

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/23/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 16QAM 10MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	16.7	V	0.98	7.88	23.55	33.0	-9.5	
1.855	19.2	H	0.98	7.88	26.05	33.0	-7.0	
Mid Ch								
1.883	16.2	V	0.98	7.86	23.09	33.0	-9.9	
1.883	18.2	H	0.98	7.86	25.12	33.0	-7.9	
High Ch								
1.910	18.4	V	0.98	7.84	25.22	33.0	-7.8	
1.910	19.0	H	0.98	7.84	25.82	33.0	-7.2	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/23/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 QPSK 15MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	17.8	V	0.98	7.88	24.69	33.0	-8.3	
1.858	20.0	H	0.98	7.88	26.86	33.0	-6.1	
Mid Ch								
1.883	17.3	V	0.98	7.86	24.15	33.0	-8.9	
1.883	19.2	H	0.98	7.86	26.06	33.0	-6.9	
High Ch								
1.908	18.9	V	0.98	7.84	25.77	33.0	-7.2	
1.908	19.8	H	0.98	7.84	26.65	33.0	-6.4	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/23/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 16QAM 15MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	16.7	V	0.98	7.88	23.58	33.0	-9.4	
1.858	18.9	H	0.98	7.88	25.82	33.0	-7.2	
Mid Ch								
1.883	16.1	V	0.98	7.86	23.02	33.0	-10.0	
1.883	18.1	H	0.98	7.86	24.95	33.0	-8.1	
High Ch								
1.908	17.9	V	0.98	7.84	24.73	33.0	-8.3	
1.908	18.7	H	0.98	7.84	25.60	33.0	-7.4	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/23/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 QPSK 20MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	18.1	V	0.98	7.88	24.96	33.0	-8.0	
1.860	19.9	H	0.98	7.88	26.84	33.0	-6.2	
Mid Ch								
1.883	17.2	V	0.98	7.86	24.09	33.0	-8.9	
1.883	19.3	H	0.98	7.86	26.13	33.0	-6.9	
High Ch								
1.905	19.3	V	0.98	7.84	26.11	33.0	-6.9	
1.905	19.9	H	0.98	7.84	26.72	33.0	-6.3	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/23/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 16QAM 20MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	17.0	V	0.98	7.88	23.91	33.0	-9.1	
1.860	19.0	H	0.98	7.88	25.86	33.0	-7.1	
Mid Ch								
1.883	16.1	V	0.98	7.86	23.02	33.0	-10.0	
1.883	18.2	H	0.98	7.86	25.08	33.0	-7.9	
High Ch								
1.905	18.3	V	0.98	7.84	25.13	33.0	-7.9	
1.905	18.9	H	0.98	7.84	25.73	33.0	-7.3	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 QPSK 1.4MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	14.6	V	0.98	7.88	21.51	33.0	-11.5	
1.851	16.2	H	0.98	7.88	23.05	33.0	-10.0	
Mid Ch								
1.883	15.0	V	0.98	7.86	21.84	33.0	-11.2	
1.883	15.0	H	0.98	7.86	21.85	33.0	-11.2	
High Ch								
1.914	13.9	V	0.98	7.84	20.78	33.0	-12.2	
1.914	15.9	H	0.98	7.84	22.79	33.0	-10.2	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 16QAM 1.4MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	13.7	V	0.98	7.88	20.64	33.0	-12.4	
1.851	15.3	H	0.98	7.88	22.18	33.0	-10.8	
Mid Ch								
1.883	14.1	V	0.98	7.86	20.97	33.0	-12.0	
1.883	14.1	H	0.98	7.86	20.98	33.0	-12.0	
High Ch								
1.914	13.1	V	0.98	7.84	19.91	33.0	-13.1	
1.914	15.1	H	0.98	7.84	21.92	33.0	-11.1	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D							
<p>14U17676 06/24/14 Tester: R.Z Configuration: EUT only LTE Band 25 QPSK 3MHz BW Comment: : Horn T344, and Chamber D SMA Cables on: Horn T60 Substitution, and 8ft SMA Cable</p>							
SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
15.1	V	0.98	7.88	21.95	33.0	-11.1	
16.1	H	0.98	7.88	22.98	33.0	-10.0	
14.9	V	0.98	7.86	21.76	33.0	-11.2	
15.3	H	0.98	7.86	22.17	33.0	-10.8	
15.5	V	0.98	7.84	22.40	33.0	-10.6	
16.2	H	0.98	7.84	23.07	33.0	-9.9	

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 16QAM 3MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	14.0	V	0.98	7.88	20.91	33.0	-12.1	
1.852	15.0	H	0.98	7.88	21.94	33.0	-11.1	
Mid Ch								
1.883	13.8	V	0.98	7.86	20.72	33.0	-12.3	
1.883	14.3	H	0.98	7.86	21.13	33.0	-11.9	
High Ch								
1.914	14.5	V	0.98	7.84	21.36	33.0	-11.6	
1.914	15.2	H	0.98	7.84	22.03	33.0	-11.0	
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UAT QPSK EIRP POWER FOR LTE BAND 25 (5.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 QPSK 5MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	15.6	V	0.98	7.88	22.52	33.0	-10.5	
1.853	16.3	H	0.98	7.88	23.18	33.0	-9.8	
Mid Ch								
1.883	15.0	V	0.98	7.86	21.87	33.0	-11.1	
1.883	15.1	H	0.98	7.86	21.98	33.0	-11.0	
High Ch								
1.913	15.2	V	0.98	7.84	22.01	33.0	-11.0	
1.913	15.7	H	0.98	7.84	22.58	33.0	-10.4	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 16QAM 5MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	14.9	V	0.98	7.88	21.82	33.0	-11.2	
1.853	15.6	H	0.98	7.88	22.48	33.0	-10.5	
Mid Ch								
1.883	14.3	V	0.98	7.86	21.17	33.0	-11.8	
1.883	14.4	H	0.98	7.86	21.28	33.0	-11.7	
High Ch								
1.913	14.5	V	0.98	7.84	21.31	33.0	-11.7	
1.913	15.0	H	0.98	7.84	21.88	33.0	-11.1	
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UAT QPSK EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D							
<div> <div>14U17676</div> <div>06/24/14</div> <div> <div>neer:</div> <div>R.Z</div> </div> <div> <div>tion:</div> <div>EUT only</div> <div>LTE Band 25 QPSK 10MHz BW</div> </div> </div>							
<div> <div>oment:</div> <div>: Horn T344, and Chamber D SMA Cables</div> <div>on: Horn T60 Substitution, and 8ft SMA Cable</div> </div>							
SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin EIRP (dB)	Notes
15.4	V	0.98	7.88	22.25	33.0	-10.8	
16.2	H	0.98	7.88	23.14	33.0	-9.9	
14.8	V	0.98	7.86	21.69	33.0	-11.3	
15.0	H	0.98	7.86	21.88	33.0	-11.1	
15.1	V	0.98	7.84	21.93	33.0	-11.1	
15.4	H	0.98	7.84	22.28	33.0	-10.7	
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UAT 16QAM EIRP POWER FOR LTE BAND 25 (10.0MHZ BANDWIDTH)

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 16QAM 10MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	14.2	V	0.98	7.88	21.09	33.0	-11.9	
1.855	15.1	H	0.98	7.88	21.98	33.0	-11.0	
Mid Ch								
1.883	13.7	V	0.98	7.86	20.53	33.0	-12.5	
1.883	13.8	H	0.98	7.86	20.72	33.0	-12.3	
High Ch								
1.910	13.9	V	0.98	7.84	20.77	33.0	-12.2	
1.910	14.3	H	0.98	7.84	21.12	33.0	-11.9	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 QPSK 15MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	15.7	V	0.98	7.88	22.56	33.0	-10.4	
1.858	16.2	H	0.98	7.88	23.11	33.0	-9.9	
Mid Ch								
1.883	15.2	V	0.98	7.86	22.10	33.0	-10.9	
1.883	15.6	H	0.98	7.86	22.48	33.0	-10.5	
High Ch								
1.908	15.5	V	0.98	7.84	22.39	33.0	-10.6	
1.908	15.8	H	0.98	7.84	22.65	33.0	-10.4	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 16QAM 15MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	14.5	V	0.98	7.88	21.41	33.0	-11.6	
1.858	15.1	H	0.98	7.88	21.96	33.0	-11.0	
Mid Ch								
1.883	14.1	V	0.98	7.86	20.95	33.0	-12.1	
1.883	14.5	H	0.98	7.86	21.33	33.0	-11.7	
High Ch								
1.908	14.4	V	0.98	7.84	21.24	33.0	-11.8	
1.908	14.6	H	0.98	7.84	21.50	33.0	-11.5	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 QPSK 20MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	15.8	V	0.98	7.88	22.74	33.0	-10.3	
1.860	15.9	H	0.98	7.88	22.84	33.0	-10.2	
Mid Ch								
1.883	15.8	V	0.98	7.86	22.63	33.0	-10.4	
1.883	16.2	H	0.98	7.86	23.04	33.0	-10.0	
High Ch								
1.905	15.9	V	0.98	7.84	22.77	33.0	-10.2	
1.905	15.9	H	0.98	7.84	22.78	33.0	-10.2	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/24/14						
Test Engineer:		R.Z						
Configuration:		EUT only						
Mode:		LTE Band 25 16QAM 20MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	14.7	V	0.98	7.88	21.59	33.0	-11.4	
1.860	14.8	H	0.98	7.88	21.69	33.0	-11.3	
Mid Ch								
1.883	14.6	V	0.98	7.86	21.48	33.0	-11.5	
1.883	15.0	H	0.98	7.86	21.89	33.0	-11.1	
High Ch								
1.905	14.8	V	0.98	7.84	21.62	33.0	-11.4	
1.905	14.8	H	0.98	7.84	21.63	33.0	-11.4	
Rev. 06.18.14								

9.1.7. LTE BAND 26

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Project #:		14U17676								
Date:		06/24/14								
Test Engineer:		M. Hua								
Configuration:		EUT Only								
Mode:		LTE Band 26 QPSK 3MHz BW								
<u>Test Equipment:</u>										
Receiving: Sunol T407, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, and 8ft SMA Cable										
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										
820.30	11.50	V	0.62	0.0	10.88	13.03	38.45	40.60	-27.6	
820.30	19.14	H	0.62	0.0	18.52	20.67	38.45	40.60	-19.9	
Mid Ch										
821.30	11.88	V	0.62	0.0	11.26	13.41	38.45	40.60	-27.2	
821.30	19.47	H	0.62	0.0	18.85	21.00	38.45	40.60	-19.6	
High Ch										
822.30	11.95	V	0.62	0.0	11.33	13.48	38.45	40.60	-27.1	
822.30	19.28	H	0.62	0.0	18.66	20.81	38.45	40.60	-19.8	
Rev. 06.18.14										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Project #:		14U17676								
Date:		06/24/14								
Test Engineer:		M. Hua								
Configuration:		EUT Only								
Mode:		LTE Band 26 16QAM 3MHz BW								
Test Equipment:										
Receiving: Sunol T407, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, and 8ft SMA Cable										
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										
820.30	10.54	V	0.62	0.0	9.92	12.07	38.45	40.60	-28.5	
820.30	18.25	H	0.62	0.0	17.63	19.78	38.45	40.60	-20.8	
Mid Ch										
821.30	10.87	V	0.62	0.0	10.25	12.40	38.45	40.60	-28.2	
821.30	18.55	H	0.62	0.0	17.93	20.08	38.45	40.60	-20.5	
High Ch										
822.30	10.96	V	0.62	0.0	10.34	12.49	38.45	40.60	-28.1	
822.30	18.52	H	0.62	0.0	17.90	20.05	38.45	40.60	-20.6	
Rev. 06.18.14										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Project #:		14U17676								
Date:		06/24/14								
Test Engineer:		M. Hua								
Configuration:		EUT Only								
Mode:		LTE Band 26 QPSK 5MHz BW								
<u>Test Equipment:</u>										
Receiving: Sunoi T407, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, and 8ft SMA Cable										
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										
821.30	12.06	V	0.62	0.0	11.44	13.59	38.45	40.60	-27.0	
821.30	19.62	H	0.62	0.0	19.00	21.15	38.45	40.60	-19.5	
Rev. 06.18.14										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Project #:		14U17676								
Date:		06/24/14								
Test Engineer:		M. Hua								
Configuration:		EUT Only								
Mode:		LTE Band 26 16QAM 5MHz BW								
<u>Test Equipment:</u>										
Receiving: Sunoi T407, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, and 8ft SMA Cable										
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										
821.30	11.16	V	0.62	0.0	10.54	12.69	38.45	40.60	-27.9	
821.30	18.72	H	0.62	0.0	18.10	20.25	38.45	40.60	-20.4	
Rev. 06.18.14										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Project #:		14U17676								
Date:		6/20/2014								
Test Engineer:		Macie								
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	12.63	V	0.62	0.0	12.01	14.16	38.45	40.60	-26.4	
819.00	19.17	H	0.62	0.0	18.55	20.70	38.45	40.60	-19.9	
Rev. 10.24.13										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Project #:		14U17676								
Date:		6/20/2014								
Test Engineer:		Macie								
Configuration:		EUT Only								
Mode:		LTE Band 26 16QAM 10MHz BW								
<u>Test Equipment:</u>										
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										
819.00	11.80	V	0.62	0.0	11.18	13.33	38.45	40.60	-27.3	
819.00	18.59	H	0.62	0.0	17.97	20.12	38.45	40.60	-20.5	
Rev. 10.24.13										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Project #:		14U17676								
Date:		06/24/14								
Test Engineer:		M. Hua								
Configuration:		EUT Only								
Mode:		LTE Band 26 QPSK 3MHz BW								
Test Equipment:										
Receiving: Sunoi T407, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, and 8ft SMA Cable										
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										
820.30	14.12	V	0.62	0.0	13.50	15.65	38.45	40.60	-25.0	
820.30	17.17	H	0.62	0.0	16.55	18.70	38.45	40.60	-21.9	
Mid Ch										
821.30	14.49	V	0.62	0.0	13.87	16.02	38.45	40.60	-24.6	
821.30	17.23	H	0.62	0.0	16.61	18.76	38.45	40.60	-21.8	
High Ch										
822.30	14.67	V	0.62	0.0	14.05	16.20	38.45	40.60	-24.4	
822.30	17.34	H	0.62	0.0	16.72	18.87	38.45	40.60	-21.7	
Rev. 06.18.14										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Project #:		14U17676								
Date:		06/24/14								
Test Engineer:		M. Hua								
Configuration:		EUT Only								
Mode:		LTE Band 26 16QAM 3MHz BW								
Test Equipment:										
Receiving: Sunol T407, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, and 8ft SMA Cable										
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										
820.30	12.92	V	0.62	0.0	12.30	14.45	38.45	40.60	-26.2	
820.30	15.92	H	0.62	0.0	15.30	17.45	38.45	40.60	-23.2	
Mid Ch										
821.30	13.24	V	0.62	0.0	12.62	14.77	38.45	40.60	-25.8	
821.30	16.08	H	0.62	0.0	15.46	17.61	38.45	40.60	-23.0	
High Ch										
822.30	13.37	V	0.62	0.0	12.75	14.90	38.45	40.60	-25.7	
822.30	16.12	H	0.62	0.0	15.50	17.65	38.45	40.60	-23.0	
Rev. 06.18.14										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Project #:		14U17676								
Date:		06/24/14								
Test Engineer:		M. Hua								
Configuration:		EUT Only								
Mode:		LTE Band 26 QPSK 5MHz BW								
<u>Test Equipment:</u>										
Receiving: Sunol T407, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, and 8ft SMA Cable										
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										
821.30	14.45	V	0.62	0.0	13.83	15.98	38.45	40.60	-24.6	
821.30	17.31	H	0.62	0.0	16.69	18.84	38.45	40.60	-21.8	
Rev. 06.18.14										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D										
Project #:		14U17676								
Date:		06/24/14								
Test Engineer:		M. Hua								
Configuration:		EUT Only								
Mode:		LTE Band 26 16QAM 5MHz BW								
<u>Test Equipment:</u>										
Receiving: Sunol T407, and Chamber D Cable										
Substitution: Dipole S/N: 00022117, and 8ft SMA Cable										
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										
821.30	13.71	V	0.62	0.0	13.09	15.24	38.45	40.60	-25.4	
821.30	16.48	H	0.62	0.0	15.86	18.01	38.45	40.60	-22.6	
Rev. 06.18.14										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Project #:		14U17676								
Date:		6/20/2014								
Test Engineer:		Macie								
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	15.25	V	0.62	0.0	14.63	16.78	38.45	40.60	-23.8	
819.00	17.59	H	0.62	0.0	16.97	19.12	38.45	40.60	-21.5	
Rev. 10.24.13										

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber E										
Project #:		14U17676								
Date:		6/20/2014								
Test Engineer:		Macie								
Configuration:		EUT Only								
Mode:		LTE Band 26 16QAM 10MHz BW								
<u>Test Equipment:</u>										
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										
819.00	15.33	V	0.62	0.0	14.71	16.86	38.45	40.60	-23.7	
819.00	16.54	H	0.62	0.0	15.92	18.07	38.45	40.60	-22.5	
Rev: 10 24 13										

9.1.8. LTE BAND 41

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 5MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	18.0	V	1.15	9.47	26.32	33.0	-6.7	
2.499	23.3	H	1.15	9.47	31.65	33.0	-1.3	
Mid Ch								
2.593	17.0	V	1.16	9.51	25.31	33.0	-7.7	
2.593	22.3	H	1.16	9.51	30.65	33.0	-2.4	
High Ch								
2.688	16.3	V	1.17	9.54	24.63	33.0	-8.4	
2.688	20.1	H	1.17	9.54	28.47	33.0	-4.5	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 5MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	17.7	V	1.15	9.47	26.04	33.0	-7.0	
2.499	23.0	H	1.15	9.47	31.28	33.0	-1.7	
Mid Ch								
2.593	17.0	V	1.16	9.51	25.35	33.0	-7.7	
2.593	22.0	H	1.16	9.51	30.35	33.0	-2.7	
High Ch								
2.688	16.1	V	1.17	9.54	24.48	33.0	-8.5	
2.688	20.0	H	1.17	9.54	28.34	33.0	-4.7	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 10MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	18.6	V	1.15	9.47	26.92	33.0	-6.1	
2.501	23.7	H	1.15	9.47	31.97	33.0	-1.0	
Mid Ch								
2.593	17.4	V	1.16	9.51	25.76	33.0	-7.2	
2.593	22.7	H	1.16	9.51	31.06	33.0	-1.9	
High Ch								
2.685	16.9	V	1.17	9.54	25.29	33.0	-7.7	
2.685	20.1	H	1.17	9.54	28.45	33.0	-4.6	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 10MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	18.2	V	1.15	9.47	26.52	33.0	-6.5	
2.501	23.2	H	1.15	9.47	31.48	33.0	-1.5	
Mid Ch								
2.593	16.9	V	1.16	9.51	25.26	33.0	-7.7	
2.593	22.3	H	1.16	9.51	30.64	33.0	-2.4	
High Ch								
2.685	16.4	V	1.17	9.54	24.81	33.0	-8.2	
2.685	19.6	H	1.17	9.54	28.00	33.0	-5.0	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 15MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	18.4	V	1.15	9.47	26.73	33.0	-6.3	
2.504	23.7	H	1.15	9.47	32.00	33.0	-1.0	
Mid Ch								
2.593	17.2	V	1.16	9.51	25.58	33.0	-7.4	
2.593	22.4	H	1.16	9.51	30.71	33.0	-2.3	
High Ch								
2.683	17.1	V	1.17	9.54	25.44	33.0	-7.6	
2.683	19.9	H	1.17	9.54	28.30	33.0	-4.7	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 15MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	17.8	V	1.15	9.47	26.09	33.0	-6.9	
2.504	23.2	H	1.15	9.47	31.55	33.0	-1.5	
Mid Ch								
2.593	16.7	V	1.16	9.51	25.09	33.0	-7.9	
2.593	21.9	H	1.16	9.51	30.29	33.0	-2.7	
High Ch								
2.683	16.6	V	1.17	9.54	24.98	33.0	-8.0	
2.683	19.5	H	1.17	9.54	27.85	33.0	-5.2	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 20MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	17.4	V	1.15	9.47	25.70	33.0	-7.3	
2.506	23.5	H	1.15	9.47	31.86	33.0	-1.1	
Mid Ch								
2.593	16.7	V	1.16	9.51	25.00	33.0	-8.0	
2.593	22.0	H	1.16	9.51	30.39	33.0	-2.6	
High Ch								
2.680	16.4	V	1.17	9.54	24.74	33.0	-8.3	
2.680	19.8	H	1.17	9.54	28.18	33.0	-4.8	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 20MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	16.1	V	1.15	9.47	24.38	33.0	-8.6	
2.506	22.2	H	1.15	9.47	30.55	33.0	-2.5	
Mid Ch								
2.593	15.6	V	1.16	9.51	23.95	33.0	-9.1	
2.593	20.9	H	1.16	9.51	29.21	33.0	-3.8	
High Ch								
2.680	15.4	V	1.17	9.54	23.73	33.0	-9.3	
2.680	18.5	H	1.17	9.54	26.88	33.0	-6.1	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 5MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	6.7	V	1.15	9.47	14.98	33.0	-18.0	
2.499	19.8	H	1.15	9.47	28.10	33.0	-4.9	
Mid Ch								
2.593	10.0	V	1.16	9.51	18.30	33.0	-14.7	
2.593	19.4	H	1.16	9.51	27.77	33.0	-5.2	
High Ch								
2.688	9.8	V	1.17	9.54	18.12	33.0	-14.9	
2.688	20.7	H	1.17	9.54	29.04	33.0	-4.0	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 5MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	6.5	V	1.15	9.47	14.77	33.0	-18.2	
2.499	19.7	H	1.15	9.47	27.97	33.0	-5.0	
Mid Ch								
2.593	9.8	V	1.16	9.51	18.10	33.0	-14.9	
2.593	19.0	H	1.16	9.51	27.35	33.0	-5.7	
High Ch								
2.688	9.5	V	1.17	9.54	17.86	33.0	-15.1	
2.688	20.5	H	1.17	9.54	28.82	33.0	-4.2	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 10MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	7.8	V	1.15	9.47	16.16	33.0	-16.8	
2.501	20.6	H	1.15	9.47	28.91	33.0	-4.1	
Mid Ch								
2.593	10.7	V	1.16	9.51	19.09	33.0	-13.9	
2.593	19.9	H	1.16	9.51	28.25	33.0	-4.8	
High Ch								
2.685	10.2	V	1.17	9.54	18.55	33.0	-14.5	
2.685	21.2	H	1.17	9.54	29.58	33.0	-3.4	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 10MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	9.47	15.67	33.0	-17.3	
2.501	20.3	H	1.15	9.47	28.59	33.0	-4.4	
Mid Ch								
2.593	10.2	V	1.16	9.51	18.50	33.0	-14.5	
2.593	19.4	H	1.16	9.51	27.78	33.0	-5.2	
High Ch								
2.685	10.2	V	1.17	9.54	18.60	33.0	-14.4	
2.685	20.6	H	1.17	9.54	29.01	33.0	-4.0	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 15MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	7.2	V	1.15	9.47	15.51	33.0	-17.5	
2.504	20.7	H	1.15	9.47	28.97	33.0	-4.0	
Mid Ch								
2.593	8.8	V	1.16	9.51	17.18	33.0	-15.8	
2.593	20.0	H	1.16	9.51	28.36	33.0	-4.6	
High Ch								
2.683	10.0	V	1.17	9.54	18.35	33.0	-14.7	
2.683	21.2	H	1.17	9.54	29.57	33.0	-3.4	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 15MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	7.0	V	1.15	9.47	15.30	33.0	-17.7	
2.504	20.6	H	1.15	9.47	28.91	33.0	-4.1	
Mid Ch								
2.593	8.9	V	1.16	9.51	17.21	33.0	-15.8	
2.593	19.9	H	1.16	9.51	28.29	33.0	-4.7	
High Ch								
2.683	10.0	V	1.17	9.54	18.34	33.0	-14.7	
2.683	20.9	H	1.17	9.54	29.28	33.0	-3.7	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 QPSK 20MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	7.5	V	1.15	9.47	15.83	33.0	-17.2	
2.506	21.2	H	1.15	9.47	29.48	33.0	-3.5	
Mid Ch								
2.593	9.3	V	1.16	9.51	17.68	33.0	-15.3	
2.593	20.5	H	1.16	9.51	28.89	33.0	-4.1	
High Ch								
2.680	10.9	V	1.17	9.54	19.26	33.0	-13.7	
2.680	21.5	H	1.17	9.54	29.84	33.0	-3.2	
Rev. 06.18.14								

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

High Frequency Substitution Measurement UL Fremont Radiated Chamber D								
Project #:		14U17676						
Date:		06/25/14						
Test Engineer:		M. Hua						
Configuration:		EUT Only						
Mode:		LTE Band 41 16QAM 20MHz BW						
Test Equipment:								
Receiving: Horn T344, and Chamber D SMA Cables								
Substitution: Horn T60 Substitution, and 8ft SMA Cable								
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	7.2	V	1.15	9.47	15.49	33.0	-17.5	
2.506	20.9	H	1.15	9.47	29.22	33.0	-3.8	
Mid Ch								
2.593	9.1	V	1.16	9.51	17.47	33.0	-15.5	
2.593	20.2	H	1.16	9.51	28.50	33.0	-4.5	
High Ch								
2.680	10.9	V	1.17	9.54	19.25	33.0	-13.8	
2.680	21.2	H	1.17	9.54	29.56	33.0	-3.4	
Rev. 06.18.14								

9.2. 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

9.2.1. LTE BAND 2

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	1.4	RB1-0	1733	29.12	24.01	5.11
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	1.4	RB1-0	1733	29.22	23.06	6.16
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	3.0	RB1-0	1733	29.25	24.09	5.16
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	3.0	RB1-0	1733	29	23.06	5.94
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	5.0	RB1-0	1733	29.04	23.98	5.06
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	5.0	RB1-0	1733	28.88	22.91	5.97
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	10	RB1-0	1733	29.04	24.06	4.98
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	10	RB1-0	1733	28.88	23.04	5.84
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	15	RB1-0	1733	28.96	23.99	4.97
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	15	RB1-0	1733	28.88	23.06	5.82
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	20	RB1-0	1733	28.98	23.8	5.18
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	20	RB1-0	1733	28.76	22.82	5.94
*Peak Reading = Average Reading + Peak-to-Average Ratio						

9.2.2. LTE BAND 4

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	1.4	RB1-0	1733	28.98	23.87	5.11
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	1.4	RB1-0	1733	29.1	22.99	6.11
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	3.0	RB1-0	1733	29.11	24	5.11
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	3.0	RB1-0	1733	28.82	23	5.82
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	5.0	RB1-0	1733	28.86	23.85	5.01
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	5.0	RB1-0	1733	28.68	22.81	5.87
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	10	RB1-0	1733	28.86	23.99	4.87
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	10	RB1-0	1733	28.66	22.98	5.68
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	15	RB1-0	1733	28.83	23.94	4.89
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	15	RB1-0	1733	28.6	23	5.6
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	10	RB1-0	1733	28.6	23.78	4.82
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	10	RB1-0	1733	28.28	22.78	5.5
*Peak Reading = Average Reading + Peak-to-Average Ratio						

9.2.3. LTE BAND 5

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	1.4	RB1-0	836.5	29.28	24.08	5.2
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	1.4	RB1-0	836.5	35.67	29.44	6.23
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	3.0	RB1-0	836.5	29.23	24	5.23
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	3.0	RB1-0	836.5	28.96	23.04	5.92
*Peak Reading = Average Reading + Peak-to-Average Ratio						

Mode	Channel Band-width (MHZ)	Modulation	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio (PAR)
				*Peak	Average	
QPSK	5.0	RB1-0	836.5	28.97	23.89	5.08
Mode	Channel Band-width	Ch. No.	f (MHz)	Couducted Power (dBm)		Peak-to-Average Ratio
				*Peak	Average	
16QAM	5.0	RB1-0	836.5	28.85	22.89	5.96
*Peak Reading = Average Reading + Peak-to-Average Ratio						