	36.99	-15.2	
High Ch										
784.50	13.67	V	0.55	0.0	13.12	15.27	34.77	36.99	-21.7	
784.50	20.35	H	0.55	0.0	19.80	21.95	34.77	36.99	-15.0	
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QPSK EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company:										
Project #: 16U23366										
Date: 6/15/2016										
Test Engineer: 52279										
Configuration: EUT Only										
Mode: LTE Band 13 QPSK 10MHz BW										
Test Equipment:										
Receiving: Sunol T408, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	13.91	V	0.55	0.0	13.36	15.51	34.77	36.99	-21.5	
782.00	20.62	H	0.55	0.0	20.07	22.22	34.77	36.99	-14.8	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company:										
Project #: 16U23366										
Date: 6/15/2016										
Test Engineer: 52279										
Configuration: EUT Only										
Mode: LTE Band 13 16QAM 10MHz BW										
Test Equipment:										
Receiving: Sunol T408, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	13.36	V	0.55	0.0	12.81	14.96	34.77	36.99	-22.0	
782.00	19.77	H	0.55	0.0	19.22	21.37	34.77	36.99	-15.6	
Rev. 10.24.13										

10.1.7. LTE BAND 17

QPSK EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/15/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 17 QPSK 5MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
706.50	9.88	V	0.55	0.0	9.33	11.48	34.77	36.99	-25.5	
706.50	18.81	H	0.55	0.0	18.26	20.41	34.77	36.99	-16.6	
Mid Ch										
710.00	9.89	V	0.55	0.0	9.34	11.49	34.77	36.99	-25.5	
710.00	18.91	H	0.55	0.0	18.36	20.51	34.77	36.99	-16.5	
High Ch										
713.50	9.89	V	0.55	0.0	9.34	11.49	34.77	36.99	-25.5	
713.50	19.27	H	0.55	0.0	18.72	20.87	34.77	36.99	-16.1	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/15/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 17 16QAM 5MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
706.50	9.09	V	0.55	0.0	8.54	10.69	34.77	36.99	-26.3	
706.50	18.23	H	0.55	0.0	17.68	19.83	34.77	36.99	-17.2	
Mid Ch										
710.00	8.85	V	0.55	0.0	8.30	10.45	34.77	36.99	-26.5	
710.00	18.05	H	0.55	0.0	17.50	19.65	34.77	36.99	-17.3	
High Ch										
713.50	9.05	V	0.55	0.0	8.50	10.65	34.77	36.99	-26.3	
713.50	18.19	H	0.55	0.0	17.64	19.79	34.77	36.99	-17.2	
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QPSK EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company:										
Project #:		16U23366								
Date:		6/15/2016								
Test Engineer:		52279								
Configuration:		EUT Only								
Mode:		LTE Band 17 QPSK 10MHz BW								
Test Equipment:										
Receiving: Sunol T408, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
710.00	9.92	V	0.55	0.0	9.37	11.52	34.77	36.99	-25.5	
710.00	18.93	H	0.55	0.0	18.38	20.53	34.77	36.99	-16.5	
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16QAM EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company:										
Project #: 16U23366										
Date: 6/15/2016										
Test Engineer: 52279										
Configuration: EUT Only										
Mode: LTE Band 17 16QAM 10MHz BW										
Test Equipment:										
Receiving: Sunol T408, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
710.00	9.27	V	0.55	0.0	8.72	10.87	34.77	36.99	-26.1	
710.00	18.25	H	0.55	0.0	17.70	19.85	34.77	36.99	-17.1	
Rev. 10.24.13										

10.1.8. LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52291								
Configuration: EUT Only								
Mode: LTE Band 25 QPSK 1.4MHz BW								
<u>Test Equipment:</u>								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.851	14.7	V	0.98	8.05	21.72	33.0	-11.3	
1.851	17.8	H	0.98	8.05	24.82	33.0	-8.2	
Mid Ch								
1.883	16.9	V	0.98	8.03	23.97	33.0	-9.0	
1.883	18.7	H	0.98	8.03	25.76	33.0	-7.2	
High Ch								
1.914	16.3	V	0.98	8.07	23.35	33.0	-9.7	
1.914	18.0	H	0.98	8.07	25.05	33.0	-8.0	
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16QAM EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52291								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 1.4MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.851	15.0	V	0.98	8.05	22.11	33.0	-10.9	
1.851	17.2	H	0.98	8.05	24.26	33.0	-8.7	
Mid Ch								
1.883	16.0	V	0.98	8.03	23.06	33.0	-9.9	
1.883	18.2	H	0.98	8.03	25.21	33.0	-7.8	
High Ch								
1.914	15.5	V	0.98	8.07	22.54	33.0	-10.5	
1.914	17.5	H	0.98	8.07	24.56	33.0	-8.4	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		6/16/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 25 QPSK 3MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.852	15.4	V	0.98	8.05	22.47	33.0	-10.5	
1.852	17.5	H	0.98	8.05	24.61	33.0	-8.4	
Mid Ch								
1.883	16.9	V	0.98	8.03	23.94	33.0	-9.1	
1.883	18.8	H	0.98	8.03	25.83	33.0	-7.2	
High Ch								
1.914	16.6	V	0.98	8.07	23.66	33.0	-9.3	
1.914	18.3	H	0.98	8.07	25.41	33.0	-7.6	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52291								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 3MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.852	15.2	V	0.98	8.05	22.29	33.0	-10.7	
1.852	17.0	H	0.98	8.05	24.11	33.0	-8.9	
Mid Ch								
1.883	16.2	V	0.98	8.03	23.25	33.0	-9.8	
1.883	18.0	H	0.98	8.03	25.00	33.0	-8.0	
High Ch								
1.914	16.2	V	0.98	8.07	23.30	33.0	-9.7	
1.914	17.7	H	0.98	8.07	24.75	33.0	-8.3	
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QPSK EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		6/16/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 25 QPSK 5MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.853	15.1	V	0.98	8.05	22.18	33.0	-10.8	
1.853	17.9	H	0.98	8.05	24.92	33.0	-8.1	
Mid Ch								
1.883	16.8	V	0.98	8.03	23.80	33.0	-9.2	
1.883	19.1	H	0.98	8.03	26.16	33.0	-6.8	
High Ch								
1.913	16.0	V	0.98	8.06	23.07	33.0	-9.9	
1.913	17.7	H	0.98	8.06	24.79	33.0	-8.2	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52291								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 5MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.853	15.1	V	0.98	8.05	22.20	33.0	-10.8	
1.853	17.3	H	0.98	8.05	24.40	33.0	-8.6	
Mid Ch								
1.883	16.4	V	0.98	8.03	23.40	33.0	-9.6	
1.883	18.2	H	0.98	8.03	25.20	33.0	-7.8	
High Ch								
1.913	15.0	V	0.98	8.06	22.04	33.0	-11.0	
1.913	17.0	H	0.98	8.06	24.10	33.0	-8.9	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52291								
Configuration: EUT Only								
Mode: LTE Band 25 QPSK 10MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	15.9	V	0.98	8.05	22.93	33.0	-10.1	
1.855	17.6	H	0.98	8.05	24.68	33.0	-8.3	
Mid Ch								
1.883	16.8	V	0.98	8.03	23.85	33.0	-9.2	
1.883	19.0	H	0.98	8.03	26.04	33.0	-7.0	
High Ch								
1.910	15.5	V	0.98	8.05	22.59	33.0	-10.4	
1.910	18.0	H	0.98	8.05	25.04	33.0	-8.0	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		6/16/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 25 16QAM 10MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	15.6	V	0.98	8.05	22.66	33.0	-10.3	
1.855	17.0	H	0.98	8.05	24.09	33.0	-8.9	
Mid Ch								
1.883	16.2	V	0.98	8.03	23.28	33.0	-9.7	
1.883	18.2	H	0.98	8.03	25.25	33.0	-7.8	
High Ch								
1.910	15.9	V	0.98	8.05	22.97	33.0	-10.0	
1.910	17.1	H	0.98	8.05	24.15	33.0	-8.9	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		6/16/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 25 QPSK 15MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.858	16.6	V	0.98	8.04	23.63	33.0	-9.4	
1.858	17.7	H	0.98	8.04	24.75	33.0	-8.2	
Mid Ch								
1.883	16.9	V	0.98	8.03	23.90	33.0	-9.1	
1.883	19.0	H	0.98	8.03	26.07	33.0	-6.9	
High Ch								
1.908	15.4	V	0.98	8.04	22.50	33.0	-10.5	
1.908	17.9	H	0.98	8.04	24.98	33.0	-8.0	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52291								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 15MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.858	15.3	V	0.98	8.04	22.39	33.0	-10.6	
1.858	16.9	H	0.98	8.04	23.99	33.0	-9.0	
Mid Ch								
1.883	16.2	V	0.98	8.03	23.28	33.0	-9.7	
1.883	18.5	H	0.98	8.03	25.51	33.0	-7.5	
High Ch								
1.908	14.9	V	0.98	8.04	21.96	33.0	-11.0	
1.908	17.4	H	0.98	8.04	24.46	33.0	-8.5	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		6/16/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 25 QPSK 20MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	14.9	V	0.98	8.04	21.94	33.0	-11.1	
1.860	17.7	H	0.98	8.04	24.75	33.0	-8.2	
Mid Ch								
1.883	16.2	V	0.98	8.03	23.23	33.0	-9.8	
1.883	19.1	H	0.98	8.03	26.19	33.0	-6.8	
High Ch								
1.905	16.3	V	0.98	8.04	23.34	33.0	-9.7	
1.905	18.5	H	0.98	8.04	25.59	33.0	-7.4	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52291								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 20MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	13.9	V	0.98	8.04	20.92	33.0	-12.1	
1.860	17.0	H	0.98	8.04	24.05	33.0	-8.9	
Mid Ch								
1.883	15.6	V	0.98	8.03	22.63	33.0	-10.4	
1.883	18.8	H	0.98	8.03	25.84	33.0	-7.2	
High Ch								
1.905	15.1	V	0.98	8.04	22.16	33.0	-10.8	
1.905	18.1	H	0.98	8.04	25.15	33.0	-7.9	
Rev. 10.24.13								

10.1.9. LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52291 Configuration: EUT Only Mode: LTE Band 26 QPSK 1.4MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
814.70	9.13	V	0.62	0.0	8.51	10.66	38.45	40.60	-29.9	
814.70	18.89	H	0.62	0.0	18.27	20.42	38.45	40.60	-20.2	
Mid Ch										
819.00	9.22	V	0.62	0.0	8.60	10.75	38.45	40.60	-29.9	
819.00	19.06	H	0.62	0.0	18.44	20.59	38.45	40.60	-20.0	
High Ch										
823.30	10.27	V	0.62	0.0	9.65	11.80	38.45	40.60	-28.8	
823.30	19.82	H	0.62	0.0	19.20	21.35	38.45	40.60	-19.3	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52291 Configuration: EUT Only Mode: LTE Band 26 16QAM 1.4MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
814.70	8.33	V	0.62	0.0	7.71	9.86	38.45	40.60	-30.7	
814.70	18.09	H	0.62	0.0	17.47	19.62	38.45	40.60	-21.0	
Mid Ch										
819.00	8.42	V	0.62	0.0	7.80	9.95	38.45	40.60	-30.7	
819.00	18.26	H	0.62	0.0	17.64	19.79	38.45	40.60	-20.8	
High Ch										
823.30	9.47	V	0.62	0.0	8.85	11.00	38.45	40.60	-29.6	
823.30	19.02	H	0.62	0.0	18.40	20.55	38.45	40.60	-20.1	
Rev. 10.24.13										

QPSK EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52291 Configuration: EUT Only Mode: LTE Band 26 QPSK 3MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
815.50	9.30	V	0.62	0.0	8.68	10.83	38.45	40.60	-29.8	
815.50	18.91	H	0.62	0.0	18.29	20.44	38.45	40.60	-20.2	
Mid Ch										
819.00	8.74	V	0.62	0.0	8.12	10.27	38.45	40.60	-30.3	
819.00	19.14	H	0.62	0.0	18.52	20.67	38.45	40.60	-19.9	
High Ch										
822.50	10.34	V	0.62	0.0	9.72	11.87	38.45	40.60	-28.7	
822.50	19.88	H	0.62	0.0	19.26	21.41	38.45	40.60	-19.2	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52291 Configuration: EUT Only Mode: LTE Band 26 16QAM 3MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
815.50	8.40	V	0.62	0.0	7.78	9.93	38.45	40.60	-30.7	
815.50	18.01	H	0.62	0.0	17.39	19.54	38.45	40.60	-21.1	
Mid Ch										
819.00	7.84	V	0.62	0.0	7.22	9.37	38.45	40.60	-31.2	
819.00	18.24	H	0.62	0.0	17.62	19.77	38.45	40.60	-20.8	
High Ch										
822.50	9.44	V	0.62	0.0	8.82	10.97	38.45	40.60	-29.6	
822.50	18.98	H	0.62	0.0	18.36	20.51	38.45	40.60	-20.1	
Rev. 10.24.13										

QPSK EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52291 Configuration: EUT Only Mode: LTE Band 26 QPSK 5MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
816.50	9.07	V	0.62	0.0	8.45	10.60	38.45	40.60	-30.0	
816.50	18.81	H	0.62	0.0	18.19	20.34	38.45	40.60	-20.3	
Mid Ch										
819.00	8.51	V	0.62	0.0	7.89	10.04	38.45	40.60	-30.6	
819.00	18.98	H	0.62	0.0	18.36	20.51	38.45	40.60	-20.1	
High Ch										
821.50	10.11	V	0.62	0.0	9.49	11.64	38.45	40.60	-29.0	
821.50	19.76	H	0.62	0.0	19.14	21.29	38.45	40.60	-19.3	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52291 Configuration: EUT Only Mode: LTE Band 26 16QAM 5MHz BW Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
816.50	8.07	V	0.62	0.0	7.45	9.60	38.45	40.60	-31.0	
816.50	17.68	H	0.62	0.0	17.06	19.21	38.45	40.60	-21.4	
Mid Ch										
819.00	7.51	V	0.62	0.0	6.89	9.04	38.45	40.60	-31.6	
819.00	17.91	H	0.62	0.0	17.29	19.44	38.45	40.60	-21.2	
High Ch										
821.50	9.11	V	0.62	0.0	8.49	10.64	38.45	40.60	-30.0	
821.50	18.65	H	0.62	0.0	18.03	20.18	38.45	40.60	-20.4	
Rev. 10.24.13										

QPSK EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52291 Configuration: EUT Only Mode: LTE Band 26 QPSK 10MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch										
819.00	9.52	V	0.62	0.0	8.90	11.05	38.45	40.60	-29.6	
819.00	19.41	H	0.62	0.0	18.79	20.94	38.45	40.60	-19.7	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52291 Configuration: EUT Only Mode: LTE Band 26 16QAM 10MHz BW Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
819.00	8.62	V	0.62	0.0	8.00	10.15	38.45	40.60	-30.5	
819.00	18.60	H	0.62	0.0	17.98	20.13	38.45	40.60	-20.5	
Rev. 10.24.13										

10.1.10. LTE BAND 27

QPSK EIRP POWER FOR LTE BAND 27 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 27 QPSK 1.4MHz BW								
Test Equipment: Receiving: Sunol T408, and Chamber D Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
814.70	9.65	V	0.62	0.0	9.03	50.00	-41.0	
814.70	19.87	H	0.62	0.0	19.25	50.00	-30.8	
Mid Ch								
819.00	11.15	V	0.62	0.0	10.53	50.00	-39.5	
819.00	19.52	H	0.62	0.0	18.90	50.00	-31.1	
High Ch								
823.30	12.11	V	0.62	0.0	11.49	50.00	-38.5	
823.30	19.79	H	0.62	0.0	19.17	50.00	-30.8	
Rev. 04.28.15								

16QAM EIRP POWER FOR LTE BAND 27 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 27 16QAM 1.4MHz BW								
Test Equipment:								
Receiving: Sunol T408, and Chamber D Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
814.70	8.85	V	0.62	0.0	8.23	50.00	-41.8	
814.70	18.92	H	0.62	0.0	18.30	50.00	-31.7	
Mid Ch								
819.00	10.35	V	0.62	0.0	9.73	50.00	-40.3	
819.00	18.82	H	0.62	0.0	18.20	50.00	-31.8	
High Ch								
823.30	11.31	V	0.62	0.0	10.69	50.00	-39.3	
823.30	18.84	H	0.62	0.0	18.22	50.00	-31.8	
Rev. 04.28.15								

QPSK EIRP POWER FOR LTE BAND 27 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 27 QPSK 3MHz BW								
<u>Test Equipment:</u>								
Receiving: Sunol T408, and Chamber D Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
815.50	9.86	V	0.62	0.0	9.24	50.00	-40.8	
815.50	19.83	H	0.62	0.0	19.21	50.00	-30.8	
Mid Ch								
819.00	10.99	V	0.62	0.0	10.37	50.00	-39.6	
819.00	19.58	H	0.62	0.0	18.96	50.00	-31.0	
High Ch								
822.50	12.04	V	0.62	0.0	11.42	50.00	-38.6	
822.50	19.92	H	0.62	0.0	19.30	50.00	-30.7	
Rev. 04.28.15								

16QAM EIRP POWER FOR LTE BAND 27 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 27 16QAM 3MHz BW								
<u>Test Equipment:</u>								
Receiving: Sunol T408, and Chamber D Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
815.50	8.96	V	0.62	0.0	8.34	50.00	-41.7	
815.50	19.04	H	0.62	0.0	18.42	50.00	-31.6	
Mid Ch								
819.00	10.09	V	0.62	0.0	9.47	50.00	-40.5	
819.00	18.80	H	0.62	0.0	18.18	50.00	-31.8	
High Ch								
822.50	11.14	V	0.62	0.0	10.52	50.00	-39.5	
822.50	19.02	H	0.62	0.0	18.40	50.00	-31.6	
Rev. 04.28.15								

QPSK EIRP POWER FOR LTE BAND 27 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 27 QPSK 5MHz BW								
Test Equipment:								
Receiving: Sunol T408, and Chamber D Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
816.50	9.76	V	0.62	0.0	9.14	50.00	-40.9	
816.50	19.80	H	0.62	0.0	19.18	50.00	-30.8	
Mid Ch								
819.00	11.13	V	0.62	0.0	10.51	50.00	-39.5	
819.00	19.50	H	0.62	0.0	18.88	50.00	-31.1	
High Ch								
821.50	11.92	V	0.62	0.0	11.30	50.00	-38.7	
821.50	19.85	H	0.62	0.0	19.23	50.00	-30.8	
Rev. 04.28.15								

16QAM EIRP POWER FOR LTE BAND 27 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 27 16QAM 5MHz BW								
<u>Test Equipment:</u>								
Receiving: Sunol T408, and Chamber D Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
816.50	8.96	V	0.62	0.0	8.34	50.00	-41.7	
816.50	18.87	H	0.62	0.0	18.25	50.00	-31.8	
Mid Ch								
819.00	10.33	V	0.62	0.0	9.71	50.00	-40.3	
819.00	18.79	H	0.62	0.0	18.17	50.00	-31.8	
High Ch								
821.50	11.12	V	0.62	0.0	10.50	50.00	-39.5	
821.50	18.91	H	0.62	0.0	18.29	50.00	-31.7	
Rev. 04.28.15								

QPSK EIRP POWER FOR LTE BAND 27 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 27 QPSK 10MHz BW								
Test Equipment:								
Receiving: Sunol T408, and Chamber D Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Mid Ch								
819.00	10.78	V	0.62	0.0	10.16	50.00	-39.8	
819.00	19.45	H	0.62	0.0	18.83	50.00	-31.2	
Rev. 04.28.15								

16QAM EIRP POWER FOR LTE BAND 27 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 27 16QAM 10MHz BW								
Test Equipment:								
Receiving: Sunol T408, and Chamber D Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Mid Ch								
819.00	9.98	V	0.62	0.0	9.36	50.00	-40.6	
819.00	18.65	H	0.62	0.0	18.03	50.00	-32.0	
Rev. 04.28.15								

10.1.11. LTE BAND 30

QPSK EIRP POWER FOR LTE BAND 30 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company: Project #: 16U23366 Date: 6/20/2016 Test Engineer: 45200 Configuration: EUT Only Mode: LTE Band 30 QPSK 5MHz BW								
Test Equipment: Receiving: Horn T712, and Chamber D SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.308	10.2	V	1.15	9.37	18.38	24.0	-5.6	
2.308	13.2	H	1.15	9.37	21.45	24.0	-2.5	
Mid Ch								
2.310	10.2	V	1.16	9.37	18.45	24.0	-5.6	
2.310	13.7	H	1.16	9.37	21.86	24.0	-2.1	
High Ch								
2.313	10.5	V	1.17	9.37	18.70	24.0	-5.3	
2.313	14.0	H	1.17	9.37	22.20	24.0	-1.8	
Rev. 04.24.15								

16QAM EIRP POWER FOR LTE BAND 30 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		6/20/2016						
Test Engineer:		45200						
Configuration:		EUT Only						
Mode:		LTE Band 30 16QAM 5MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.308	9.5	V	1.15	9.37	17.68	24.0	-6.3	
2.308	12.5	H	1.15	9.37	20.75	24.0	-3.2	
Mid Ch								
2.310	9.5	V	1.16	9.37	17.75	24.0	-6.3	
2.310	13.0	H	1.16	9.37	21.16	24.0	-2.8	
High Ch								
2.313	9.8	V	1.17	9.37	18.00	24.0	-6.0	
2.313	13.3	H	1.17	9.37	21.50	24.0	-2.5	
Rev. 04.24.15								

QPSK EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		6/20/2016						
Test Engineer:		45200						
Configuration:		EUT Only						
Mode:		LTE Band 30 QPSK 10MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
2.310	10.3	V	1.15	9.37	18.51	24.0	-5.5	
2.310	13.6	H	1.15	9.37	21.78	24.0	-2.2	
Rev. 04.24.15								

16QAM EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/20/2016								
Test Engineer: 45200								
Configuration: EUT Only								
Mode: LTE Band 30 16QAM 10MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
2.310	9.5	V	1.15	9.37	17.71	24.0	-6.3	
2.310	12.8	H	1.15	9.37	20.98	24.0	-3.0	
Rev. 04.24.15								

10.1.12. LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 7/1/2016								
Test Engineer: 30554								
Configuration: EUT Only								
Mode: LTE Band 41 QPSK 5MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.499	17.3	V	1.15	9.33	25.48	33.0	-7.5	
2.499	15.2	H	1.15	9.33	23.34	33.0	-9.7	
Mid Ch								
2.593	18.2	V	1.16	9.47	26.47	33.0	-6.5	
2.593	15.6	H	1.16	9.47	23.95	33.0	-9.1	
High Ch								
2.688	17.3	V	1.17	9.78	25.95	33.0	-7.1	
2.688	15.2	H	1.17	9.78	23.82	33.0	-9.2	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		7/1/2016						
Test Engineer:		30554						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 5MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.499	16.5	V	1.15	9.33	24.73	33.0	-8.3	
2.499	14.4	H	1.15	9.33	22.59	33.0	-10.4	
Mid Ch								
2.593	17.4	V	1.16	9.47	25.72	33.0	-7.3	
2.593	14.9	H	1.16	9.47	23.20	33.0	-9.8	
High Ch								
2.688	16.6	V	1.17	9.78	25.20	33.0	-7.8	
2.688	14.5	H	1.17	9.78	23.07	33.0	-9.9	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		7/1/2016						
Test Engineer:		30554						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 10MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.501	17.1	V	1.15	9.33	25.26	33.0	-7.7	
2.501	15.4	H	1.15	9.33	23.61	33.0	-9.4	
Mid Ch								
2.593	18.3	V	1.16	9.47	26.59	33.0	-6.4	
2.593	16.0	H	1.16	9.47	24.31	33.0	-8.7	
High Ch								
2.685	17.4	V	1.17	9.77	26.00	33.0	-7.0	
2.685	15.2	H	1.17	9.77	23.85	33.0	-9.2	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		7/1/2016						
Test Engineer:		30554						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 10MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.501	16.3	V	1.15	9.33	24.48	33.0	-8.5	
2.501	14.6	H	1.15	9.33	22.83	33.0	-10.2	
Mid Ch								
2.593	17.5	V	1.16	9.47	25.81	33.0	-7.2	
2.593	15.2	H	1.16	9.47	23.53	33.0	-9.5	
High Ch								
2.685	16.6	V	1.17	9.77	25.22	33.0	-7.8	
2.685	14.5	H	1.17	9.77	23.07	33.0	-9.9	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		7/1/2016						
Test Engineer:		30554						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 15MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.504	17.1	V	1.15	9.34	25.31	33.0	-7.7	
2.504	15.7	H	1.15	9.34	23.85	33.0	-9.1	
Mid Ch								
2.593	18.1	V	1.16	9.47	26.39	33.0	-6.6	
2.593	15.4	H	1.16	9.47	23.75	33.0	-9.3	
High Ch								
2.683	17.4	V	1.17	9.76	26.02	33.0	-7.0	
2.683	15.4	H	1.17	9.76	23.98	33.0	-9.0	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		7/1/2016						
Test Engineer:		30554						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 15MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.504	16.3	V	1.15	9.34	24.48	33.0	-8.5	
2.504	14.8	H	1.15	9.34	23.02	33.0	-10.0	
Mid Ch								
2.593	17.3	V	1.16	9.47	25.56	33.0	-7.4	
2.593	14.6	H	1.16	9.47	22.92	33.0	-10.1	
High Ch								
2.683	16.6	V	1.17	9.76	25.19	33.0	-7.8	
2.683	14.6	H	1.17	9.76	23.15	33.0	-9.8	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		7/1/2016						
Test Engineer:		30554						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 20MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.506	17.5	V	1.15	9.34	25.72	33.0	-7.3	
2.506	15.9	H	1.15	9.34	24.06	33.0	-8.9	
Mid Ch								
2.593	18.3	V	1.16	9.47	26.59	33.0	-6.4	
2.593	15.8	H	1.16	9.47	24.14	33.0	-8.9	
High Ch								
2.680	17.6	V	1.17	9.76	26.21	33.0	-6.8	
2.680	15.5	H	1.17	9.76	24.11	33.0	-8.9	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		7/1/2016						
Test Engineer:		30554						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 20MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.506	16.6	V	1.15	9.34	24.82	33.0	-8.2	
2.506	15.0	H	1.15	9.34	23.16	33.0	-9.8	
Mid Ch								
2.593	17.4	V	1.16	9.47	25.69	33.0	-7.3	
2.593	14.9	H	1.16	9.47	23.24	33.0	-9.8	
High Ch								
2.680	16.7	V	1.17	9.76	25.31	33.0	-7.7	
2.680	14.6	H	1.17	9.76	23.21	33.0	-9.8	
Rev. 10.24.13								

10.2. RADIATED POWER (ERP & EIRP), UAT

EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
1.4MHz Band QPSK	1/0	1850.7	20.17	103.99
		1880.0	20.44	110.66
		1909.3	20.42	110.15
1.4MHz Band 16QAM	1/0	1850.7	19.46	88.31
		1880.0	19.65	92.26
		1909.3	19.60	91.20

EIRP POWER FOR LTE BAND 2 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
3.0MHz Band QPSK	1/0	1851.5	19.93	98.40
		1880.0	20.76	119.12
		1908.5	20.50	112.20
3.0MHz Band 16QAM	1/0	1851.5	19.33	85.70
		1880.0	19.70	93.33
		1908.5	19.61	91.41

EIRP POWER FOR LTE BAND 2 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0MHz Band QPSK	1/0	1852.5	19.75	94.41
		1880.0	21.43	139.00
		1907.5	20.83	121.06
5.0MHz Band 16QAM	1/0	1852.5	19.86	96.83
		1880.0	20.74	118.58
		1907.5	20.09	102.09

EIRP POWER FOR LTE BAND 2 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0MHz Band QPSK	1/0	1855.0	19.85	96.61
		1880.0	21.42	138.68
		1905.0	20.71	117.76
10.0MHz Band 16QAM	1/0	1855.0	19.68	92.90
		1880.0	20.73	118.30
		1905.0	20.06	101.39

EIRP POWER FOR LTE BAND 2 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15MHz Band QPSK	1/0	1857.5	19.74	94.19
		1880.0	21.19	131.52
		1902.5	20.17	103.99
15MHz Band 16QAM	1/0	1857.5	19.43	87.70
		1880.0	20.65	116.14
		1902.5	19.88	97.27

EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0MHz Band QPSK	1/0	1860.0	20.20	104.71
		1880.0	21.00	125.89
		1900.0	20.77	119.40
20MHz Band 16QAM	1/0	1860.0	19.49	88.92
		1880.0	20.46	111.17
		1900.0	19.93	98.40

EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	1710.7	19.30	85.11
		1732.5	19.88	97.27
		1754.3	19.22	83.56
1.4 MHZ BAND 16QAM	1/0	1710.7	18.71	74.30
		1732.5	18.97	78.89
		1754.3	18.51	70.96

EIRP POWER FOR LTE BAND 4 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	1711.5	19.32	85.51
		1732.5	19.73	93.97
		1753.5	19.07	80.72
3.0 MHZ BAND 16QAM	1/0	1711.5	18.56	71.78
		1732.5	19.04	80.17
		1753.5	18.32	67.92

EIRP POWER FOR LTE BAND 4 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	1712.5	19.33	85.70
		1732.5	19.87	97.05
		1752.5	19.11	81.47
5.0 MHZ BAND 16QAM	1/0	1712.5	18.71	74.30
		1732.5	18.96	78.70
		1752.5	18.53	71.29

EIRP POWER FOR LTE BAND 4 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	1715.0	19.40	87.10
		1732.5	19.88	97.27
		1750.0	19.02	79.80
10.0 MHZ BAND 16QAM	1/0	1715.0	18.76	75.16
		1732.5	19.38	86.70
		1750.0	18.52	71.12

EIRP POWER FOR LTE BAND 4 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15.0 MHZ BAND QPSK	1/0	1717.5	19.53	89.74
		1732.5	19.93	98.40
		1747.5	19.23	83.75
15.0 MHZ BAND 16QAM	1/0	1717.5	18.86	76.91
		1732.5	19.22	83.56
		1747.5	18.78	75.51

EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0 MHZ BAND QPSK	1/0	1720.0	19.79	95.28
		1732.5	20.37	108.89
		1745.0	19.94	98.63
20.0 MHZ BAND 16QAM	1/0	1720.0	19.04	80.17
		1732.5	19.53	89.74
		1745.0	19.13	81.85

ERP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
1.4MHz Band QPSK	1/0	824.7	17.73	59.29
		836.5	18.72	74.47
		848.3	18.65	73.28
1.4MHz Band 16QAM	1/0	824.7	17.16	52.00
		836.5	18.36	68.55
		848.3	18.30	67.61

ERP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	825.5	17.60	57.54
		836.5	18.68	73.79
		847.5	18.65	73.28
3.0 MHZ BAND 16QAM	1/0	825.5	17.12	51.52
		836.5	18.35	68.39
		847.5	18.18	65.77

ERP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
5MHz Band QPSK	1/0	826.5	17.95	62.37
		836.5	18.53	71.29
		846.5	18.66	73.45
5MHz Band 16QAM	1/0	826.5	17.24	52.97
		836.5	18.45	69.98
		846.5	18.47	70.31

ERP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	829.0	17.78	59.98
		836.5	18.62	72.78
		844.0	18.82	76.21
10.0 MHZ BAND 16QAM	1/0	829.0	17.07	50.93
		836.5	17.72	59.16
		844.0	17.97	62.66

EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	25/0	2502.5	16.91	49.09
		2535.0	20.54	113.24
		2567.5	21.50	141.25
5.0 MHZ BAND 16QAM	25/0	2502.5	15.95	39.36
		2535.0	19.75	94.41
		2567.5	20.81	120.50

EIRP POWER FOR LTE BAND 7 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	50/0	2505.0	17.64	58.08
		2535.0	20.93	123.88
		2565.0	21.98	157.76
10.0 MHZ BAND 16QAM	50/0	2505.0	16.79	47.75
		2535.0	20.28	106.66
		2565.0	21.35	136.46

EIRP POWER FOR LTE BAND 7 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15.0 MHZ BAND QPSK	75/0	2507.5	18.49	70.63
		2535.0	21.60	144.54
		2562.5	21.94	156.31
15.0 MHZ BAND 16QAM	75/0	2507.5	17.53	56.62
		2535.0	20.89	122.74
		2562.5	21.61	144.88

EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0 MHZ BAND QPSK	100/0	2510.0	17.80	60.26
		2535.0	21.96	157.04
		2560.0	20.25	105.93
20.0 MHZ BAND 16QAM	100/0	2510.0	17.59	57.41
		2535.0	21.42	138.68
		2560.0	20.17	103.99

ERP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
1.4MHz Band QPSK	1/0	699.7	16.01	39.90
		707.5	15.61	36.39
		715.3	16.06	40.36
1.4MHz Band 16QAM	1/0	699.7	15.62	36.48
		707.5	15.53	35.73
		715.3	15.76	37.67

ERP POWER FOR LTE BAND 12 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	700.5	15.83	38.28
		707.5	15.69	37.07
		714.5	16.09	40.64
3.0 MHZ BAND 16QAM	1/0	700.5	15.64	36.64
		707.5	15.41	34.75
		714.5	15.67	36.90

ERP POWER FOR LTE BAND 12 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
5MHz Band QPSK	1/0	701.5	16.01	39.90
		707.5	15.85	38.46
		713.5	16.18	41.50
5MHz Band 16QAM	1/0	701.5	15.75	37.58
		707.5	15.56	35.97
		713.5	15.87	38.64

ERP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP (Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	704.0	15.84	38.37
		707.5	16.10	40.74
		711.0	16.07	40.46
10.0 MHZ BAND 16QAM	1/0	704.0	15.67	36.90
		707.5	15.78	37.84
		711.0	15.95	39.36

ERP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	779.5	18.48	70.47
		782.0	18.08	64.27
		784.5	18.32	67.92
5.0 MHZ BAND 16QAM	1/0	779.5	17.82	60.53
		782.0	17.44	55.46
		784.5	17.71	59.02

ERP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
10 MHZ BAND QPSK	1/0	782.0	18.04	63.68
10 MHZ BAND 16QAM	1/0		17.44	55.46

ERP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
5MHz Band QPSK	1/0	706.5	16.32	42.85
		710.0	16.47	44.36
		713.5	16.45	44.16
5MHz Band 16QAM	1/0	706.5	16.11	40.83
		710.0	16.35	43.15
		713.5	16.08	40.55

EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	710.0	16.53	44.98
10.0 MHZ BAND 16QAM		710.0	16.34	43.05

EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	1850.7	19.12	81.66
		1882.5	21.43	139.00
		1914.3	20.39	109.40
1.4 MHZ BAND 16QAM	1/0	1850.7	18.81	76.03
		1882.5	21.34	136.14
		1914.3	20.23	105.44

EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	1851.5	19.02	79.80
		1882.5	21.49	140.93
		1913.5	20.49	111.94
3.0 MHZ BAND 16QAM	1/0	1851.5	18.72	74.47
		1882.5	21.31	135.21
		1913.5	20.09	102.09

EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	1852.5	19.11	81.47
		1882.5	21.73	148.94
		1912.5	20.71	117.76
5.0 MHZ BAND 16QAM	1/0	1852.5	18.91	77.80
		1882.5	21.50	141.25
		1912.5	20.40	109.65

EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	1855.0	19.26	84.33
		1882.5	21.70	147.91
		1910.0	20.26	106.17
10.0 MHZ BAND 16QAM	1/0	1855.0	18.98	79.07
		1882.5	21.55	142.89
		1910.0	19.99	99.77

EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
15.0 MHZ BAND QPSK	1/0	1857.5	19.19	82.99
		1882.5	21.76	149.97
		1907.5	20.35	108.39
15.0 MHZ BAND 16QAM	1/0	1857.5	18.91	77.80
		1882.5	21.51	141.58
		1907.5	20.15	103.51

EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
20.0 MHZ BAND QPSK	1/0	1860.0	19.36	86.30
		1882.5	22.00	158.49
		1905.0	21.08	128.23
20.0 MHZ BAND 16QAM	1/0	1860.0	19.02	79.80
		1882.5	21.62	145.21
		1905.0	20.51	112.46

ERP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	814.7	18.07	64.12
		819.0	18.61	72.61
		823.3	17.77	59.84
1.4 MHZ BAND 16QAM	1/0	814.7	18.05	63.83
		819.0	18.37	68.71
		823.3	17.67	58.48

ERP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	815.5	18.29	67.45
		819.0	18.48	70.47
		822.5	17.52	56.49
3.0 MHZ BAND 16QAM	1/0	815.5	18.06	63.97
		819.0	18.35	68.39
		822.5	17.47	55.85

ERP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	816.5	18.34	68.23
		819.0	18.64	73.11
		821.5	17.97	62.66
5.0 MHZ BAND 16QAM	1/0	816.5	18.15	65.31
		819.0	18.43	69.66
		821.5	17.94	62.23

ERP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	819.0	18.42	69.50
10.0 MHZ BAND 16QAM	1/0	819.0	18.23	66.53

ERP POWER FOR LTE BAND 27 (1.4MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
1.4 MHZ BAND QPSK	1/0	814.7	17.29	53.58
		819.0	17.65	58.21
		823.3	18.07	64.12
1.4 MHZ BAND 16QAM	1/0	814.7	17.25	53.09
		819.0	17.38	54.70
		823.3	17.74	59.43

ERP POWER FOR LTE BAND 27 (3.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
3.0 MHZ BAND QPSK	1/0	815.5	17.32	53.95
		819.0	17.40	54.95
		822.5	18.16	65.46
3.0 MHZ BAND 16QAM	1/0	815.5	17.21	52.60
		819.0	17.30	53.70
		822.5	17.70	58.88

ERP POWER FOR LTE BAND 27 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
5.0 MHZ BAND QPSK	1/0	816.5	17.45	55.59
		819.0	17.65	58.21
		821.5	18.36	68.55
5.0 MHZ BAND 16QAM	1/0	816.5	17.42	55.21
		819.0	17.38	54.70
		821.5	17.93	62.09

ERP POWER FOR LTE BAND 27 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	ERP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	819.0	17.39	54.83
10.0 MHZ BAND 16QAM	1/0	819.0	17.33	54.08

EIRP POWER FOR LTE BAND 30 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
5MHz Band QPSK	1/0	2307.5	20.68	116.95
		2310.0	20.65	116.14
		2312.5	20.60	114.82
5MHz Band 16QAM	1/0	2307.5	20.42	110.15
		2310.0	20.37	108.89
		2312.5	20.54	113.24

EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Average)	
			dBm	mW
10.0 MHZ BAND QPSK	1/0	2310.0	20.64	115.88
10.0 MHZ BAND 16QAM		2310.0	20.24	105.68

EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
5.0 MHZ BAND QPSK	25/0	2498.5	19.46	88.31
		2593.0	20.02	100.46
		2687.5	20.67	116.68
5.0 MHZ BAND 16QAM	25/0	2498.5	18.76	75.16
		2593.0	19.29	84.92
		2687.5	19.97	99.31

EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
10.0 MHZ BAND QPSK	50/0	2501.0	19.53	89.74
		2593.0	19.99	99.77
		2685.0	20.45	110.92
10.0 MHZ BAND 16QAM	50/0	2501.0	18.83	76.38
		2593.0	19.07	80.72
		2685.0	19.75	94.41

EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
15.0 MHZ BAND QPSK	75/0	2503.5	19.47	88.51
		2593.0	20.09	102.09
		2682.5	20.75	118.85
15.0 MHZ BAND 16QAM	75/0	2503.5	18.77	75.34
		2593.0	19.39	86.90
		2682.5	20.05	101.16

EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

Mode	RB/RB SIZE	f (MHz)	EIRP(Peak)	
			dBm	mW
20.0 MHZ BAND QPSK	100/0	2506.0	19.55	90.16
		2593.0	20.00	100.00
		2680.0	20.54	113.24
20.0 MHZ BAND 16QAM	100/0	2506.0	18.81	76.03
		2593.0	19.26	84.33
		2680.0	19.80	95.50

10.2.1. LTE BAND 2

QPSK EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

High Frequency Fundamental Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 2 QPSK 1.4MHz BW								
Test Equipment: Receiving: Horn T344 and Chamber F SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.851	12.4	V	0.98	8.05	19.49	33.0	-13.5	
1.851	13.1	H	0.98	8.05	20.17	33.0	-12.8	
Mid Ch								
1.880	12.9	V	0.98	8.03	19.90	33.0	-13.1	
1.880	13.4	H	0.98	8.03	20.44	33.0	-12.6	
High Ch								
1.909	12.9	V	0.98	8.05	19.94	33.0	-13.1	
1.909	13.3	H	0.98	8.05	20.42	33.0	-12.6	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 2 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 2 16QAM 1.4MHz BW								
Test Equipment: Receiving: Horn T344 and Chamber F SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.851	11.7	V	0.98	8.05	18.79	33.0	-14.2	
1.851	12.4	H	0.98	8.05	19.46	33.0	-13.5	
Mid Ch								
1.880	12.1	V	0.98	8.03	19.16	33.0	-13.8	
1.880	12.6	H	0.98	8.03	19.65	33.0	-13.4	
High Ch								
1.909	11.8	V	0.98	8.05	18.87	33.0	-14.1	
1.909	12.5	H	0.98	8.05	19.60	33.0	-13.4	
Rev. 06.19.16								

QPSK EIRP POWER FOR LTE BAND 2 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company:								
Project #: 16U23366								
Date: 7/2/2016								
Test Engineer: 52268								
Configuration: EUT Only								
Mode: LTE Band 2 QPSK 3MHz BW								
Test Equipment:								
Receiving: Horn T344 and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.852	12.3	V	0.98	8.05	19.38	33.0	-13.6	
1.852	12.9	H	0.98	8.05	19.93	33.0	-13.1	
Mid Ch								
1.880	12.8	V	0.98	8.03	19.85	33.0	-13.1	
1.880	13.7	H	0.98	8.03	20.76	33.0	-12.2	
High Ch								
1.909	12.4	V	0.98	8.05	19.42	33.0	-13.6	
1.909	13.4	H	0.98	8.05	20.50	33.0	-12.5	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 2 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 2 16QAM 3MHz BW								
Test Equipment: Receiving: Horn T344 and Chamber F SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.852	11.7	V	0.98	8.05	18.73	33.0	-14.3	
1.852	12.3	H	0.98	8.05	19.33	33.0	-13.7	
Mid Ch								
1.880	12.1	V	0.98	8.03	19.15	33.0	-13.8	
1.880	12.6	H	0.98	8.03	19.70	33.0	-13.3	
High Ch								
1.909	11.5	V	0.98	8.05	18.55	33.0	-14.5	
1.909	12.5	H	0.98	8.05	19.61	33.0	-13.4	
Rev. 06.19.16								

QPSK EIRP POWER FOR LTE BAND 2 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company:								
Project #: 16U23366								
Date: 7/2/2016								
Test Engineer: 52268								
Configuration: EUT Only								
Mode: LTE Band 2 QPSK 5MHz BW								
Test Equipment:								
Receiving: Horn T344 and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.853	12.7	V	0.98	8.05	19.80	33.0	-13.2	
1.853	12.7	H	0.98	8.05	19.75	33.0	-13.3	
Mid Ch								
1.880	13.0	V	0.98	8.03	20.09	33.0	-12.9	
1.880	14.4	H	0.98	8.03	21.43	33.0	-11.6	
High Ch								
1.908	12.5	V	0.98	8.04	19.56	33.0	-13.4	
1.908	13.8	H	0.98	8.04	20.83	33.0	-12.2	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 2 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company:								
Project #: 16U23366								
Date: 7/2/2016								
Test Engineer: 52268								
Configuration: EUT Only								
Mode: LTE Band 2 16QAM 5MHz BW								
Test Equipment:								
Receiving: Horn T344 and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.853	12.2	V	0.98	8.05	19.25	33.0	-13.7	
1.853	12.8	H	0.98	8.05	19.86	33.0	-13.1	
Mid Ch								
1.880	13.0	V	0.98	8.03	20.05	33.0	-12.9	
1.880	13.7	H	0.98	8.03	20.74	33.0	-12.3	
High Ch								
1.908	11.9	V	0.98	8.04	18.99	33.0	-14.0	
1.908	13.0	H	0.98	8.04	20.09	33.0	-12.9	
Rev. 06.19.16								

QPSK EIRP POWER FOR LTE BAND 2 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company:								
Project #:		16U23366						
Date:		7/2/2016						
Test Engineer:		52268						
Configuration:		EUT Only						
Mode:		LTE Band 2 QPSK 10MHz BW						
Test Equipment:								
Receiving: Horn T344 and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	12.1	V	0.98	8.05	19.20	33.0	-13.8	
1.855	12.8	H	0.98	8.05	19.85	33.0	-13.2	
Mid Ch								
1.880	12.9	V	0.98	8.03	19.96	33.0	-13.0	
1.880	14.4	H	0.98	8.03	21.42	33.0	-11.6	
High Ch								
1.905	12.6	V	0.98	8.04	19.69	33.0	-13.3	
1.905	13.7	H	0.98	8.04	20.71	33.0	-12.3	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 2 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company:								
Project #:		16U23366						
Date:		7/2/2016						
Test Engineer:		52268						
Configuration:		EUT Only						
Mode:		LTE Band 2 16QAM 10MHz BW						
Test Equipment:								
Receiving: Horn T344 and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	11.5	V	0.98	8.05	18.52	33.0	-14.5	
1.855	12.6	H	0.98	8.05	19.68	33.0	-13.3	
Mid Ch								
1.880	12.3	V	0.98	8.03	19.31	33.0	-13.7	
1.880	13.7	H	0.98	8.03	20.73	33.0	-12.3	
High Ch								
1.905	11.9	V	0.98	8.04	18.94	33.0	-14.1	
1.905	13.0	H	0.98	8.04	20.06	33.0	-12.9	
Rev. 06.19.16								

QPSK EIRP POWER FOR LTE BAND 2 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company:								
Project #: 16U23366								
Date: 7/2/2016								
Test Engineer: 52268								
Configuration: EUT Only								
Mode: LTE Band 2 QPSK 15MHz BW								
Test Equipment:								
Receiving: Horn T344 and Chamber F SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.858	12.3	V	0.98	8.04	19.33	33.0	-13.7	
1.858	12.7	H	0.98	8.04	19.74	33.0	-13.3	
Mid Ch								
1.880	12.8	V	0.98	8.03	19.80	33.0	-13.2	
1.880	14.1	H	0.98	8.03	21.19	33.0	-11.8	
High Ch								
1.903	12.0	V	0.98	8.03	19.01	33.0	-14.0	
1.903	13.1	H	0.98	8.03	20.17	33.0	-12.8	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 2 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 2 16QAM 15MHz BW								
Test Equipment: Receiving: Horn T344 and Chamber F SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.858	11.6	V	0.98	8.04	18.64	33.0	-14.4	
1.858	12.4	H	0.98	8.04	19.43	33.0	-13.6	
Mid Ch								
1.880	12.1	V	0.98	8.03	19.15	33.0	-13.8	
1.880	13.6	H	0.98	8.03	20.65	33.0	-12.4	
High Ch								
1.903	11.4	V	0.98	8.03	18.46	33.0	-14.5	
1.903	12.8	H	0.98	8.03	19.88	33.0	-13.1	
Rev. 06.19.16								

QPSK EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 2 QPSK 20MHz BW								
Test Equipment: Receiving: Horn T344 and Chamber F SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	10.7	V	0.98	8.04	17.76	33.0	-15.2	
1.860	13.1	H	0.98	8.04	20.20	33.0	-12.8	
Mid Ch								
1.880	11.5	V	0.98	8.03	18.58	33.0	-14.4	
1.880	13.9	H	0.98	8.03	21.00	33.0	-12.0	
High Ch								
1.900	12.1	V	0.98	8.02	19.14	33.0	-13.9	
1.900	13.7	H	0.98	8.02	20.77	33.0	-12.2	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 2 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 2 16QAM 20MHz BW								
Test Equipment: Receiving: Horn T344 and Chamber F SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	10.6	V	0.98	8.04	17.71	33.0	-15.3	
1.860	12.4	H	0.98	8.04	19.49	33.0	-13.5	
Mid Ch								
1.880	11.7	V	0.98	8.03	18.72	33.0	-14.3	
1.880	13.4	H	0.98	8.03	20.46	33.0	-12.5	
High Ch								
1.900	11.4	V	0.98	8.02	18.45	33.0	-14.6	
1.900	12.9	H	0.98	8.02	19.93	33.0	-13.1	
Rev. 06.19.16								

10.2.2. LTE BAND 4

QPSK EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/17/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 4 QPSK 1.4MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.711	5.9	V	0.95	8.27	13.24	30.0	-16.8	
1.711	12.0	H	0.95	8.27	19.30	30.0	-10.7	
Mid Ch								
1.733	8.0	V	0.95	8.23	15.29	30.0	-14.7	
1.733	12.6	H	0.95	8.23	19.88	30.0	-10.1	
High Ch								
1.754	10.6	V	0.95	8.18	17.86	30.0	-12.1	
1.754	12.0	H	0.95	8.18	19.22	30.0	-10.8	
Rev. 06.16.16								

16QAM EIRP POWER FOR LTE BAND 4 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 4 16QAM 1.4MHz BW								
Test Equipment: Receiving: Horn T712, and Chamber D SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.711	5.5	V	0.95	8.27	12.78	30.0	-17.2	
1.711	11.4	H	0.95	8.27	18.71	30.0	-11.3	
Mid Ch								
1.733	7.5	V	0.95	8.23	14.73	30.0	-15.3	
1.733	11.7	H	0.95	8.23	18.97	30.0	-11.0	
High Ch								
1.754	10.1	V	0.95	8.18	17.35	30.0	-12.7	
1.754	11.3	H	0.95	8.18	18.51	30.0	-11.5	
Rev. 06.16.16								

QPSK EIRP POWER FOR LTE BAND 4 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/17/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 4 QPSK 3MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.712	6.0	V	0.95	8.27	13.27	30.0	-16.7	
1.712	12.0	H	0.95	8.27	19.32	30.0	-10.7	
Mid Ch								
1.733	7.9	V	0.95	8.23	15.20	30.0	-14.8	
1.733	12.5	H	0.95	8.23	19.73	30.0	-10.3	
High Ch								
1.754	10.6	V	0.95	8.18	17.85	30.0	-12.1	
1.754	11.8	H	0.95	8.18	19.07	30.0	-10.9	
Rev. 06.16.16								

16QAM EIRP POWER FOR LTE BAND 4 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 4 16QAM 3MHz BW								
Test Equipment: Receiving: Horn T712, and Chamber D SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.712	5.4	V	0.95	8.27	12.76	30.0	-17.2	
1.712	11.2	H	0.95	8.27	18.56	30.0	-11.4	
Mid Ch								
1.733	7.1	V	0.95	8.23	14.38	30.0	-15.6	
1.733	11.8	H	0.95	8.23	19.04	30.0	-11.0	
High Ch								
1.754	9.9	V	0.95	8.18	17.15	30.0	-12.8	
1.754	11.1	H	0.95	8.18	18.32	30.0	-11.7	
Rev. 06.16.16								

QPSK EIRP POWER FOR LTE BAND 4 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 4 QPSK 5MHz BW								
Test Equipment: Receiving: Horn T712, and Chamber D SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.713	5.9	V	0.95	8.27	13.23	30.0	-16.8	
1.713	12.0	H	0.95	8.27	19.33	30.0	-10.7	
Mid Ch								
1.733	7.7	V	0.95	8.23	14.99	30.0	-15.0	
1.733	12.6	H	0.95	8.23	19.87	30.0	-10.1	
High Ch								
1.753	10.5	V	0.95	8.18	17.75	30.0	-12.2	
1.753	11.9	H	0.95	8.18	19.11	30.0	-10.9	
Rev. 06.16.16								

16QAM EIRP POWER FOR LTE BAND 4 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		6/17/2016						
Test Engineer:		52279						
Configuration:		EUT Only						
Mode:		LTE Band 4 16QAM 5MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.713	5.2	V	0.95	8.27	12.54	30.0	-17.5	
1.713	11.4	H	0.95	8.27	18.71	30.0	-11.3	
Mid Ch								
1.733	7.0	V	0.95	8.23	14.23	30.0	-15.8	
1.733	11.7	H	0.95	8.23	18.96	30.0	-11.0	
High Ch								
1.753	9.9	V	0.95	8.18	17.15	30.0	-12.8	
1.753	11.3	H	0.95	8.18	18.53	30.0	-11.5	
Rev. 06.16.16								

QPSK EIRP POWER FOR LTE BAND 4 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #:		16U23366						
Date:		6/17/2016						
Test Engineer:		52279						
Configuration:		EUT Only						
Mode:		LTE Band 4 QPSK 10MHz BW						
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.715	5.9	V	0.95	8.26	13.16	30.0	-16.8	
1.715	12.1	H	0.95	8.26	19.40	30.0	-10.6	
Mid Ch								
1.733	7.2	V	0.95	8.23	14.48	30.0	-15.5	
1.733	12.6	H	0.95	8.23	19.88	30.0	-10.1	
High Ch								
1.750	9.7	V	0.95	8.19	16.98	30.0	-13.0	
1.750	11.8	H	0.95	8.19	19.02	30.0	-11.0	
Rev. 06.16.16								

16QAM EIRP POWER FOR LTE BAND 4 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/17/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 4 16QAM 10MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.715	4.4	V	0.95	8.26	11.74	30.0	-18.3	
1.715	11.5	H	0.95	8.26	18.76	30.0	-11.2	
Mid Ch								
1.733	6.5	V	0.95	8.23	13.73	30.0	-16.3	
1.733	12.1	H	0.95	8.23	19.38	30.0	-10.6	
High Ch								
1.750	9.4	V	0.95	8.19	16.68	30.0	-13.3	
1.750	11.3	H	0.95	8.19	18.52	30.0	-11.5	
Rev. 06.16.16								

QPSK EIRP POWER FOR LTE BAND 4 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 4 QPSK 15MHz BW								
Test Equipment: Receiving: Horn T712, and Chamber D SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.718	5.6	V	0.95	8.26	12.92	30.0	-17.1	
1.718	12.2	H	0.95	8.26	19.53	30.0	-10.5	
Mid Ch								
1.733	6.7	V	0.95	8.23	14.02	30.0	-16.0	
1.733	12.7	H	0.95	8.23	19.93	30.0	-10.1	
High Ch								
1.748	9.3	V	0.95	8.19	16.56	30.0	-13.4	
1.748	12.0	H	0.95	8.19	19.23	30.0	-10.8	
Rev. 06.16.16								

16QAM EIRP POWER FOR LTE BAND 4 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 52279 Configuration: EUT Only Mode: LTE Band 4 16QAM 15MHz BW								
Test Equipment: Receiving: Horn T712, and Chamber D SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.718	4.9	V	0.95	8.26	12.24	30.0	-17.8	
1.718	11.6	H	0.95	8.26	18.86	30.0	-11.1	
Mid Ch								
1.733	6.1	V	0.95	8.23	13.34	30.0	-16.7	
1.733	11.9	H	0.95	8.23	19.22	30.0	-10.8	
High Ch								
1.748	8.8	V	0.95	8.19	16.02	30.0	-14.0	
1.748	11.5	H	0.95	8.19	18.78	30.0	-11.2	
Rev. 06.16.16								

QPSK EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/17/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 4 QPSK 20MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.720	6.5	V	0.95	8.25	13.76	30.0	-16.2	
1.720	12.5	H	0.95	8.25	19.79	30.0	-10.2	
Mid Ch								
1.733	7.7	V	0.95	8.23	15.02	30.0	-15.0	
1.733	13.1	H	0.95	8.23	20.37	30.0	-9.6	
High Ch								
1.745	6.1	V	0.95	8.20	13.37	30.0	-16.6	
1.745	12.7	H	0.95	8.20	19.94	30.0	-10.1	
Rev. 06.16.16								

16QAM EIRP POWER FOR LTE BAND 4 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Company:								
Project #: 16U23366								
Date: 6/17/2016								
Test Engineer: 52279								
Configuration: EUT Only								
Mode: LTE Band 4 16QAM 20MHz BW								
Test Equipment:								
Receiving: Horn T712, and Chamber D SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.720	6.0	V	0.95	8.25	13.31	30.0	-16.7	
1.720	11.7	H	0.95	8.25	19.04	30.0	-11.0	
Mid Ch								
1.733	6.9	V	0.95	8.23	14.13	30.0	-15.9	
1.733	12.3	H	0.95	8.23	19.53	30.0	-10.5	
High Ch								
1.745	5.1	V	0.95	8.20	12.34	30.0	-17.7	
1.745	11.9	H	0.95	8.20	19.13	30.0	-10.9	
Rev. 06.16.16								

10.2.3. LTE BAND 5

QPSK EIRP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 5 QPSK 1.4MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
824.70	13.00	V	0.6	0.0	12.38	14.53	38.45	40.60	-26.1	
824.70	18.35	H	0.6	0.0	17.73	19.88	38.45	40.60	-20.7	
Mid Ch										
836.50	13.14	V	0.6	0.0	12.52	14.67	38.45	40.60	-25.9	
836.50	19.34	H	0.6	0.0	18.72	20.87	38.45	40.60	-19.7	
High Ch										
848.30	13.71	V	0.6	0.0	13.09	15.24	38.45	40.60	-25.4	
848.30	19.27	H	0.6	0.0	18.65	20.80	38.45	40.60	-19.8	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 5 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 5 16QAM 1.4MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
824.70	12.07	V	0.6	0.0	11.45	13.60	38.45	40.60	-27.0	
824.70	17.78	H	0.6	0.0	17.16	19.31	38.45	40.60	-21.3	
Mid Ch										
836.50	12.44	V	0.6	0.0	11.82	13.97	38.45	40.60	-26.6	
836.50	18.98	H	0.6	0.0	18.36	20.51	38.45	40.60	-20.1	
High Ch										
848.30	12.70	V	0.6	0.0	12.08	14.23	38.45	40.60	-26.4	
848.30	18.92	H	0.6	0.0	18.30	20.45	38.45	40.60	-20.2	
Rev. 06.19.16										

QPSK EIRP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 5 QPSK 3MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
825.50	12.90	V	0.6	0.0	12.28	14.43	38.45	40.60	-26.2	
825.50	18.22	H	0.6	0.0	17.60	19.75	38.45	40.60	-20.9	
Mid Ch										
836.50	13.16	V	0.6	0.0	12.54	14.69	38.45	40.60	-25.9	
836.50	19.30	H	0.6	0.0	18.68	20.83	38.45	40.60	-19.8	
High Ch										
847.50	13.65	V	0.6	0.0	13.03	15.18	38.45	40.60	-25.4	
847.50	19.27	H	0.6	0.0	18.65	20.80	38.45	40.60	-19.8	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 5 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 5 16QAM 3MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
825.50	12.05	V	0.6	0.0	11.43	13.58	38.45	40.60	-27.0	
825.50	17.74	H	0.6	0.0	17.12	19.27	38.45	40.60	-21.3	
Mid Ch										
836.50	12.19	V	0.6	0.0	11.57	13.72	38.45	40.60	-26.9	
836.50	18.97	H	0.6	0.0	18.35	20.50	38.45	40.60	-20.1	
High Ch										
847.50	12.46	V	0.6	0.0	11.84	13.99	38.45	40.60	-26.6	
847.50	18.80	H	0.6	0.0	18.18	20.33	38.45	40.60	-20.3	
Rev. 06.19.16										

QPSK EIRP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 5 QPSK 5MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
826.50	12.93	V	0.6	0.0	12.31	14.46	38.45	40.60	-26.1	
826.50	18.56	H	0.6	0.0	17.95	20.10	38.45	40.60	-20.5	
Mid Ch										
836.50	13.34	V	0.6	0.0	12.72	14.87	38.45	40.60	-25.7	
836.50	19.15	H	0.6	0.0	18.53	20.68	38.45	40.60	-19.9	
High Ch										
846.50	13.69	V	0.6	0.0	13.08	15.23	38.45	40.60	-25.4	
846.50	19.28	H	0.6	0.0	18.66	20.81	38.45	40.60	-19.8	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 5 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #: 16U23366										
Date: 7/2/2016										
Test Engineer: 52268										
Configuration: EUT Only										
Mode: LTE Band 5 16QAM 5MHz BW										
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
826.50	12.03	V	0.6	0.0	11.41	13.56	38.45	40.60	-27.0	
826.50	17.86	H	0.6	0.0	17.24	19.39	38.45	40.60	-21.2	
Mid Ch										
836.50	12.70	V	0.6	0.0	12.08	14.23	38.45	40.60	-26.4	
836.50	19.07	H	0.6	0.0	18.45	20.60	38.45	40.60	-20.0	
High Ch										
846.50	12.88	V	0.6	0.0	12.26	14.41	38.45	40.60	-26.2	
846.50	19.09	H	0.6	0.0	18.47	20.62	38.45	40.60	-20.0	
Rev. 06.19.16										

QPSK EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 5 QPSK 10MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
829.00	12.97	V	0.6	0.0	12.35	14.50	38.45	40.60	-26.1	
829.00	18.40	H	0.6	0.0	17.78	19.93	38.45	40.60	-20.7	
Mid Ch										
836.50	13.36	V	0.6	0.0	12.74	14.89	38.45	40.60	-25.7	
836.50	19.24	H	0.6	0.0	18.62	20.77	38.45	40.60	-19.8	
High Ch										
844.00	13.40	V	0.6	0.0	12.78	14.93	38.45	40.60	-25.7	
844.00	19.43	H	0.6	0.0	18.82	20.97	38.45	40.60	-19.6	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 5 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #: 16U23366										
Date: 7/2/2016										
Test Engineer: 52268										
Configuration: EUT Only										
Mode: LTE Band 5 16QAM 10MHz BW										
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
829.00	11.68	V	0.6	0.0	11.06	13.21	38.45	40.60	-27.4	
829.00	17.68	H	0.6	0.0	17.07	19.22	38.45	40.60	-21.4	
Mid Ch										
836.50	12.29	V	0.6	0.0	11.67	13.82	38.45	40.60	-26.8	
836.50	18.34	H	0.6	0.0	17.72	19.87	38.45	40.60	-20.7	
High Ch										
844.00	13.89	V	0.6	0.0	13.27	15.42	38.45	40.60	-25.2	
844.00	18.58	H	0.6	0.0	17.97	20.12	38.45	40.60	-20.5	
Rev. 06.19.16										

10.2.4. LTE BAND 7

QPSK EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 7/2/2016								
Test Engineer: 52291								
Configuration: EUT Only								
Mode: LTE Band 7 QPSK 5MHz BW								
Test Equipment:								
Receiving: Horn T711, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.503	5.8	V	1.15	9.34	14.01	33.0	-19.0	
2.503	8.7	H	1.15	9.34	16.91	33.0	-16.1	
Mid Ch								
2.535	9.1	V	1.16	9.38	17.27	33.0	-15.7	
2.535	12.3	H	1.16	9.38	20.54	33.0	-12.5	
High Ch								
2.568	10.1	V	1.17	9.43	18.36	33.0	-14.6	
2.568	13.2	H	1.17	9.43	21.50	33.0	-11.5	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 7 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		7/2/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 7 16QAM 5MHz BW						
Test Equipment:								
Receiving: Horn T711, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.503	4.9	V	1.15	9.34	13.13	33.0	-19.9	
2.503	7.8	H	1.15	9.34	15.95	33.0	-17.1	
Mid Ch								
2.535	8.3	V	1.16	9.38	16.51	33.0	-16.5	
2.535	11.5	H	1.16	9.38	19.75	33.0	-13.3	
High Ch								
2.568	9.3	V	1.17	9.43	17.53	33.0	-15.5	
2.568	12.6	H	1.17	9.43	20.81	33.0	-12.2	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 7 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		7/2/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 7 QPSK 10MHz BW						
Test Equipment:								
Receiving: Horn T711, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.505	5.9	V	1.15	9.34	14.06	33.0	-18.9	
2.505	9.5	H	1.15	9.34	17.64	33.0	-15.4	
Mid Ch								
2.535	8.8	V	1.16	9.38	17.05	33.0	-15.9	
2.535	12.7	H	1.16	9.38	20.93	33.0	-12.1	
High Ch								
2.565	11.4	V	1.17	9.43	19.64	33.0	-13.4	
2.565	13.7	H	1.17	9.43	21.98	33.0	-11.0	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 7 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		7/2/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 7 16QAM 10MHz BW						
Test Equipment:								
Receiving: Horn T711, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.505	4.7	V	1.15	9.34	12.87	33.0	-20.1	
2.505	8.6	H	1.15	9.34	16.79	33.0	-16.2	
Mid Ch								
2.535	8.7	V	1.16	9.38	16.96	33.0	-16.0	
2.535	12.1	H	1.16	9.38	20.28	33.0	-12.7	
High Ch								
2.565	9.5	V	1.17	9.43	17.76	33.0	-15.2	
2.565	13.1	H	1.17	9.43	21.35	33.0	-11.7	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 7 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		7/2/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 7 QPSK 15MHz BW						
Test Equipment:								
Receiving: Horn T711, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.508	8.1	V	1.15	9.34	16.26	33.0	-16.7	
2.508	10.3	H	1.15	9.34	18.49	33.0	-14.5	
Mid Ch								
2.535	10.2	V	1.16	9.38	18.45	33.0	-14.5	
2.535	13.4	H	1.16	9.38	21.60	33.0	-11.4	
High Ch								
2.563	11.1	V	1.17	9.42	19.38	33.0	-13.6	
2.563	13.7	H	1.17	9.42	21.94	33.0	-11.1	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 7 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		7/2/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 7 16QAM 15MHz BW						
Test Equipment:								
Receiving: Horn T711, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.508	6.6	V	1.15	9.34	14.82	33.0	-18.2	
2.508	9.3	H	1.15	9.34	17.53	33.0	-15.5	
Mid Ch								
2.535	9.4	V	1.16	9.38	17.65	33.0	-15.3	
2.535	12.7	H	1.16	9.38	20.89	33.0	-12.1	
High Ch								
2.563	10.0	V	1.17	9.42	18.30	33.0	-14.7	
2.563	13.4	H	1.17	9.42	21.61	33.0	-11.4	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		7/2/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 7 QPSK 20MHz BW						
Test Equipment:								
Receiving: Horn T711, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.510	2.8	V	1.15	9.35	11.04	33.0	-22.0	
2.510	9.6	H	1.15	9.35	17.80	33.0	-15.2	
Mid Ch								
2.535	7.8	V	1.16	9.38	16.01	33.0	-17.0	
2.535	13.7	H	1.16	9.38	21.96	33.0	-11.0	
High Ch								
2.560	6.4	V	1.17	9.42	14.65	33.0	-18.4	
2.560	12.0	H	1.17	9.42	20.25	33.0	-12.7	

16QAM EIRP POWER FOR LTE BAND 7 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		7/2/2016						
Test Engineer:		52291						
Configuration:		EUT Only						
Mode:		LTE Band 7 16QAM 20MHz BW						
Test Equipment:								
Receiving: Horn T711, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.510	6.2	V	1.15	9.35	14.37	33.0		
2.510	9.4	H	1.15	9.35	17.59	33.0	-18.6	
							-15.4	
Mid Ch								
2.535	9.0	V	1.16	9.38	17.24	33.0	-15.8	
2.535	13.2	H	1.16	9.38	21.42	33.0	-11.6	
High Ch								
2.560	10.3	V	1.17	9.42	18.59	33.0	-14.4	
2.560	11.9	H	1.17	9.42	20.17	33.0	-12.8	
Rev. 10.24.13								

10.2.5. LTE BAND 12

QPSK EIRP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 12 QPSK 1.4MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
699.70	8.42	V	0.55	0.0	7.87	10.02	34.77	36.99	-27.0	
699.70	16.56	H	0.55	0.0	16.01	18.16	34.77	36.99	-18.8	
Mid Ch										
707.50	8.52	V	0.55	0.0	7.97	10.12	34.77	36.99	-26.9	
707.50	16.16	H	0.55	0.0	15.61	17.76	34.77	36.99	-19.2	
High Ch										
715.30	9.27	V	0.55	0.0	8.72	10.87	34.77	36.99	-26.1	
715.30	16.61	H	0.55	0.0	16.06	18.21	34.77	36.99	-18.8	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 12 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #: 16U23366										
Date: 7/2/2016										
Test Engineer: 52268										
Configuration: EUT Only										
Mode: LTE Band 12 16QAM 1.4MHz BW										
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
699.70	8.32	V	0.55	0.0	7.77	9.92	34.77	36.99	-27.1	
699.70	16.17	H	0.55	0.0	15.62	17.77	34.77	36.99	-19.2	
Mid Ch										
707.50	8.36	V	0.55	0.0	7.81	9.96	34.77	36.99	-27.0	
707.50	16.08	H	0.55	0.0	15.53	17.68	34.77	36.99	-19.3	
High Ch										
715.30	9.02	V	0.55	0.0	8.47	10.62	34.77	36.99	-26.4	
715.30	16.31	H	0.55	0.0	15.76	17.91	34.77	36.99	-19.1	
Rev. 06.19.16										

QPSK EIRP POWER FOR LTE BAND 12 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 12 QPSK 3MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
700.50	8.39	V	0.55	0.0	7.84	9.99	34.77	36.99	-27.0	
700.50	16.38	H	0.55	0.0	15.83	17.98	34.77	36.99	-19.0	
Mid Ch										
707.50	8.35	V	0.55	0.0	7.80	9.95	34.77	36.99	-27.0	
707.50	16.24	H	0.55	0.0	15.69	17.84	34.77	36.99	-19.1	
High Ch										
714.50	9.05	V	0.55	0.0	8.50	10.65	34.77	36.99	-26.3	
714.50	16.64	H	0.55	0.0	16.09	18.24	34.77	36.99	-18.8	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 12 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #: 16U23366										
Date: 7/2/2016										
Test Engineer: 52268										
Configuration: EUT Only										
Mode: LTE Band 12 16QAM 3MHz BW										
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
700.50	8.18	V	0.55	0.0	7.63	9.78	34.77	36.99	-27.2	
700.50	16.19	H	0.55	0.0	15.64	17.79	34.77	36.99	-19.2	
Mid Ch										
707.50	8.26	V	0.55	0.0	7.71	9.86	34.77	36.99	-27.1	
707.50	15.96	H	0.55	0.0	15.41	17.56	34.77	36.99	-19.4	
High Ch										
714.50	8.86	V	0.55	0.0	8.31	10.46	34.77	36.99	-26.5	
714.50	16.22	H	0.55	0.0	15.67	17.82	34.77	36.99	-19.2	
Rev. 06.19.16										

QPSK EIRP POWER FOR LTE BAND 12 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #: 16U23366										
Date: 7/2/2016										
Test Engineer: 52268										
Configuration: EUT Only										
Mode: LTE Band 12 QPSK 5MHz BW										
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
701.50	8.66	V	0.55	0.0	8.11	10.26	34.77	36.99	-26.7	
701.50	16.56	H	0.55	0.0	16.01	18.16	34.77	36.99	-18.8	
Mid Ch										
707.50	8.49	V	0.55	0.0	7.94	10.09	34.77	36.99	-26.9	
707.50	16.40	H	0.55	0.0	15.85	18.00	34.77	36.99	-19.0	
High Ch										
713.50	9.29	V	0.55	0.0	8.74	10.89	34.77	36.99	-26.1	
713.50	16.73	H	0.55	0.0	16.18	18.33	34.77	36.99	-18.7	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 12 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 12 16QAM 5MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
701.50	8.29	V	0.55	0.0	7.74	9.89	34.77	36.99	-27.1	
701.50	16.30	H	0.55	0.0	15.75	17.90	34.77	36.99	-19.1	
Mid Ch										
707.50	8.90	V	0.55	0.0	8.35	10.50	34.77	36.99	-26.5	
707.50	16.11	H	0.55	0.0	15.56	17.71	34.77	36.99	-19.3	
High Ch										
713.50	8.93	V	0.55	0.0	8.38	10.53	34.77	36.99	-26.5	
713.50	16.42	H	0.55	0.0	15.87	18.02	34.77	36.99	-19.0	
Rev. 06.19.16										

QPSK EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #: 16U23366										
Date: 7/2/2016										
Test Engineer: 52268										
Configuration: EUT Only										
Mode: LTE Band 12 QPSK 10MHz BW										
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
704.00	8.68	V	0.55	0.0	8.13	10.28	34.77	36.99	-26.7	
704.00	16.39	H	0.55	0.0	15.84	17.99	34.77	36.99	-19.0	
Mid Ch										
707.50	8.69	V	0.55	0.0	8.14	10.29	34.77	36.99	-26.7	
707.50	16.65	H	0.55	0.0	16.10	18.25	34.77	36.99	-18.7	
High Ch										
711.00	8.95	V	0.55	0.0	8.40	10.55	34.77	36.99	-26.4	
711.00	16.62	H	0.55	0.0	16.07	18.22	34.77	36.99	-18.8	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 12 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 12 16QAM 10MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
704.00	8.32	V	0.55	0.0	7.77	9.92	34.77	36.99	-27.1	
704.00	16.22	H	0.55	0.0	15.67	17.82	34.77	36.99	-19.2	
Mid Ch										
707.50	8.22	V	0.55	0.0	7.67	9.82	34.77	36.99	-27.2	
707.50	16.33	H	0.55	0.0	15.78	17.93	34.77	36.99	-19.1	
High Ch										
711.00	8.95	V	0.55	0.0	8.40	10.55	34.77	36.99	-26.4	
711.00	16.50	H	0.55	0.0	15.95	18.10	34.77	36.99	-18.9	
Rev. 06.19.16										

10.2.6. LTE BAND 13

QPSK EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 13 QPSK 5MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
779.50	11.43	V	0.55	0.0	10.88	13.03	34.77	36.99	-24.0	
779.50	19.03	H	0.55	0.0	18.48	20.63	34.77	36.99	-16.4	
Mid Ch										
782.00	11.08	V	0.55	0.0	10.53	12.68	34.77	36.99	-24.3	
782.00	18.63	H	0.55	0.0	18.08	20.23	34.77	36.99	-16.8	
High Ch										
784.50	11.84	V	0.55	0.0	11.29	13.44	34.77	36.99	-23.5	
784.50	18.87	H	0.55	0.0	18.32	20.47	34.77	36.99	-16.5	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 13 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 13 16QAM5MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
779.50	10.79	V	0.55	0.0	10.24	12.39	34.77	36.99	-24.6	
779.50	18.37	H	0.55	0.0	17.82	19.97	34.77	36.99	-17.0	
Mid Ch										
782.00	11.04	V	0.55	0.0	10.49	12.64	34.77	36.99	-24.4	
782.00	17.99	H	0.55	0.0	17.44	19.59	34.77	36.99	-17.4	
High Ch										
784.50	10.82	V	0.55	0.0	10.27	12.42	34.77	36.99	-24.6	
784.50	18.26	H	0.55	0.0	17.71	19.86	34.77	36.99	-17.1	
Rev. 06.19.16										

QPSK EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #: 16U23366										
Date: 7/2/2016										
Test Engineer: 52268										
Configuration: EUT Only										
Mode: LTE Band 13 QPSK 10MHz BW										
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	11.06	V	0.55	0.0	10.51	12.66	34.77	36.99	-24.3	
782.00	18.59	H	0.55	0.0	18.04	20.19	34.77	36.99	-16.8	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 13 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #: 16U23366										
Date: 7/2/2016										
Test Engineer: 52268										
Configuration: EUT Only										
Mode: LTE Band 13 16QAM 10MHz BW										
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
782.00	10.66	V	0.55	0.0	10.11	12.26	34.77	36.99	-24.7	
782.00	17.99	H	0.55	0.0	17.44	19.59	34.77	36.99	-17.4	
Rev. 06.19.16										

10.2.7. LTE BAND 17

QPSK EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F											
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 17 QPSK 5MHz BW											
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)											
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes	
Low Ch											
706.50	8.51	V	0.55	0.0	7.96	10.11	34.77	36.99	-26.9		
706.50	16.87	H	0.55	0.0	16.32	18.47	34.77	36.99	-18.5		
Mid Ch											
710.00	8.96	V	0.55	0.0	8.41	10.56	34.77	36.99	-26.4		
710.00	17.02	H	0.55	0.0	16.47	18.62	34.77	36.99	-18.4		
High Ch											
713.50	9.62	V	0.55	0.0	9.07	11.22	34.77	36.99	-25.8		
713.50	17.00	H	0.55	0.0	16.45	18.60	34.77	36.99	-18.4		
Rev. 06.19.16											

16QAM EIRP POWER FOR LTE BAND 17 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company: Project #: 16U23366 Date: 7/2/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 17 16QAM 5MHz BW										
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
706.50	8.37	V	0.55	0.0	7.82	9.97	34.77	36.99	-27.0	
706.50	16.66	H	0.55	0.0	16.11	18.26	34.77	36.99	-18.7	
Mid Ch										
710.00	8.68	V	0.55	0.0	8.13	10.28	34.77	36.99	-26.7	
710.00	16.90	H	0.55	0.0	16.35	18.50	34.77	36.99	-18.5	
High Ch										
713.50	8.11	V	0.55	0.0	7.56	9.71	34.77	36.99	-27.3	
713.50	16.63	H	0.55	0.0	16.08	18.23	34.77	36.99	-18.8	
Rev. 06.19.16										

QPSK EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #:		16U23366								
Date:		7/2/2016								
Test Engineer:		52268								
Configuration:		EUT Only								
Mode:		LTE Band 17 QPSK 10MHz BW								
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
710.00	8.67	V	0.55	0.0	8.12	10.27	34.77	36.99	-26.7	
710.00	17.08	H	0.55	0.0	16.53	18.68	34.77	36.99	-18.3	
Rev. 06.19.16										

16QAM EIRP POWER FOR LTE BAND 17 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F										
Company:										
Project #: 16U23366										
Date: 7/2/2016										
Test Engineer: 52268										
Configuration: EUT Only										
Mode: LTE Band 17 16QAM 10MHz BW										
Test Equipment:										
Receiving: Horn T344, and Chamber F SMA Cable										
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
710.00	8.42	V	0.55	0.0	7.87	10.02	34.77	36.99	-27.0	
710.00	16.89	H	0.55	0.0	16.34	18.49	34.77	36.99	-18.5	
Rev. 06.19.16										

10.2.8. LTE BAND 25

QPSK EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		6/18/2016						
Test Engineer:		39004						
Configuration:		EUT Only						
Mode:		LTE Band 25 QPSK 1.4MHz BW						
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.851	9.8	V	0.98	8.05	16.83	33.0	-16.2	
1.851	12.1	H	0.98	8.05	19.12	33.0	-13.9	
Mid Ch								
1.883	10.4	V	0.98	8.03	17.44	33.0	-15.6	
1.883	14.4	H	0.98	8.03	21.43	33.0	-11.6	
High Ch								
1.914	11.6	V	0.98	8.07	18.66	33.0	-14.3	
1.914	13.3	H	0.98	8.07	20.39	33.0	-12.6	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 1.4MHz BW								
<u>Test Equipment:</u>								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.851	9.5	V	0.98	8.05	16.53	33.0	-16.5	
1.851	11.7	H	0.98	8.05	18.81	33.0	-14.2	
Mid Ch								
1.883	10.3	V	0.98	8.03	17.32	33.0	-15.7	
1.883	14.3	H	0.98	8.03	21.34	33.0	-11.7	
High Ch								
1.914	11.3	V	0.98	8.07	18.42	33.0	-14.6	
1.914	13.1	H	0.98	8.07	20.23	33.0	-12.8	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 QPSK 3MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.852	9.7	V	0.98	8.05	16.75	33.0	-16.3	
1.852	12.0	H	0.98	8.05	19.02	33.0	-14.0	
Mid Ch								
1.883	10.6	V	0.98	8.03	17.60	33.0	-15.4	
1.883	14.4	H	0.98	8.03	21.49	33.0	-11.5	
High Ch								
1.914	11.8	V	0.98	8.07	18.93	33.0	-14.1	
1.914	13.4	H	0.98	8.07	20.49	33.0	-12.5	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 3MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.852	9.4	V	0.98	8.05	16.49	33.0	-16.5	
1.852	11.7	H	0.98	8.05	18.72	33.0	-14.3	
Mid Ch								
1.883	10.3	V	0.98	8.03	17.31	33.0	-15.7	
1.883	14.3	H	0.98	8.03	21.31	33.0	-11.7	
High Ch								
1.914	11.5	V	0.98	8.07	18.60	33.0	-14.4	
1.914	13.0	H	0.98	8.07	20.09	33.0	-12.9	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 QPSK 5MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.853	9.9	V	0.98	8.05	16.94	33.0	-16.1	
1.853	12.0	H	0.98	8.05	19.11	33.0	-13.9	
Mid Ch								
1.883	10.6	V	0.98	8.03	17.65	33.0	-15.4	
1.883	14.7	H	0.98	8.03	21.73	33.0	-11.3	
High Ch								
1.913	12.2	V	0.98	8.06	19.29	33.0	-13.7	
1.913	13.6	H	0.98	8.06	20.71	33.0	-12.3	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 5MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.853	9.6	V	0.98	8.05	16.65	33.0	-16.4	
1.853	11.8	H	0.98	8.05	18.91	33.0	-14.1	
Mid Ch								
1.883	10.5	V	0.98	8.03	17.50	33.0	-15.5	
1.883	14.5	H	0.98	8.03	21.50	33.0	-11.5	
High Ch								
1.913	11.8	V	0.98	8.06	18.85	33.0	-14.1	
1.913	13.3	H	0.98	8.06	20.40	33.0	-12.6	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company: Project #: 16U23366 Date: 6/18/2016 Test Engineer: 39004 Configuration: EUT Only Mode: LTE Band 25 QPSK 10MHz BW								
Test Equipment: Receiving: Horn T346, and Chamber E SMA Cables Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	10.0	V	0.98	8.05	17.03	33.0	-16.0	
1.855	12.2	H	0.98	8.05	19.26	33.0	-13.7	
Mid Ch								
1.883	10.6	V	0.98	8.03	17.67	33.0	-15.3	
1.883	14.7	H	0.98	8.03	21.70	33.0	-11.3	
High Ch								
1.910	11.3	V	0.98	8.05	18.36	33.0	-14.6	
1.910	13.2	H	0.98	8.05	20.26	33.0	-12.7	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 10MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.855	9.6	V	0.98	8.05	16.71	33.0	-16.3	
1.855	11.9	H	0.98	8.05	18.98	33.0	-14.0	
Mid Ch								
1.883	10.5	V	0.98	8.03	17.56	33.0	-15.4	
1.883	14.5	H	0.98	8.03	21.55	33.0	-11.5	
High Ch								
1.910	11.1	V	0.98	8.05	18.15	33.0	-14.8	
1.910	12.9	H	0.98	8.05	19.99	33.0	-13.0	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 QPSK 15MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.858	10.0	V	0.98	8.04	17.05	33.0	-15.9	
1.858	12.1	H	0.98	8.04	19.19	33.0	-13.8	
Mid Ch								
1.883	10.4	V	0.98	8.03	17.46	33.0	-15.5	
1.883	14.7	H	0.98	8.03	21.76	33.0	-11.2	
High Ch								
1.908	10.7	V	0.98	8.04	17.78	33.0	-15.2	
1.908	13.3	H	0.98	8.04	20.35	33.0	-12.6	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 15MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.858	9.7	V	0.98	8.04	16.72	33.0	-16.3	
1.858	11.9	H	0.98	8.04	18.91	33.0	-14.1	
Mid Ch								
1.883	10.4	V	0.98	8.03	17.45	33.0	-15.6	
1.883	14.5	H	0.98	8.03	21.51	33.0	-11.5	
High Ch								
1.908	10.4	V	0.98	8.04	17.46	33.0	-15.5	
1.908	13.1	H	0.98	8.04	20.15	33.0	-12.8	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 QPSK 20MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	9.9	V	0.98	8.04	16.97	33.0	-16.0	
1.860	12.3	H	0.98	8.04	19.36	33.0	-13.6	
Mid Ch								
1.883	11.2	V	0.98	8.03	18.28	33.0	-14.7	
1.883	15.0	H	0.98	8.03	22.00	33.0	-11.0	
High Ch								
1.905	11.1	V	0.98	8.04	18.17	33.0	-14.8	
1.905	14.0	H	0.98	8.04	21.08	33.0	-11.9	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 25 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/18/2016								
Test Engineer: 39004								
Configuration: EUT Only								
Mode: LTE Band 25 16QAM 20MHz BW								
<u>Test Equipment:</u>								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
1.860	9.7	V	0.98	8.04	16.71	33.0	-16.3	
1.860	12.0	H	0.98	8.04	19.02	33.0	-14.0	
Mid Ch								
1.883	10.7	V	0.98	8.03	17.72	33.0	-15.3	
1.883	14.6	H	0.98	8.03	21.62	33.0	-11.4	
High Ch								
1.905	10.9	V	0.98	8.04	17.91	33.0	-15.1	
1.905	13.5	H	0.98	8.04	20.51	33.0	-12.5	
Rev. 10.24.13								

10.2.9. LTE BAND 26

QPSK EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 39004 Configuration: EUT Only Mode: LTE Band 26 QPSK 1.4MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber E Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
814.70	12.93	V	0.62	0.0	12.31	14.46	38.45	40.60	-26.1	
814.70	18.69	H	0.62	0.0	18.07	20.22	38.45	40.60	-20.4	
Mid Ch										
819.00	13.12	V	0.62	0.0	12.50	14.65	38.45	40.60	-26.0	
819.00	19.23	H	0.62	0.0	18.61	20.76	38.45	40.60	-19.8	
High Ch										
823.30	12.94	V	0.62	0.0	12.32	14.47	38.45	40.60	-26.1	
823.30	18.39	H	0.62	0.0	17.77	19.92	38.45	40.60	-20.7	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 26 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 39004 Configuration: EUT Only Mode: LTE Band 26 16QAM 1.4MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber E Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
814.70	12.70	V	0.62	0.0	12.08	14.23	38.45	40.60	-26.4	
814.70	18.67	H	0.62	0.0	18.05	20.20	38.45	40.60	-20.4	
Mid Ch										
819.00	13.96	V	0.62	0.0	13.34	15.49	38.45	40.60	-25.1	
819.00	18.99	H	0.62	0.0	18.37	20.52	38.45	40.60	-20.1	
High Ch										
823.30	12.77	V	0.62	0.0	12.15	14.30	38.45	40.60	-26.3	
823.30	18.29	H	0.62	0.0	17.67	19.82	38.45	40.60	-20.8	
Rev. 10.24.13										

QPSK EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 39004 Configuration: EUT Only Mode: LTE Band 26 QPSK 3MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber E Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
815.50	12.91	V	0.62	0.0	12.29	14.44	38.45	40.60	-26.2	
815.50	18.91	H	0.62	0.0	18.29	20.44	38.45	40.60	-20.2	
Mid Ch										
819.00	13.18	V	0.62	0.0	12.56	14.71	38.45	40.60	-25.9	
819.00	19.10	H	0.62	0.0	18.48	20.63	38.45	40.60	-20.0	
High Ch										
822.50	12.87	V	0.62	0.0	12.25	14.40	38.45	40.60	-26.2	
822.50	18.14	H	0.62	0.0	17.52	19.67	38.45	40.60	-20.9	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 26 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 39004 Configuration: EUT Only Mode: LTE Band 26 16QAM 3MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber E Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
815.50	12.67	V	0.62	0.0	12.05	14.20	38.45	40.60	-26.4	
815.50	18.68	H	0.62	0.0	18.06	20.21	38.45	40.60	-20.4	
Mid Ch										
819.00	13.87	V	0.62	0.0	13.25	15.40	38.45	40.60	-25.2	
819.00	18.97	H	0.62	0.0	18.35	20.50	38.45	40.60	-20.1	
High Ch										
822.50	12.73	V	0.62	0.0	12.11	14.26	38.45	40.60	-26.3	
822.50	18.09	H	0.62	0.0	17.47	19.62	38.45	40.60	-21.0	
Rev. 10.24.13										

QPSK EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 39004 Configuration: EUT Only Mode: LTE Band 26 QPSK 5MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber E Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
816.50	12.94	V	0.62	0.0	12.32	14.47	38.45	40.60	-26.1	
816.50	18.96	H	0.62	0.0	18.34	20.49	38.45	40.60	-20.1	
Mid Ch										
819.00	13.80	V	0.62	0.0	13.18	15.33	38.45	40.60	-25.3	
819.00	19.26	H	0.62	0.0	18.64	20.79	38.45	40.60	-19.8	
High Ch										
821.50	12.90	V	0.62	0.0	12.28	14.43	38.45	40.60	-26.2	
821.50	18.59	H	0.62	0.0	17.97	20.12	38.45	40.60	-20.5	
Rev. 10.24.13										

16QAM EIRP POWER FOR LTE BAND 26 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 39004 Configuration: EUT Only Mode: LTE Band 26 16QAM 5MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber E Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Low Ch										
816.50	13.11	V	0.62	0.0	12.49	14.64	38.45	40.60	-26.0	
816.50	18.77	H	0.62	0.0	18.15	20.30	38.45	40.60	-20.3	
Mid Ch										
819.00	13.59	V	0.62	0.0	12.97	15.12	38.45	40.60	-25.5	
819.00	19.05	H	0.62	0.0	18.43	20.58	38.45	40.60	-20.0	
High Ch										
821.50	13.29	V	0.62	0.0	12.67	14.82	38.45	40.60	-25.8	
821.50	18.56	H	0.62	0.0	17.94	20.09	38.45	40.60	-20.5	
Rev. 10.24.13										

QPSK EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 39004 Configuration: EUT Only Mode: LTE Band 26 QPSK 10MHz BW										
Test Equipment: Receiving: Sunol T408, and Chamber E Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin EIRP (dB)	Notes
Mid Ch										
819.00	13.09	V	0.62	0.0	12.47	14.62	38.45	40.60	-26.0	
819.00	19.04	H	0.62	0.0	18.42	20.57	38.45	40.60	-20.0	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 26 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Company: Project #: 16U23366 Date: 6/17/2016 Test Engineer: 39004 Configuration: EUT Only Mode: LTE Band 26 16QAM 10MHz BW Test Equipment: Receiving: Sunol T408, and Chamber E Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)										
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	ERP Limit (dBm)	EIRP Limit (dBm)	Margin (dB)	Notes
Mid Ch										
819.00	12.99	V	0.62	0.0	12.37	14.52	38.45	40.60	-26.1	
819.00	18.85	H	0.62	0.0	18.23	20.38	38.45	40.60	-20.2	
Rev. 10.24.13										

10.2.10. LTE BAND 27

QPSK EIRP POWER FOR LTE BAND 27 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 27 QPSK 1.4MHz BW								
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
814.70	11.45	V	0.62	0.0	10.83	50.00	-39.2	
814.70	17.91	H	0.62	0.0	17.29	50.00	-32.7	
Mid Ch								
819.00	12.07	V	0.62	0.0	11.45	50.00	-38.5	
819.00	18.27	H	0.62	0.0	17.65	50.00	-32.3	
High Ch								
823.30	12.40	V	0.62	0.0	11.78	50.00	-38.2	
823.30	18.69	H	0.62	0.0	18.07	50.00	-31.9	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 27 (1.4MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52268								
Configuration: EUT Only								
Mode: LTE Band 27 16QAM 1.4MHz BW								
<u>Test Equipment:</u>								
Receiving: Horn T344, and Chamber F SMA Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
814.70	11.11	V	0.62	0.0	10.49	50.00	-39.5	
814.70	17.87	H	0.62	0.0	17.25	50.00	-32.7	
Mid Ch								
819.00	11.75	V	0.62	0.0	11.13	50.00	-38.9	
819.00	18.00	H	0.62	0.0	17.38	50.00	-32.6	
High Ch								
823.30	12.09	V	0.62	0.0	11.47	50.00	-38.5	
823.30	18.36	H	0.62	0.0	17.74	50.00	-32.3	
Rev. 06.19.16								

QPSK EIRP POWER FOR LTE BAND 27 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 27 QPSK 3MHz BW								
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
815.50	11.32	V	0.62	0.0	10.70	50.00	-39.3	
815.50	17.94	H	0.62	0.0	17.32	50.00	-32.7	
Mid Ch								
819.00	11.79	V	0.62	0.0	11.17	50.00	-38.8	
819.00	18.02	H	0.62	0.0	17.40	50.00	-32.6	
High Ch								
822.50	12.23	V	0.62	0.0	11.61	50.00	-38.4	
822.50	18.78	H	0.62	0.0	18.16	50.00	-31.8	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 27 (3.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 27 16QAM 3MHz BW								
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
815.50	11.13	V	0.62	0.0	10.51	50.00	-39.5	
815.50	17.83	H	0.62	0.0	17.21	50.00	-32.8	
Mid Ch								
819.00	11.69	V	0.62	0.0	11.07	50.00	-38.9	
819.00	17.92	H	0.62	0.0	17.30	50.00	-32.7	
High Ch								
822.50	11.86	V	0.62	0.0	11.24	50.00	-38.8	
822.50	18.32	H	0.62	0.0	17.70	50.00	-32.3	
Rev. 06.19.16								

QPSK EIRP POWER FOR LTE BAND 27 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 27 QPSK 5MHz BW								
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
816.50	11.43	V	0.62	0.0	10.81	50.00	-39.2	
816.50	18.07	H	0.62	0.0	17.45	50.00	-32.6	
Mid Ch								
819.00	11.89	V	0.62	0.0	11.27	50.00	-38.7	
819.00	18.27	H	0.62	0.0	17.65	50.00	-32.4	
High Ch								
821.50	12.35	V	0.62	0.0	11.73	50.00	-38.3	
821.50	18.98	H	0.62	0.0	18.36	50.00	-31.6	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 27 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company: Project #: 16U23366 Date: 6/16/2016 Test Engineer: 52268 Configuration: EUT Only Mode: LTE Band 27 16QAM 5MHz BW								
Test Equipment: Receiving: Horn T344, and Chamber F SMA Cable Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Low Ch								
816.50	11.36	V	0.62	0.0	10.74	50.00	-39.3	
816.50	18.04	H	0.62	0.0	17.42	50.00	-32.6	
Mid Ch								
819.00	11.70	V	0.62	0.0	11.08	50.00	-38.9	
819.00	18.00	H	0.62	0.0	17.38	50.00	-32.6	
High Ch								
821.50	12.12	V	0.62	0.0	11.50	50.00	-38.5	
821.50	18.55	H	0.62	0.0	17.93	50.00	-32.1	
Rev. 06.19.16								

QPSK EIRP POWER FOR LTE BAND 27 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52268								
Configuration: EUT Only								
Mode: LTE Band 27 QPSK 10MHz BW								
Test Equipment:								
Receiving: Horn T344, and Chamber F SMA Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Mid Ch								
819.00	11.42	V	0.62	0.0	10.80	50.00	-39.2	
819.00	18.01	H	0.62	0.0	17.39	50.00	-32.6	
Rev. 06.19.16								

16QAM EIRP POWER FOR LTE BAND 27 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber F								
Company:								
Project #: 16U23366								
Date: 6/16/2016								
Test Engineer: 52268								
Configuration: EUT Only								
Mode: LTE Band 27 16QAM 10MHz BW								
Test Equipment:								
Receiving: Horn T344, and Chamber F SMA Cable								
Substitution: Dipole S/N: 00022117, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	ERP (dBm)	ERP Limit (dBm)	Margin (dB)	Notes
Mid Ch								
819.00	11.41	V	0.62	0.0	10.79	50.00	-39.2	
819.00	17.95	H	0.62	0.0	17.33	50.00	-32.7	
Rev. 06.19.16								

10.2.11. LTE BAND 30

QPSK EIRP POWER FOR LTE BAND 30 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/23/2016								
Test Engineer: 44399								
Configuration: EUT Only								
Mode: LTE Band 30 QPSK 5MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.308	12.5	V	1.15	9.37	20.68	24.0	-3.3	
2.308	10.4	H	1.15	9.37	18.62	24.0	-5.4	
Mid Ch								
2.310	12.4	V	1.16	9.37	20.65	24.0	-3.4	
2.310	10.5	H	1.16	9.37	18.76	24.0	-5.2	
High Ch								
2.313	12.4	V	1.17	9.37	20.60	24.0	-3.4	
2.313	11.1	H	1.17	9.37	19.33	24.0	-4.7	
Rev. 04.24.15								

16QAM EIRP POWER FOR LTE BAND 30 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		6/23/2016						
Test Engineer:		44399						
Configuration:		EUT Only						
Mode:		LTE Band 30 16QAM 5MHz BW						
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.308	12.2	V	1.15	9.37	20.42	24.0	-3.6	
2.308	10.2	H	1.15	9.37	18.44	24.0	-5.6	
Mid Ch								
2.310	12.2	V	1.16	9.37	20.37	24.0	-3.6	
2.310	10.3	H	1.16	9.37	18.55	24.0	-5.5	
High Ch								
2.313	12.3	V	1.17	9.37	20.54	24.0	-3.5	
2.313	11.0	H	1.17	9.37	19.19	24.0	-4.8	
Rev. 04.24.15								

QPSK EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/23/2016								
Test Engineer: 44399								
Configuration: EUT Only								
Mode: LTE Band 30 QPSK 10MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
2.310	12.4	V	1.15	9.37	20.64	24.0	-3.4	
2.310	10.5	H	1.15	9.37	18.71	24.0	-5.3	
Rev. 04.24.15								

16QAM EIRP POWER FOR LTE BAND 30 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/23/2016								
Test Engineer: 44399								
Configuration: EUT Only								
Mode: LTE Band 30 16QAM 10MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
2.310	12.0	V	1.15	9.37	20.24	24.0	-3.8	
2.310	10.4	H	1.15	9.37	18.64	24.0	-5.4	
Rev. 04.24.15								

10.2.12. LTE BAND 41

QPSK EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/22/2016								
Test Engineer: 44399								
Configuration: EUT Only								
Mode: LTE Band 41 QPSK 5MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.499	7.1	V	1.15	9.33	15.31	33.0	-17.7	
2.499	11.3	H	1.15	9.33	19.46	33.0	-13.5	
Mid Ch								
2.593	6.9	V	1.16	9.47	15.25	33.0	-17.7	
2.593	11.7	H	1.16	9.47	20.02	33.0	-13.0	
High Ch								
2.688	6.9	V	1.17	9.78	15.52	33.0	-17.5	
2.688	12.1	H	1.17	9.78	20.67	33.0	-12.3	

Rev. 10.24.13

16QAM EIRP POWER FOR LTE BAND 41 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		6/22/2016						
Test Engineer:		44399						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 5MHz BW						
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.499	6.4	V	1.15	9.33	14.61	33.0	-18.4	
2.499	10.6	H	1.15	9.33	18.76	33.0	-14.2	
Mid Ch								
2.593	6.2	V	1.16	9.47	14.55	33.0	-18.4	
2.593	11.0	H	1.16	9.47	19.29	33.0	-13.7	
High Ch								
2.688	6.2	V	1.17	9.78	14.82	33.0	-18.2	
2.688	11.4	H	1.17	9.78	19.97	33.0	-13.0	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		6/22/2016						
Test Engineer:		44399						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 10MHz BW						
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.501	7.4	V	1.15	9.33	15.62	33.0	-17.4	
2.501	11.3	H	1.15	9.33	19.53	33.0	-13.5	
Mid Ch								
2.593	6.8	V	1.16	9.47	15.11	33.0	-17.9	
2.593	11.7	H	1.16	9.47	19.99	33.0	-13.0	
High Ch								
2.685	7.1	V	1.17	9.77	15.68	33.0	-17.3	
2.685	11.8	H	1.17	9.77	20.45	33.0	-12.6	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 41 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		6/22/2016						
Test Engineer:		44399						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 10MHz BW						
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.501	6.7	V	1.15	9.33	14.92	33.0	-18.1	
2.501	10.6	H	1.15	9.33	18.83	33.0	-14.2	
Mid Ch								
2.593	6.1	V	1.16	9.47	14.41	33.0	-18.6	
2.593	10.8	H	1.16	9.47	19.07	33.0	-13.9	
High Ch								
2.685	6.4	V	1.17	9.77	14.98	33.0	-18.0	
2.685	11.1	H	1.17	9.77	19.75	33.0	-13.3	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E							
Model: Frequency: Power: Antenna: Environment:	16U23366 6/22/2016 44399 EUT Only LTE Band 41 QPSK 15MHz BW						
Equipment: : Horn T346, and Chamber E SMA Cables on: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)							
SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
7.3	V	1.15	9.34	15.53	33.0	-17.5	
11.3	H	1.15	9.34	19.47	33.0	-13.5	
6.9	V	1.16	9.47	15.24	33.0	-17.8	
11.8	H	1.16	9.47	20.09	33.0	-12.9	
7.0	V	1.17	9.76	15.56	33.0	-17.4	
12.2	H	1.17	9.76	20.75	33.0	-12.3	
3							

16QAM EIRP POWER FOR LTE BAND 41 (15.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		6/22/2016						
Test Engineer:		44399						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 15MHz BW						
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.504	6.6	V	1.15	9.34	14.83	33.0	-18.2	
2.504	10.6	H	1.15	9.34	18.77	33.0	-14.2	
Mid Ch								
2.593	6.2	V	1.16	9.47	14.54	33.0	-18.5	
2.593	11.1	H	1.16	9.47	19.39	33.0	-13.6	
High Ch								
2.683	6.3	V	1.17	9.76	14.86	33.0	-18.1	
2.683	11.5	H	1.17	9.76	20.05	33.0	-13.0	
Rev. 10.24.13								

QPSK EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #:		16U23366						
Date:		6/22/2016						
Test Engineer:		44399						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 20MHz BW						
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.506	7.3	V	1.15	9.34	15.47	33.0	-17.5	
2.506	11.4	H	1.15	9.34	19.55	33.0	-13.5	
Mid Ch								
2.593	6.8	V	1.16	9.47	15.14	33.0	-17.9	
2.593	11.7	H	1.16	9.47	20.00	33.0	-13.0	
High Ch								
2.680	6.8	V	1.17	9.76	15.39	33.0	-17.6	
2.680	12.0	H	1.17	9.76	20.54	33.0	-12.5	
Rev. 10.24.13								

16QAM EIRP POWER FOR LTE BAND 41 (20.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber E								
Company:								
Project #: 16U23366								
Date: 6/22/2016								
Test Engineer: 44399								
Configuration: EUT Only								
Mode: LTE Band 41 16QAM 20MHz BW								
Test Equipment:								
Receiving: Horn T346, and Chamber E SMA Cables								
Substitution: Horn T59 Substitution, 4ft SMA Cable (s/n 245182-003; SUCOFLEX 104PEA)								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
Low Ch								
2.506	6.5	V	1.15	9.34	14.73	33.0	-18.3	
2.506	10.6	H	1.15	9.34	18.81	33.0	-14.2	
Mid Ch								
2.593	6.1	V	1.16	9.47	14.40	33.0	-18.6	
2.593	11.0	H	1.16	9.47	19.26	33.0	-13.7	
High Ch								
2.680	6.1	V	1.17	9.76	14.65	33.0	-18.3	
2.680	11.2	H	1.17	9.76	19.80	33.0	-13.2	
Rev. 10.24.13								

10.3. PEAK-TO-AVERAGE RATIO

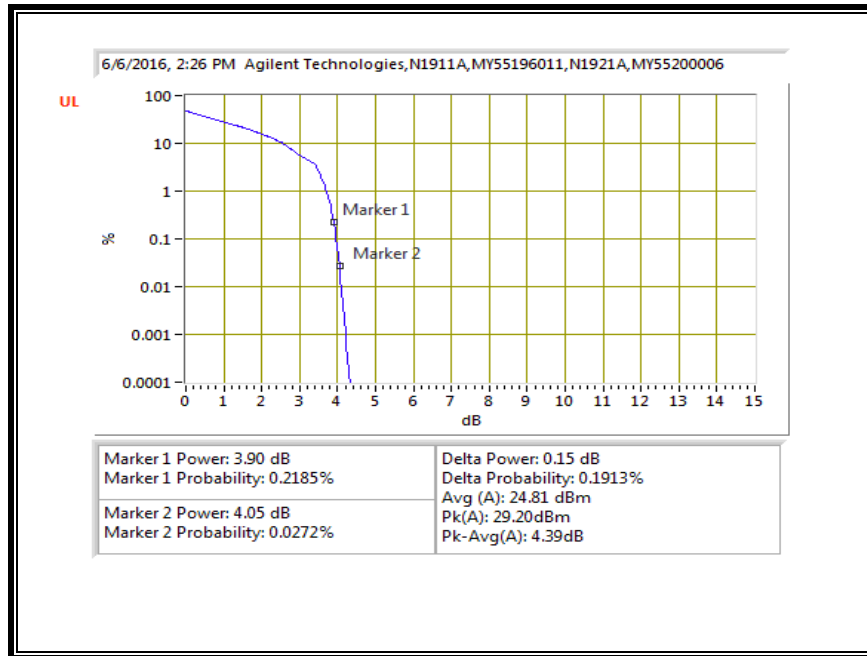
In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13 dB

RESULT

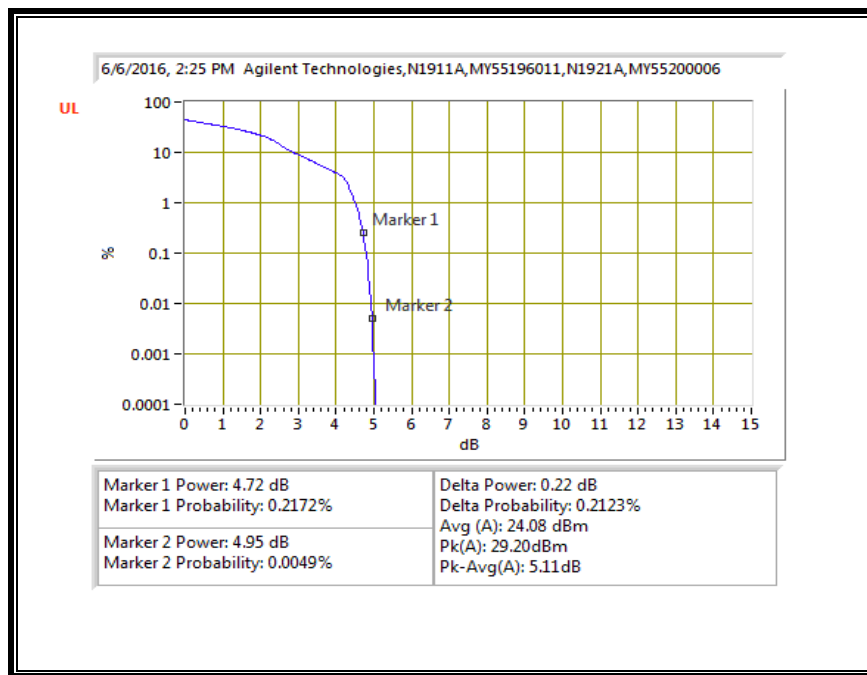
The results from all CCDF plots are passed with 13dB peak-to-average ratio criteria.

10.3.1. LTE BAND 2

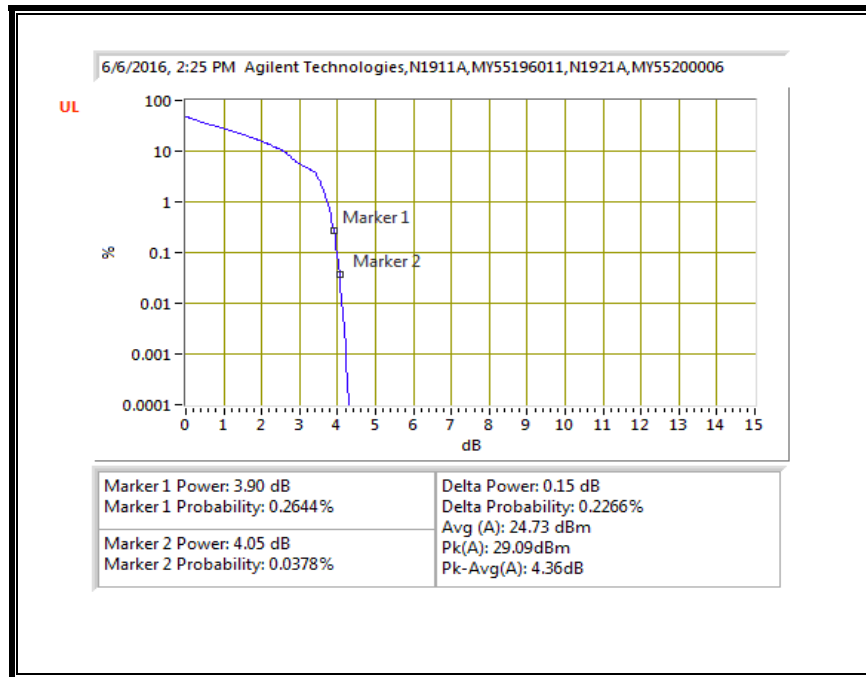
QPSK, (1.4 MHz BAND WIDTH)



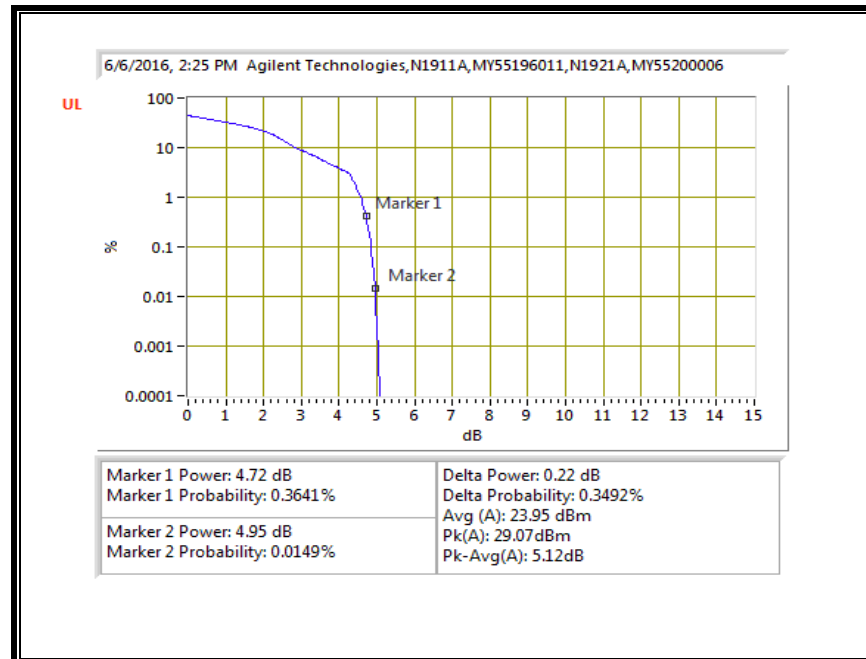
16QAM, (1.4 MHz BAND WIDTH)



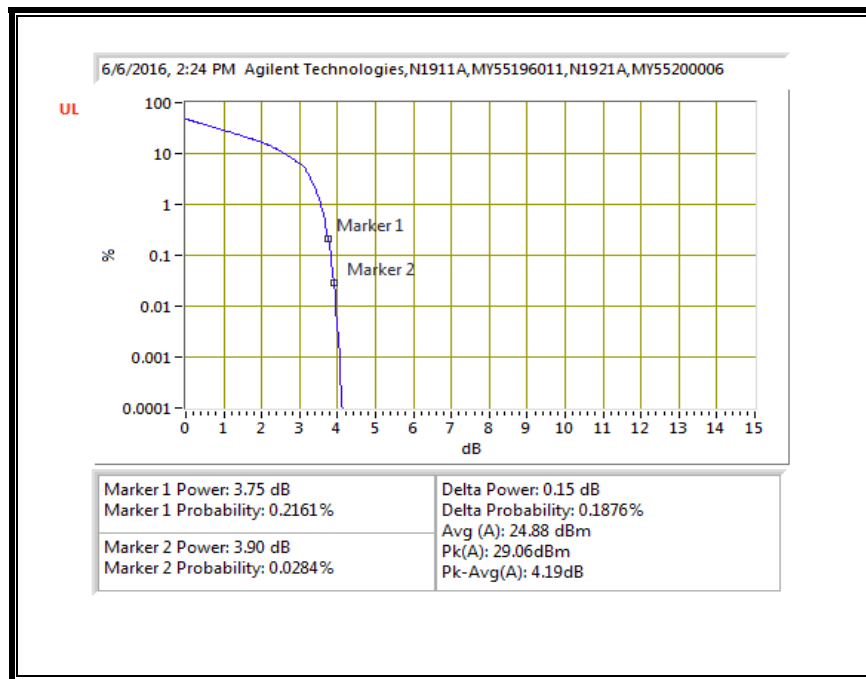
QPSK, (3.0 MHz BAND WIDTH)



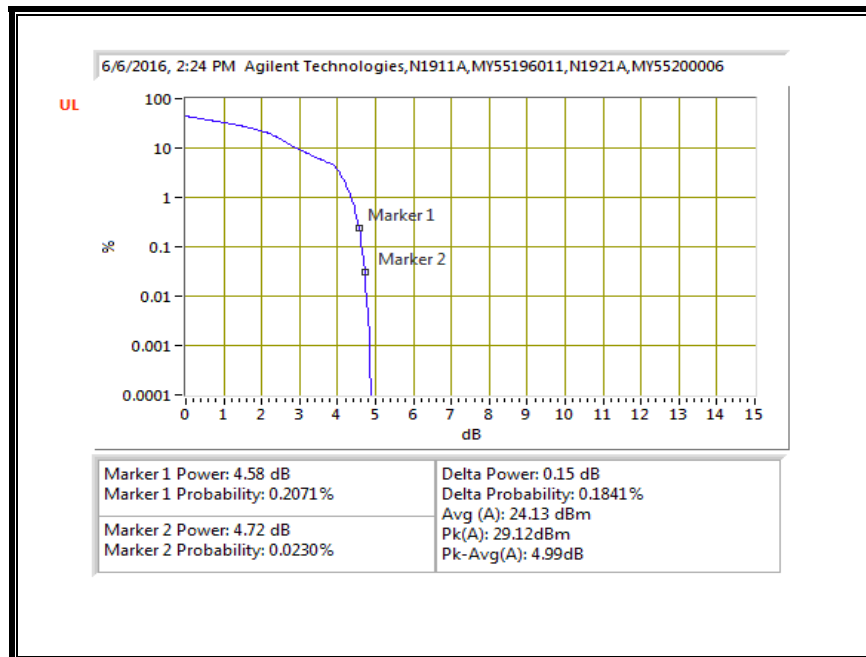
16QAM, (3.0 MHz BAND WIDTH)



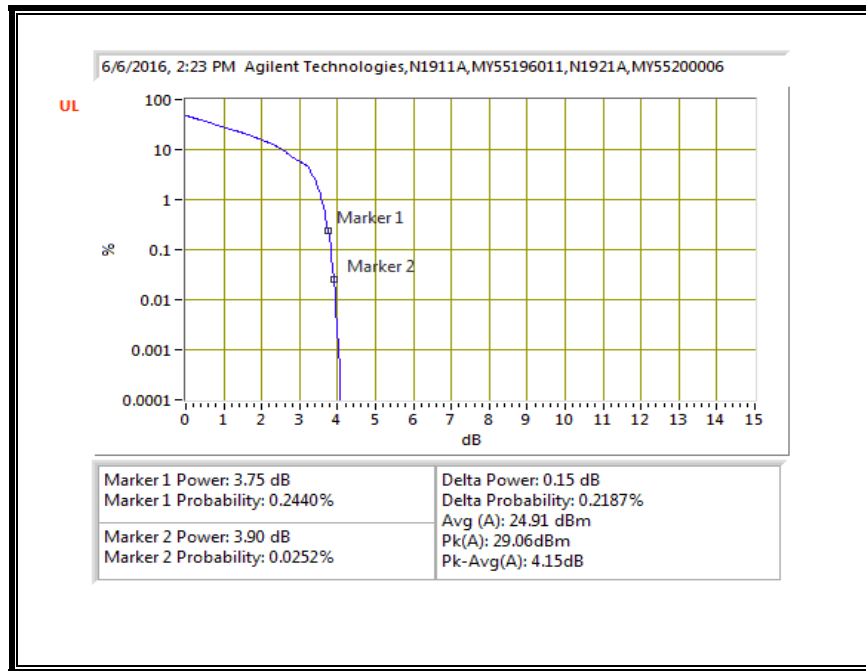
QPSK, (5.0 MHz BAND WIDTH)



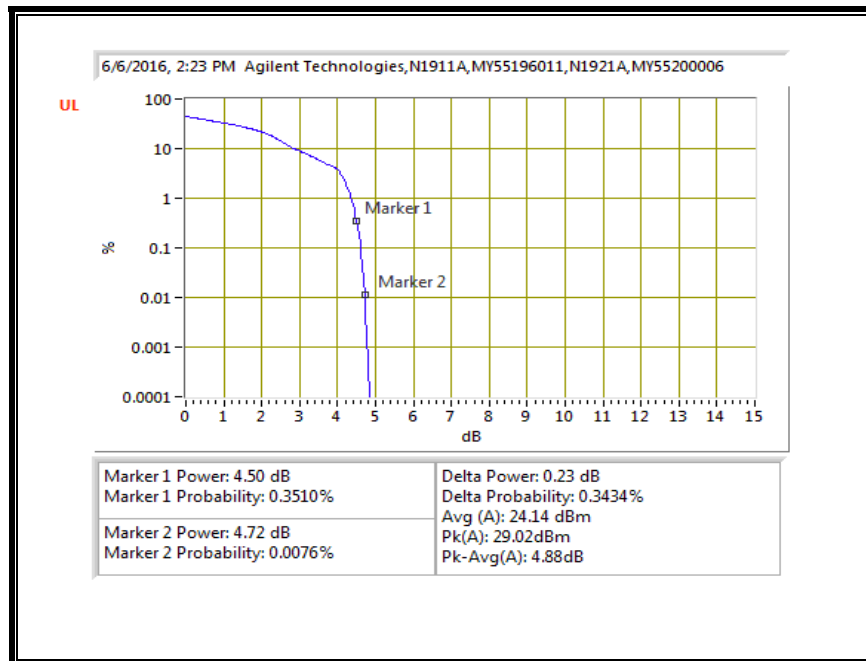
16QAM, (5.0 MHz BAND WIDTH)



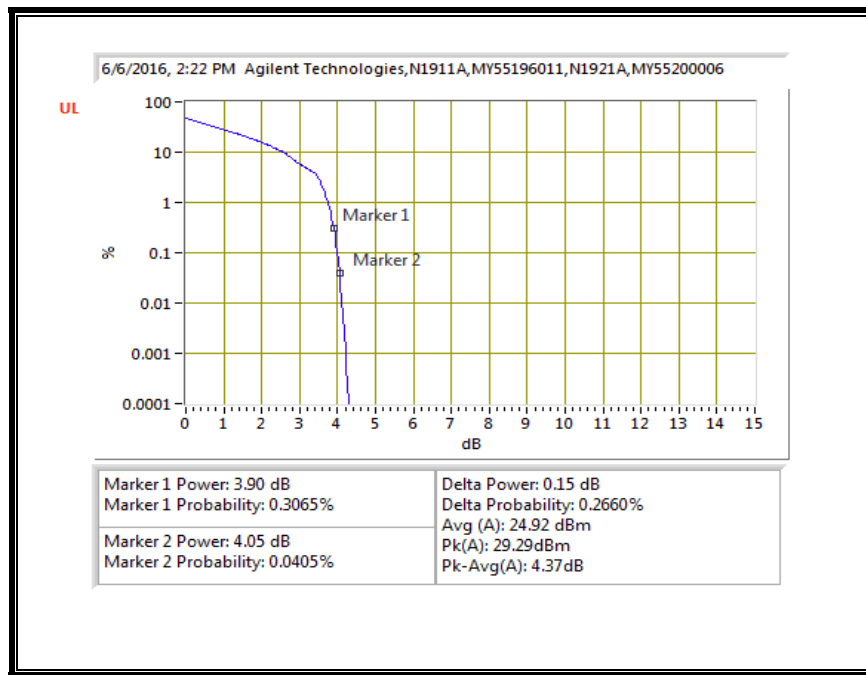
QPSK, (10.0 MHz BAND WIDTH)



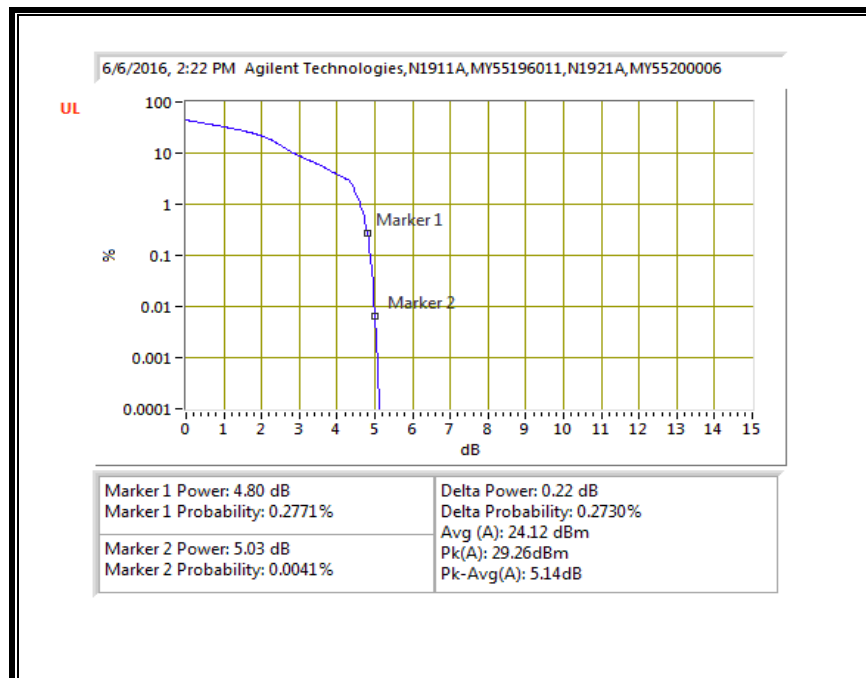
16QAM, (10.0 MHz BAND WIDTH)



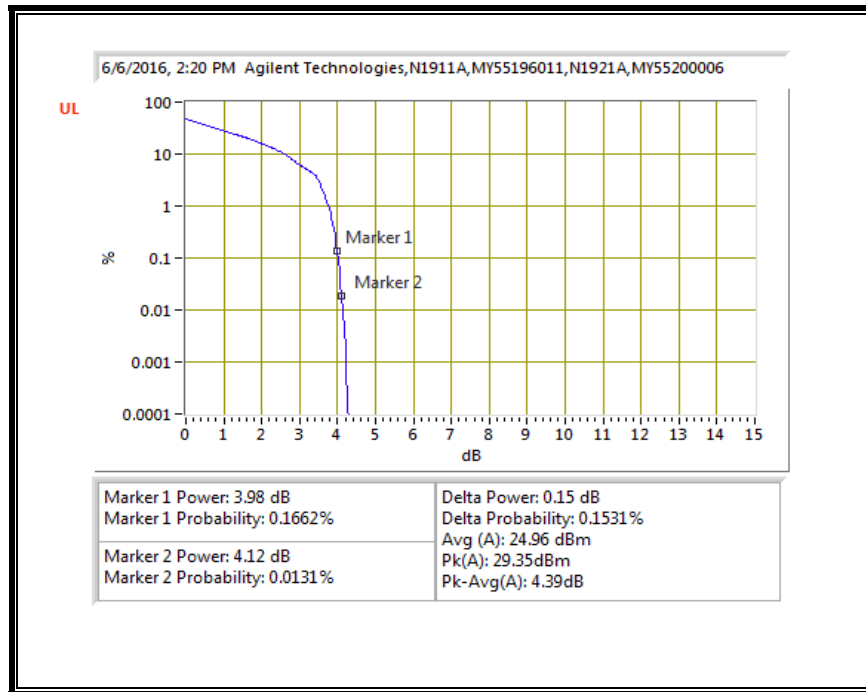
QPSK, (15.0 MHz BAND WIDTH)



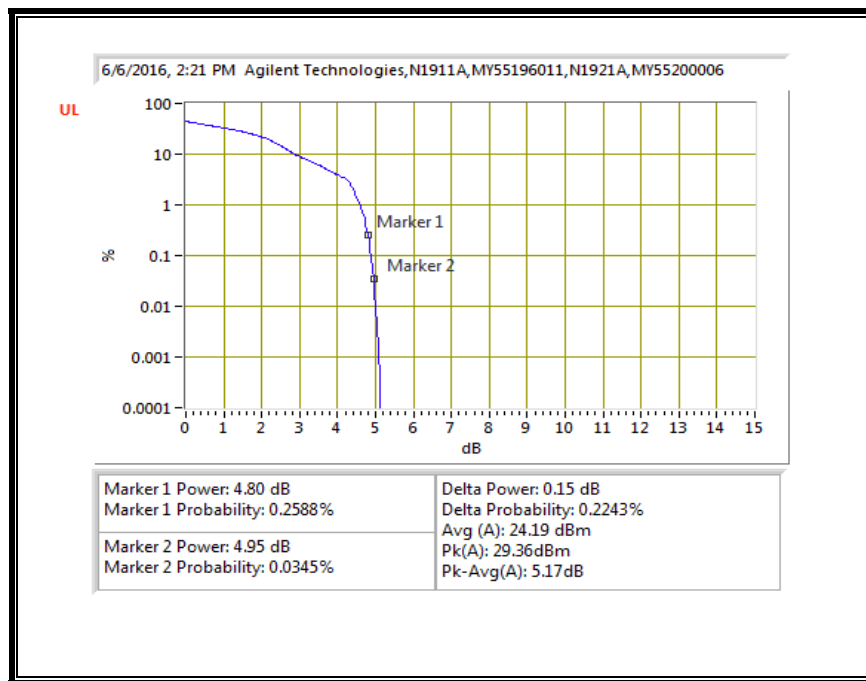
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)

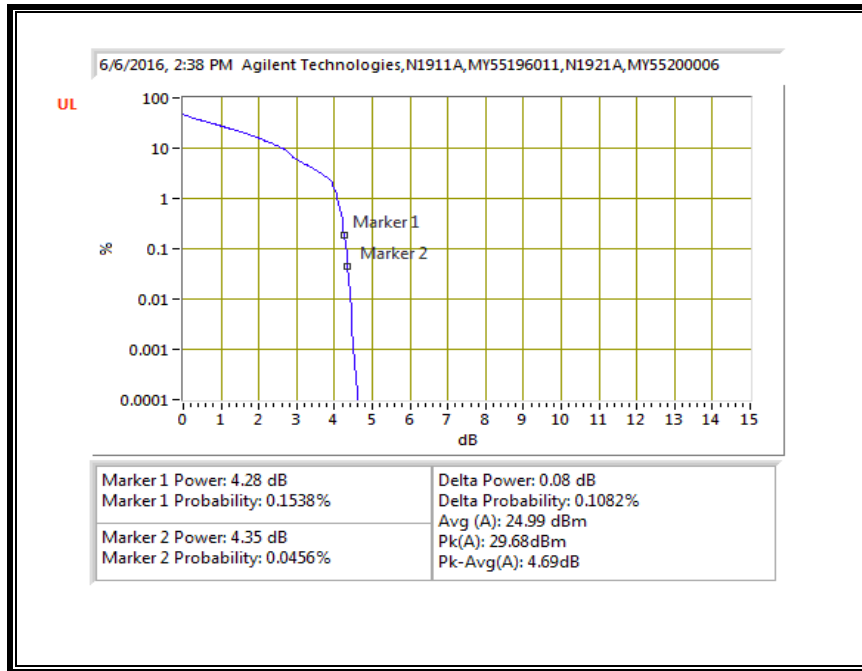


16QAM, (20.0 MHz BAND WIDTH)

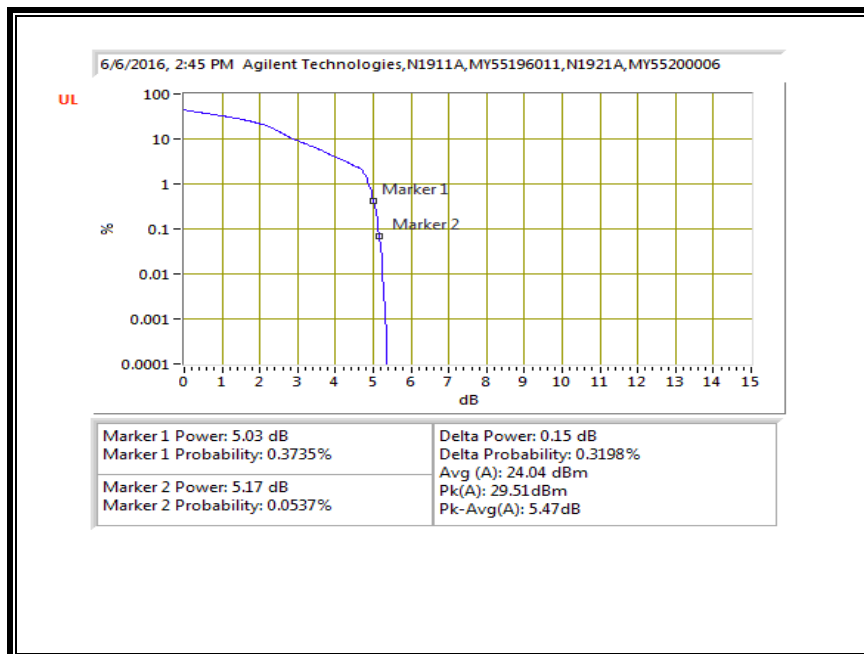


10.3.2. LTE BAND 4

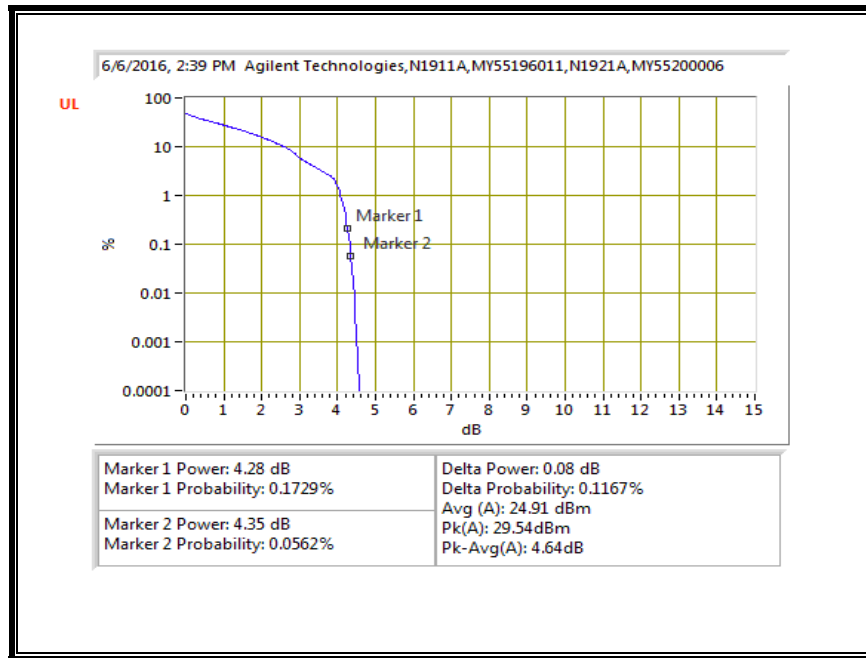
QPSK, (1.4 MHz BAND WIDTH)



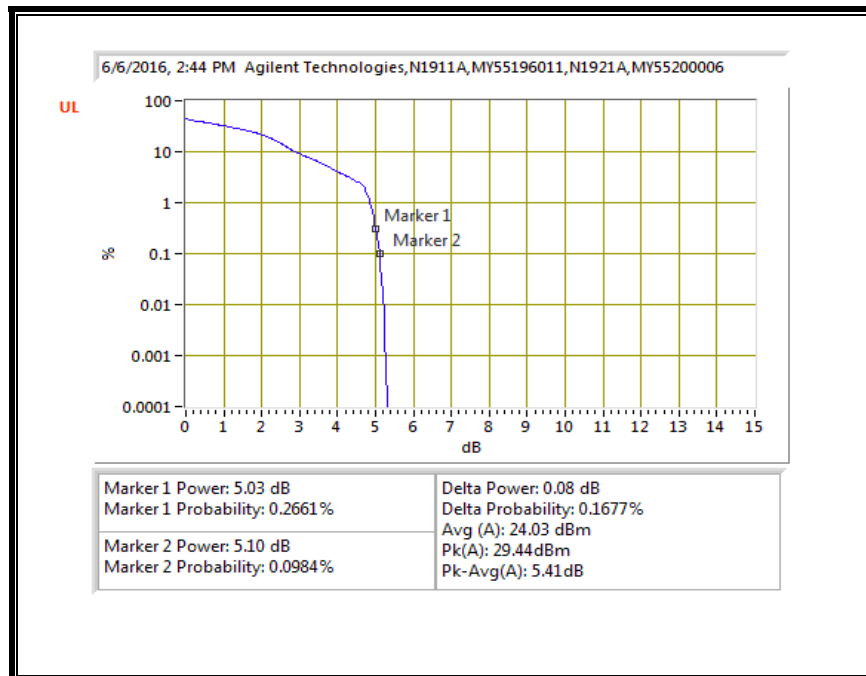
16QAM, (1.4 MHz BAND WIDTH)



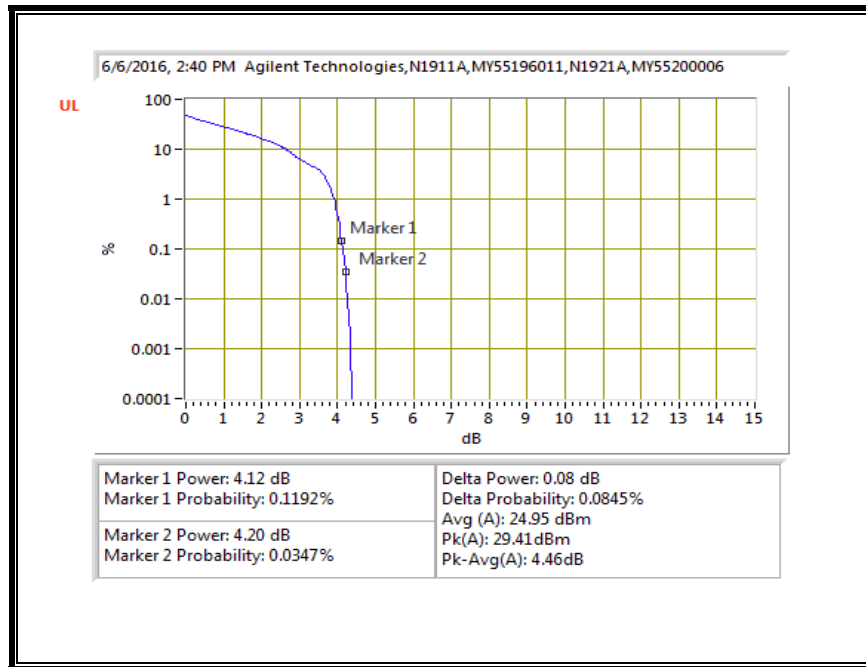
QPSK, (3.0 MHz BAND WIDTH)



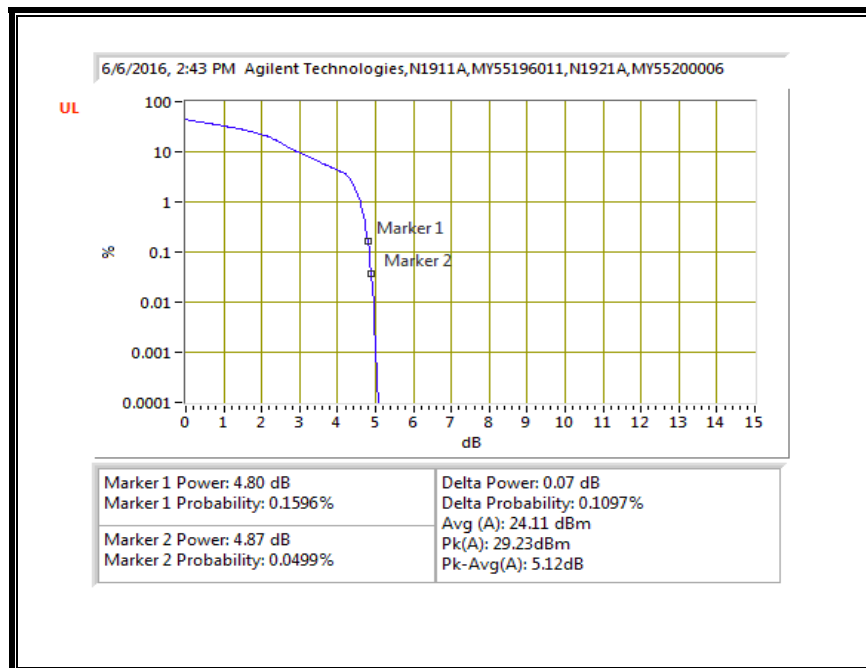
16QAM, (3.0 MHz BAND WIDTH)



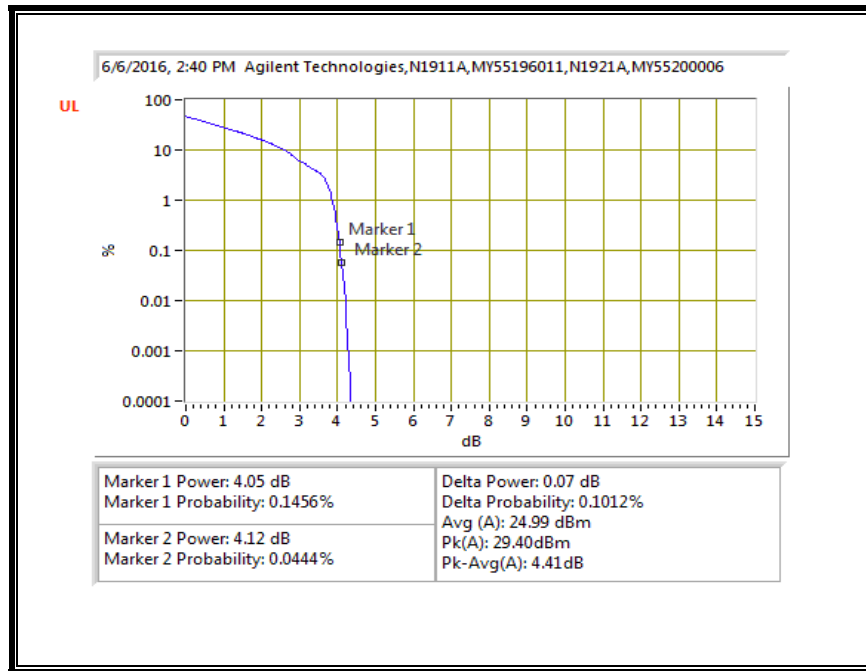
QPSK, (5.0 MHz BAND WIDTH)



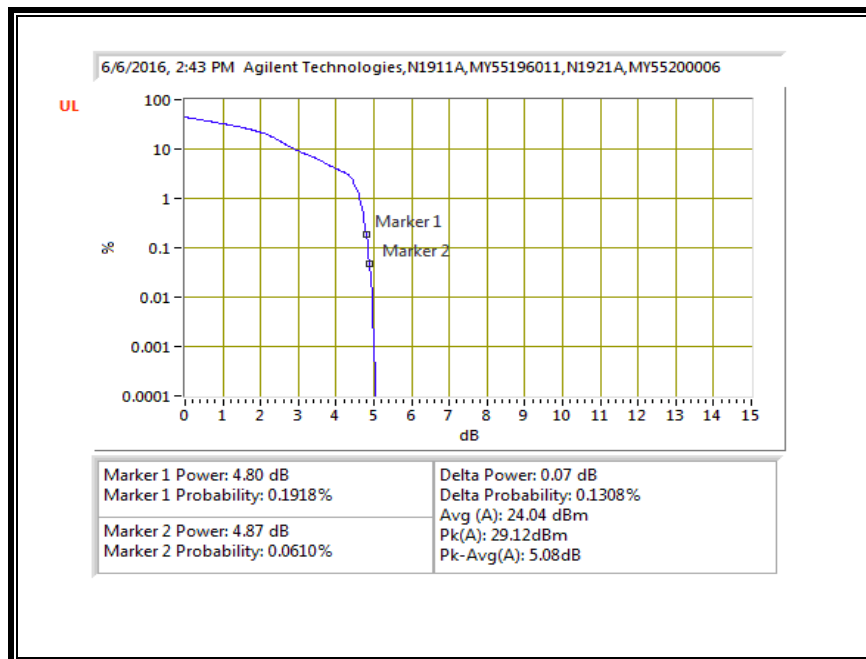
16QAM, (5.0 MHz BAND WIDTH)



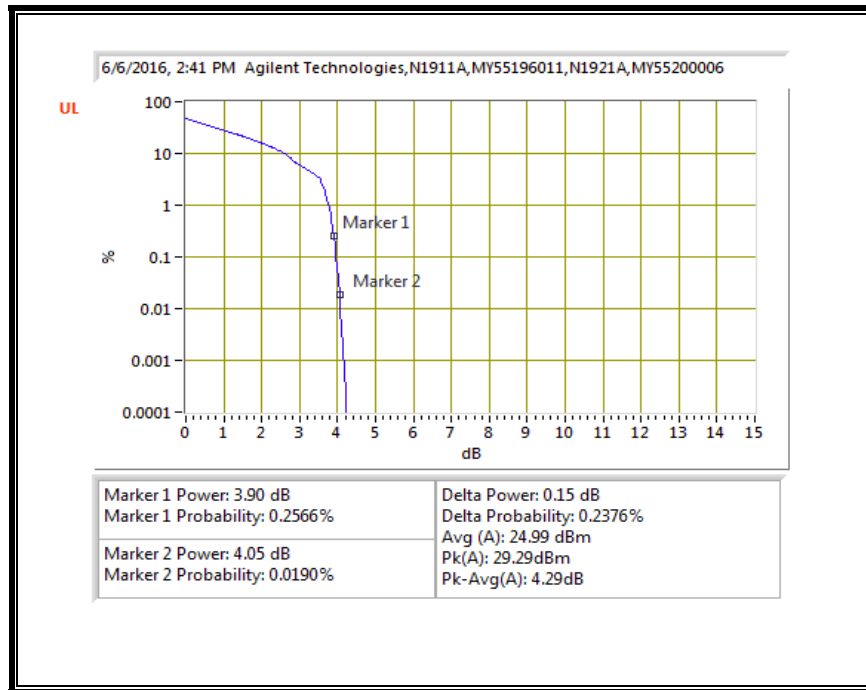
QPSK, (10.0 MHz BAND WIDTH)



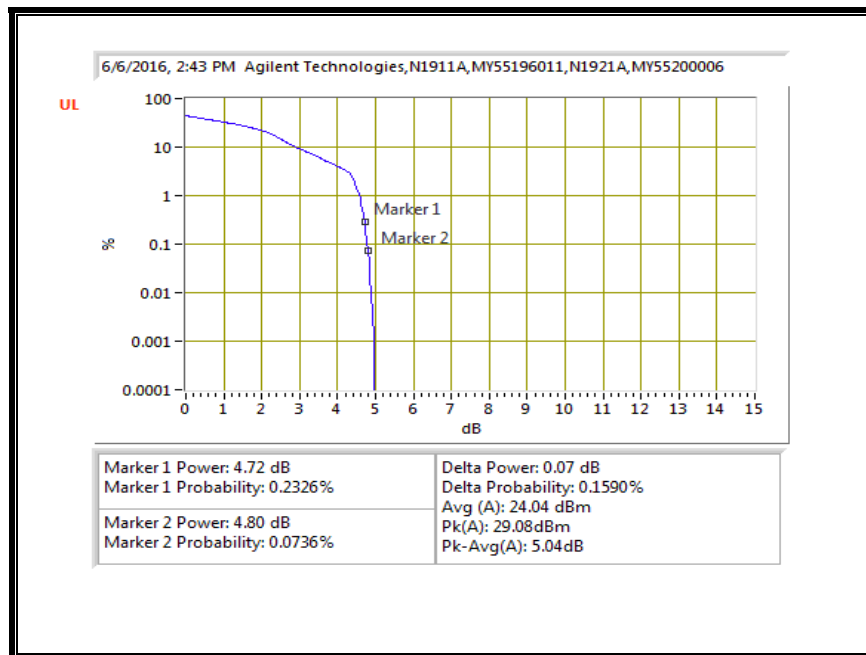
16QAM, (10.0 MHz BAND WIDTH)



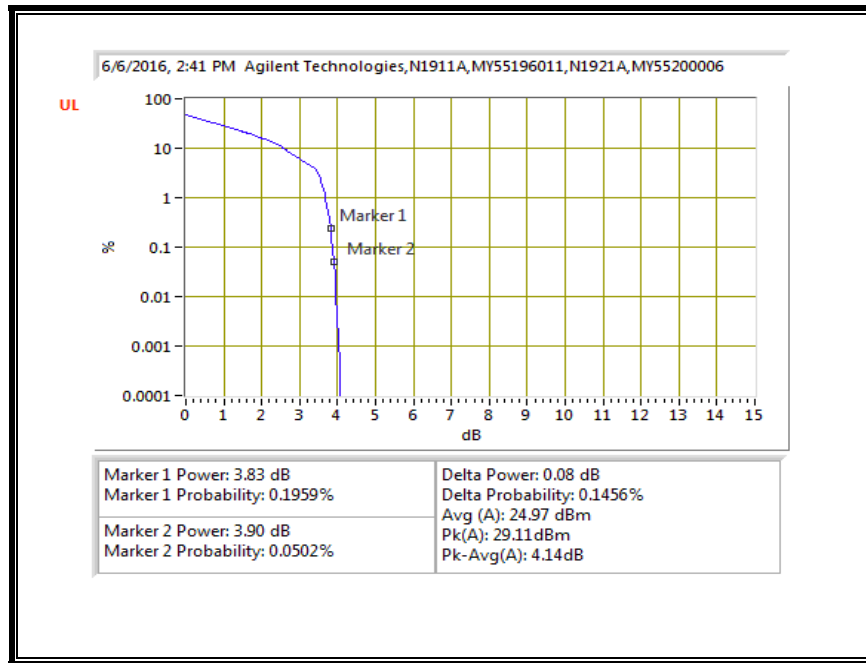
QPSK, (15.0 MHz BAND WIDTH)



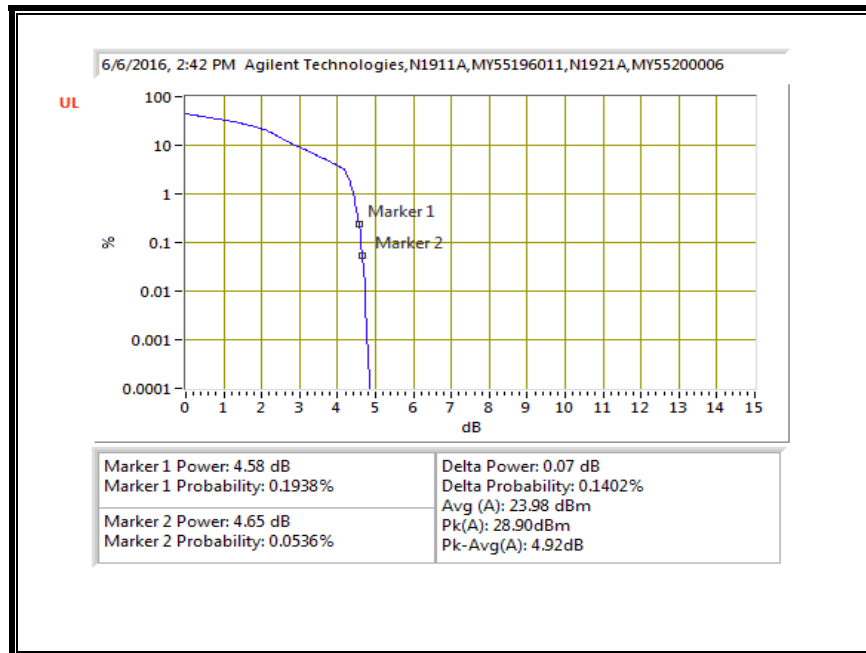
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)

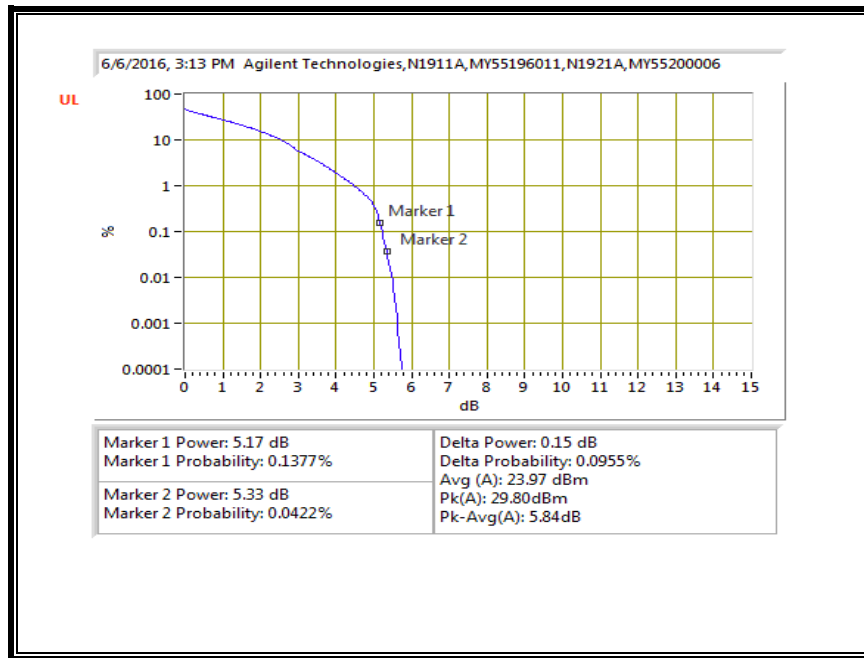


16QAM, (20.0 MHz BAND WIDTH)

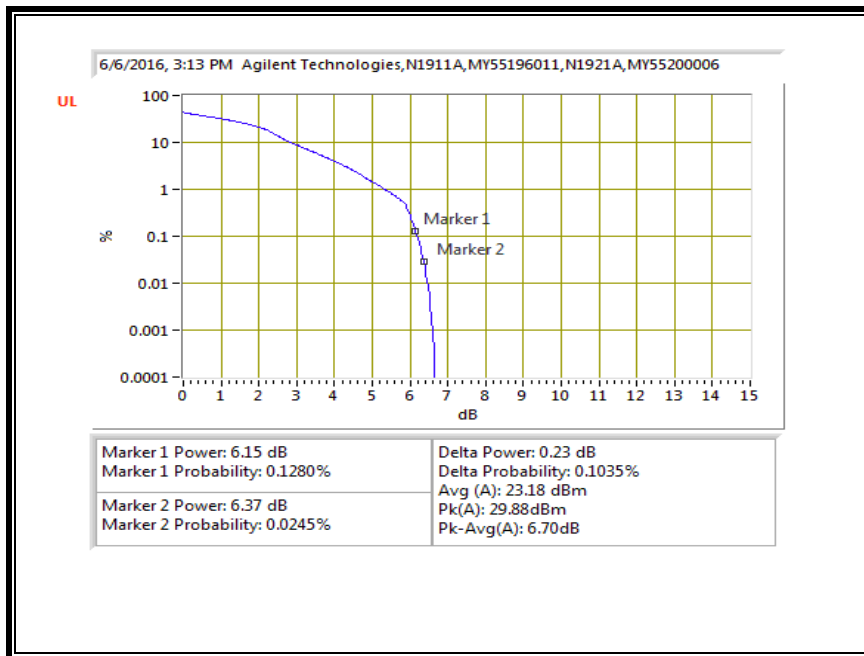


10.3.3. LTE BAND 5

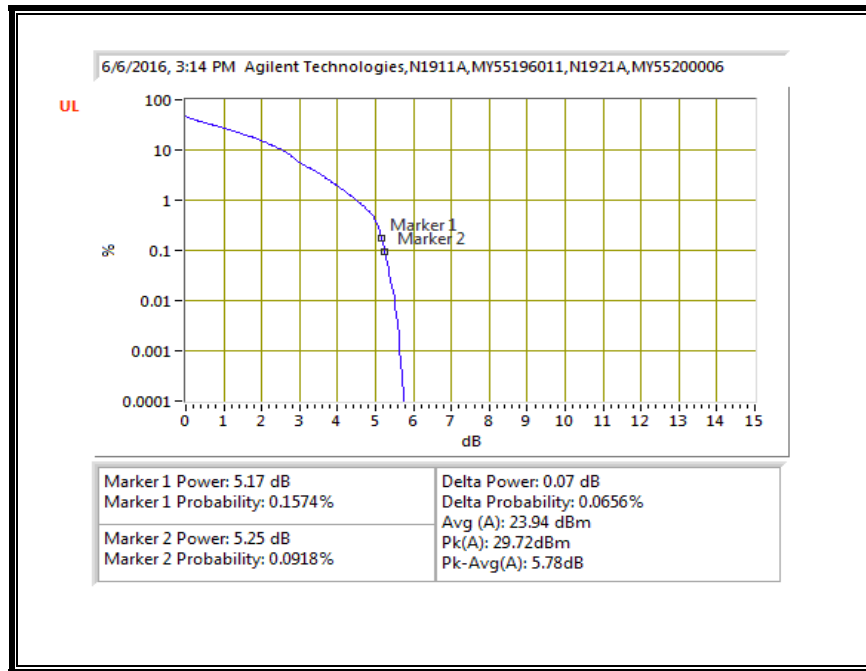
QPSK, (1.4 MHz BAND WIDTH)



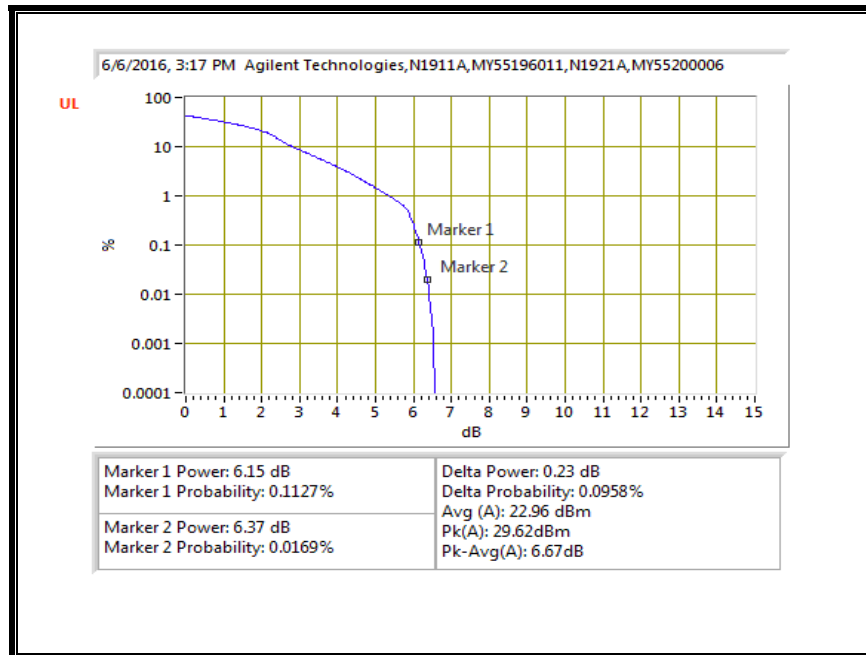
16QAM, (1.4 MHz BAND WIDTH)



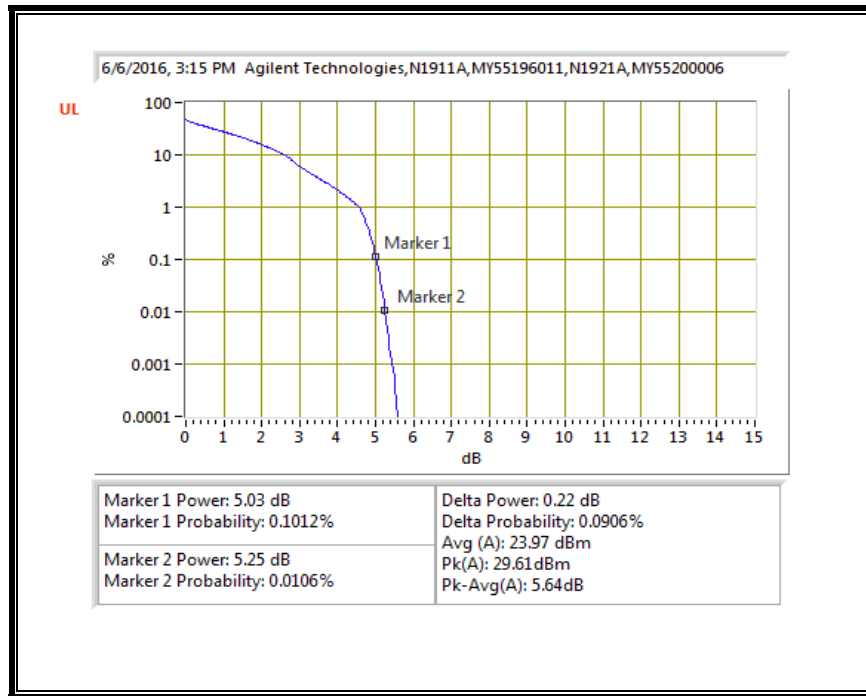
QPSK, (3.0 MHz BAND WIDTH)



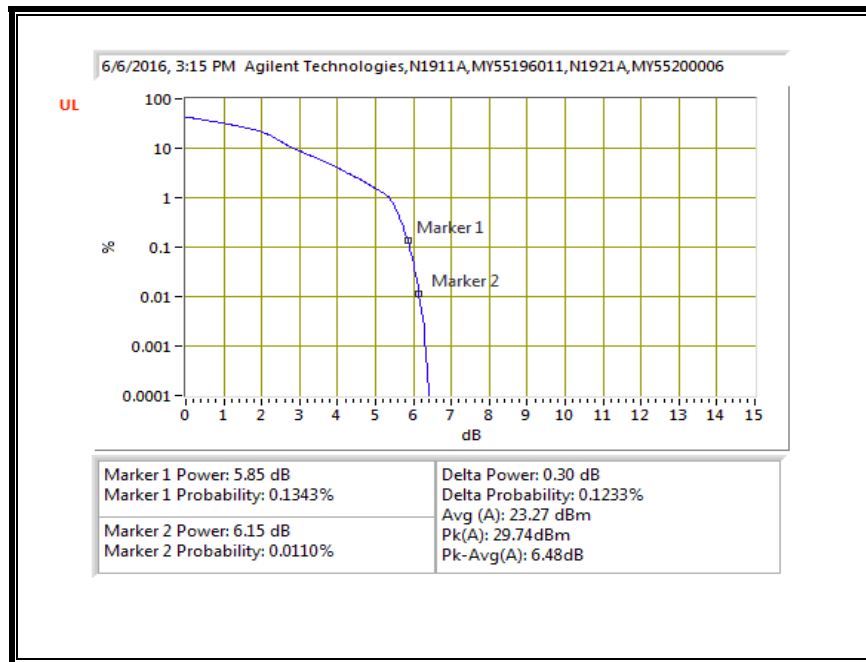
16QAM, (3.0 MHz BAND WIDTH)



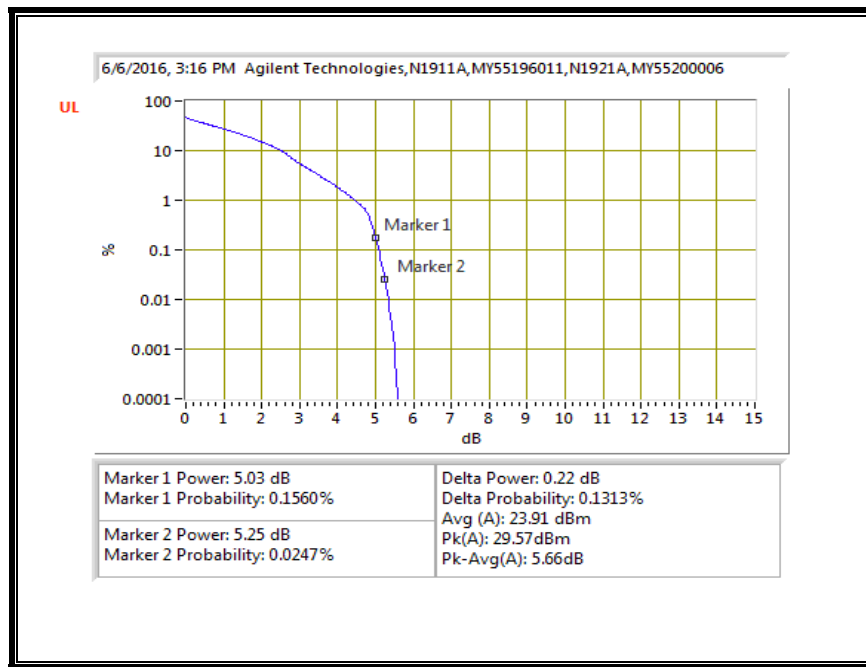
QPSK, (5.0 MHz BAND WIDTH)



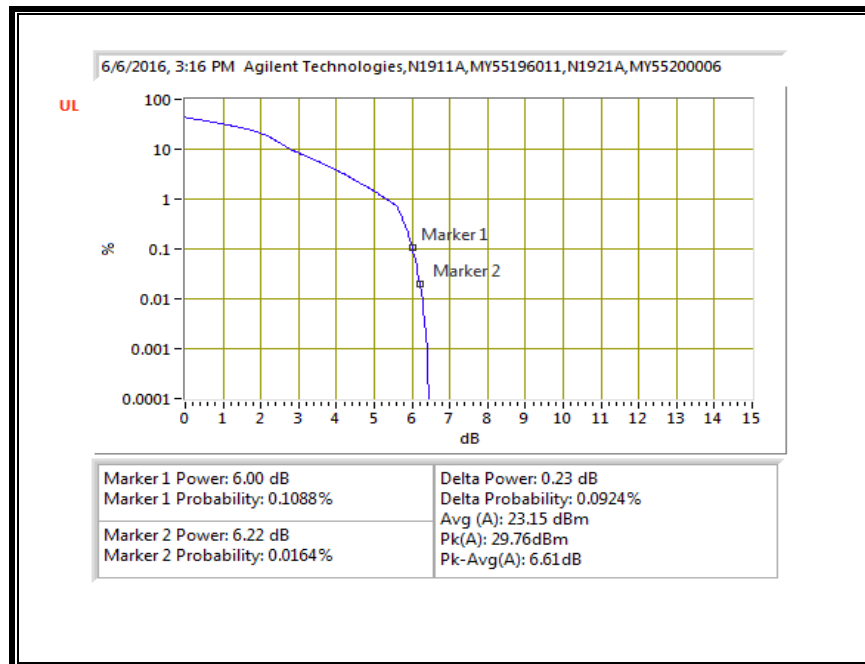
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

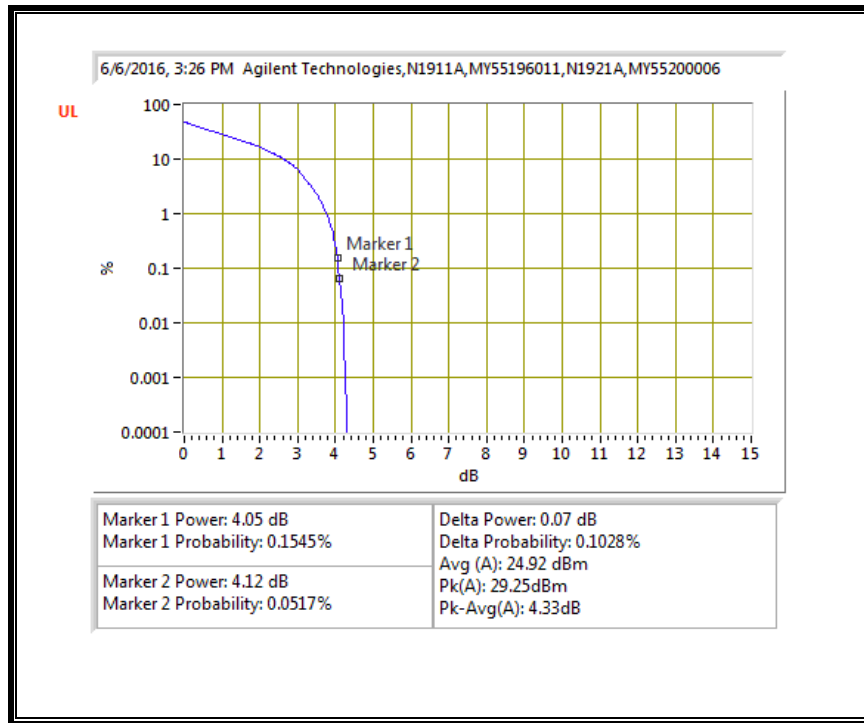


16QAM, (10.0 MHz BAND WIDTH)

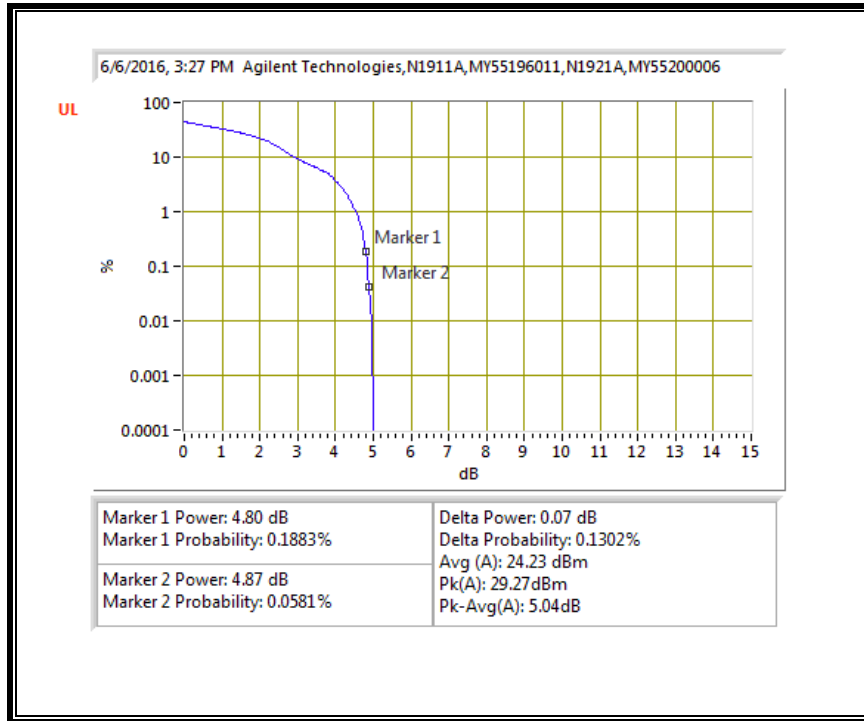


10.3.4. LTE BAND 7

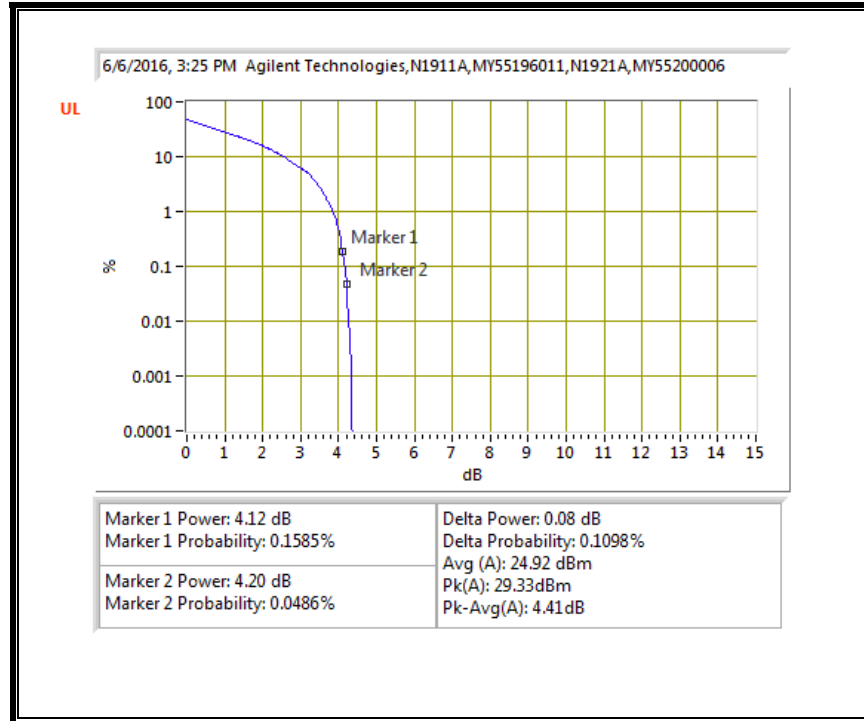
QPSK, (5.0 MHz BAND WIDTH)



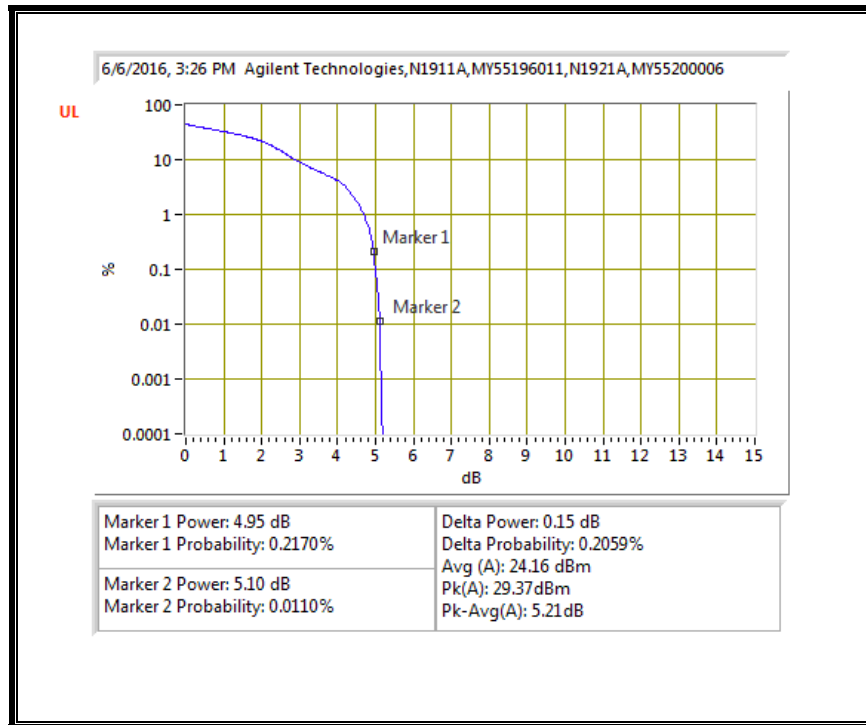
16QAM, (5.0 MHz BAND WIDTH)



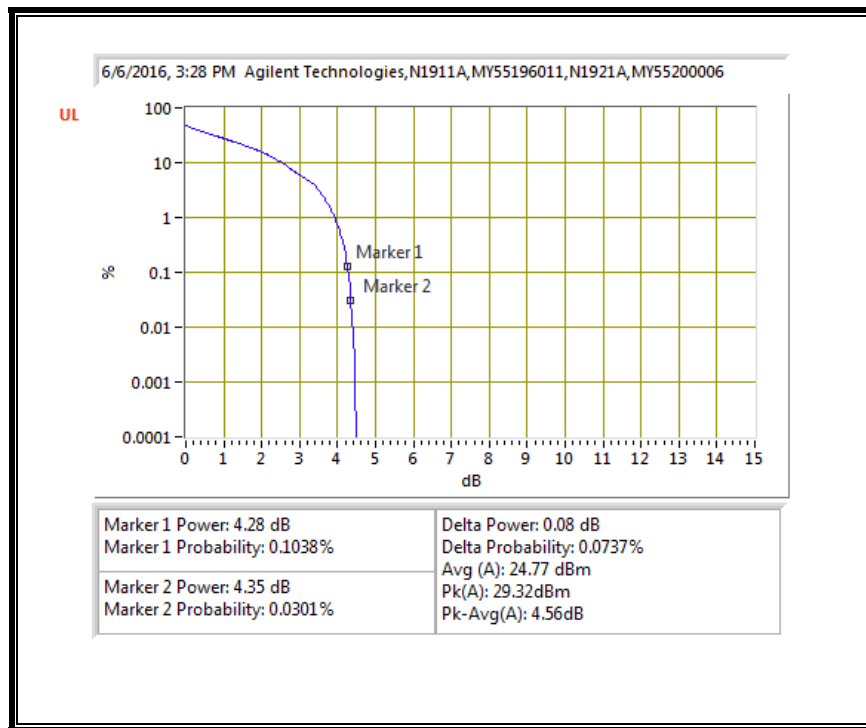
QPSK, (10.0 MHz BAND WIDTH)



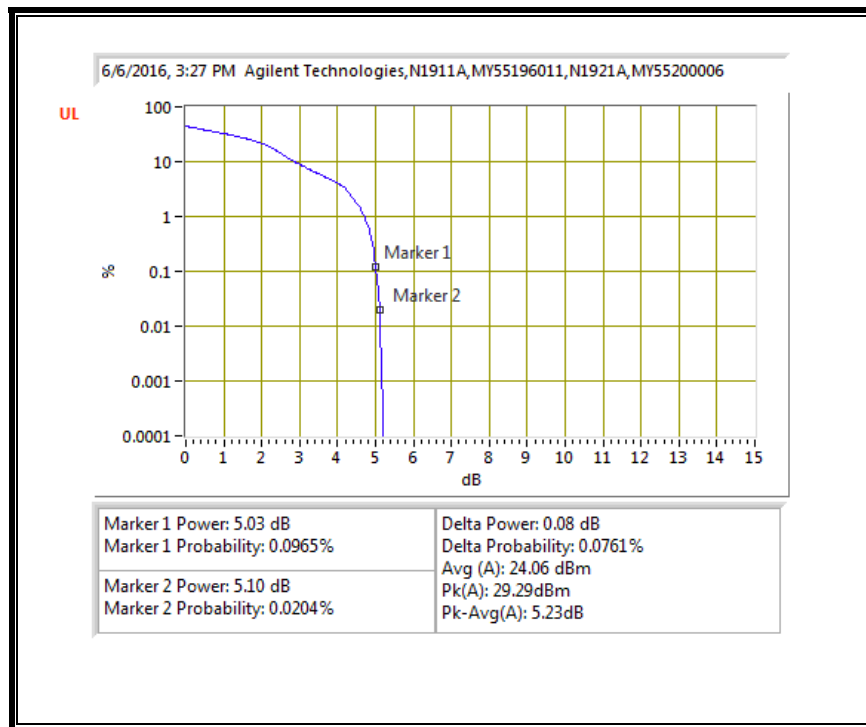
16QAM, (10.0 MHz BAND WIDTH)



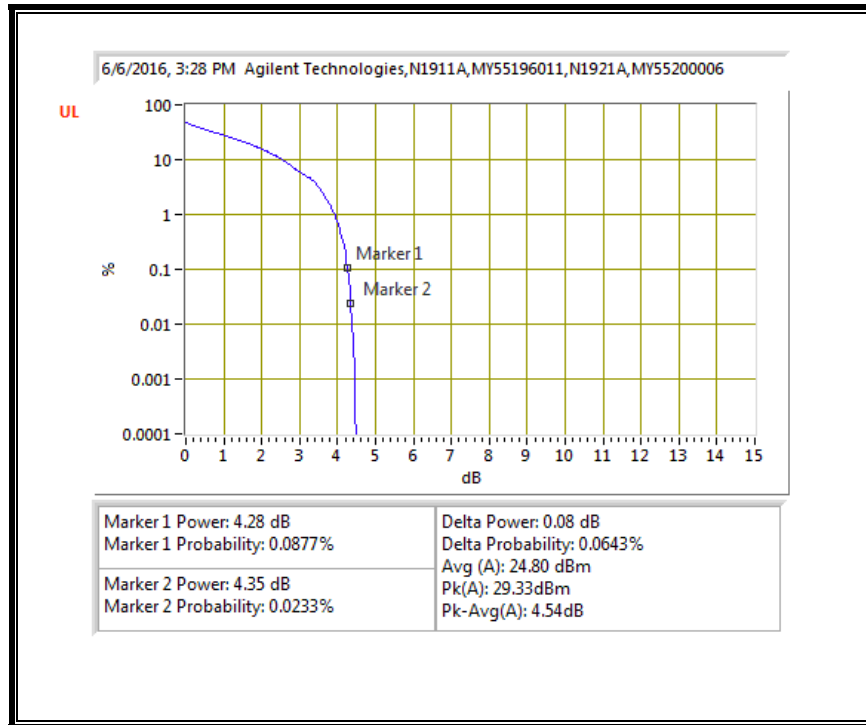
QPSK, (15.0 MHz BAND WIDTH)



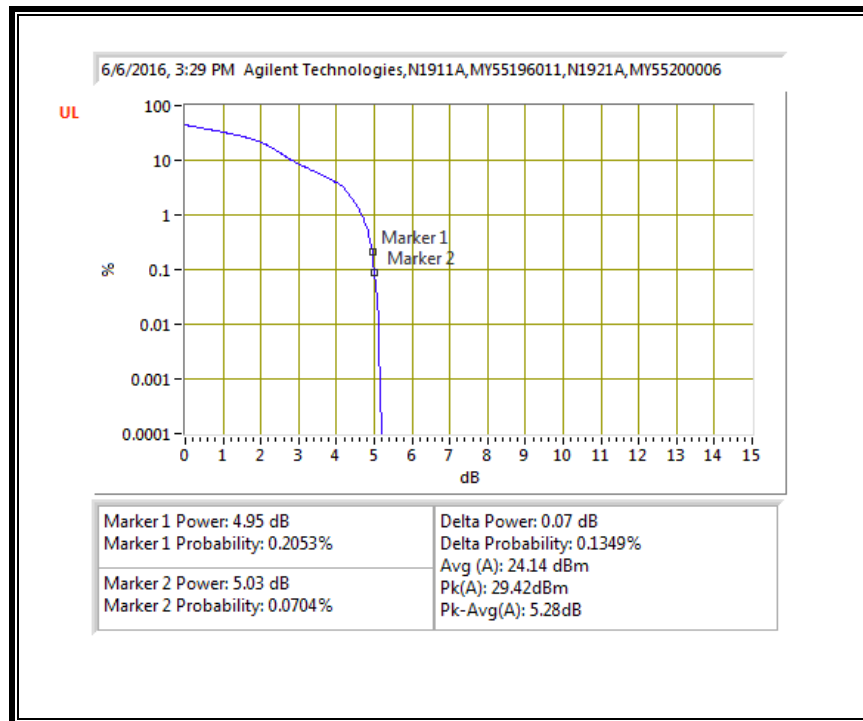
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)

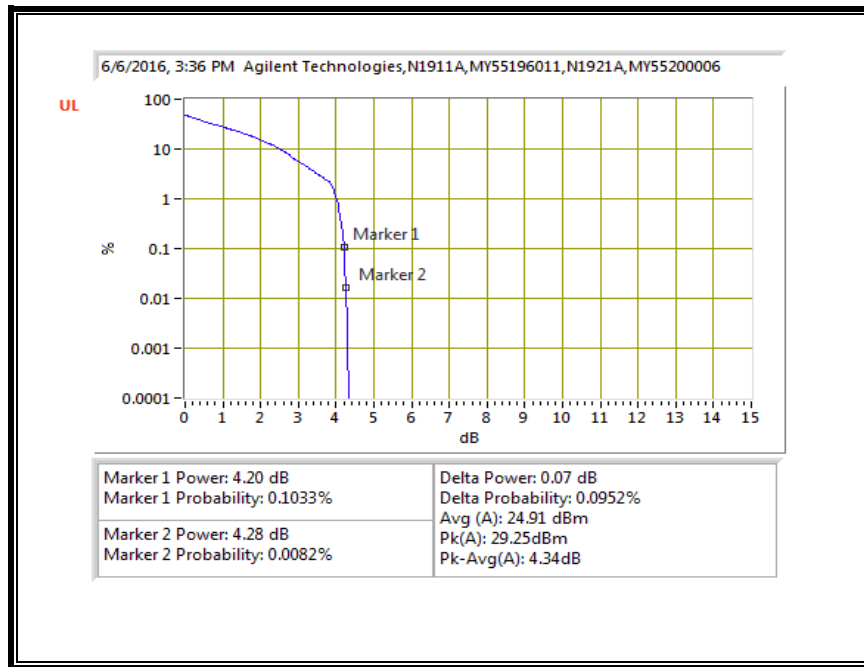


16QAM, (20.0 MHz BAND WIDTH)

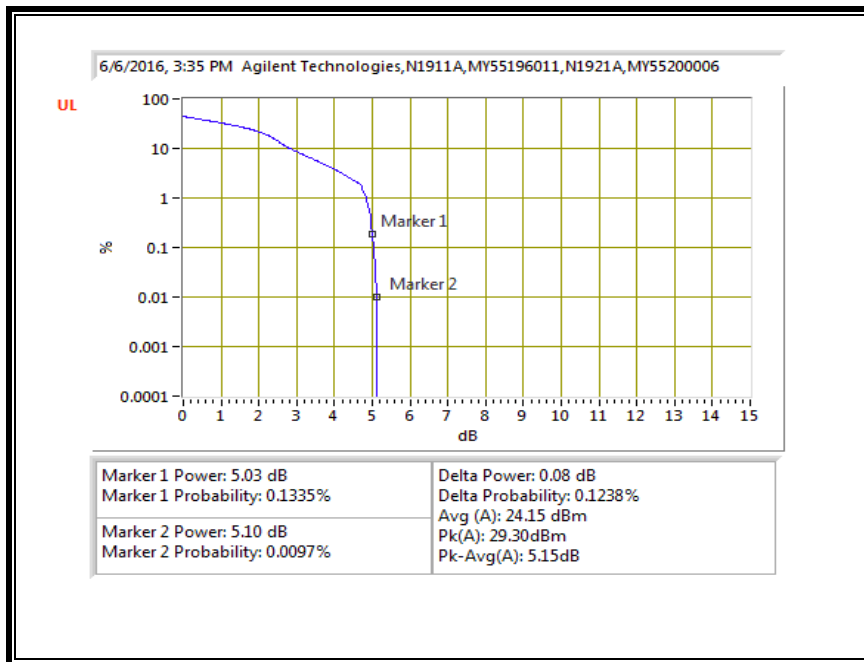


10.3.5. LTE BAND 12

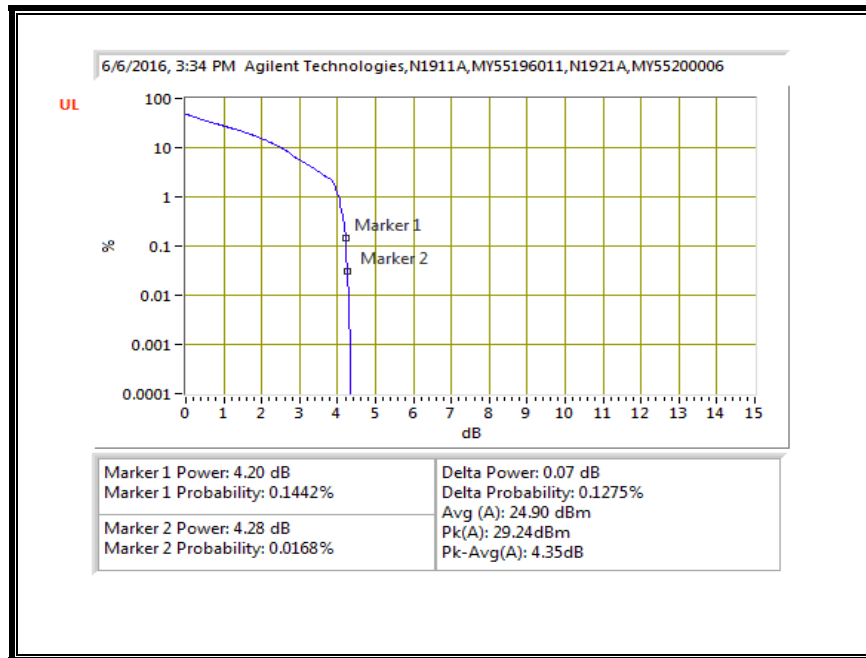
QPSK, (1.4 MHz BAND WIDTH)



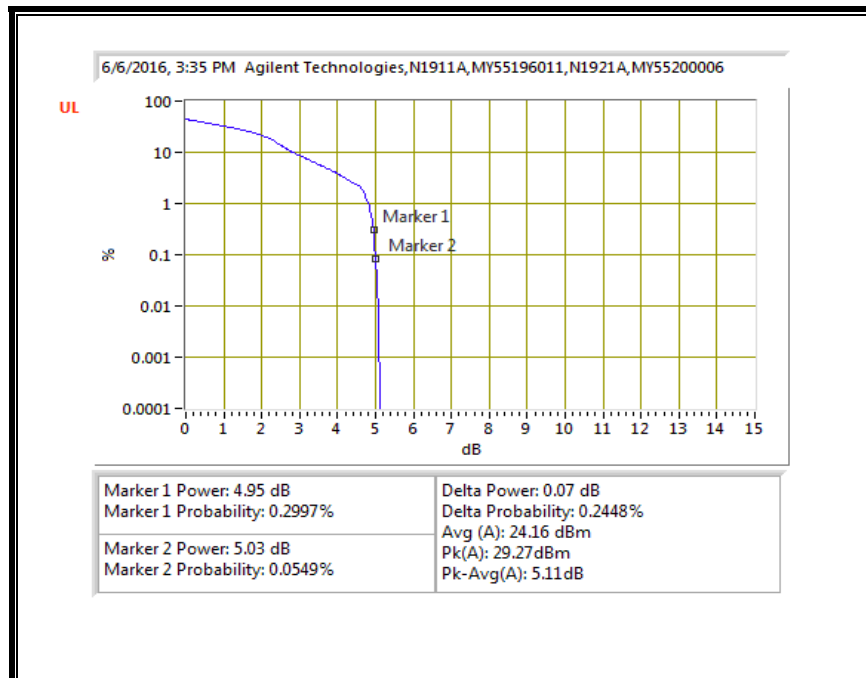
16QAM, (1.4 MHz BAND WIDTH)



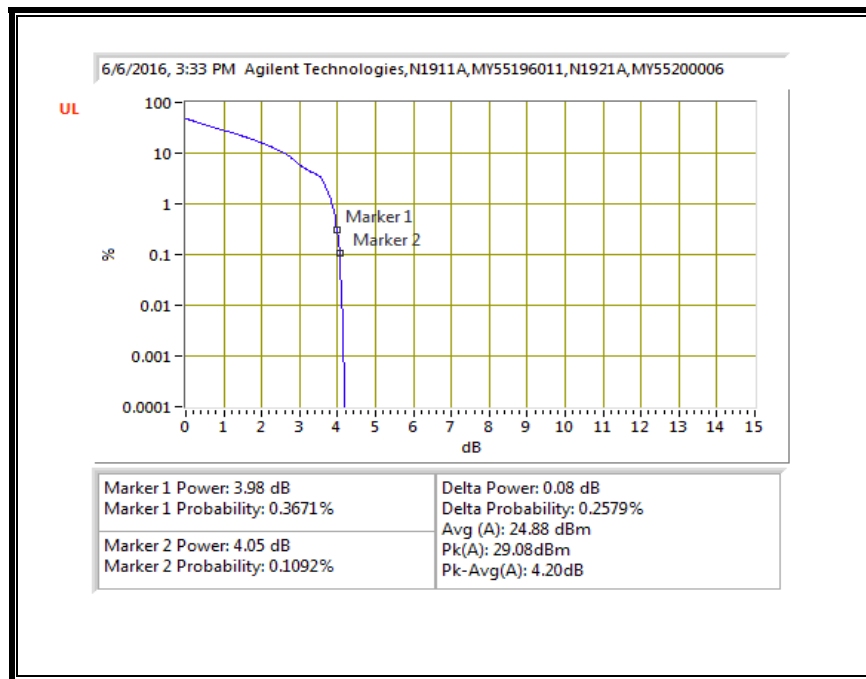
QPSK, (3.0 MHz BAND WIDTH)



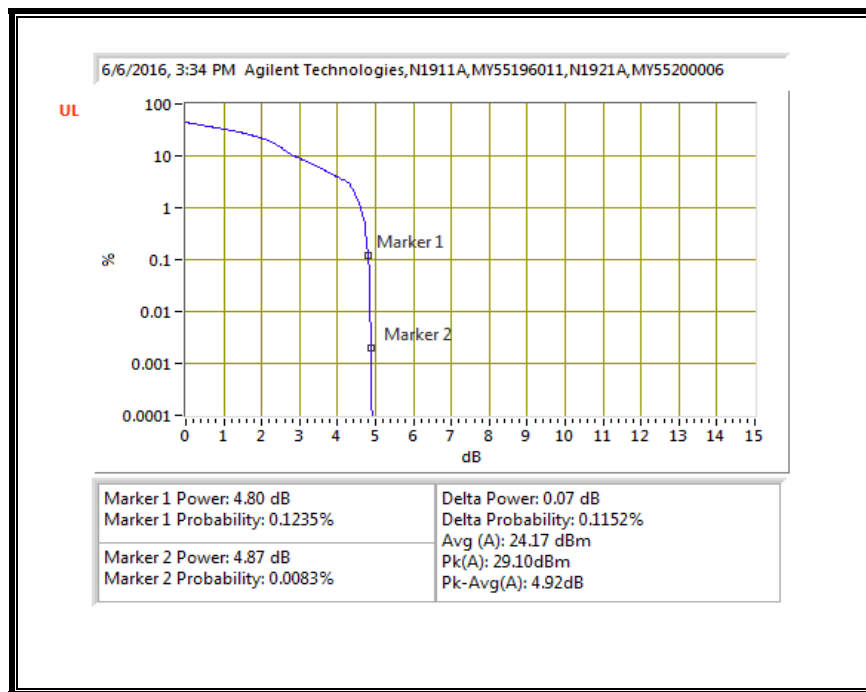
16QAM, (3.0 MHz BAND WIDTH)



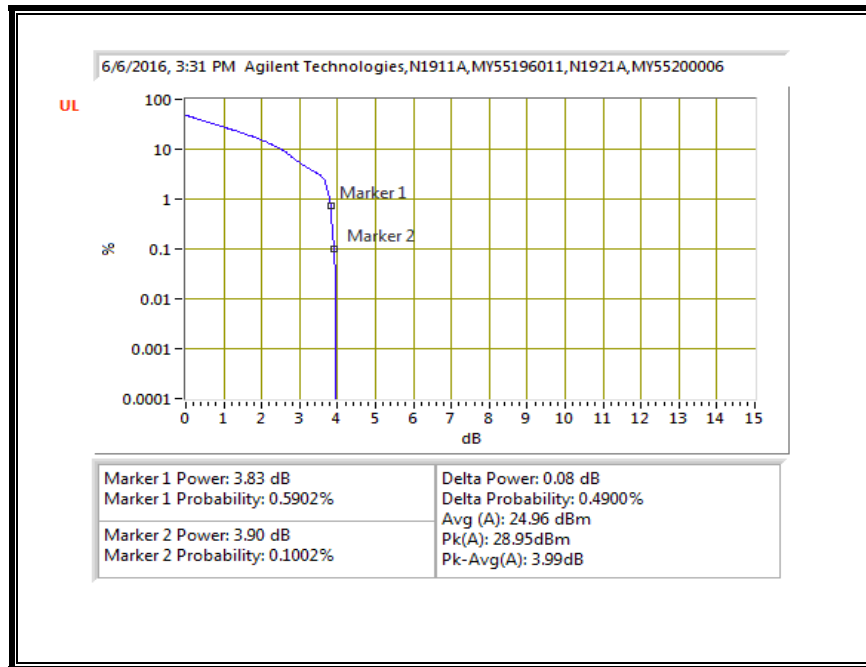
QPSK, (5.0 MHz BAND WIDTH)



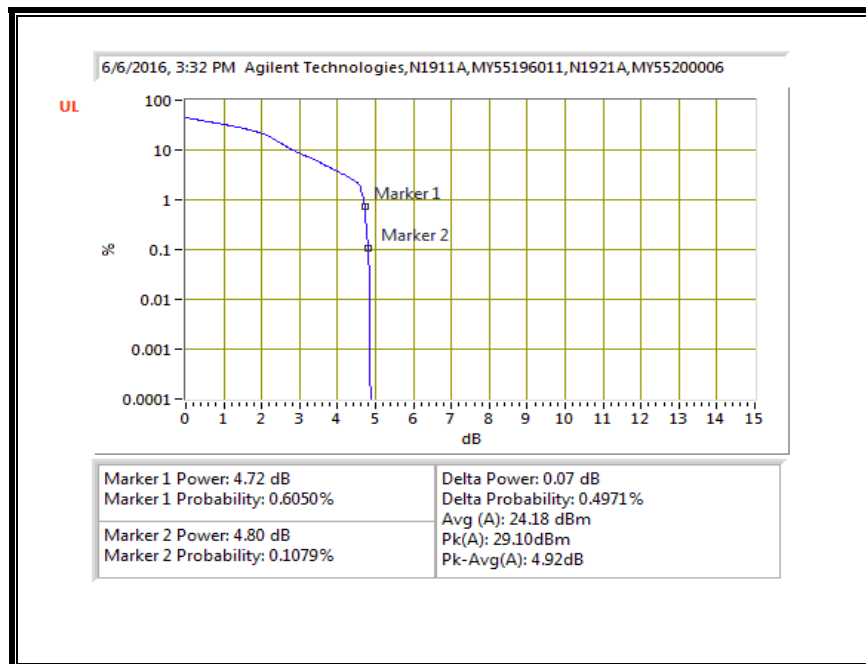
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

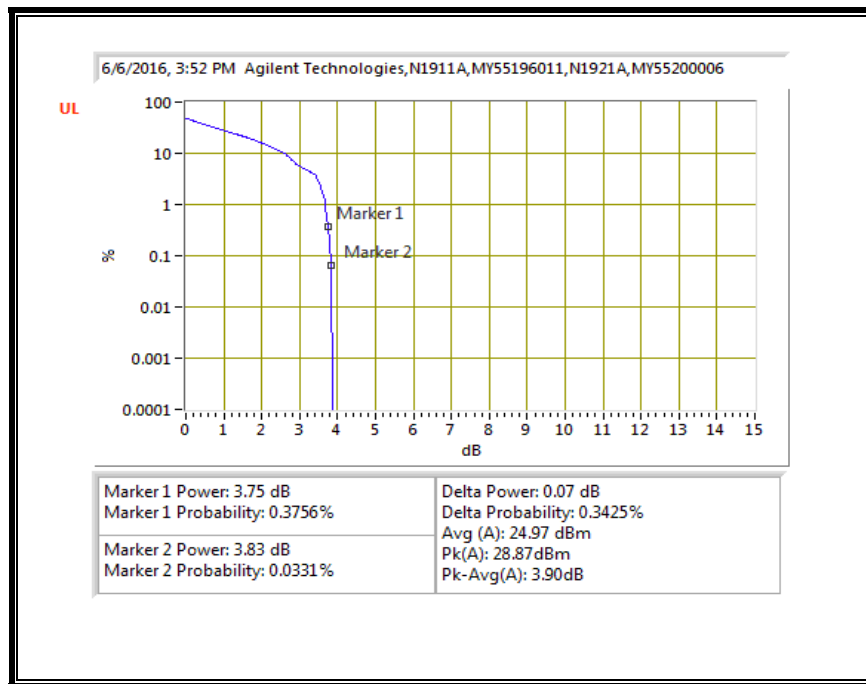


16QAM, (10.0 MHz BAND WIDTH)

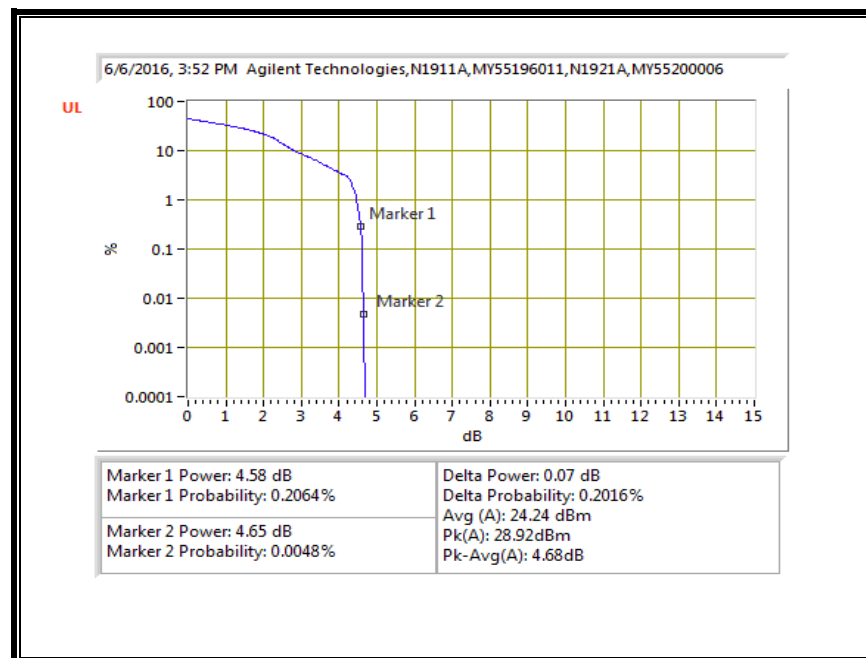


10.3.6. LTE BAND 13

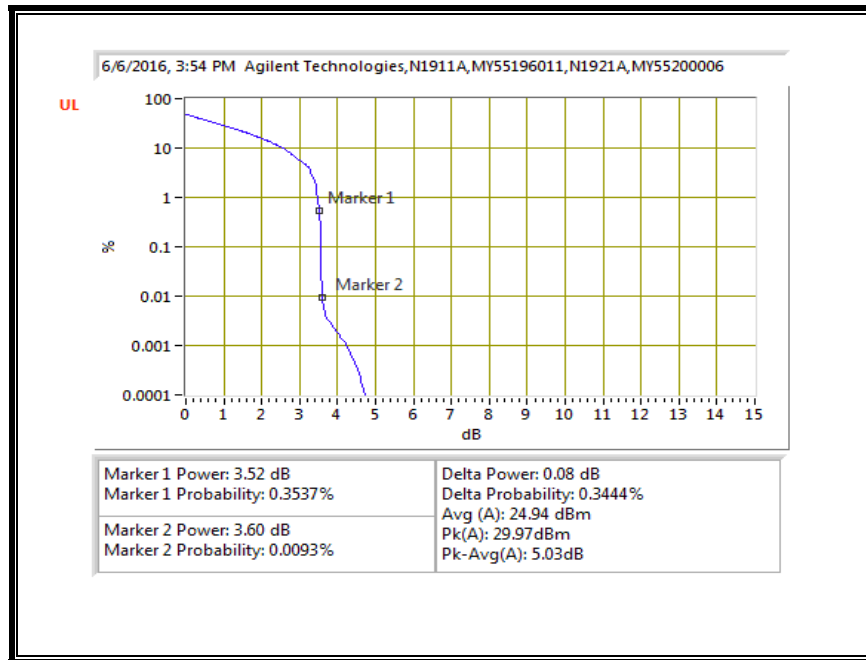
QPSK, (5.0 MHz BAND WIDTH)



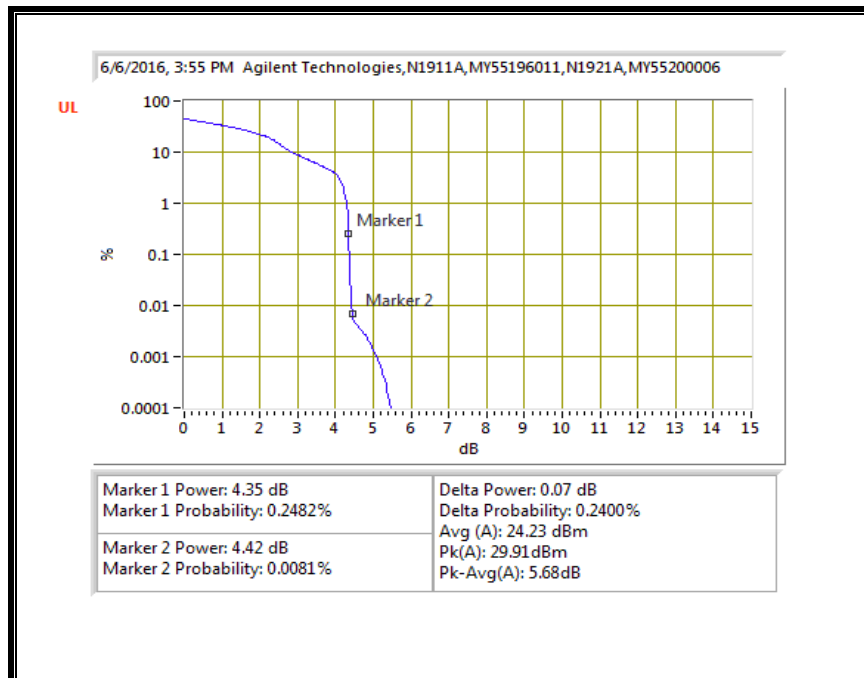
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

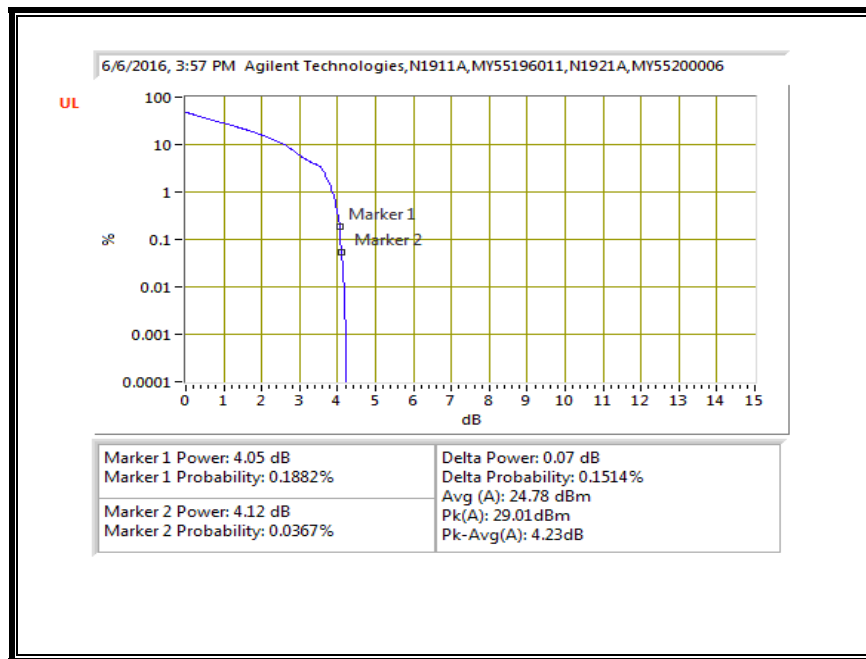


16QAM, (10.0 MHz BAND WIDTH)

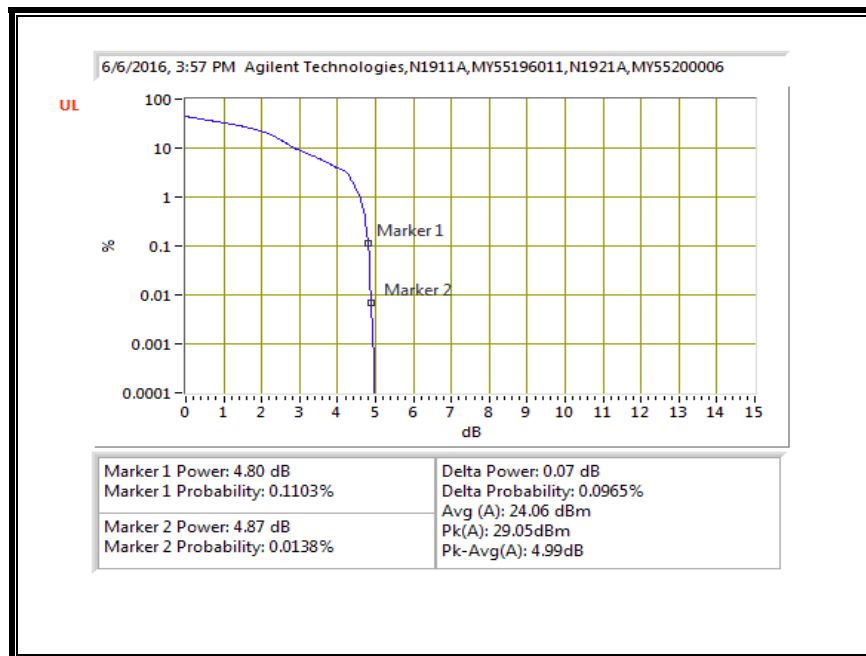


10.3.7. LTE BAND 17

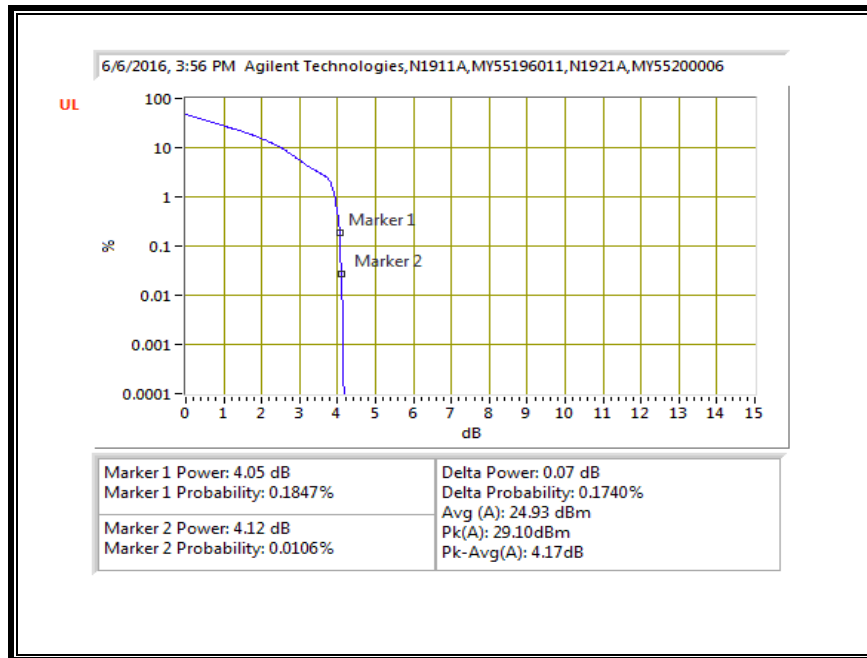
QPSK, (5.0 MHz BAND WIDTH)



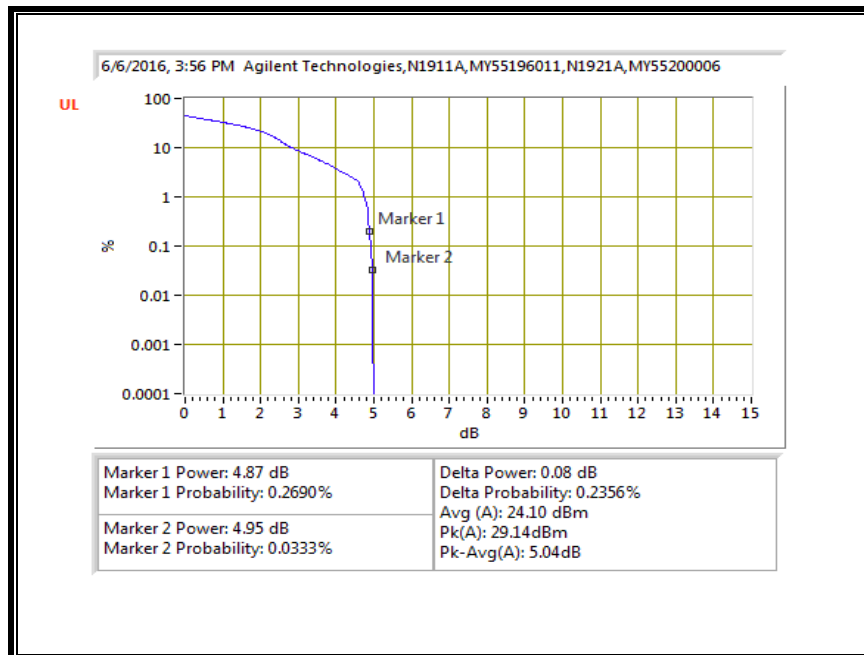
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

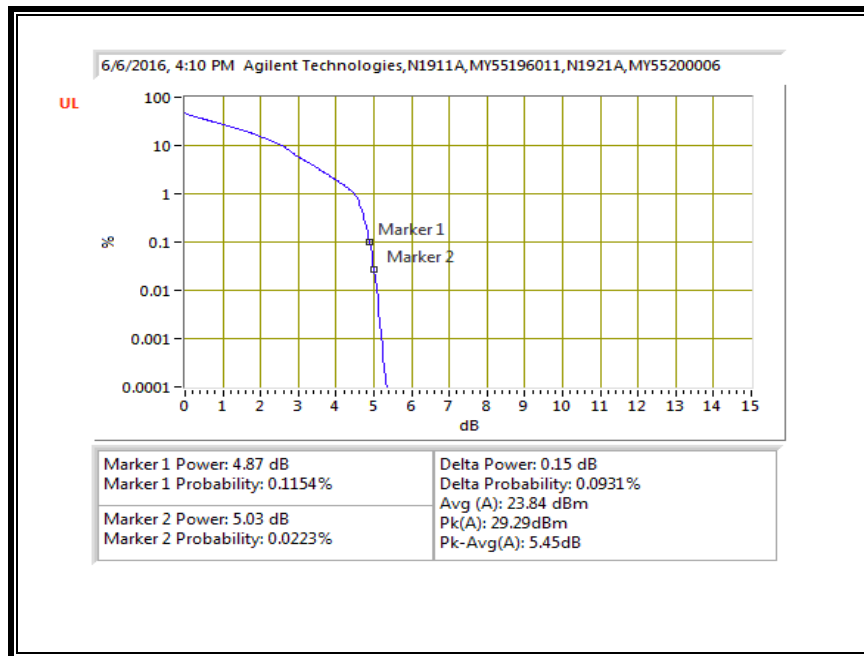


16QAM, (10.0 MHz BAND WIDTH)

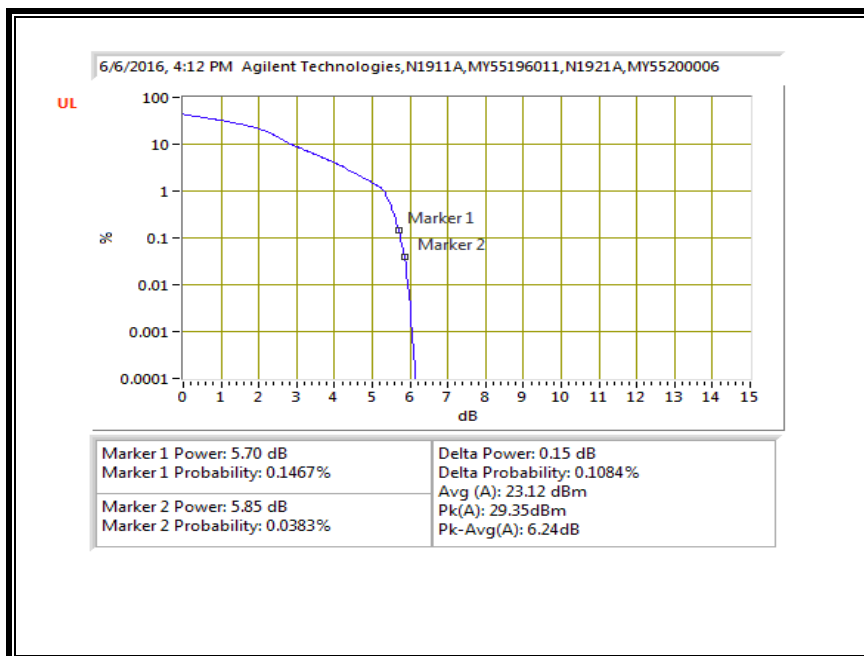


10.3.8. LTE BAND 25

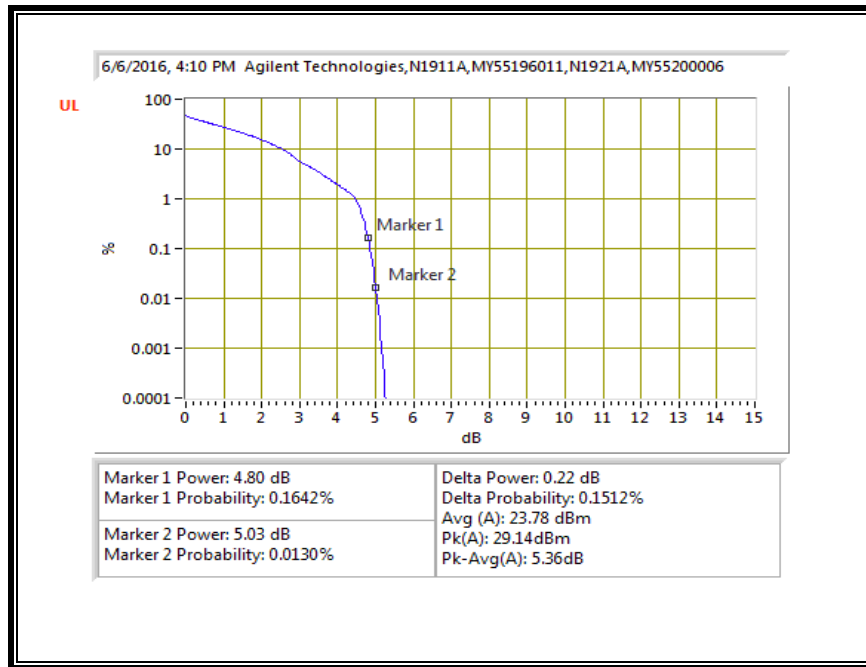
QPSK, (1.4 MHz BAND WIDTH)



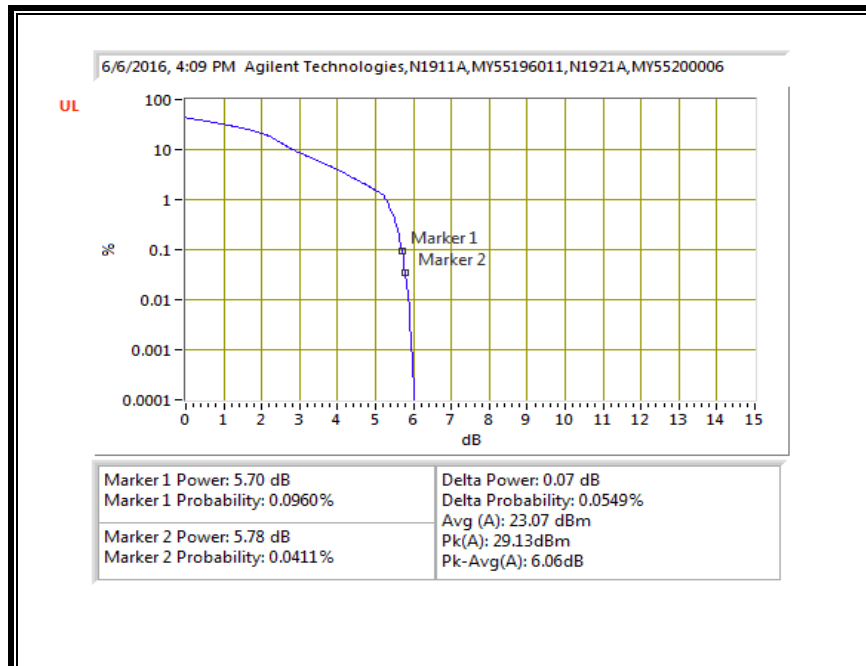
16QAM, (1.4 MHz BAND WIDTH)



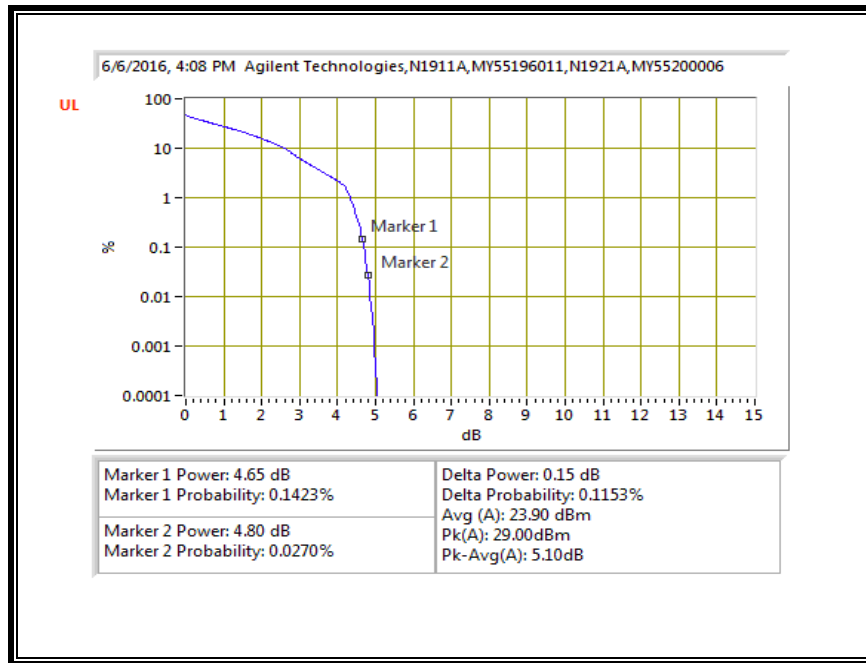
QPSK, (3.0 MHz BAND WIDTH)



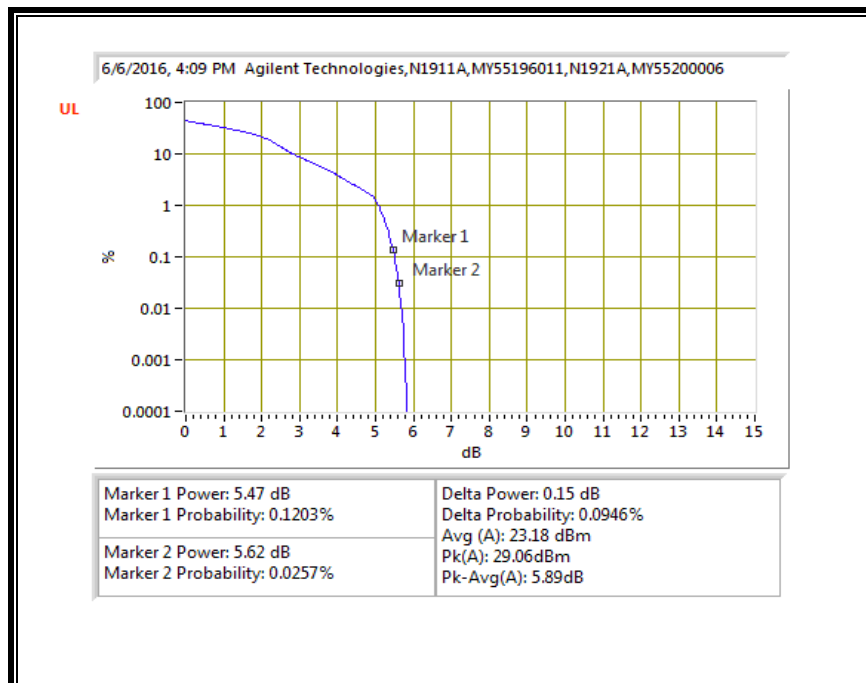
16QAM, (3.0 MHz BAND WIDTH)



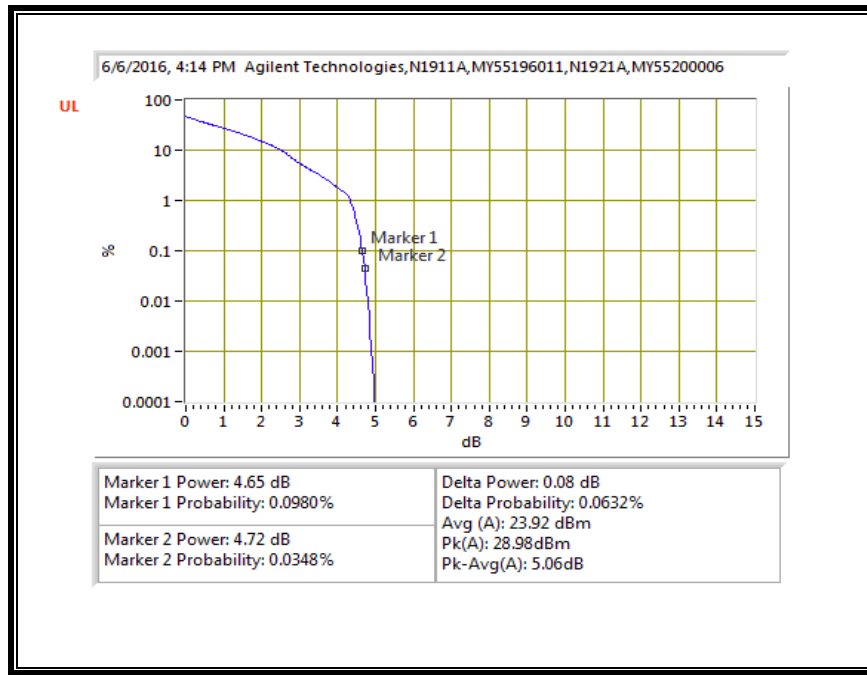
QPSK, (5.0 MHz BAND WIDTH)



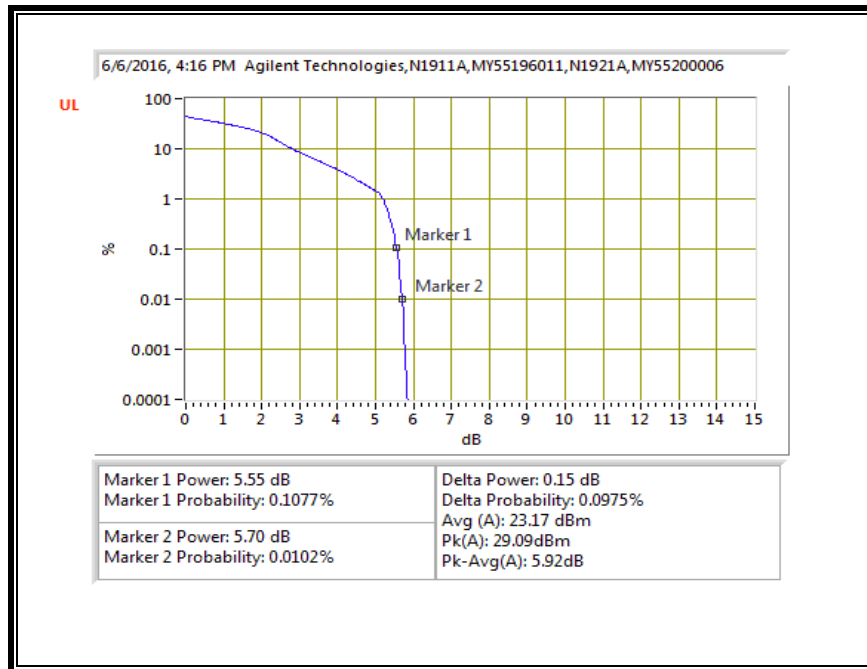
16QAM, (5.0 MHz BAND WIDTH)



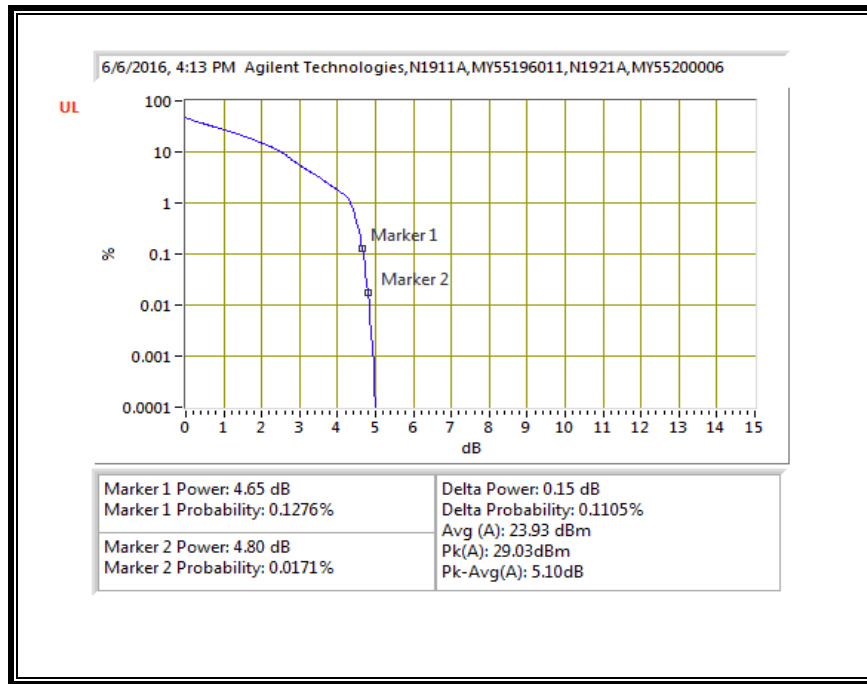
QPSK, (10.0 MHz BAND WIDTH)



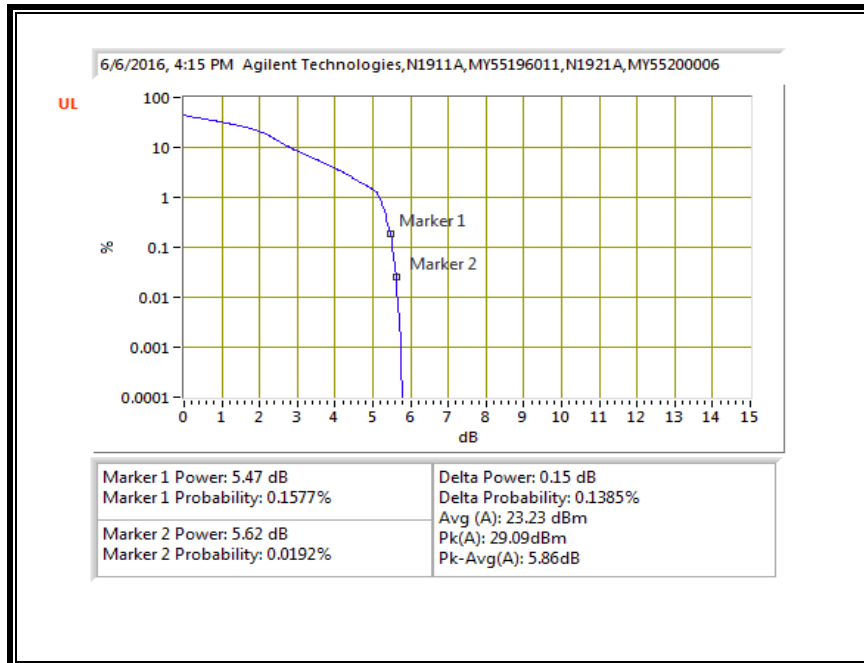
16QAM, (10.0 MHz BAND WIDTH)



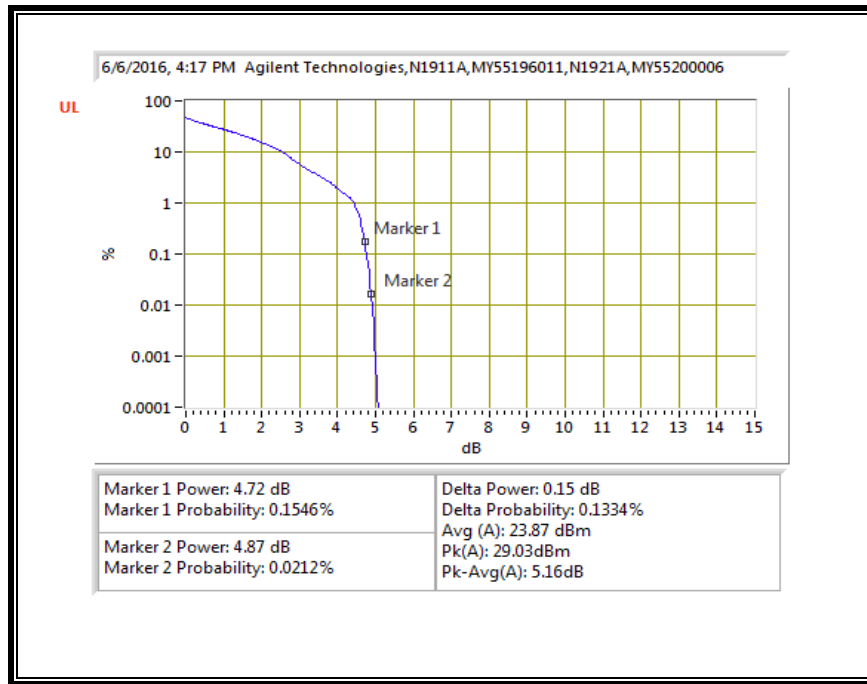
QPSK, (15.0 MHz BAND WIDTH)



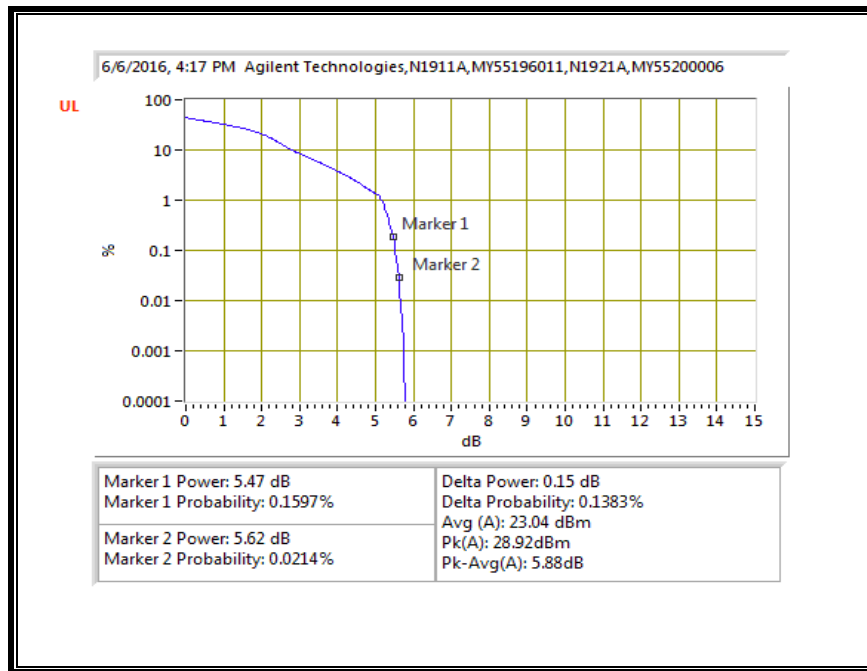
16QAM, (15.0 MHz BAND WIDTH)



QPSK, (20.0 MHz BAND WIDTH)

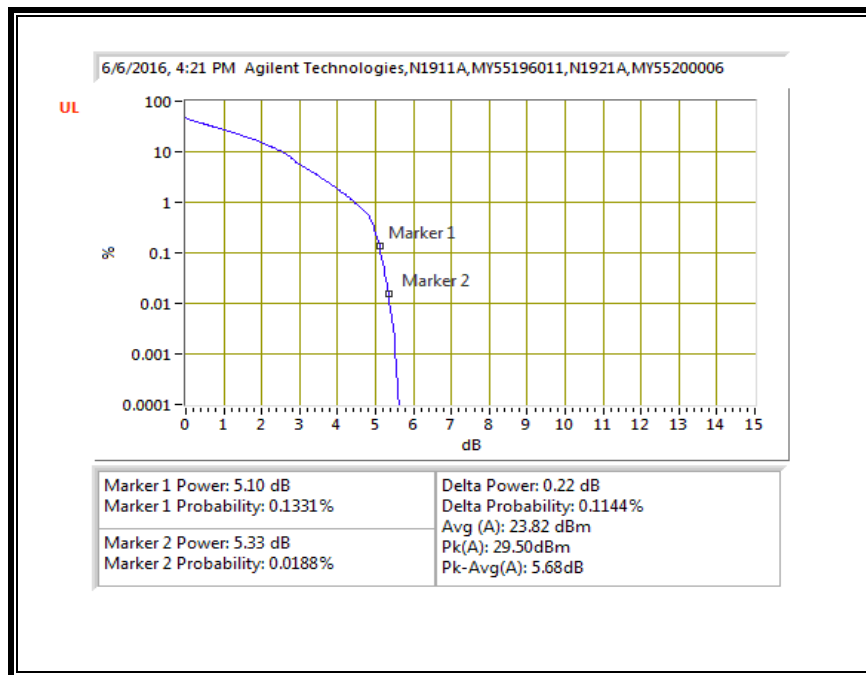


16QAM, (20.0 MHz BAND WIDTH)

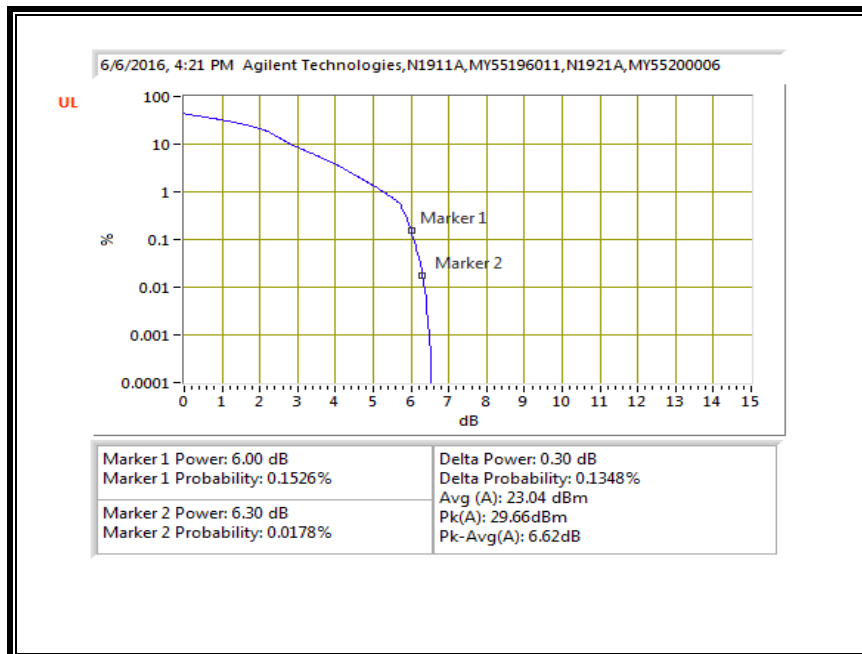


10.3.9. LTE BAND 26

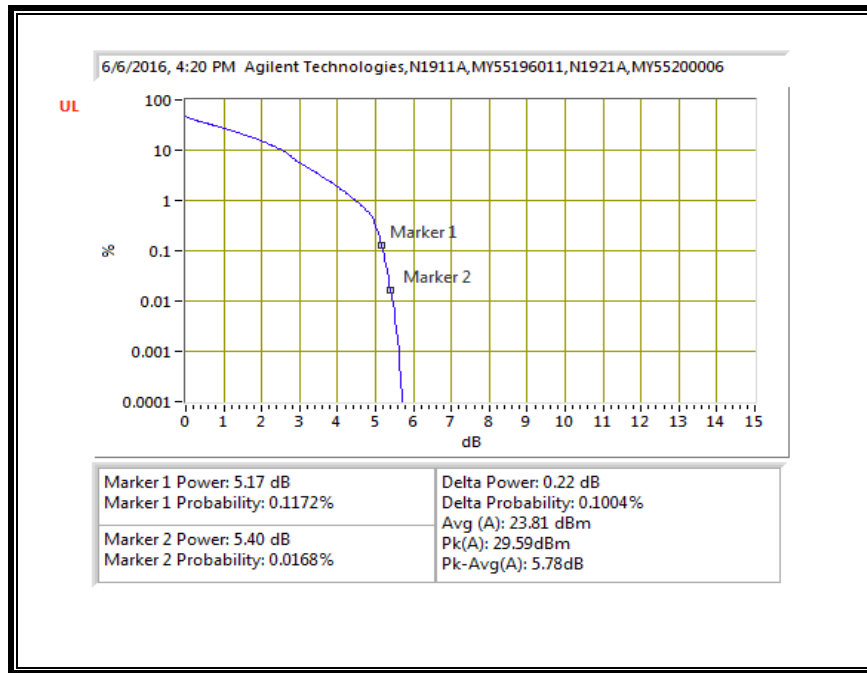
QPSK, (1.4 MHz BAND WIDTH)



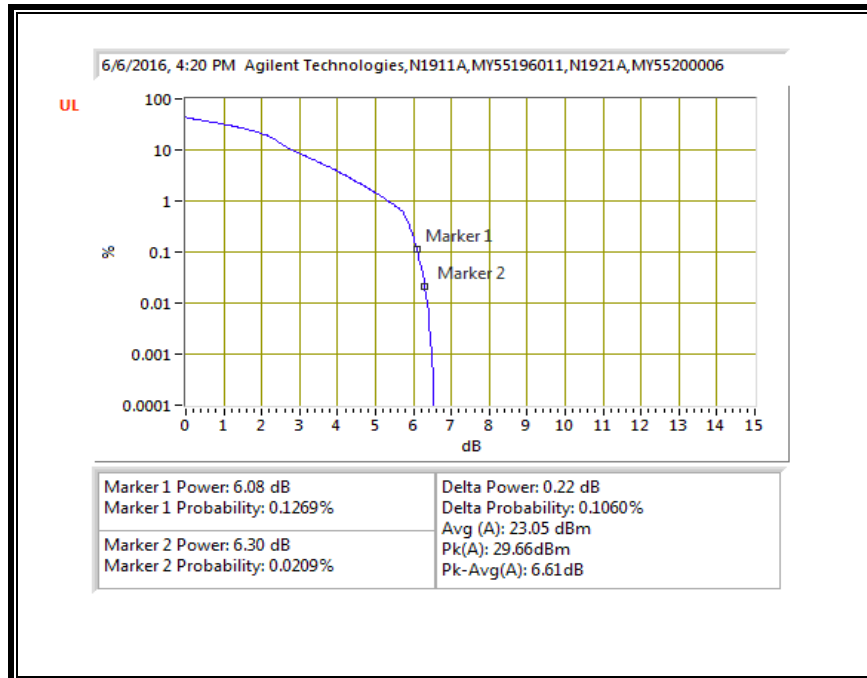
16QAM, (1.4 MHz BAND WIDTH)



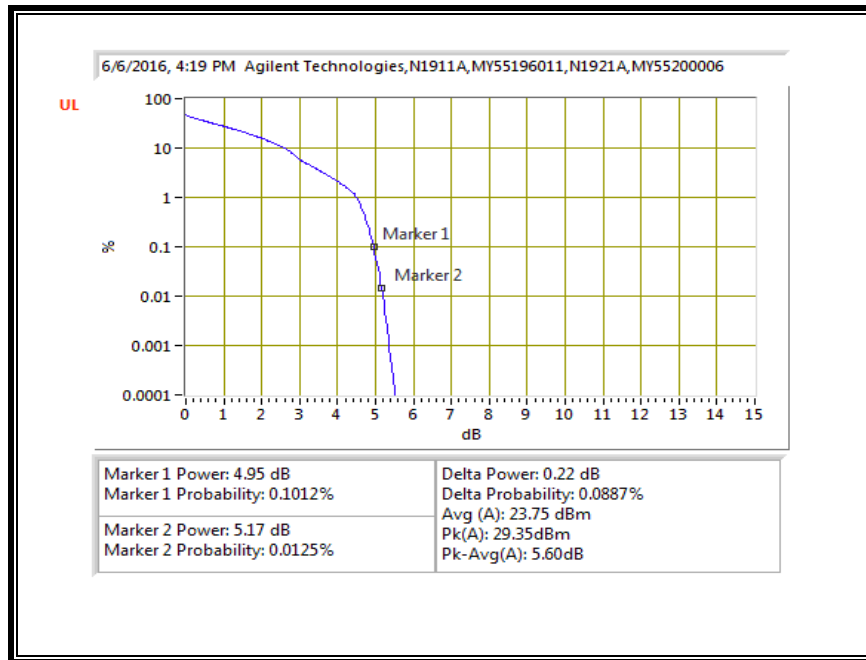
QPSK, (3.0 MHz BAND WIDTH)



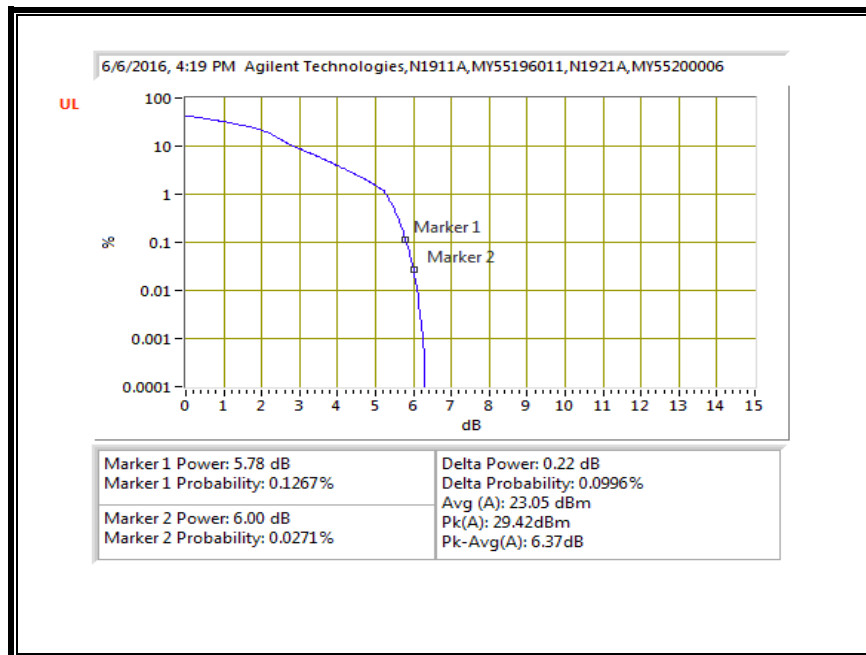
16QAM, (3.0 MHz BAND WIDTH)



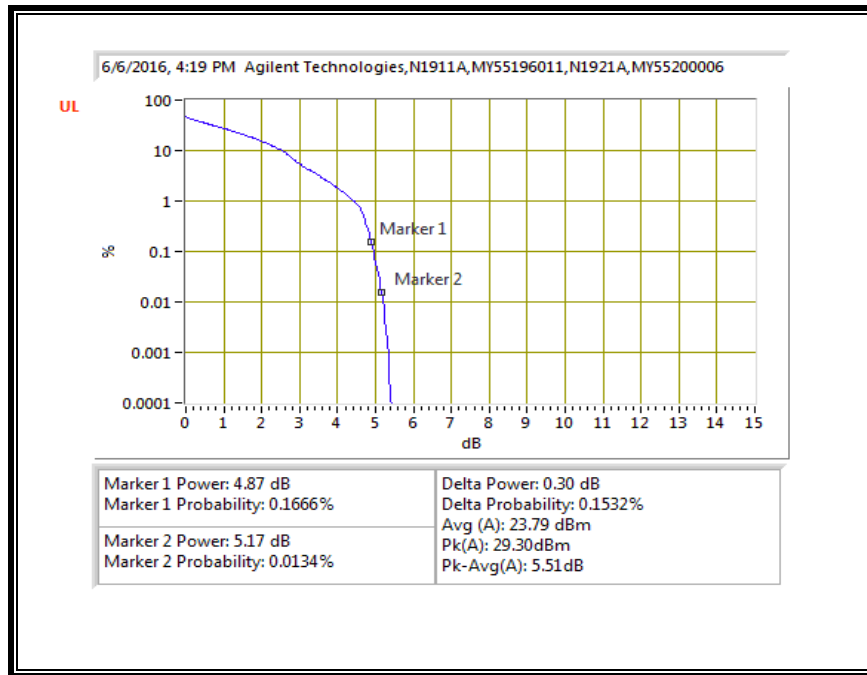
QPSK, (5.0 MHz BAND WIDTH)



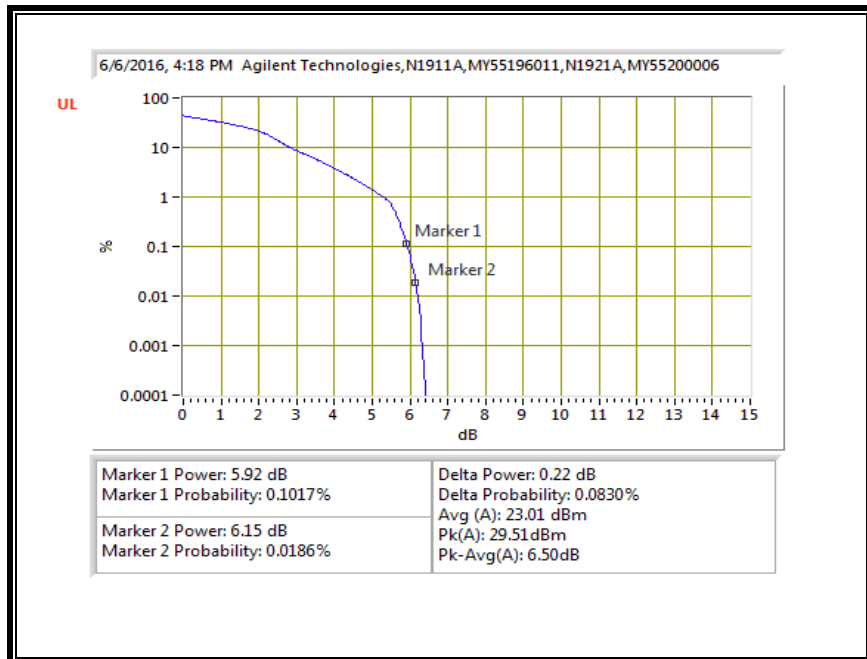
16QAM, (5.0 MHz BAND WIDTH)



QPSK, (10.0 MHz BAND WIDTH)

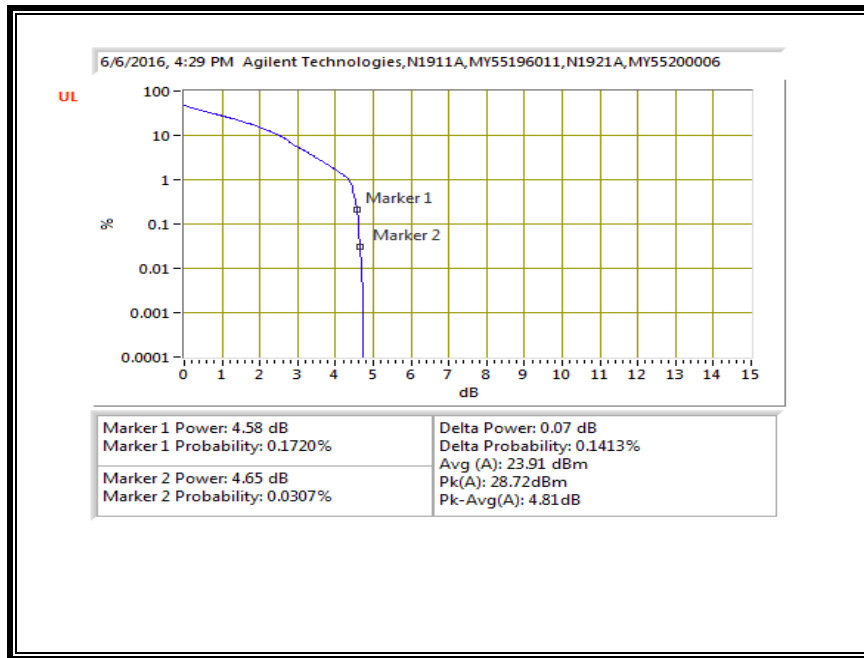


16QAM, (10.0 MHz BAND WIDTH)

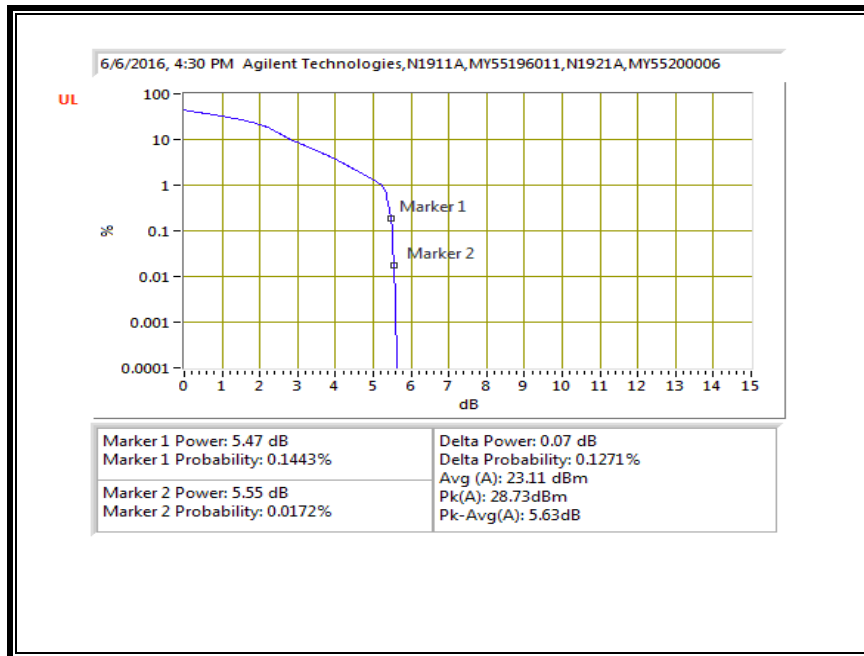


10.3.10. LTE BAND 27

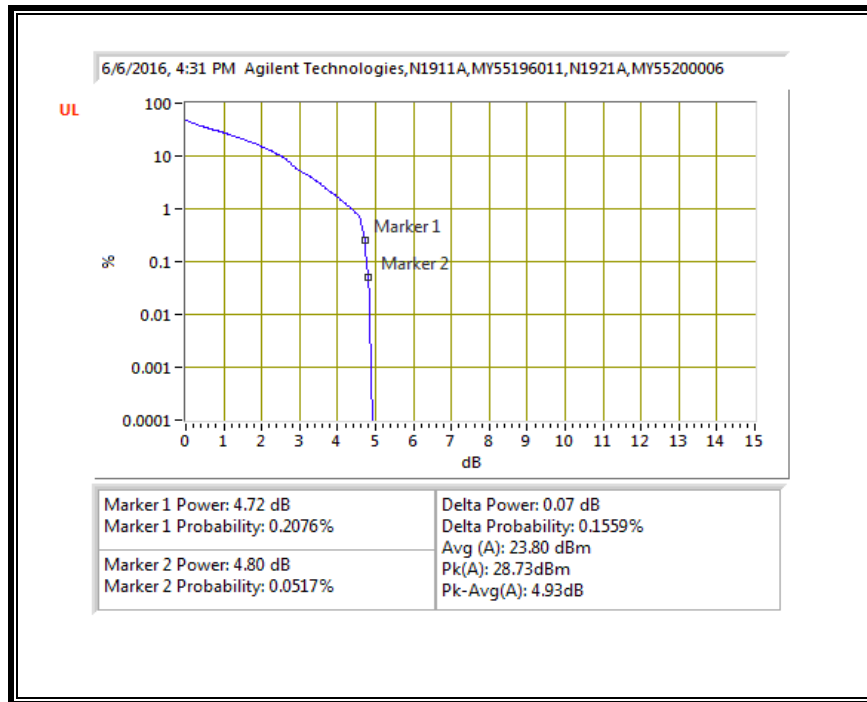
QPSK, (1.4 MHz BAND WIDTH)



16QAM, (1.4 MHz BAND WIDTH)



QPSK, (3.0 MHz BAND WIDTH)



16QAM, (3.0 MHz BAND WIDTH)

