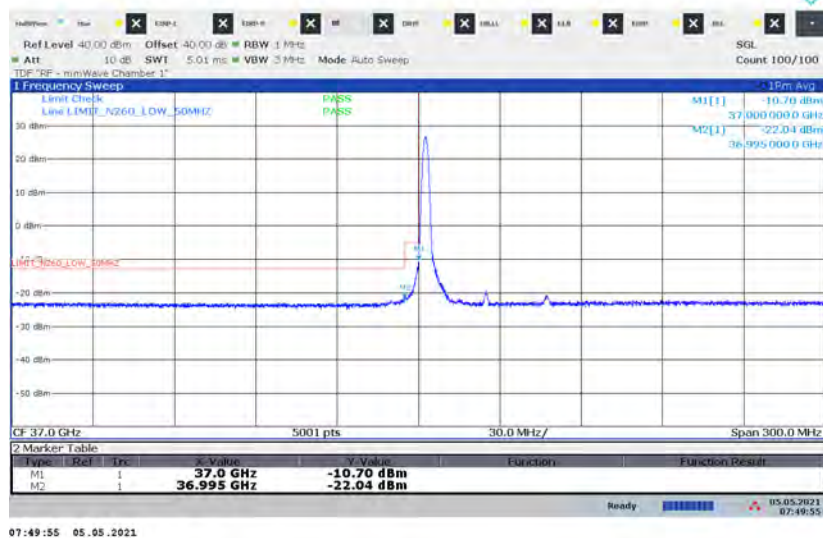


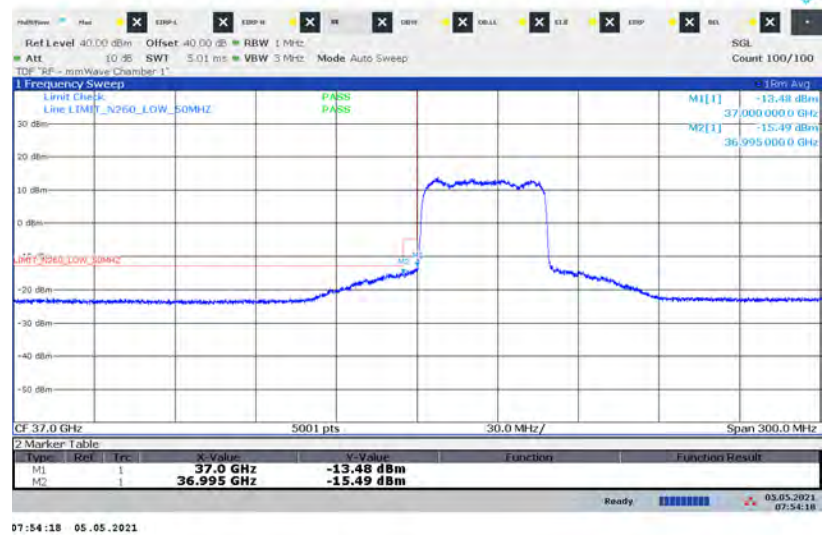
8.3.13. BAND EDGE n260 SISO-DUAL 1CC

ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB

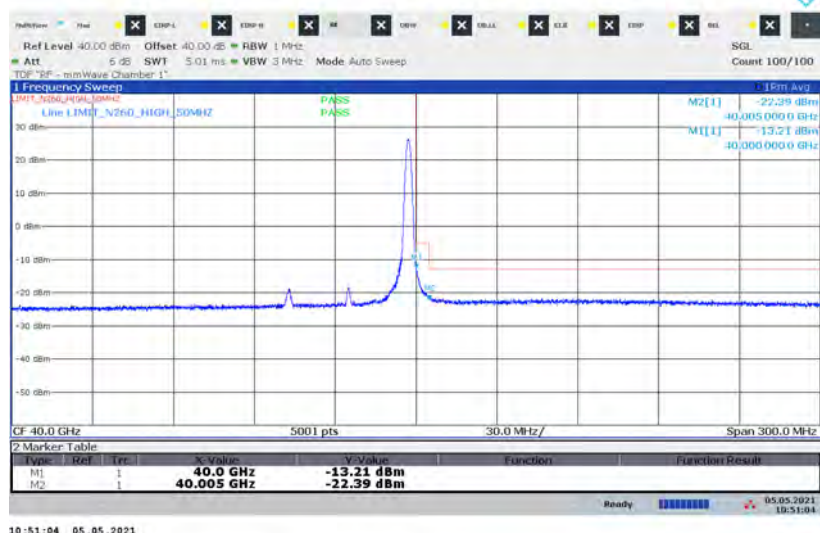


Low-side, Full RB

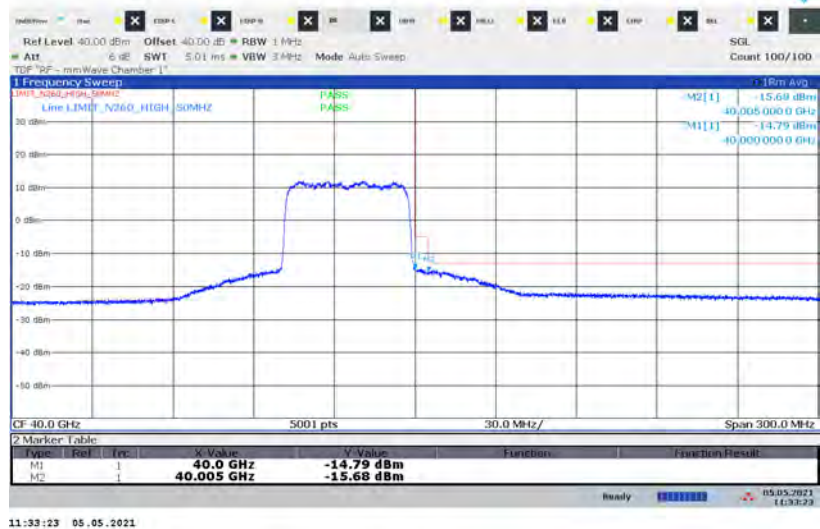


ANT M1, 50 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 1CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	37	-10.70	-5	-5.70
M1	50	L	1/0	36.995	-22.04	-13	-9.04
M0	50	L	1/0	37	-18.44	-5	-13.44
M0	50	L	1/0	36.995	-22.81	-13	-9.81
M2	50	L	1/0	37	-15.38	-5	-10.38
M2	50	L	1/0	36.995	-22.43	-13	-9.43
M1	50	L	32/0	37	-13.48	-5	-8.48
M1	50	L	32/0	36.995	-15.49	-13	-2.49
M0	50	L	32/0	37	-21.23	-5	-16.23
M0	50	L	32/0	36.995	-21.70	-13	-8.70
M2	50	L	32/0	37	-18.39	-5	-13.39
M2	50	L	32/0	36.995	-19.06	-13	-6.06
M1	50	H	1/32	40	-13.21	-5	-8.21
M1	50	H	1/32	40.005	-22.39	-13	-9.39
M0	50	H	1/32	40	-20.04	-5	-15.04
M0	50	H	1/32	40.005	-23.31	-13	-10.31
M2	50	H	1/32	40	-13.37	-5	-8.37
M2	50	H	1/32	40.005	-18.17	-13	-5.17
M1	50	H	32/0	40	-14.79	-5	-9.79
M1	50	H	32/0	40.005	-15.68	-13	-2.68
M0	50	H	32/0	40	-21.95	-5	-16.95
M0	50	H	32/0	40.005	-22.29	-13	-9.29
M2	50	H	32/0	40	-14.58	-5	-9.58
M2	50	H	32/0	40.005	-14.88	-13	-1.88

ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, BPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	37	-10.02	-5	-5.02
M1	50	L	1/0	36.995	-22.88	-13	-9.88
M2	50	L	1/0	37	-14.21	-5	-9.21
M2	50	L	1/0	36.995	-22.66	-13	-9.66
M1	50	L	32/0	37	-16.52	-5	-11.52
M1	50	L	32/0	36.995	-20.24	-13	-7.24
M2	50	L	32/0	37	-19.04	-5	-14.04
M2	50	L	32/0	36.995	-20.86	-13	-7.86
M1	50	H	1/32	40	-13.54	-5	-8.54
M1	50	H	1/32	40.005	-21.81	-13	-8.81
M2	50	H	1/32	40	-13.22	-5	-8.22
M2	50	H	1/32	40.005	-18.12	-13	-5.12
M1	50	H	32/0	40	-16.68	-5	-11.68
M1	50	H	32/0	40.005	-19.84	-13	-6.84
M2	50	H	32/0	40	-16.21	-5	-11.21
M2	50	H	32/0	40.005	-17.77	-13	-4.77

ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 16QAM

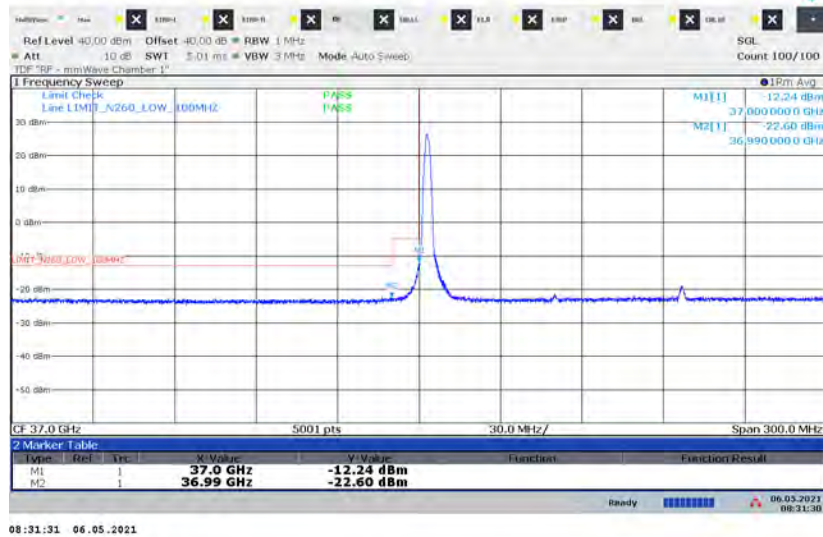
Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	37	-11.27	-5	-6.27
M1	50	L	1/0	36.995	-21.56	-13	-8.56
M2	50	L	1/0	37	-14.27	-5	-9.27
M2	50	L	1/0	36.995	-22.53	-13	-9.53
M1	50	L	32/0	37	-19.13	-5	-14.13
M1	50	L	32/0	36.995	-20.33	-13	-7.33
M2	50	L	32/0	37	-21.13	-5	-16.13
M2	50	L	32/0	36.995	-21.12	-13	-8.12
M1	50	H	1/32	40	-14.04	-5	-9.04
M1	50	H	1/32	40.005	-22.24	-13	-9.24
M2	50	H	1/32	40	-14.46	-5	-9.46
M2	50	H	1/32	40.005	-17.90	-13	-4.90
M1	50	H	32/0	40	-17.82	-5	-12.82
M1	50	H	32/0	40.005	-18.46	-13	-5.46
M2	50	H	32/0	40	-16.61	-5	-11.61
M2	50	H	32/0	40.005	-17.50	-13	-4.50

ANT M1 & M2, 50 MHz, SISO-DUAL, 1CC, 64QAM

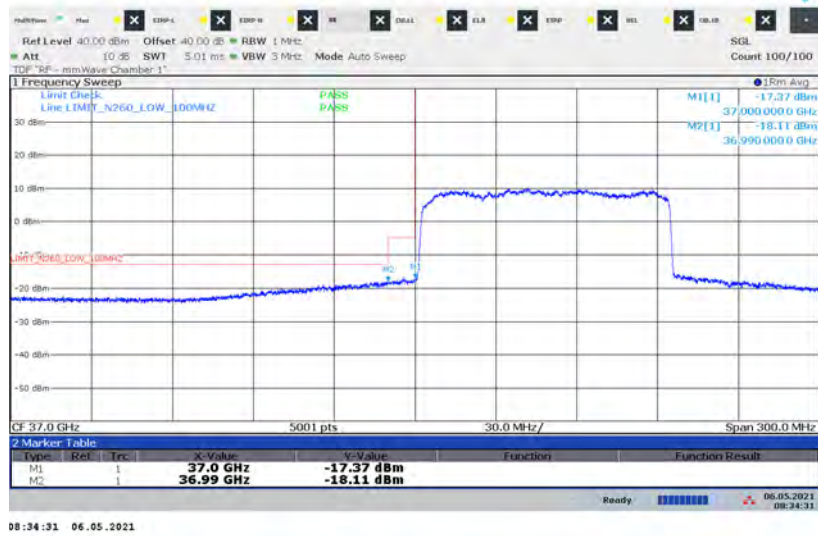
Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	50	L	1/0	37	-15.46	-5	-10.46
M1	50	L	1/0	36.995	-22.99	-13	-9.99
M2	50	L	1/0	37	-17.25	-5	-12.25
M2	50	L	1/0	36.995	-22.86	-13	-9.86
M1	50	L	32/0	37	-20.93	-5	-15.93
M1	50	L	32/0	36.995	-22.30	-13	-9.30
M2	50	L	32/0	37	-22.26	-5	-17.26
M2	50	L	32/0	36.995	-22.56	-13	-9.56
M1	50	H	1/32	40	-17.23	-5	-12.23
M1	50	H	1/32	40.005	-22.40	-13	-9.40
M2	50	H	1/32	40	-15.97	-5	-10.97
M2	50	H	1/32	40.005	-18.22	-13	-5.22
M1	50	H	32/0	40	-20.91	-5	-15.91
M1	50	H	32/0	40.005	-22.49	-13	-9.49
M2	50	H	32/0	40	-17.00	-5	-12.00
M2	50	H	32/0	40.005	-17.95	-13	-4.95

ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

Low-side, Single RB

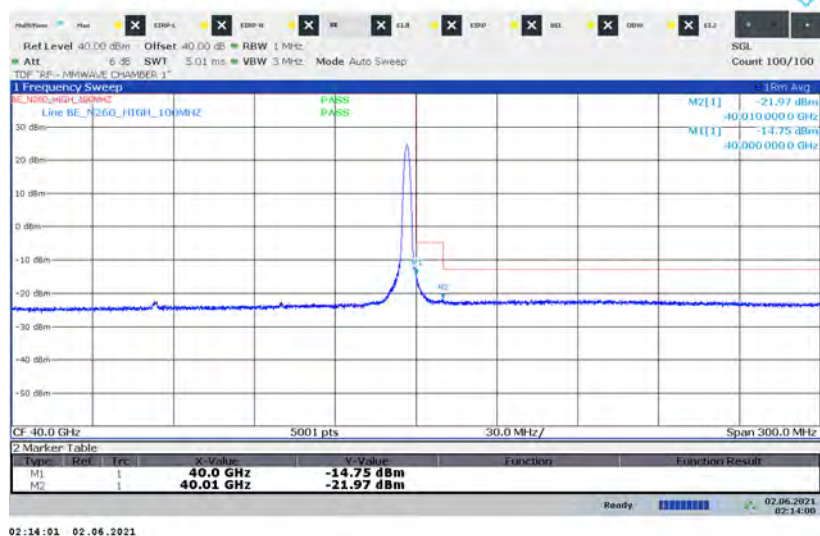


Low-side, Full RB

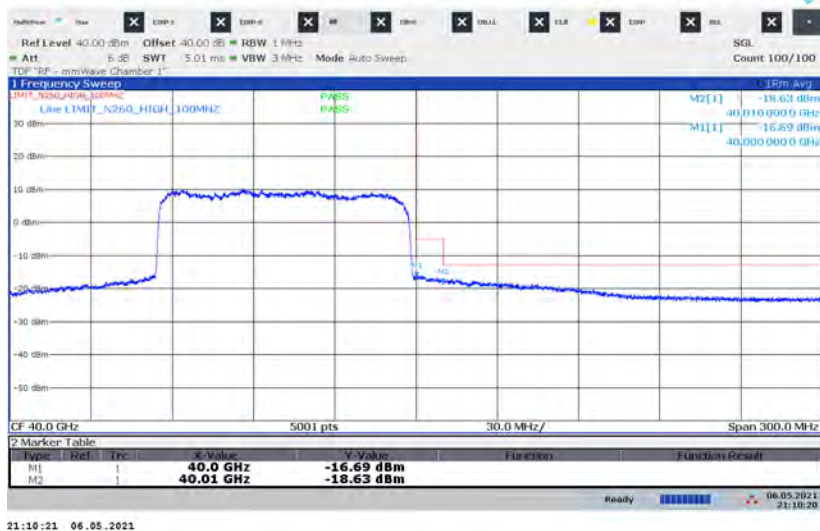


ANT M1, 100 MHz, SISO-DUAL, 1CC, QPSK

High-side, Single RB



High-side, Full RB



ANT M1, M0 & M2, 100 MHz, SISO-DUAL, 1CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	37	-12.24	-5	-7.24
M1	100	L	1/0	36.99	-22.60	-13	-9.60
M0	100	L	1/0	37	-19.23	-5	-14.23
M0	100	L	1/0	36.99	-23.49	-13	-10.49
M2	100	L	1/0	37	-14.64	-5	-9.64
M2	100	L	1/0	36.99	-22.90	-13	-9.90
M1	100	L	64/0	37	-17.37	-5	-12.37
M1	100	L	64/0	36.99	-18.11	-13	-5.11
M0	100	L	64/0	37	-22.42	-5	-17.42
M0	100	L	64/0	36.99	-22.86	-13	-9.86
M2	100	L	64/0	37	-20.30	-5	-15.30
M2	100	L	64/0	36.99	-20.84	-13	-7.84
M1	100	H	1/65	40	-14.75	-5	-9.75
M1	100	H	1/65	40.01	-21.97	-13	-8.97
M0	100	H	1/65	40	-21.00	-5	-16.00
M0	100	H	1/65	40.01	-23.58	-13	-10.58
M2	100	H	1/65	40	-14.15	-5	-9.15
M2	100	H	1/65	40.01	-18.30	-13	-5.30
M1	100	H	64/0	40	-16.69	-5	-11.69
M1	100	H	64/0	40.01	-18.63	-13	-5.63
M0	100	H	64/0	40	-22.59	-5	-17.59
M0	100	H	64/0	40.01	-22.80	-13	-9.80
M2	100	H	64/0	40	-16.29	-5	-11.29
M2	100	H	64/0	40.01	-17.00	-13	-4.00

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, BPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	37	-18.94	-5	-13.94
M1	100	L	64/0	36.99	-21.52	-13	-8.52
M2	100	L	64/0	37	-20.42	-5	-15.42
M2	100	L	64/0	36.99	-22.18	-13	-9.18
M1	100	H	64/0	40	-17.98	-5	-12.98
M1	100	H	64/0	40.01	-20.98	-13	-7.98
M2	100	H	64/0	40	-16.79	-5	-11.79
M2	100	H	64/0	40.01	-18.46	-13	-5.46

ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 16QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	37	-21.35	-5	-16.35
M1	100	L	64/0	36.99	-22.25	-13	-9.25
M2	100	L	64/0	37	-22.09	-5	-17.09
M2	100	L	64/0	36.99	-21.70	-13	-8.70
M1	100	H	64/0	40	-19.97	-5	-14.97
M1	100	H	64/0	40.01	-21.57	-13	-8.57
M2	100	H	64/0	40	-17.48	-5	-12.48
M2	100	H	64/0	40.01	-18.30	-13	-5.30

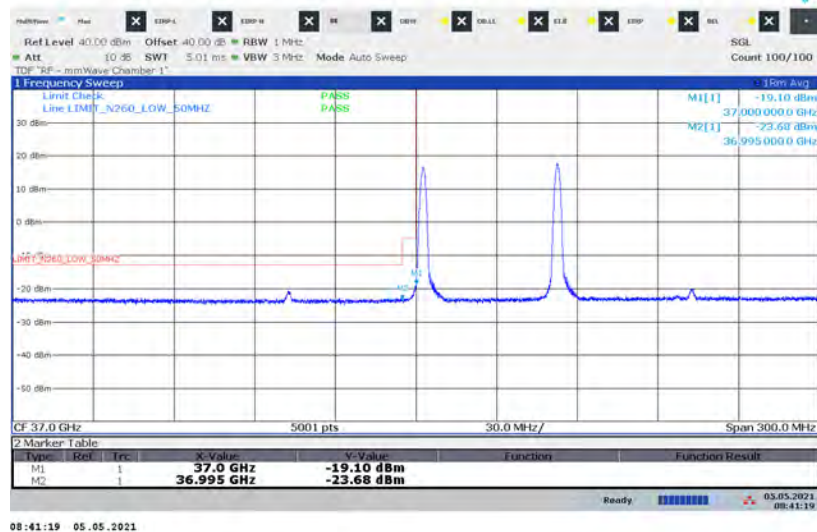
ANT M1 & M2, 100 MHz, SISO-DUAL, 1CC, 64QAM

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	64/0	37	-22.52	-5	-17.52
M1	100	L	64/0	36.99	-23.77	-13	-10.77
M2	100	L	64/0	37	-22.38	-5	-17.38
M2	100	L	64/0	36.99	-22.84	-13	-9.84
M1	100	H	64/0	40	-22.76	-5	-17.76
M1	100	H	64/0	40.01	-22.65	-13	-9.65
M2	100	H	64/0	40	-17.90	-5	-12.90
M2	100	H	64/0	40.01	-18.85	-13	-5.85

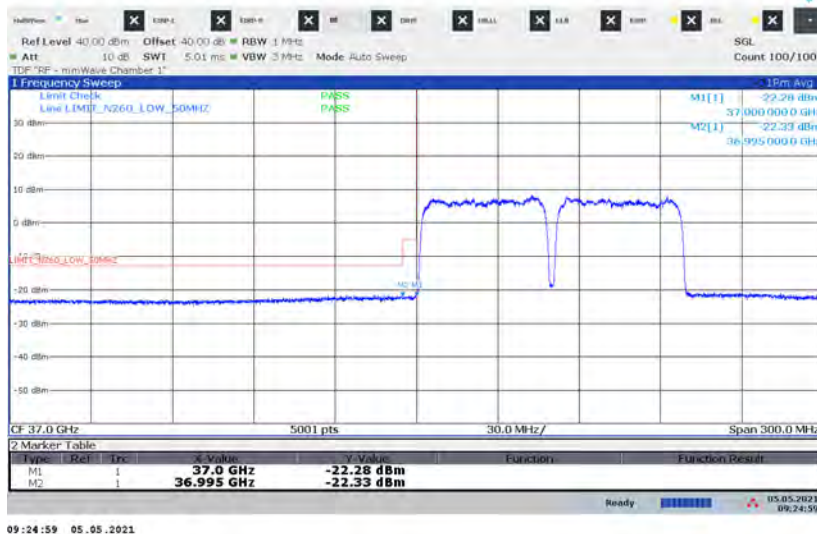
8.3.14. BAND EDGE n260 SISO-DUAL 2CC

ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

Low-side, Single RB

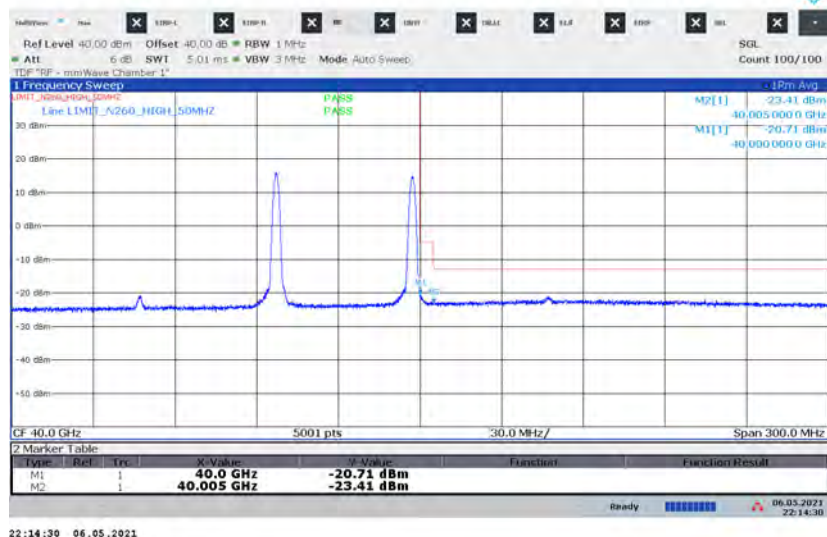


Low-side, Full RB

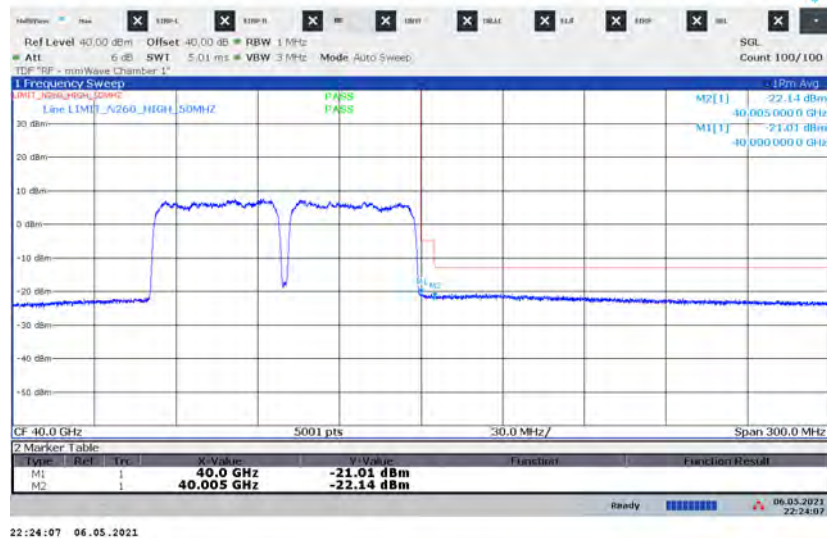


ANT M1, 50 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



High-side, Full RB



ANT M1, M0 & M2, 50 MHz, SISO-DUAL, 2CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-19.10	-5	-14.10
M1	50	L	1/0	36.995	-23.68	-13	-10.68
M0	50	L	1/0	37	-21.83	-5	-16.83
M0	50	L	1/0	36.995	-23.62	-13	-10.62
M2	50	L	1/0	37	-20.92	-5	-15.92
M2	50	L	1/0	36.995	-23.55	-13	-10.55
M1	50	L	32/0	37	-22.28	-5	-17.28
M1	50	L	32/0	36.995	-22.33	-13	-9.33
M0	50	L	32/0	37	-23.65	-5	-18.65
M0	50	L	32/0	36.995	-23.78	-13	-10.78
M2	50	L	32/0	37	-22.03	-5	-17.03
M2	50	L	32/0	36.995	-22.75	-13	-9.75
M1	50	H	1/32	40	-20.71	-5	-15.71
M1	50	H	1/32	40.005	-23.41	-13	-10.41
M0	50	H	1/32	40	-22.90	-5	-17.90
M0	50	H	1/32	40.005	-23.04	-13	-10.04
M2	50	H	1/32	40	-17.34	-5	-12.34
M2	50	H	1/32	40.005	-19.16	-13	-6.16
M1	50	H	32/0	40	-21.01	-5	-16.01
M1	50	H	32/0	40.005	-22.14	-13	-9.14
M0	50	H	32/0	40	-23.48	-5	-18.48
M0	50	H	32/0	40.005	-23.67	-13	-10.67
M2	50	H	32/0	40	-18.14	-5	-13.14
M2	50	H	32/0	40.005	-18.26	-13	-5.26

ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, BPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-17.73	-5	-12.73
M1	50	L	1/0	36.995	-23.72	-13	-10.72
M2	50	L	1/0	37	-21.02	-5	-16.02
M2	50	L	1/0	36.995	-22.69	-13	-9.69
M1	50	H	1/32	40	-20.79	-5	-15.79
M1	50	H	1/32	40.005	-22.93	-13	-9.93
M2	50	H	1/32	40	-17.38	-5	-12.38
M2	50	H	1/32	40.005	-18.91	-13	-5.91

ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 16QAM

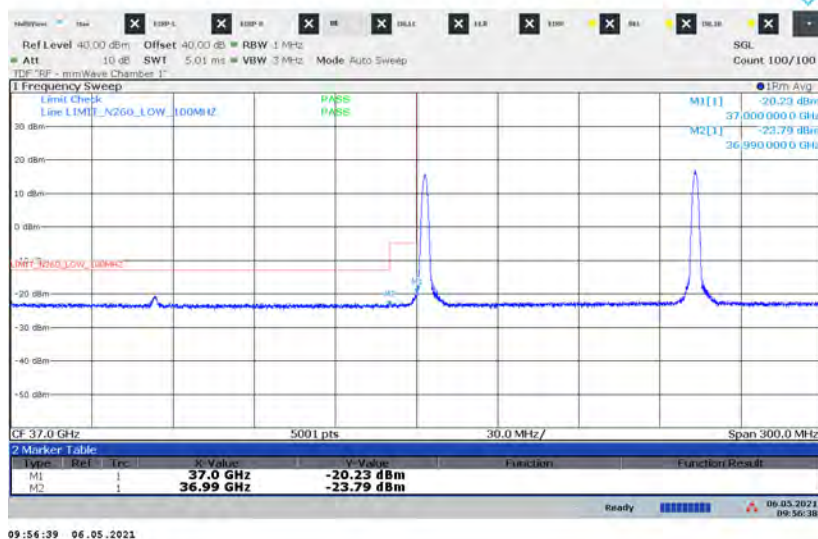
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-20.48	-5	-15.48
M1	50	L	1/0	36.995	-23.05	-13	-10.05
M2	50	L	1/0	37	-20.69	-5	-15.69
M2	50	L	1/0	36.995	-23.28	-13	-10.28
M1	50	H	1/32	40	-19.93	-5	-14.93
M1	50	H	1/32	40.005	-23.33	-13	-10.33
M2	50	H	1/32	40	-17.93	-5	-12.93
M2	50	H	1/32	40.005	-18.44	-13	-5.44

ANT M1 & M2, 50 MHz, SISO-DUAL, 2CC, 64QAM

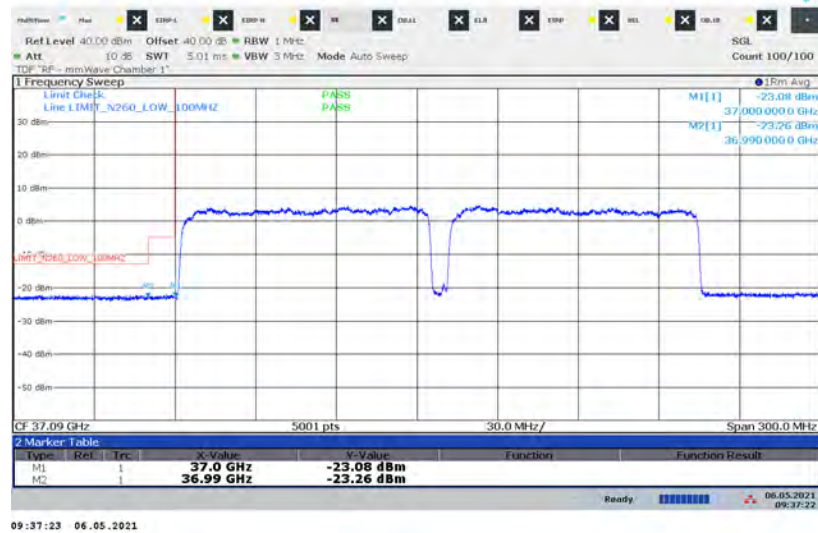
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-19.50	-5	-14.50
M1	50	L	1/0	36.995	-23.30	-13	-10.30
M2	50	L	1/0	37	-21.11	-5	-16.11
M2	50	L	1/0	36.995	-22.65	-13	-9.65
M1	50	H	1/32	40	-20.63	-5	-15.63
M1	50	H	1/32	40.005	-23.44	-13	-10.44
M2	50	H	1/32	40	-17.52	-5	-12.52
M2	50	H	1/32	40.005	-18.27	-13	-5.27

ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

Low-side, Single RB

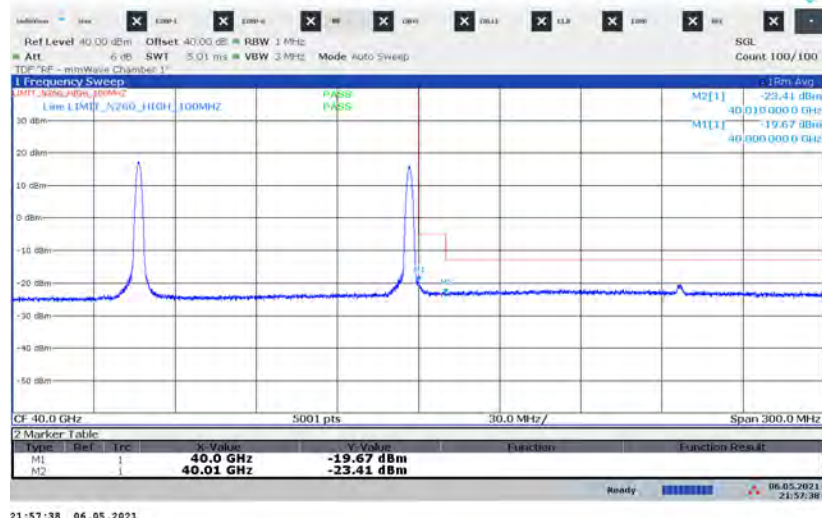


High-side, Full RB

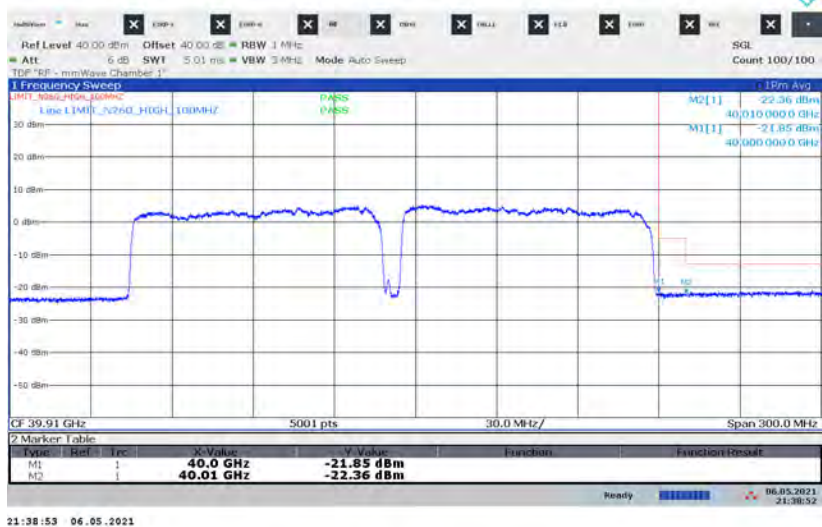


ANT M1, 100 MHz, SISO-DUAL, 2CC, QPSK

High-side, Single RB



High-side, Full RB



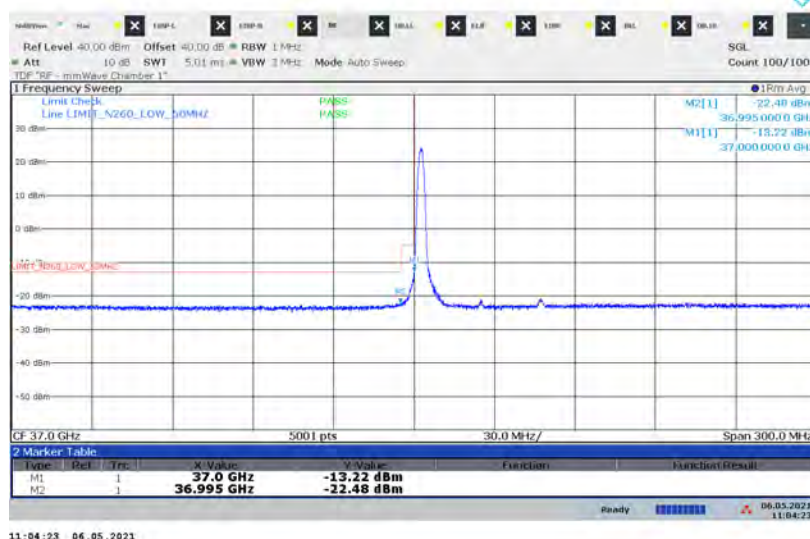
ANT M1, M0 & M2, 100 MHz, SISO-DUAL, 2CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	1/0	37	-20.23	-5	-15.23
M1	100	L	1/0	36.99	-23.79	-13	-10.79
M0	100	L	1/0	37	-23.30	-5	-18.30
M0	100	L	1/0	36.99	-23.61	-13	-10.61
M2	100	L	1/0	37	-20.43	-5	-15.43
M2	100	L	1/0	36.99	-23.10	-13	-10.10
M1	100	L	64/0	37	-23.08	-5	-18.08
M1	100	L	64/0	36.99	-23.26	-13	-10.26
M0	100	L	64/0	37	-23.65	-5	-18.65
M0	100	L	64/0	36.99	-23.75	-13	-10.75
M2	100	L	64/0	37	-23.42	-5	-18.42
M2	100	L	64/0	36.99	-23.28	-13	-10.28
M1	100	H	1/65	40	-19.67	-5	-14.67
M1	100	H	1/65	40.01	-23.41	-13	-10.41
M0	100	H	1/65	40	-23.20	-5	-18.20
M0	100	H	1/65	40.01	-23.02	-13	-10.02
M2	100	H	1/65	40	-16.93	-5	-11.93
M2	100	H	1/65	40.01	-18.55	-13	-5.55
M1	100	H	64/0	40	-21.85	-5	-16.85
M1	100	H	64/0	40.01	-22.36	-13	-9.36
M0	100	H	64/0	40	23.55	-5	28.55
M0	100	H	64/0	40.01	-22.32	-13	-9.32
M2	100	H	64/0	40	-18.93	-5	-13.93
M2	100	H	64/0	40.01	-18.77	-13	-5.77

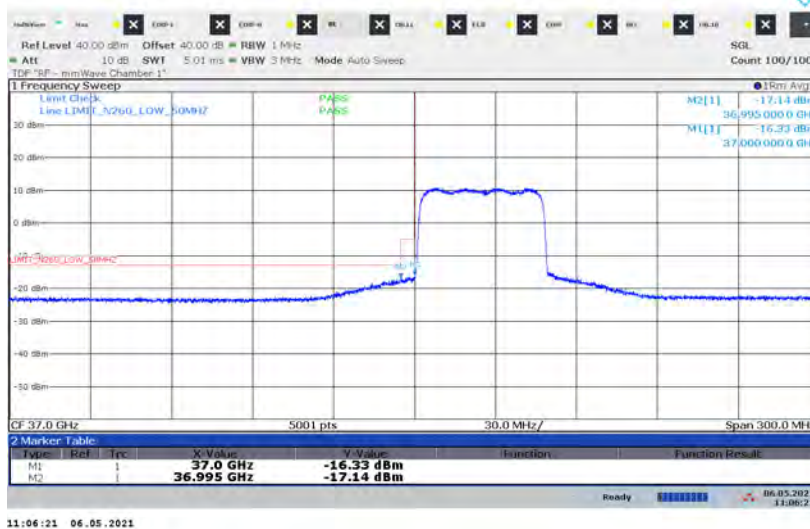
8.3.15. BAND EDGE n260 MIMO 1CC

ANT M1, 50 MHz, MIMO, 1CC, QPSK

Low-side, Single RB

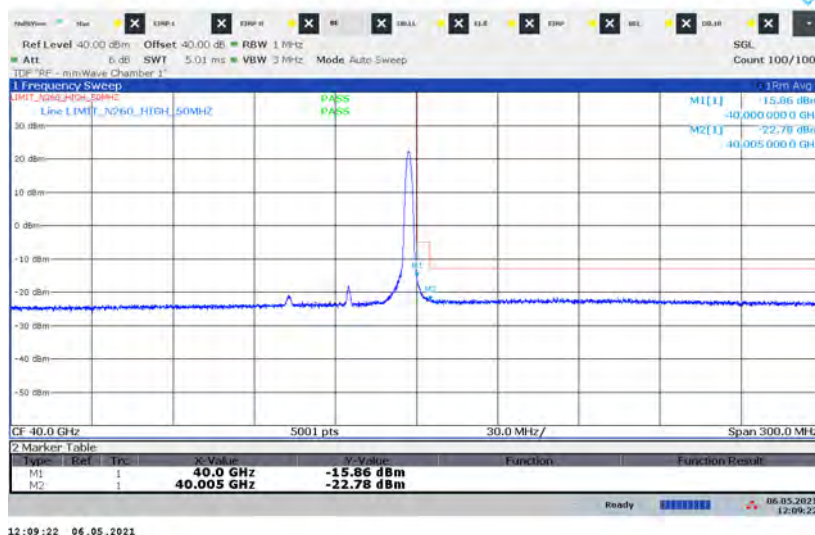


Low-side, Full RB

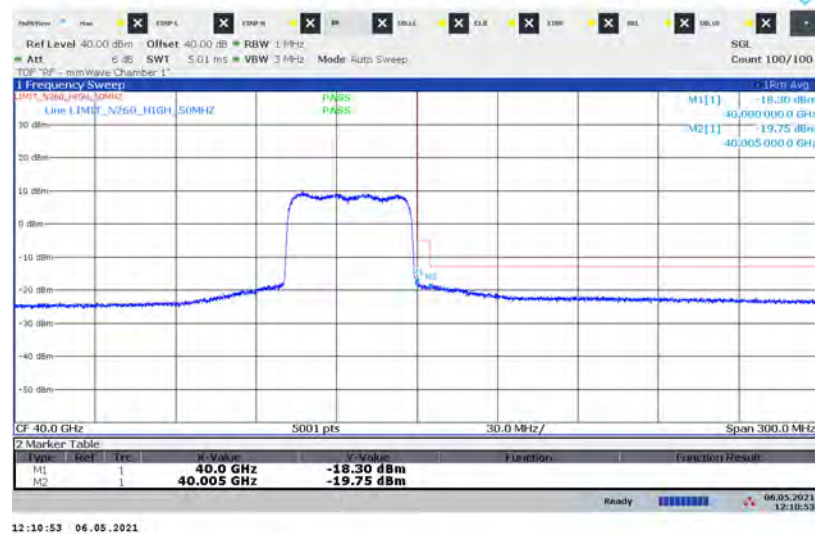


ANT M1, 50 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB

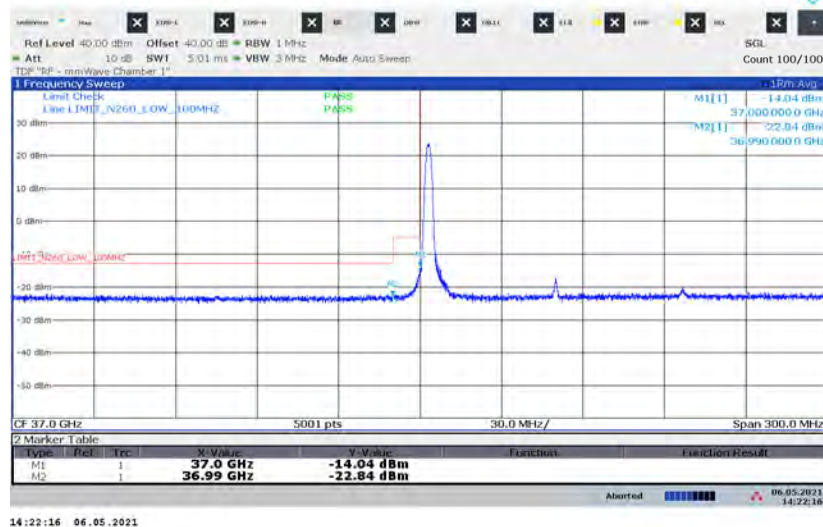


ANT M1, M0 & M2, 50 MHz, MIMO, 1CC, QPSK

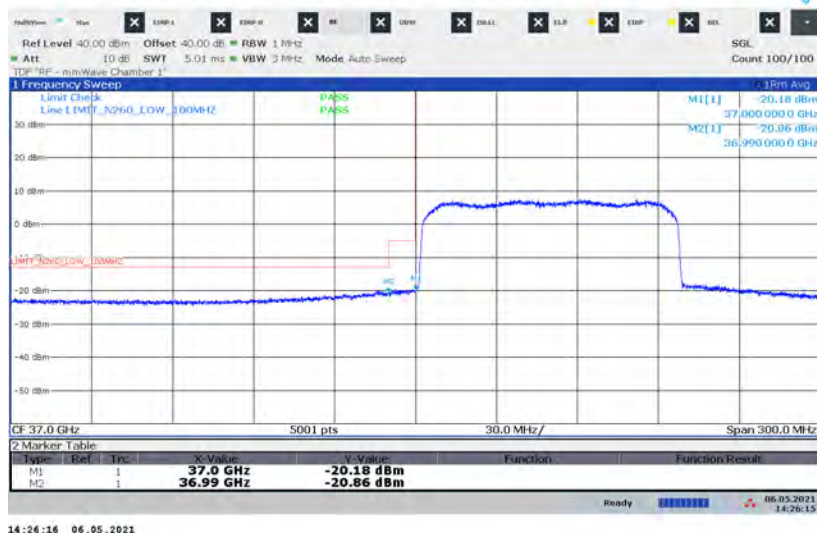
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-13.22	-5	-8.22
M1	50	L	1/0	36.995	-22.48	-13	-9.48
M0	50	L	1/0	37	-20.73	-5	-15.73
M0	50	L	1/0	36.995	-23.72	-13	-10.72
M2	50	L	1/0	37	-15.82	-5	-10.82
M2	50	L	1/0	36.995	-22.53	-13	-9.53
M1	50	L	32/0	37	-16.33	-5	-11.33
M1	50	L	32/0	36.995	-17.14	-13	-4.14
M0	50	L	32/0	37	-22.29	-5	-17.29
M0	50	L	32/0	36.995	-22.74	-13	-9.74
M2	50	L	32/0	37	-19.59	-5	-14.59
M2	50	L	32/0	36.995	-20.84	-13	-7.84
M1	50	H	1/32	40	-15.86	-5	-10.86
M1	50	H	1/32	40.005	-22.78	-13	-9.78
M0	50	H	1/32	40	-21.24	-5	-16.24
M0	50	H	1/32	40.005	-23.09	-13	-10.09
M2	50	H	1/32	40	-15.86	-5	-10.86
M2	50	H	1/32	40.005	-18.52	-13	-5.52
M1	50	H	32/0	40	-18.30	-5	-13.30
M1	50	H	32/0	40.005	-19.75	-13	-6.75
M0	50	H	32/0	40	-22.66	-5	-17.66
M0	50	H	32/0	40.005	-22.79	-13	-9.79
M2	50	H	32/0	40	-16.12	-5	-11.12
M2	50	H	32/0	40.005	-16.93	-13	-3.93

ANT M1, 100 MHz, MIMO, 1CC, QPSK

Low-side, Single RB

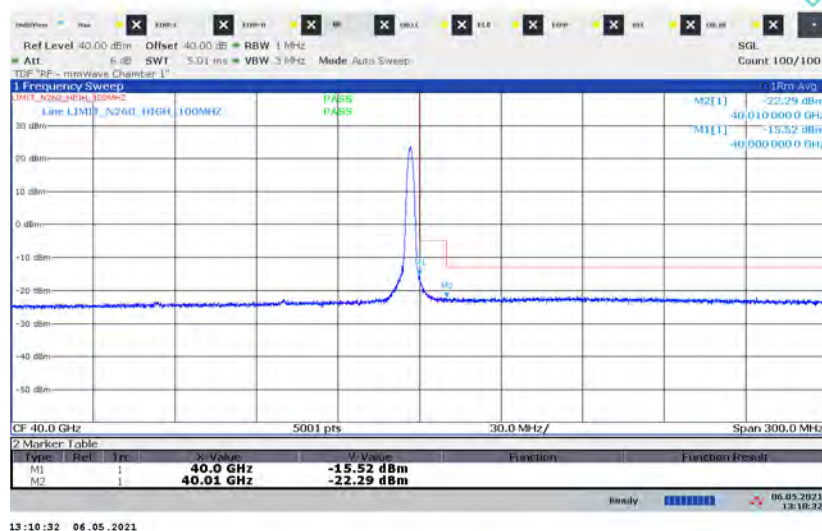


Low-side, Full RB

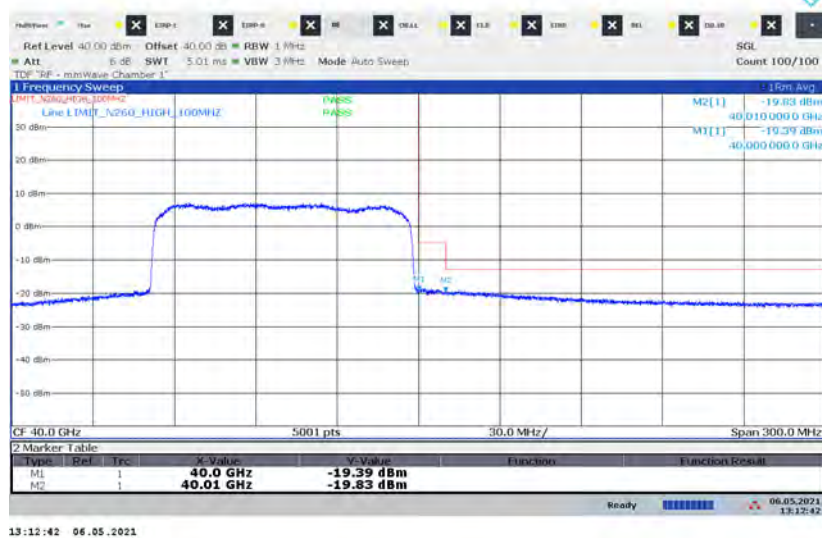


ANT M1, 100 MHz, MIMO, 1CC, QPSK

High-side, Single RB



High-side, Full RB



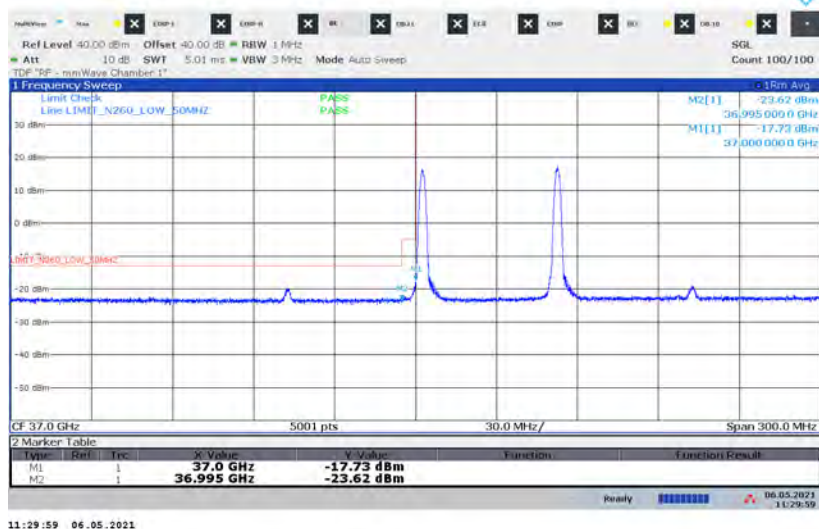
ANT M1, M0 & M2, 100 MHz, MIMO, 1CC, QPSK

Antenna	BW (MHz)	Channel	RB (Size Offset)	Freq. (GHz)	Avg EIRP (dBm)	Avg TRP Limit (dBm)	Margin (dB)
M1	100	L	1/0	37	-14.04	-5	-9.04
M1	100	L	1/0	36.99	-22.84	-13	-9.84
M0	100	L	1/0	37	-20.68	-5	-15.68
M0	100	L	1/0	36.99	-23.79	-13	-10.79
M2	100	L	1/0	37	-17.23	-5	-12.23
M2	100	L	1/0	36.99	-22.90	-13	-9.90
M1	100	L	66/0	37	-20.18	-5	-15.18
M1	100	L	66/0	36.99	-20.86	-13	-7.86
M0	100	L	66/0	37	-22.47	-5	-17.47
M0	100	L	66/0	36.99	-23.14	-13	-10.14
M2	100	L	66/0	37	-21.02	-5	-16.02
M2	100	L	66/0	36.99	-21.19	-13	-8.19
M1	100	H	1/65	40	-15.52	-5	-10.52
M1	100	H	1/65	40.01	-22.29	-13	-9.29
M0	100	H	1/65	40	-21.92	-5	-16.92
M0	100	H	1/65	40.01	-23.11	-13	-10.11
M2	100	H	1/65	40	-15.52	-5	-10.52
M2	100	H	1/65	40.01	-18.76	-13	-5.76
M1	100	H	66/0	40	-19.39	-5	-14.39
M1	100	H	66/0	40.01	-19.83	-13	-6.83
M0	100	H	66/0	40	-22.91	-5	-17.91
M0	100	H	66/0	40.01	-22.61	-13	-9.61
M2	100	H	66/0	40	-16.82	-5	-11.82
M2	100	H	66/0	40.01	-17.24	-13	-4.24

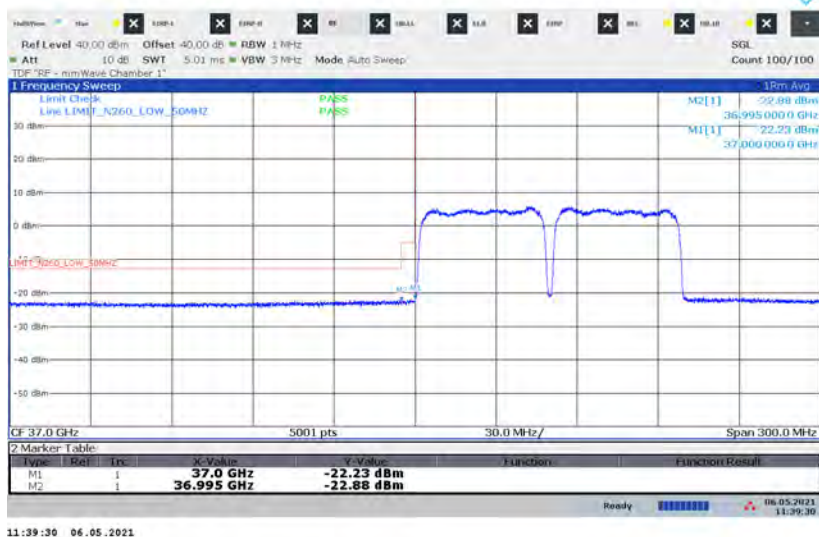
8.3.16. BAND EDGE n260 MIMO 2CC

ANT M1, 50 MHz, MIMO, 2CC, QPSK

Low-side, Single RB

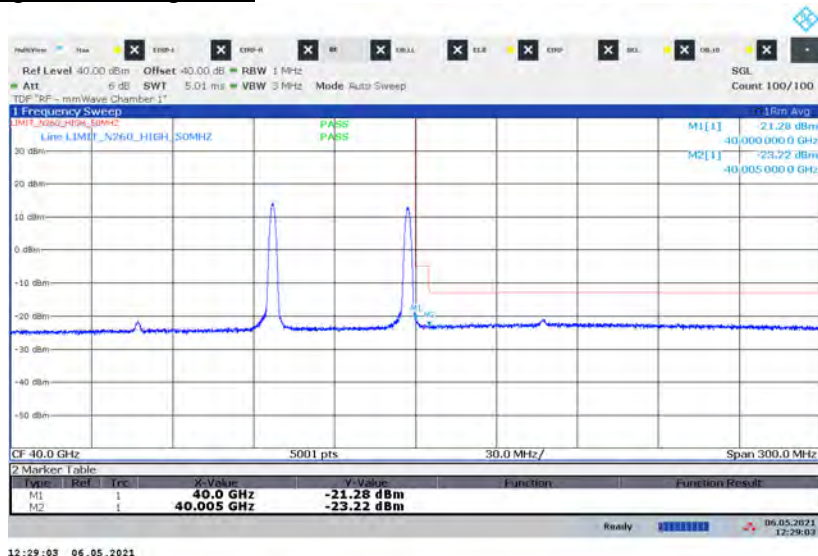


Low-side, Full RB



ANT M1, 50 MHz, MIMO, 2CC, QPSK

High-side, Single RB



High-side, Full RB

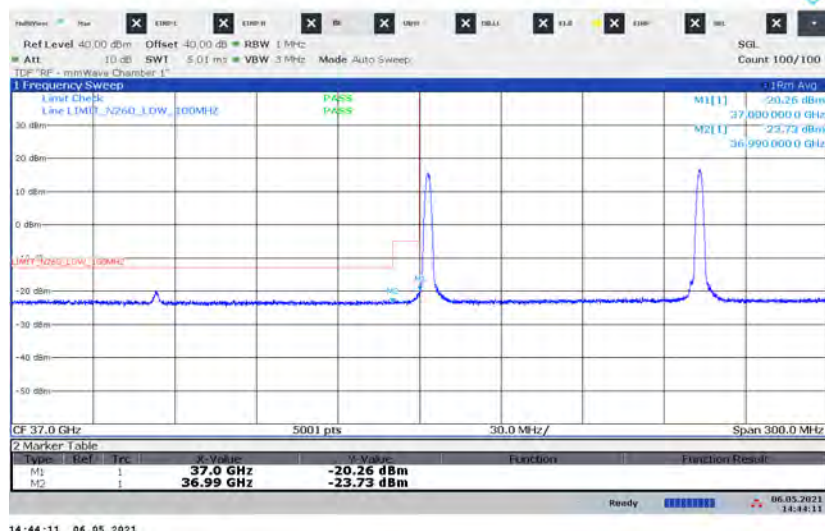


ANT M1, M0 & M2, 50 MHz, MIMO, 2CC, QPSK

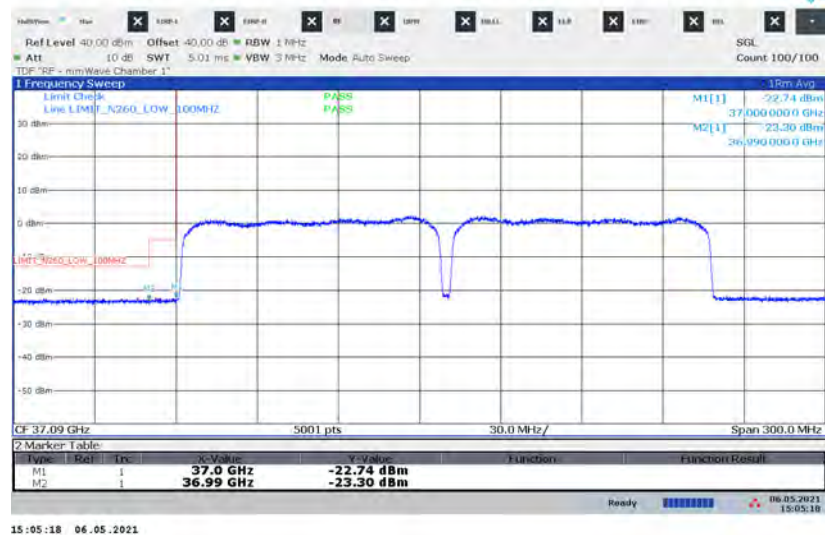
Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	50	L	1/0	37	-17.73	-5	-12.73
M1	50	L	1/0	36.995	-23.62	-13	-10.62
M0	50	L	1/0	37	-22.04	-5	-17.04
M0	50	L	1/0	36.995	-23.58	-13	-10.58
M2	50	L	1/0	37	-20.68	-5	-15.68
M2	50	L	1/0	36.995	-22.86	-13	-9.86
M1	50	L	32/0	37	-22.23	-5	-17.23
M1	50	L	32/0	36.995	-22.88	-13	-9.88
M0	50	L	32/0	37	-23.59	-5	-18.59
M0	50	L	32/0	36.995	-22.90	-13	-9.90
M2	50	L	32/0	37	-22.07	-5	-17.07
M2	50	L	32/0	36.995	-22.95	-13	-9.95
M1	50	H	1/32	40	-21.28	-5	-16.28
M1	50	H	1/32	40.005	-23.22	-13	-10.22
M0	50	H	1/32	40	-23.23	-5	-18.23
M0	50	H	1/32	40.005	-23.26	-13	-10.26
M2	50	H	1/32	40	-17.41	-5	-12.41
M2	50	H	1/32	40.005	-19.10	-13	-6.10
M1	50	H	32/0	40	-22.47	-5	-17.47
M1	50	H	32/0	40.005	-22.99	-13	-9.99
M0	50	H	32/0	40	-23.07	-5	-18.07
M0	50	H	32/0	40.005	-23.54	-13	-10.54
M2	50	H	32/0	40	-18.15	-5	-13.15
M2	50	H	32/0	40.005	-18.43	-13	-5.43

ANT M1, 100 MHz, MIMO, 2CC, QPSK

Low-side, Single RB

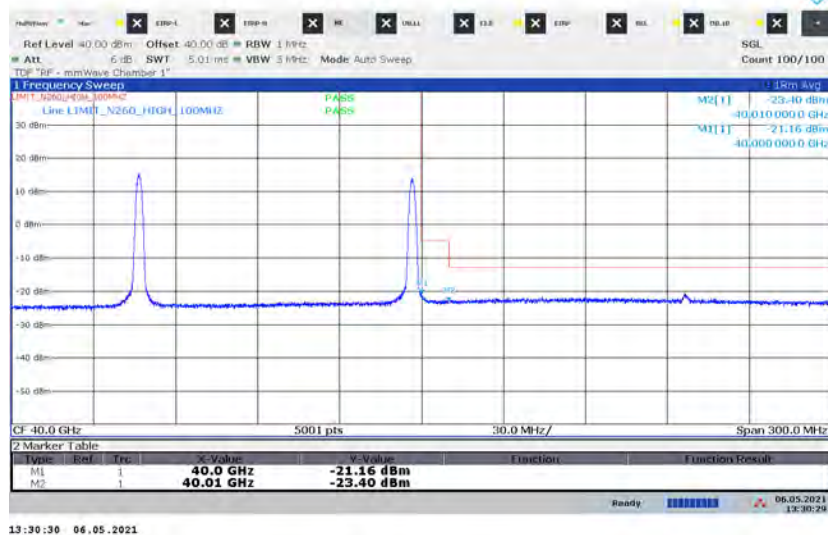


Low-side, Full RB

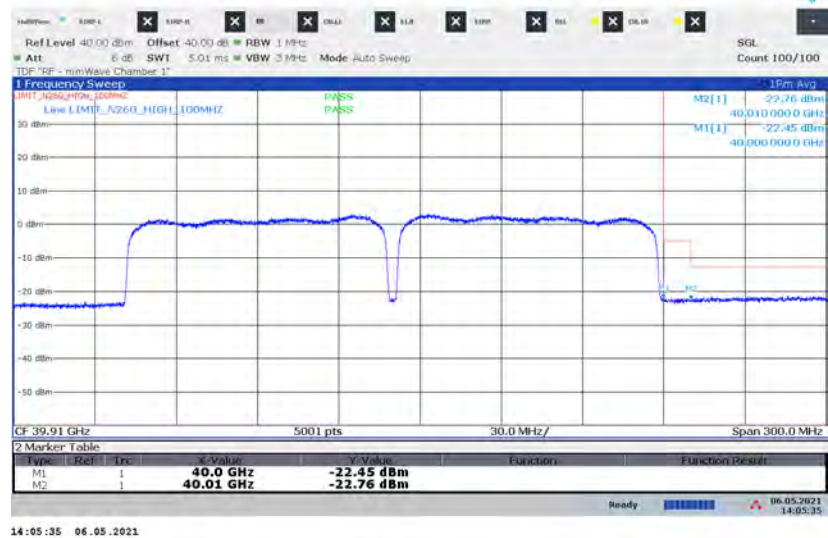


ANT M1, 100 MHz, MIMO, 2CC, QPSK

High-side, Single RB



High-side, Full RB



ANT M1, M0 & M2, 100 MHz, MIMO, 2CC, QPSK

Antenna	BW	Channel	RB	Freq.	Avg EIRP	Avg TRP Limit	Margin
	(MHz)		(Size Offset)	(GHz)	(dBm)	(dBm)	(dB)
M1	100	L	1/0	37	-20.26	-5	-15.26
M1	100	L	1/0	36.99	-23.73	-13	-10.73
M0	100	L	1/0	37	-22.56	-5	-17.56
M0	100	L	1/0	36.99	-24.18	-13	-11.18
M2	100	L	1/0	37	-21.84	-5	-16.84
M2	100	L	1/0	36.99	-23.25	-13	-10.25
M1	100	L	66/0	37	-22.74	-5	-17.74
M1	100	L	66/0	36.99	-23.30	-13	-10.30
M0	100	L	66/0	37	-23.55	-5	-18.55
M0	100	L	66/0	36.99	-23.64	-13	-10.64
M2	100	L	66/0	37	-23.02	-5	-18.02
M2	100	L	66/0	36.99	-22.90	-13	-9.90
M1	100	H	1/65	40	-21.16	-5	-16.16
M1	100	H	1/65	40.01	-23.40	-13	-10.40
M0	100	H	1/65	40	-23.22	-5	-18.22
M0	100	H	1/65	40.01	-23.43	-13	-10.43
M2	100	H	1/65	40	-18.08	-5	-13.08
M2	100	H	1/65	40.01	-18.53	-13	-5.53
M1	100	H	66/0	40	-22.45	-5	-17.45
M1	100	H	66/0	40.01	-22.76	-13	-9.76
M0	100	H	66/0	40	-23.58	-5	-18.58
M0	100	H	66/0	40.01	-23.30	-13	-10.30
M2	100	H	66/0	40	-18.41	-5	-13.41
M2	100	H	66/0	40.01	-18.04	-13	-5.04

8.4. RADIATED SPURIOUS EMISSIONS

RULE PART(S)

FCC: §2.1051, §30.203

LIMIT

30.203 - (a) The conductive power or the total radiated power of any emission outside a licensee's frequency block shall be -13 dBm/MHz or lower.

TEST PROCEDURE

KDB 842590 D01 Upper Microwave Flexible Use Service v01 Section 4.4.2 and Section 4.4.3. ANSI C63.26-2015 Clause 5.5.4 and Annex C.5.2.

All radiated spurious emissions were measured as EIRP to compare with the §30.203 TRP limits to demonstrate compliance.

RSE was investigated from 30 MHz – 100 GHz on n258 SB1, n258 SB2 and n261 bands, from 30 MHz – 200 GHz on n260 band.

Plots below 18 GHz are corrected field strength levels, measured at 3 meter test distance. The average EIRP reported below is calculated per section 5.2.7 of ANSI C63.26-2015 which states: $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m. The field strength E is calculated $E (dB\mu V/m) = \text{Spectrum Analyzer Level (dBm)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107$. All appropriate Antenna Factor and Cable Loss have been applied in the spectrum analyzer for each measurement.

RSEs from 1 – 200 GHz were measured at 1.5 meters height.

RSEs above 18 GHz were measured at the appropriate far field distances listed on Section 5 on this report (FAR-FIELD DISTANCE AND MEASUREMENT DISTANCE). RSEs from 18 – 50 GHz were measured using a spectrum analyzer or EMI receiver with an internal preamplifier when applicable. Emissions above 50 GHz were measured using a harmonic mixer or a downconverter with spectrum analyzer, while an external LNA was used when applicable.

EIRP of RSE was calculated using the equations on ANSI C63.26-2015 Annex C.5.2. The total correction factor of cable loss, horn antenna gain, harmonic mixer loss, LNA gain and far-field path loss were calculated using equations C.8 and C.9, and pre-loaded into spectrum analyzer.

Sample calculation of EIRP:

$$\begin{aligned}\text{Total Correction Factor} &= \text{Cable Loss (dB)} - \text{Horn Ant Gain (dBi)} + \text{Mixer Loss (dB)} \\ &\quad - \text{LNA Gain (dB)} + \text{Path Loss (dB)} \\ &= 4 - 23 + 12 - 30 + 71 \\ &= 34 \text{ dB}\end{aligned}$$

$EIRP = P_{\text{measured}}(dBm)$, where Total Correction Factor preloaded.

RSEs were measured using the configuration with the highest EIRP (QPSK, SISO-Dual mode and a single mid-RB) as representing the worst case. Preliminary radiated emissions tests at the low, middle and high channels indicated that the worst case radiated spurious emissions were on the channel with the highest EIRP and so only the test data for that channel is included in this report.

The following configurations with highest EIRP from Ant M1 and Ant M2 in each frequency band were used at RSE investigation at the pre-determined worst case y-axis (portrait) orientation:

n258 SB1 band:

M1: SISO-DUAL_QPSK_50 MHz BW_Mid CH_RB Offset 1/15 (1RB-M)

M2: SISO-DUAL_QPSK_50 MHz BW_Mid CH_RB Offset 1/15 (1RB-M)

n258 SB2 band:

M1: SISO-DUAL_QPSK_50 MHz BW_Mid CH_RB Offset 1/15 (1RB-M)

M2: SISO-DUAL_QPSK_50 MHz BW_High CH_RB Offset 1/15 (1RB-M)

n261 band:

M1: SISO-DUAL_QPSK_100 MHz BW_High CH_RB Offset 1/32 (1RB-M)

M2: SISO-DUAL_QPSK_50 MHz BW_High CH_RB Offset 1/15 (1RB-M)

n260 band:

M1: SISO-DUAL_QPSK_50 MHz BW_Low CH_RB Offset 1/15 (1RB-M)

M2: SISO-DUAL_QPSK_50 MHz BW_Mid CH_RB Offset 1/15 (1RB-M)

In addition, the 2CC multi-carrier operations were verified for IMD product at the near upper and lower band edge regions, approximately 1 GHz wide. The measurements were made with the single RB active in each channel and plots showing the IMD product are provided. Both (50 MHz + 50 MHz) and (100 MHz + 100 MHz) channel bandwidths are tested and the signal level of the IMD products are similar for both modes. The test data for the worst case IMD emissions are reported.

Where the measured EIRP value is within 1 dB of the limit, a TRP measurement is made, otherwise the EIRP value is compared with the §30.203 TRP limits to demonstrate compliance.

For simultaneous transmission of multiple channels in the 4G LTE bands and 5G FR2 bands, no noticeable new emission was found.

RESULTS

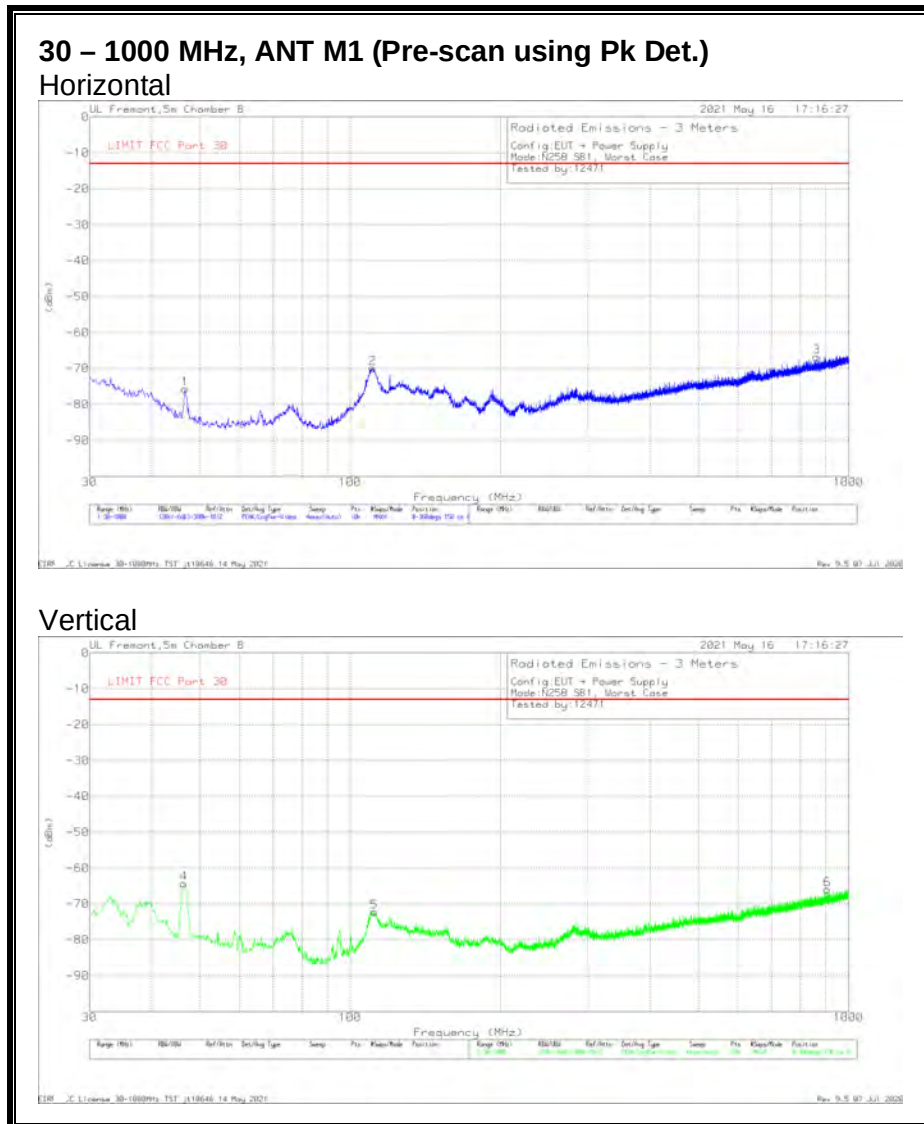
See the following pages.

Employee IDs: 12501, 19296, 19437, 19459, 19470 & 24303

Test Date: 5/15/2021 – 6/11/2021

Test Locations: Chambers B, 1, 2 & 3

8.4.1. RSE n258 SB1 30 – 1000 MHz

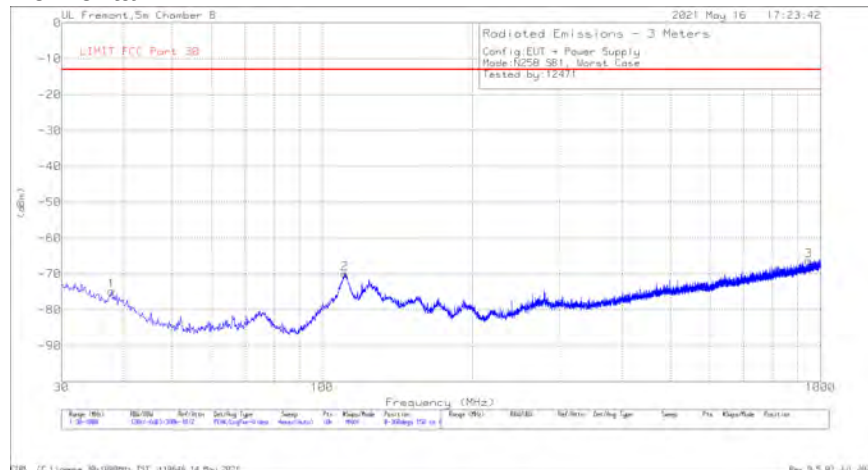


Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degr)	Height (cm)	Polarity
4	46.393	-60.03	Pk	15.3	-31.2	11.7	-64.23	-13	-51.23	0-360	150	V
1	46.684	-71.45	Pk	15.2	-31.2	11.7	-75.75	-13	-62.75	0-360	150	H
2	110.898	-69.76	Pk	18.7	-30.6	11.7	-69.96	-13	-56.96	0-360	150	H
5	111.674	-72.03	Pk	18.8	-30.6	11.7	-72.13	-13	-59.13	0-360	150	V
3	862.26	-79.02	Pk	27.8	-27.3	11.7	-66.82	-13	-53.82	0-360	150	H
6	906.492	-79.25	Pk	28.3	-26.7	11.7	-65.95	-13	-52.95	0-360	150	V

Pk - Peak detector

30 – 1000 MHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



Vertical

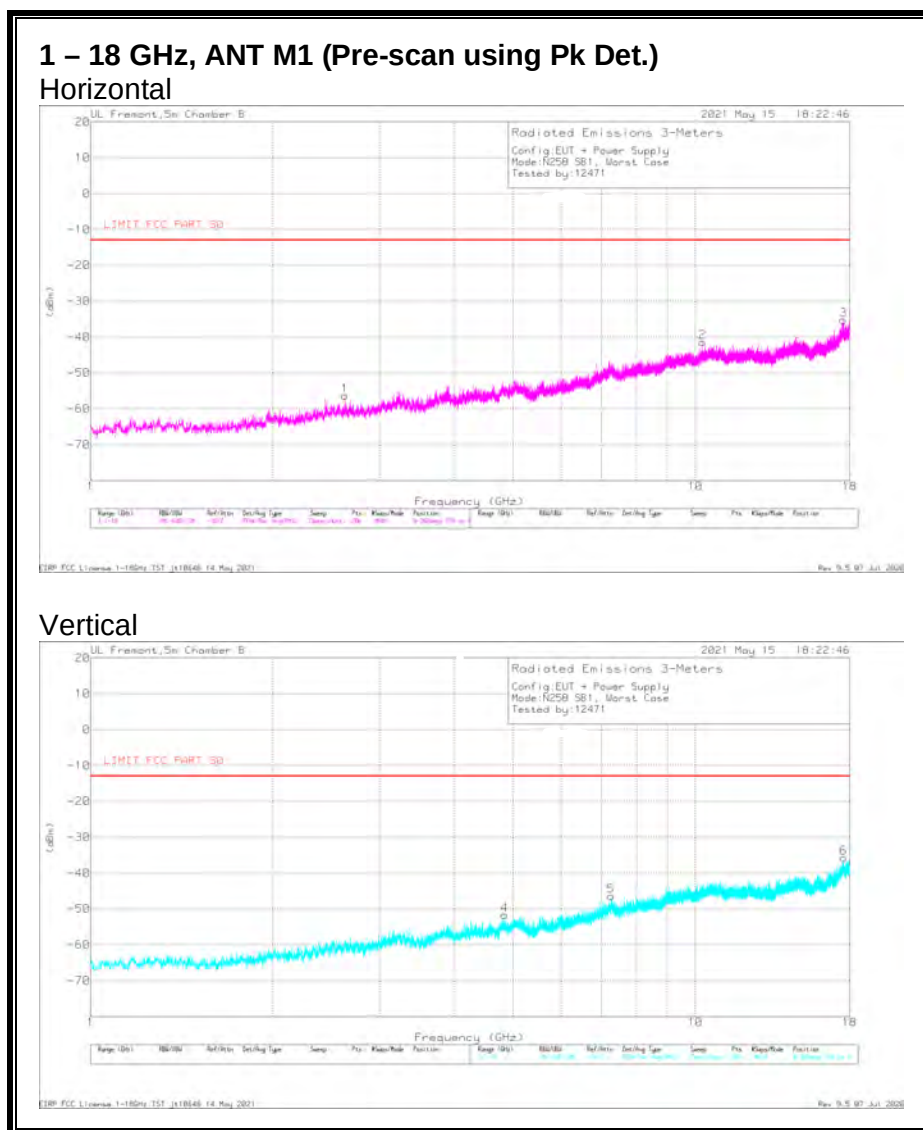


Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	37.76	-76.55	Pk	21.4	-31.3	11.7	-74.75	-13	-61.75	0-360	150	H
4	41.155	-63.48	Pk	18.9	-31.3	11.7	-64.18	-13	-51.18	0-360	150	V
2	111.092	-69.77	Pk	18.7	-30.6	11.7	-69.97	-13	-56.97	0-360	150	H
5	111.092	-71.55	Pk	18.7	-30.6	11.7	-71.75	-13	-58.75	0-360	150	V
6	773.505	-78.6	Pk	26.8	-27.8	11.7	-67.9	-13	-54.9	0-360	150	V
3	944.904	-80.19	Pk	28.5	-26.3	11.7	-66.29	-13	-53.29	0-360	150	H

Pk - Peak detector

8.4.2. RSE n258 SB1 1 - 18 GHz

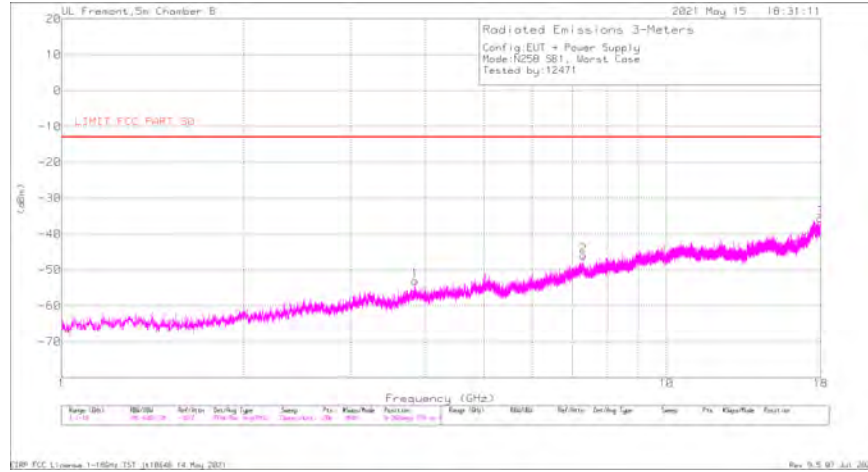


Trace Markers

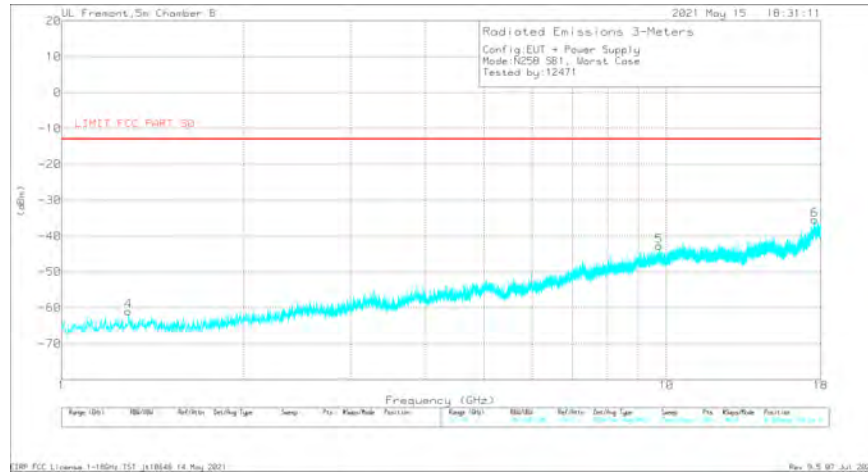
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.63378	-70.88	Pk	29.1	-26.2	11.7	-56.28	-13	-43.28	0-360	150	H
4	4.83709	-71.95	Pk	33.1	-24.5	11.7	-51.65	-13	-38.65	0-360	150	V
5	7.25972	-74.32	Pk	37.2	-21	11.7	-46.42	-13	-33.42	0-360	150	V
2	10.27992	-74.53	Pk	38.9	-17.4	11.7	-41.33	-13	-28.33	0-360	150	H
3	17.58434	-76.28	Pk	43	-13.7	11.7	-35.28	-13	-22.28	0-360	150	H
6	17.59029	-76.84	Pk	43	-13.6	11.7	-35.74	-13	-22.74	0-360	150	V

Pk - Peak detector

1 – 18 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



Vertical



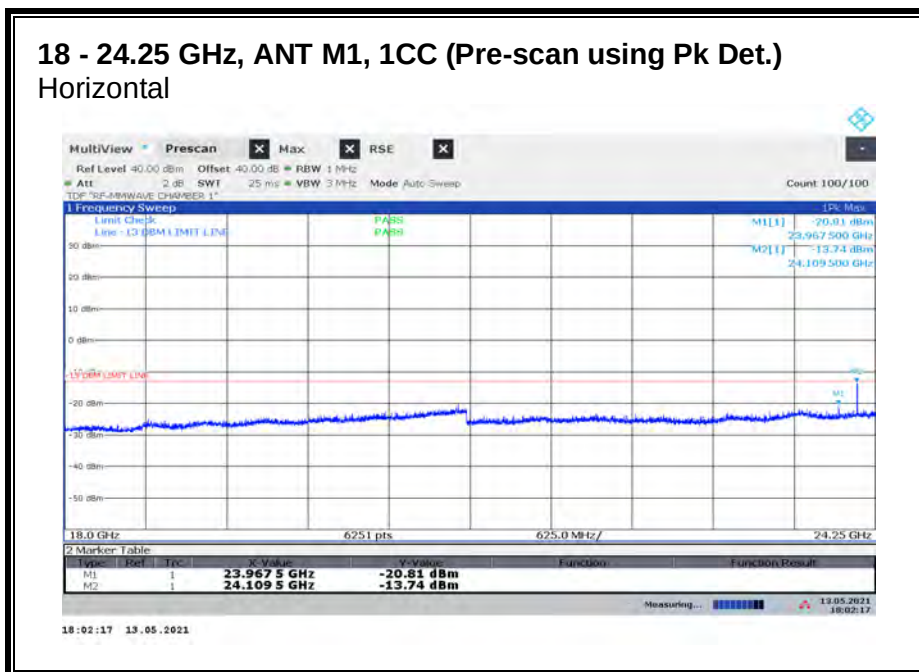
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.28986	-70.01	Pk	25.6	-28.2	11.7	-60.91	-13	-47.91	0-360	150	V
1	3.84424	-71.18	Pk	31.2	-24.8	11.7	-53.08	-13	-40.08	0-360	150	H
2	7.29797	-73.96	Pk	37	-20.8	11.7	-46.06	-13	-33.06	0-360	150	H
5	9.73589	-75.42	Pk	38.6	-17.6	11.7	-42.72	-13	-29.72	0-360	150	V
6	17.60304	-76.34	Pk	42.9	-13.7	11.7	-35.44	-13	-22.44	0-360	150	V
3	17.99746	-75.63	Pk	43.2	-14.9	11.7	-35.63	-13	-22.63	0-360	150	H

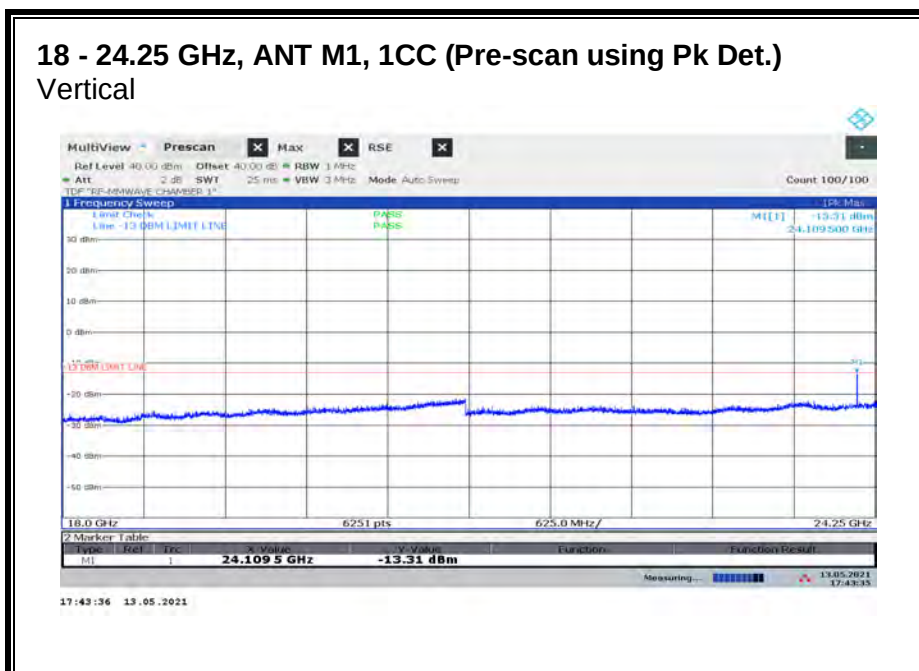
Pk - Peak detector

8.4.3.RSE n258 SB1 18 - 24.25 GHz

18 - 24.25 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Horizontal

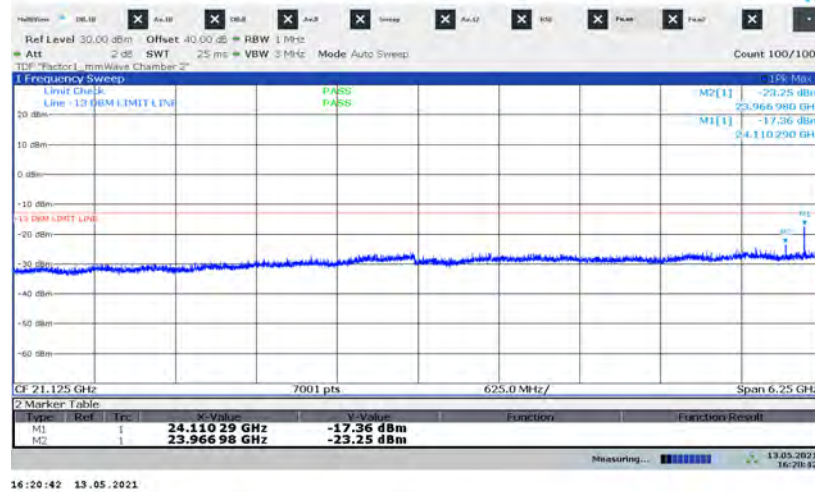


18 - 24.25 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Vertical

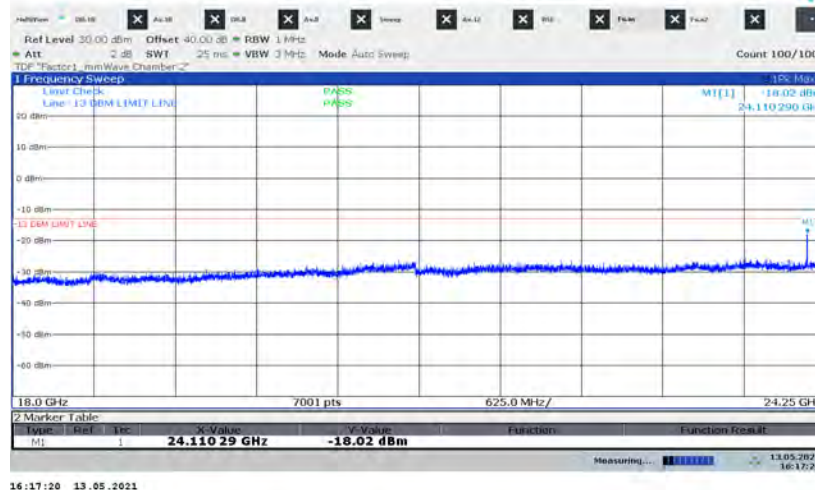


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

18 - 24.25 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Horizontal



18 - 24.25 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Vertical

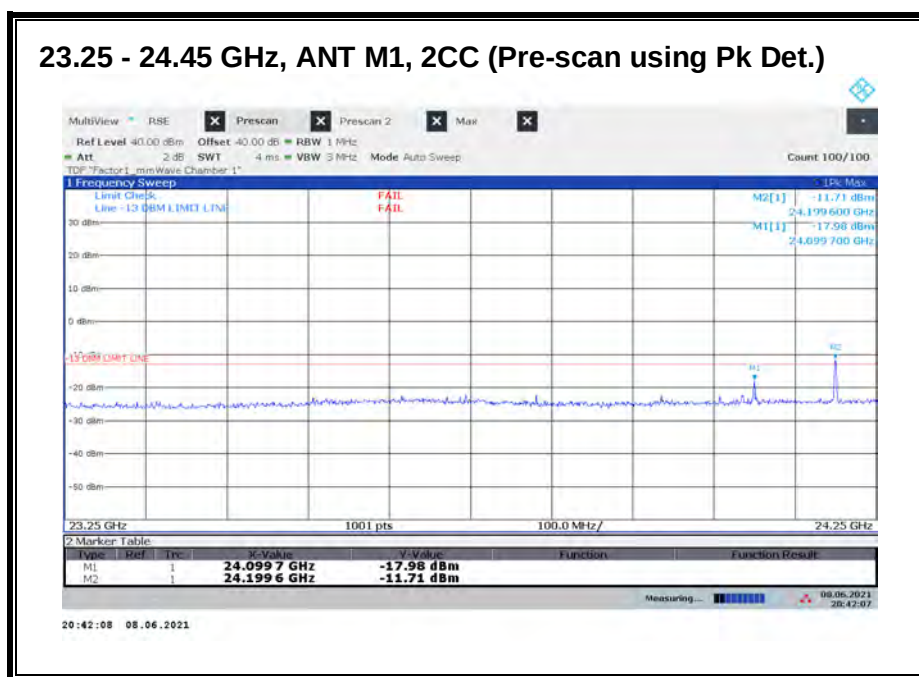


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

18 - 24.25 GHz n258 SB1, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.11	3.5	H	-23.06	-13	-10.06
M1	24.11	3.5	V	-14.94	-13	-1.94
M2	24.11	3.5	H	-22.14	-13	-9.14
M2	24.11	3.5	V	-21.52	-13	-8.52

23.25 - 24.25 GHz n258 SB1, 2CC



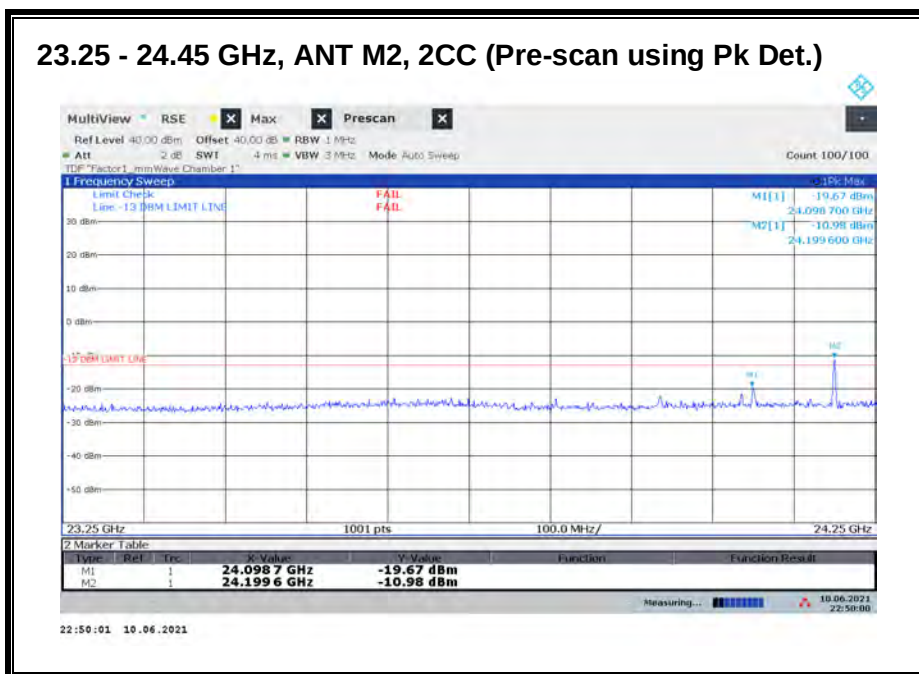
Worst case configuration:

SISO-DUAL_QPSK_(100 MHz + 100 MHz)_Low CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.199	3.5	H	-17.69	-13	-4.69



Worst case configuration:

SISO-DUAL_QPSK_(100 MHz + 100 MHz)_Low CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

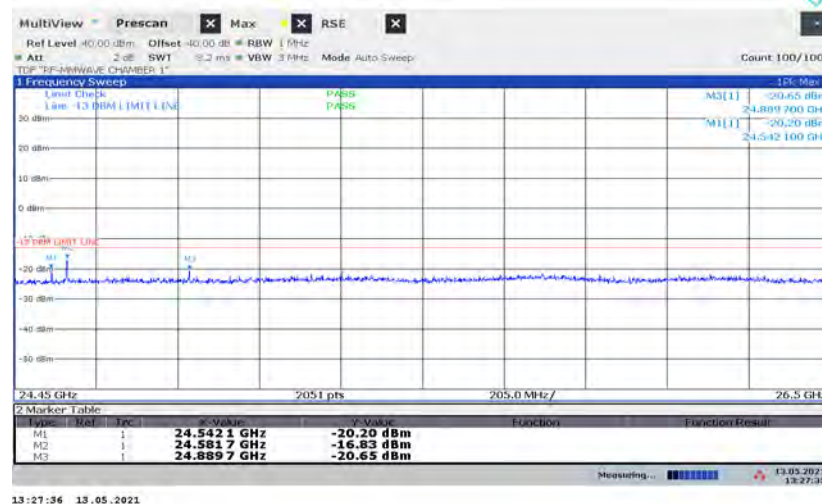
Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	24.199	3	H	-17.95	-13	-4.95

8.4.4. RSE n258 SB1 24.45 - 26.5 GHz

Note: 24.25 – 24.45 GHz covered by Fundamental and BE measurements.

24.45 - 26.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Horizontal

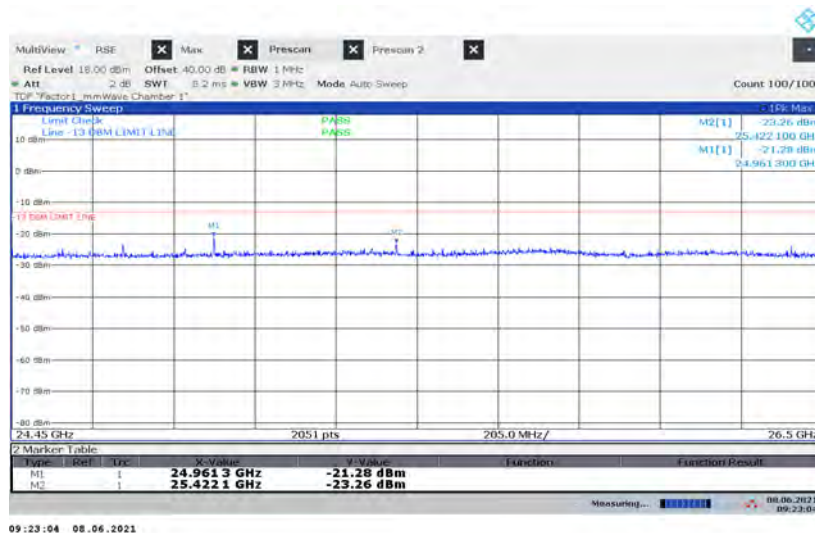


24.45 - 26.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Vertical

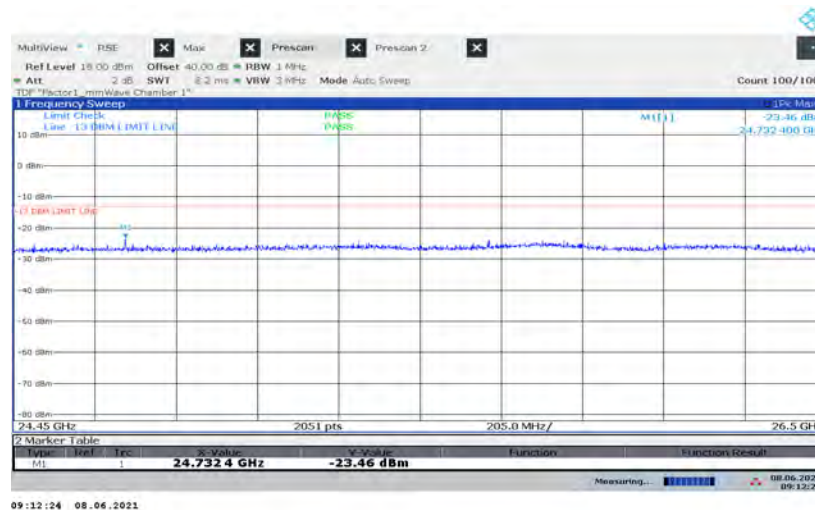


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

24.45 - 26.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Horizontal



24.45 - 26.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Vertical

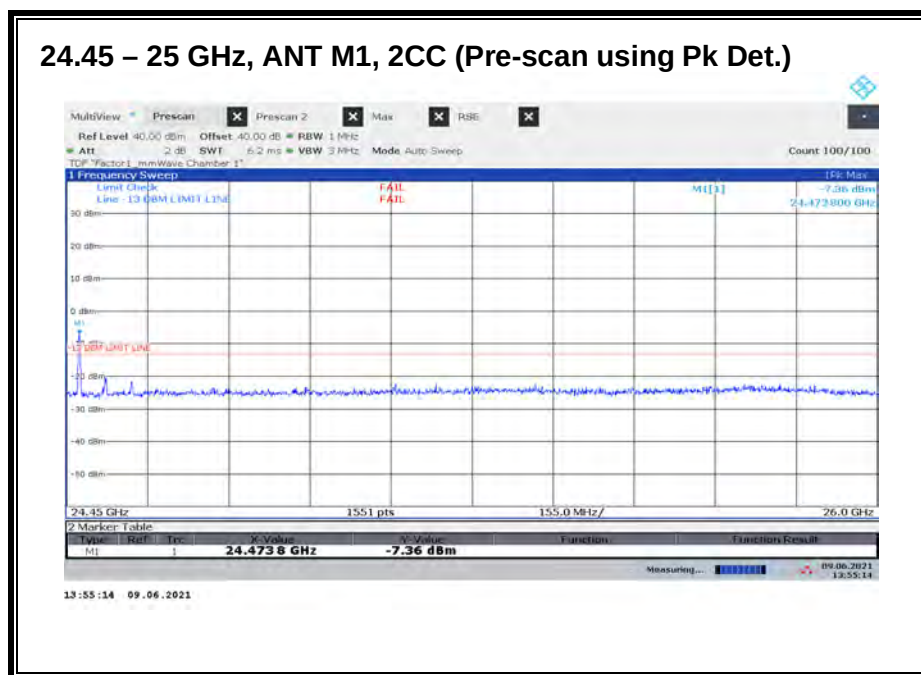


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

24.45 - 26.5 GHz n258 SB1, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.581	3.5	H	-20.61	-13	-7.61
M1	24.888	3.5	H	-26.12	-13	-13.12
M1	24.729	3.5	V	-23.63	-13	-10.63
M2	24.962	3.5	H	-25.98	-13	-12.98
M2	25.422	3.5	H	-25.89	-13	-12.89
M2	24.731	3.5	V	-29.70	-13	-16.70

24.45 – 25 GHz n258 SB1, 2CC



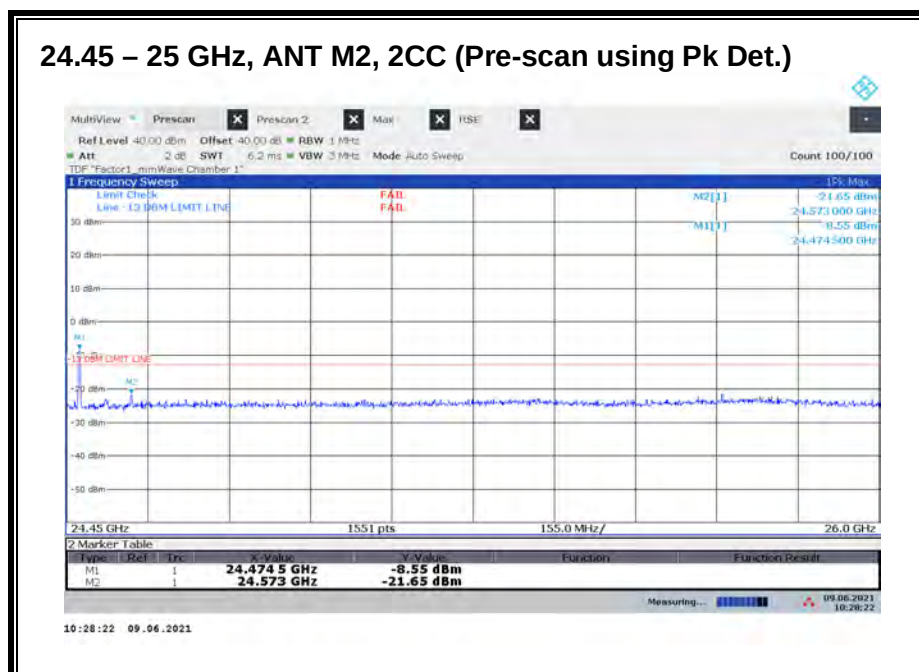
Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_High CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.474	3.5	H	-17.46	-13	-4.46



Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_High CH_RB Offset 1/15 (1RB-M)

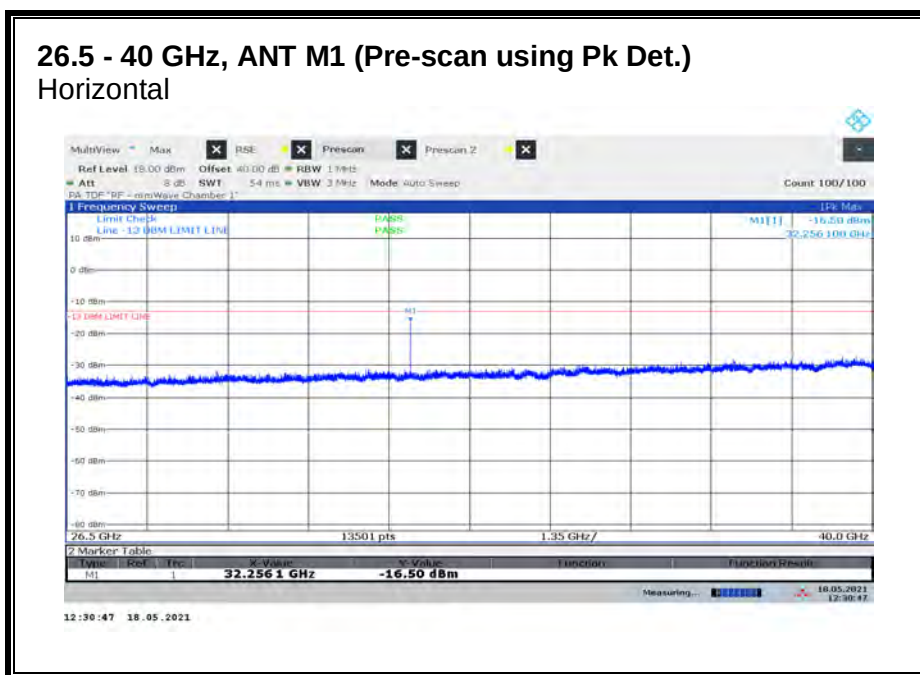
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

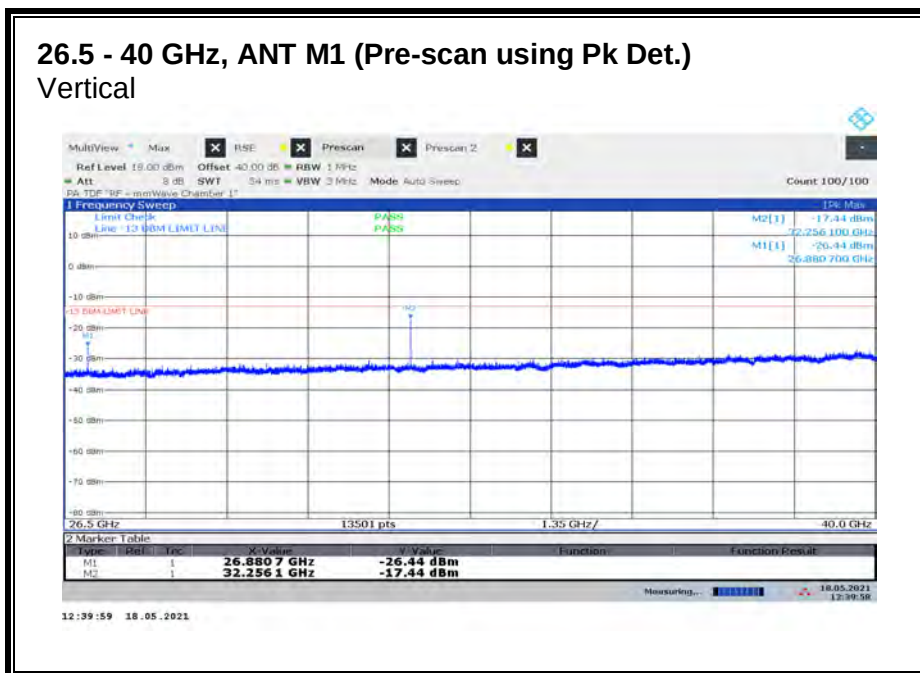
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	24.474	3.5	H	-15.10	-13	-2.10

8.4.5. RSE n258 SB1 26.5 - 40 GHz

26.5 - 40 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal

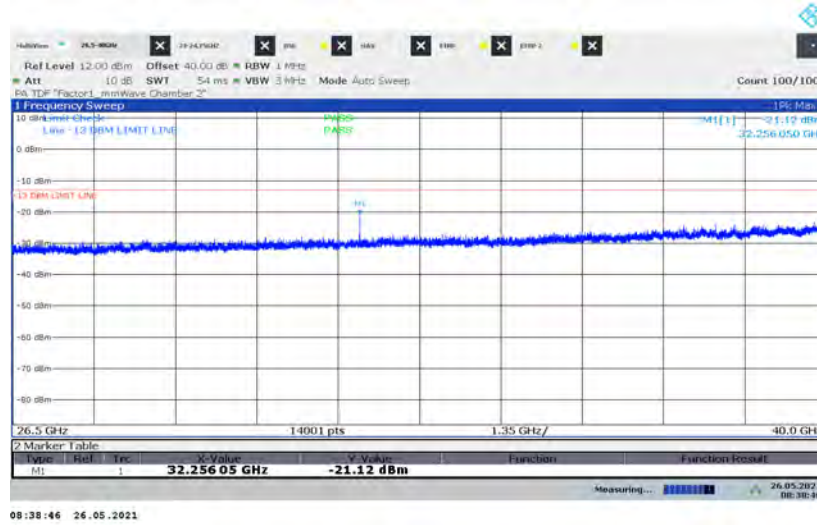


26.5 - 40 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical

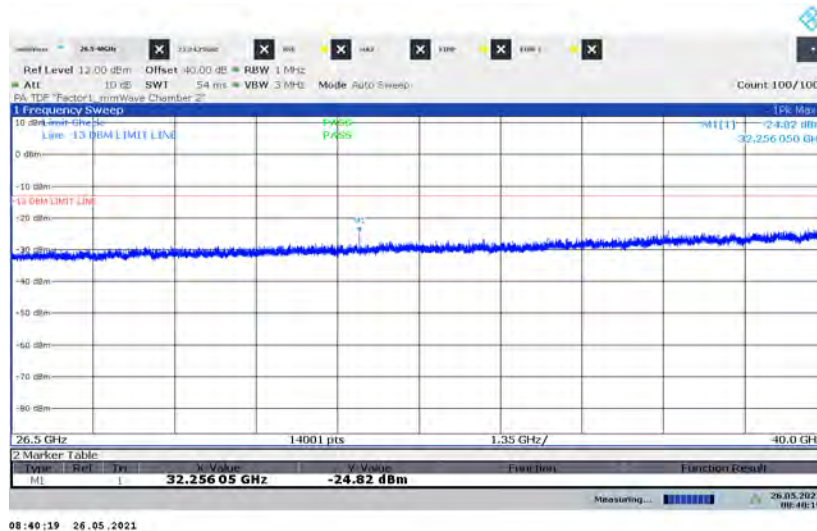


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

26.5 - 40 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal



26.5 - 40 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical



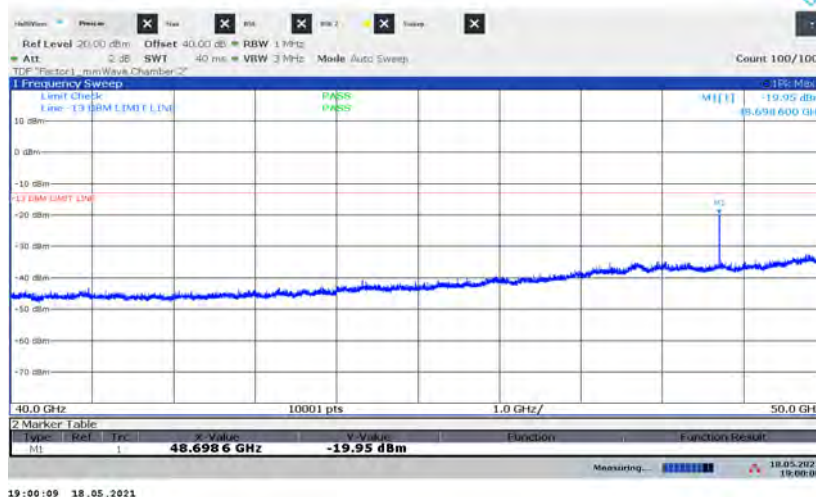
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

26.5-40 GHz n258 SB1

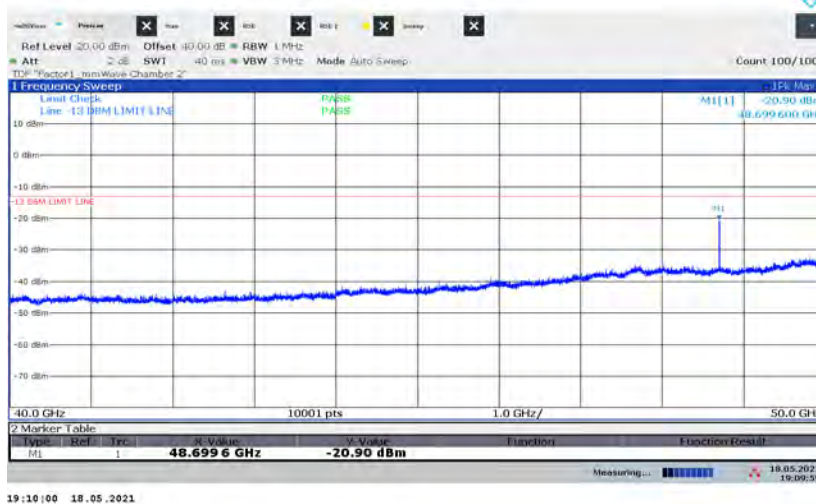
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	32.256	3.5	H	-17.06	-13	-4.06
M1	32.256	3.5	V	-31.06	-13	-18.06
M2	32.256	3.5	H	-26.49	-13	-13.49
M2	32.256	3.5	V	-32.82	-13	-19.82

8.4.6.RSE n258 SB1 40 - 50 GHz

40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal

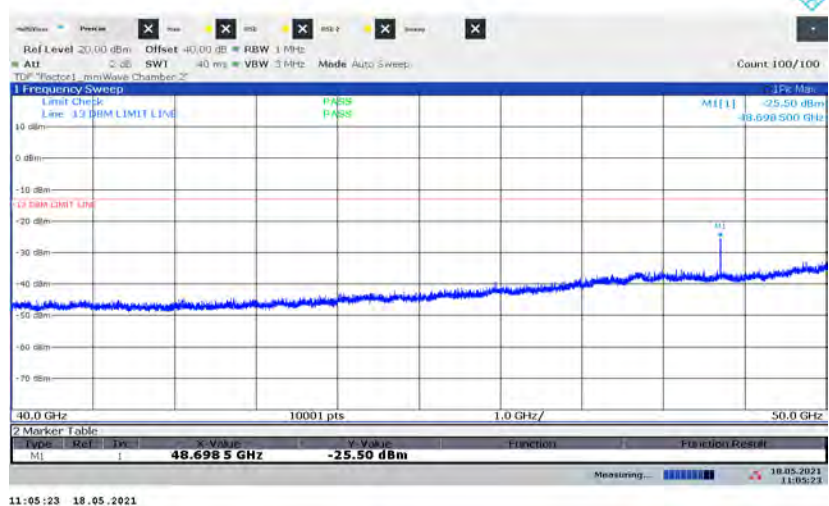


40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical

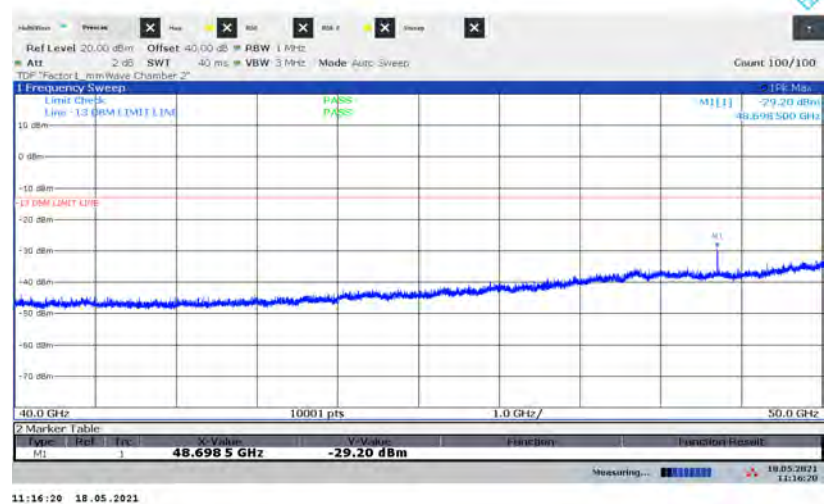


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



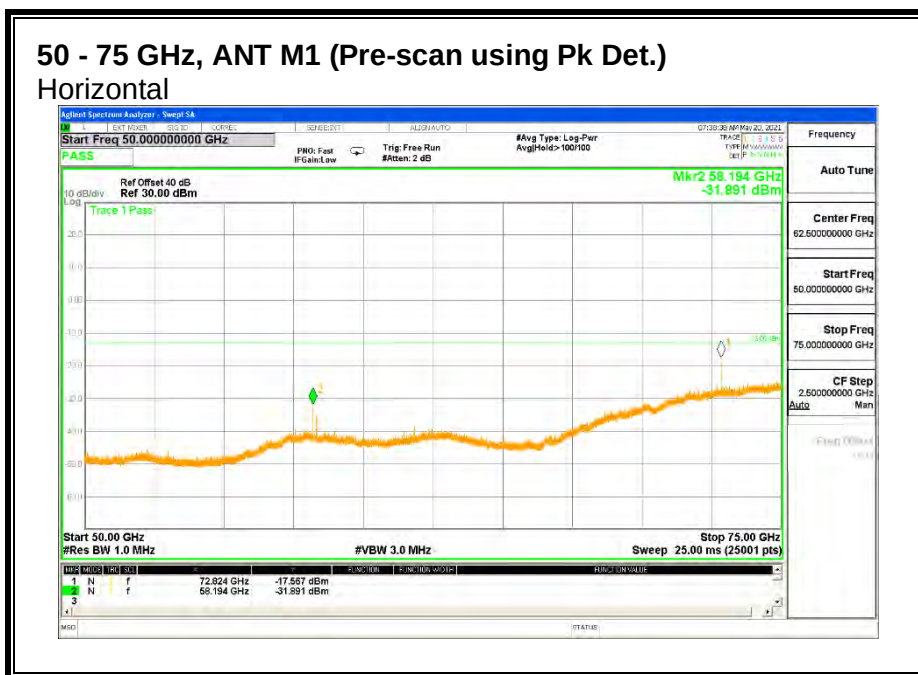
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

40 - 50 GHz n258 SB1

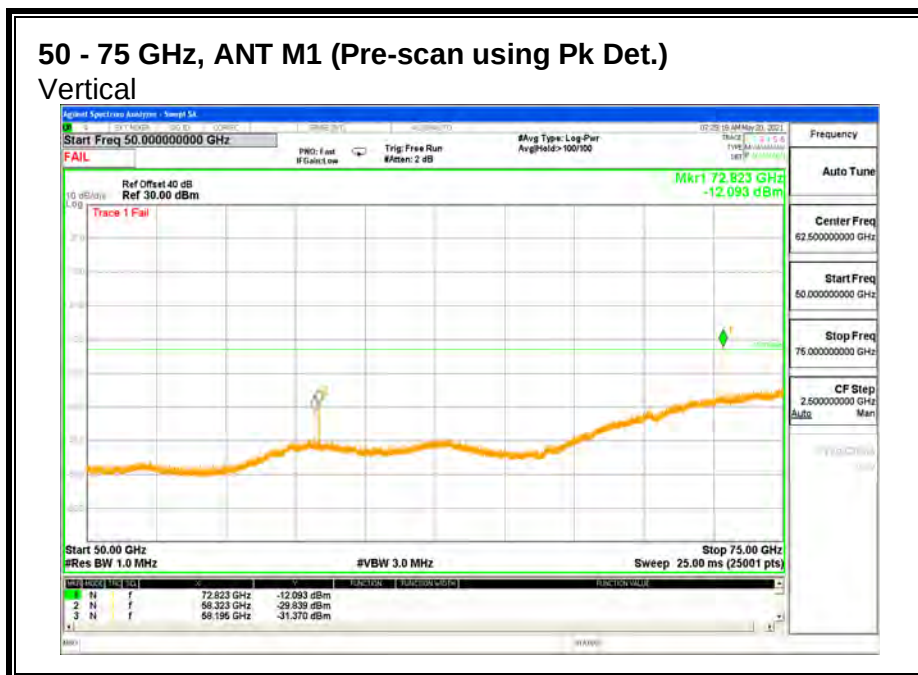
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	48.698	3	H	-22.80	-13	-9.80
M1	48.698	3	V	-36.35	-13	-23.35
M2	48.698	3	H	-30.72	-13	-17.72
M2	48.698	3	V	-35.26	-13	-22.26

8.4.7. RSE n258 SB1 50 - 75 GHz

50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal



50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

50 - 75 GHz n258 SB1

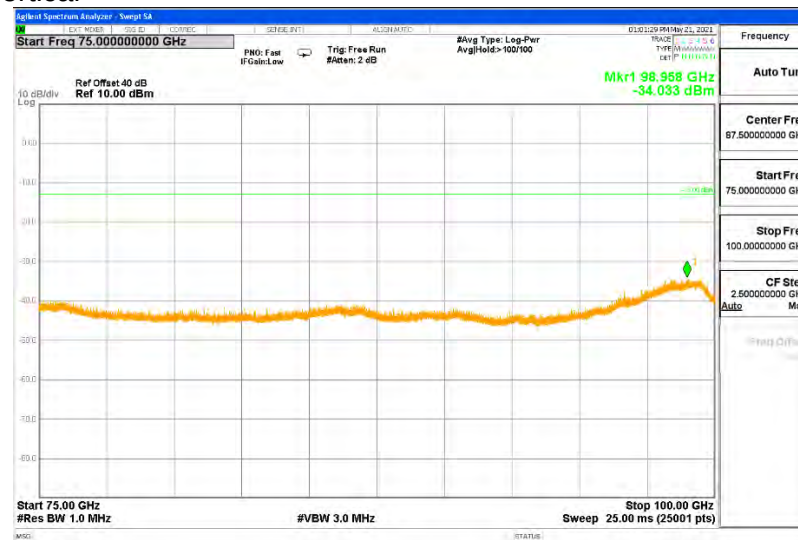
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	72.822	3	H	-18.58	-13	-5.58
M1	72.822	3	V	-20.07	-13	-7.07
M2	73.047	3	H	-23.48	-13	-10.48
M2	73.047	3	V	-21.19	-13	-8.19

8.4.8. RSE n258 SB1 75 - 100 GHz

75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal



75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical



No emission above the noise floor detected.

75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal

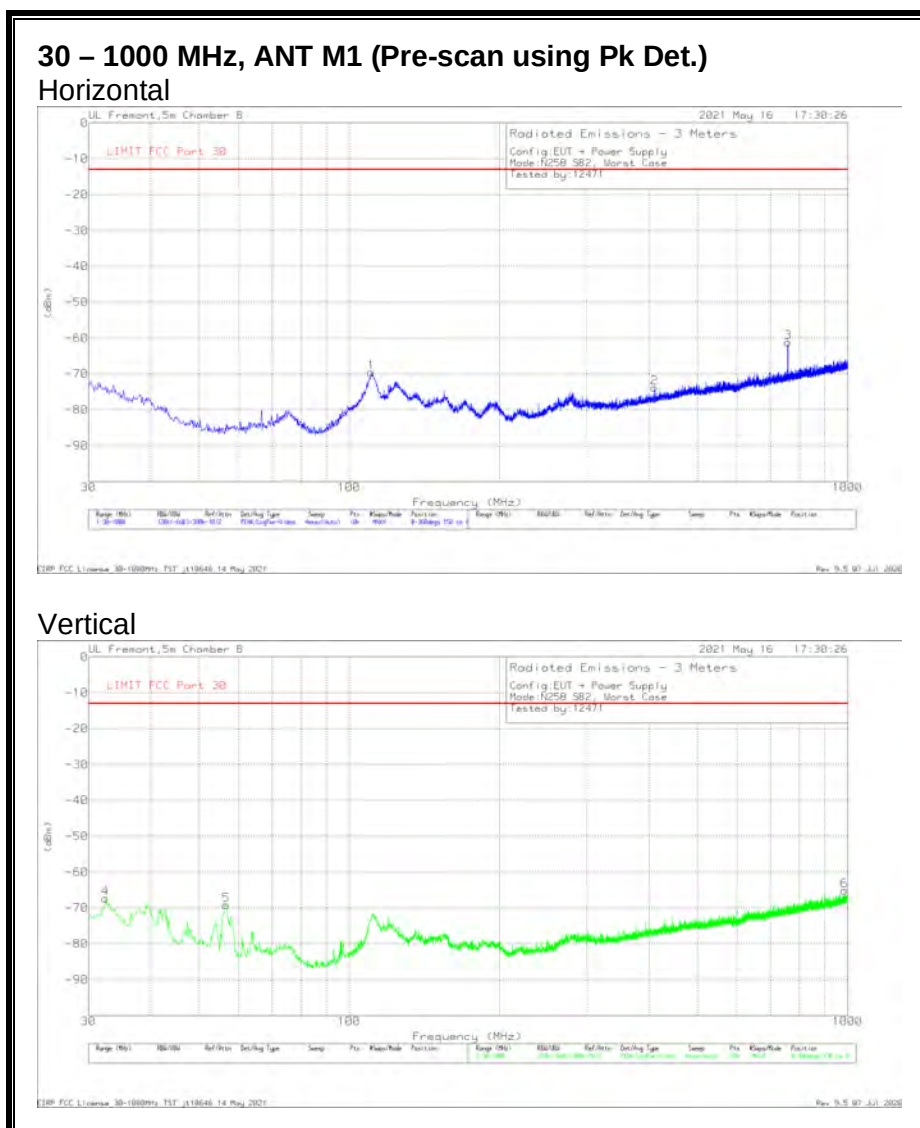


75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



No emission above the noise floor detected.

8.4.9. RSE n258 SB2 30 – 1000 MHz

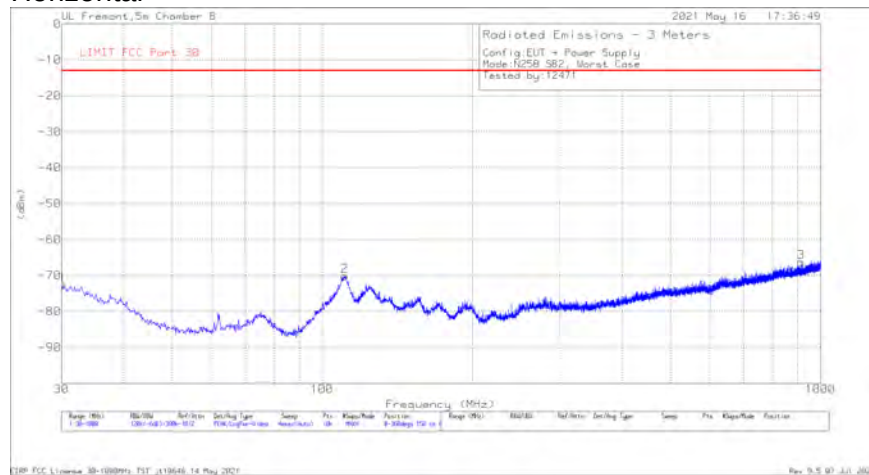


Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	32.425	-72.9	Pk	25.3	-31.4	11.7	-67.3	-13	-54.3	0-360	150	V
5	56.578	-62.85	Pk	13.1	-31.1	11.7	-69.15	-13	-56.15	0-360	150	V
1	110.704	-69.3	Pk	18.6	-30.6	11.7	-69.6	-13	-56.6	0-360	150	H
2	410.24	-78.22	Pk	21.9	-29.2	11.7	-73.82	-13	-60.82	0-360	150	H
3	759.052	-71.45	Pk	26.6	-28	11.7	-61.15	-13	-48.15	0-360	150	H
6	984.965	-80.11	Pk	29	-25.7	11.7	-65.11	-13	-52.11	0-360	150	V

Pk - Peak detector

30 – 1000 MHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



Vertical

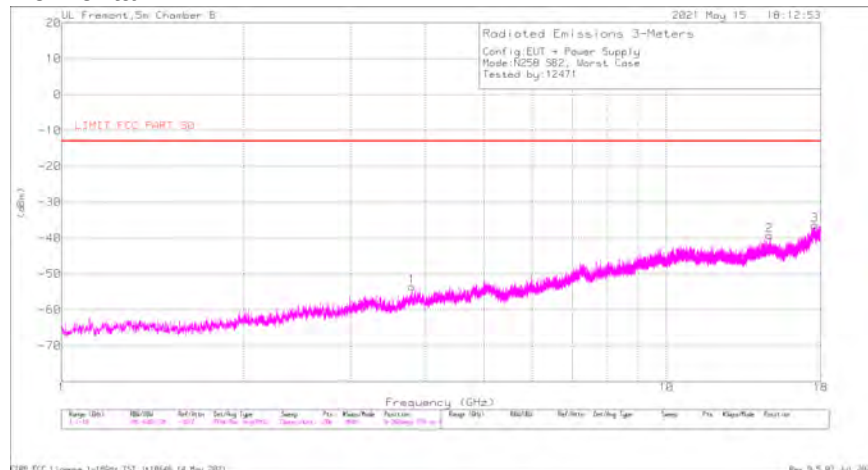


Trace Markers

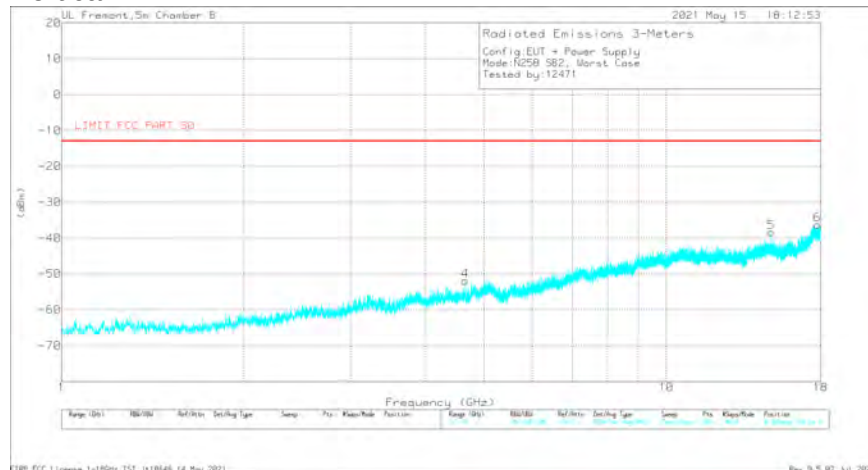
Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.194	-79.58	Pk	26.9	-31.4	11.7	-72.38	-13	-59.38	0-360	150	H
4	32.91	-73.73	Pk	25	-31.4	11.7	-68.43	-13	-55.43	0-360	150	V
5	41.543	-64.06	Pk	18.6	-31.3	11.7	-65.06	-13	-52.06	0-360	150	V
2	110.995	-69.91	Pk	18.7	-30.6	11.7	-70.11	-13	-57.11	0-360	150	H
6	120.016	-72.47	Pk	19.7	-30.5	11.7	-71.57	-13	-58.57	0-360	150	V
3	913.961	-79.58	Pk	28.3	-26.7	11.7	-66.28	-13	-53.28	0-360	150	H

Pk - Peak detector

1 – 18 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



Vertical



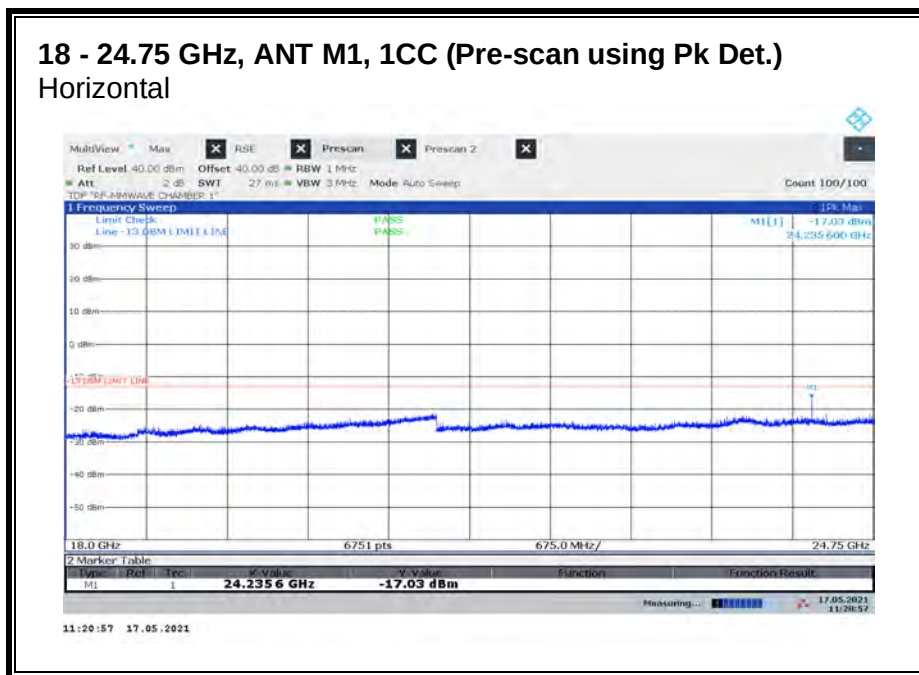
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	3.79494	-70.84	Pk	30.8	-25.2	11.7	-53.54	-13	-40.54	0-360	150	H
4	4.65348	-71.39	Pk	32.4	-24.6	11.7	-51.89	-13	-38.89	0-360	150	V
2	14.82	-74.43	Pk	42.3	-18.8	11.7	-39.23	-13	-26.23	0-360	150	H
5	14.9033	-73.72	Pk	42.5	-18.8	11.7	-38.32	-13	-25.32	0-360	150	V
3	17.60644	-77.12	Pk	42.9	-13.8	11.7	-36.32	-13	-23.32	0-360	150	H
6	17.7875	-76.59	Pk	42.9	-14.2	11.7	-36.19	-13	-23.19	0-360	150	V

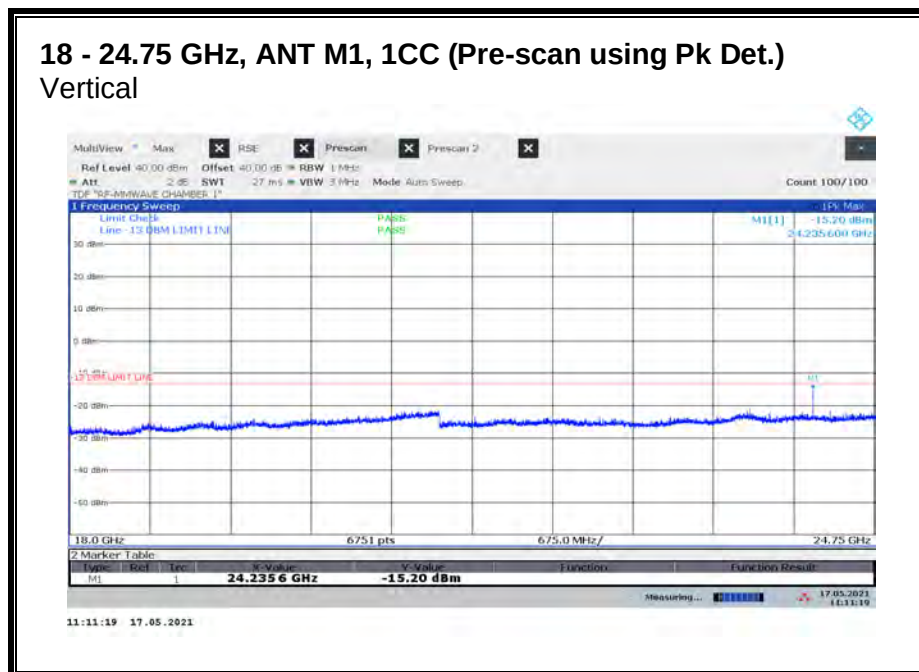
Pk - Peak detector

8.4.11. RSE n258 SB2 18 - 24.75 GHz

18 - 24.75 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Horizontal

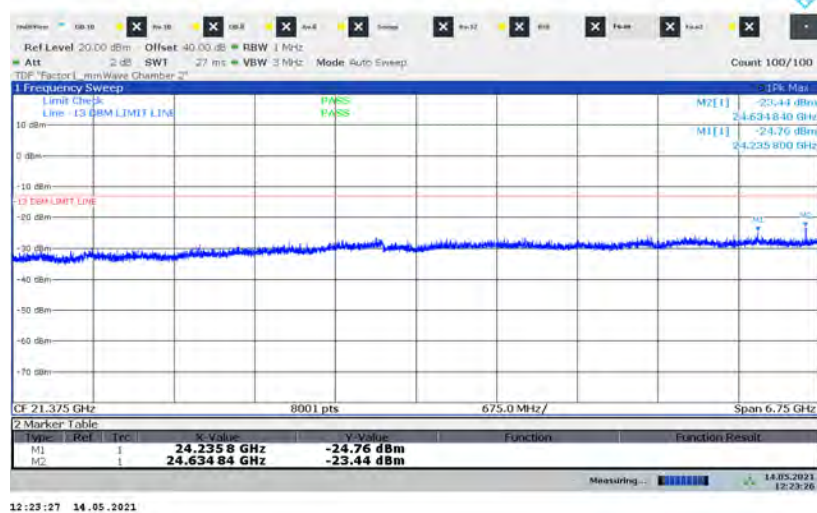


18 - 24.75 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Vertical

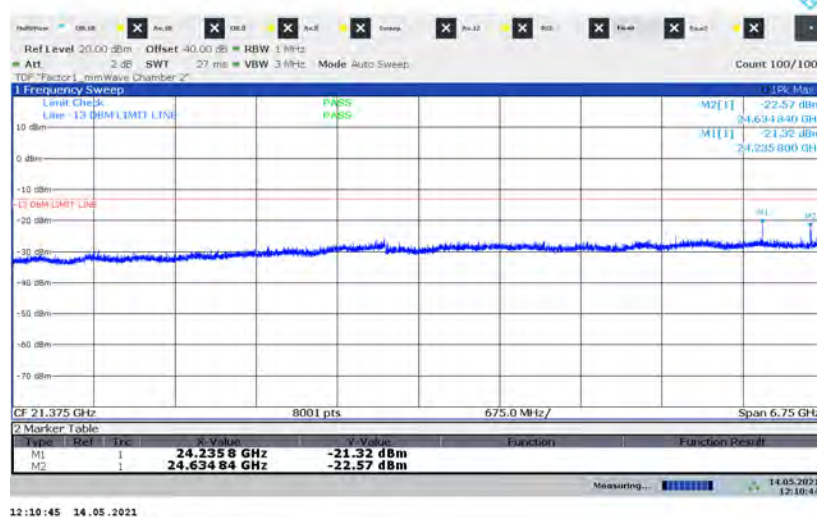


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

18 - 24.75 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Horizontal



18 - 24.75 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Vertical

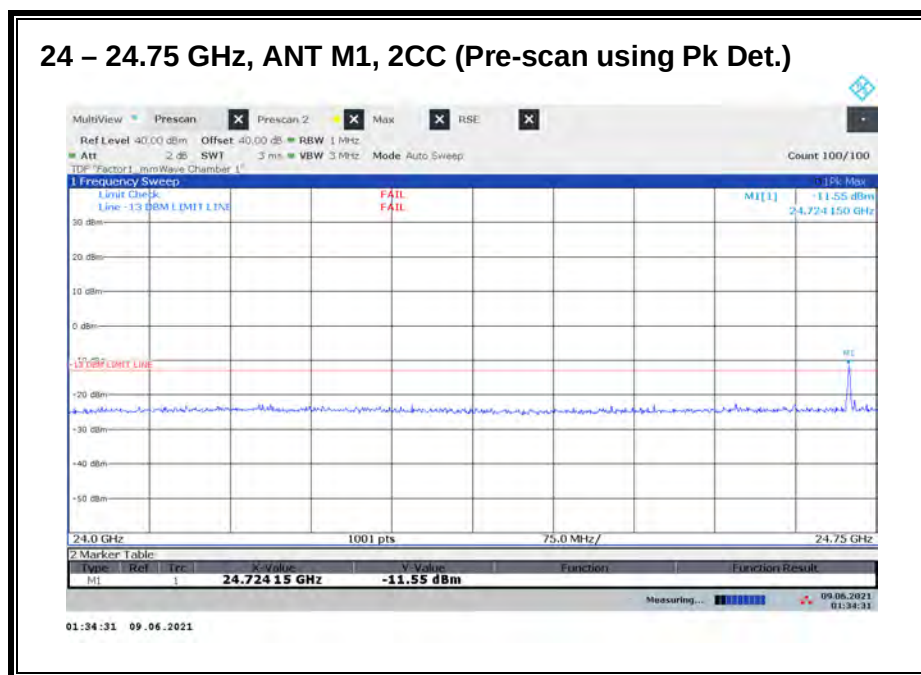


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

18 - 24.25 GHz n258 SB1

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.235	3.5	H	-26.16	-13	-13.16
M1	24.235	3.5	V	-17.94	-13	-4.94
M2	24.235	3.5	H	-31.84	-13	-18.84
M2	24.235	3.5	V	-21.88	-13	-8.88
M2	24.634	3.5	H	-28.90	-13	-15.90
M2	24.634	3.5	V	-42.70	-13	-29.70

24 – 24.75 GHz n258 SB2, 2CC



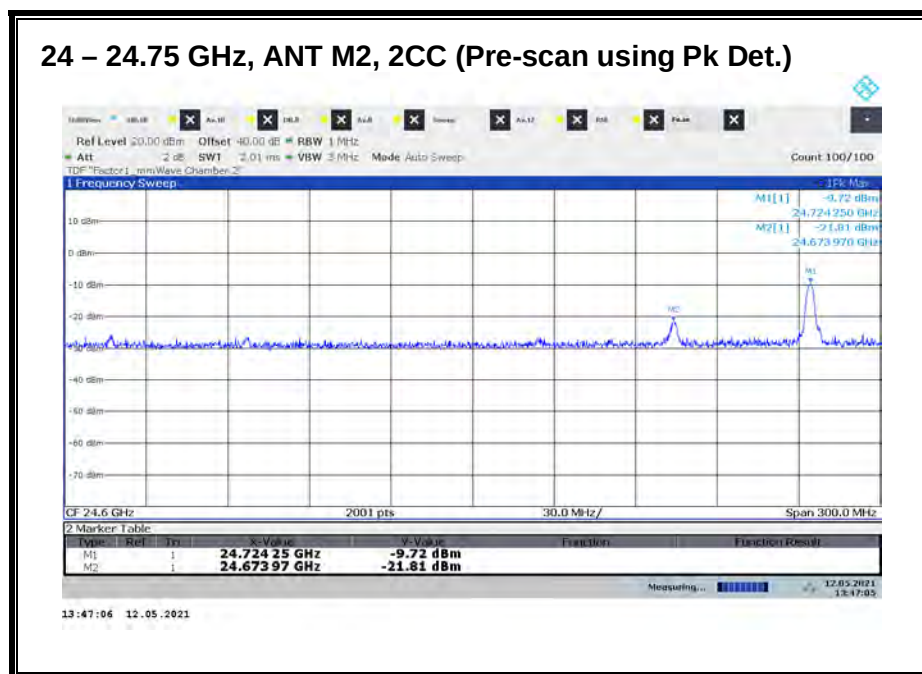
Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_Low CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.724	3.5	V	-16.76	-13	-3.76



Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_Low CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

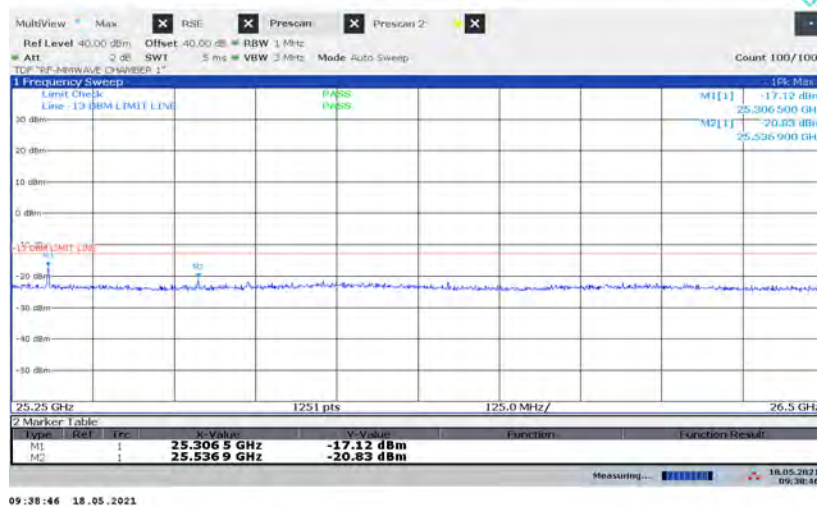
Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	24.724	3.5	H	-16.53	-13	-3.53

8.4.12. RSE n258 SB2 25.25 - 26.5 GHz

Note: 24.75 – 25.25 GHz covered by Fundamental and BE measurements.

25.25 - 26.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Horizontal

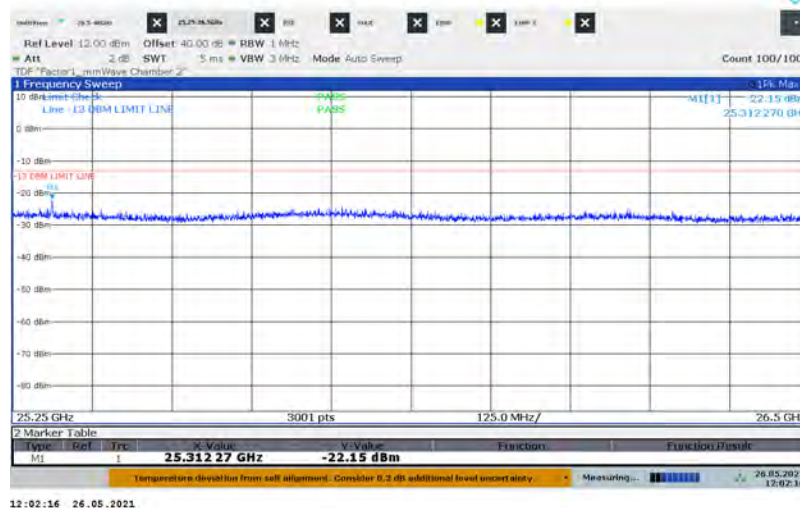


25.25 - 26.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Vertical

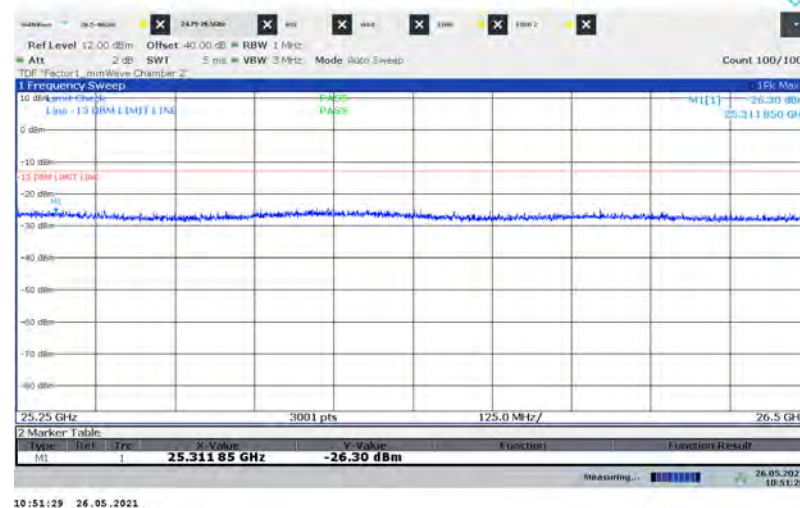


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

25.25 - 26.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Horizontal



25.25 - 26.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Vertical

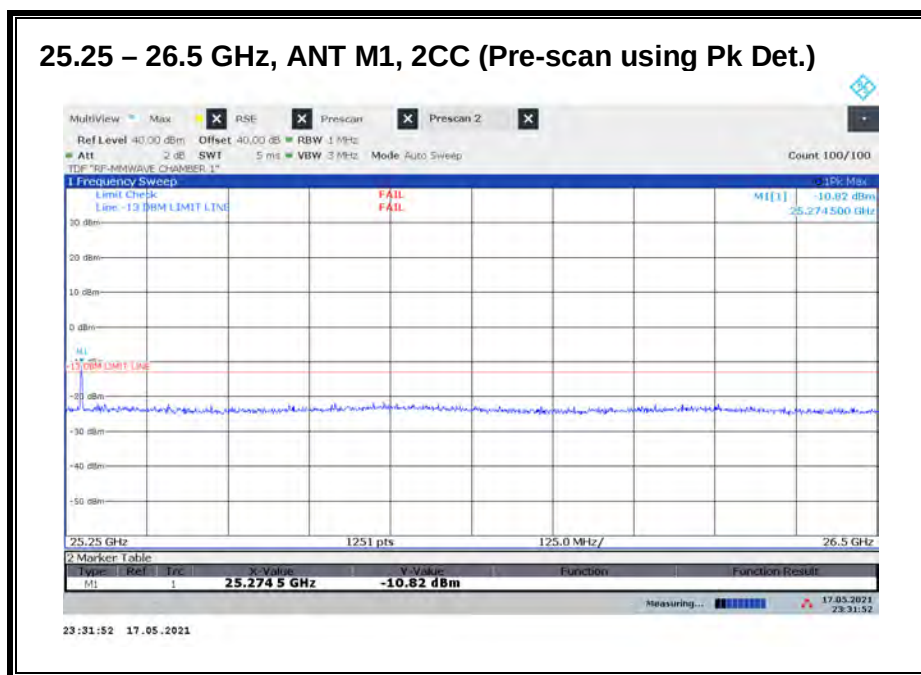


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

25.25 - 26.5 GHz n258 SB2, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	25.306	3.5	H	-22.51	-13	-9.51
M1	25.306	3.5	V	-33.39	-13	-20.39
M2	25.312	3.5	H	-29.83	-13	-16.83

25.25 - 26.5 GHz n258 SB2, 2CC



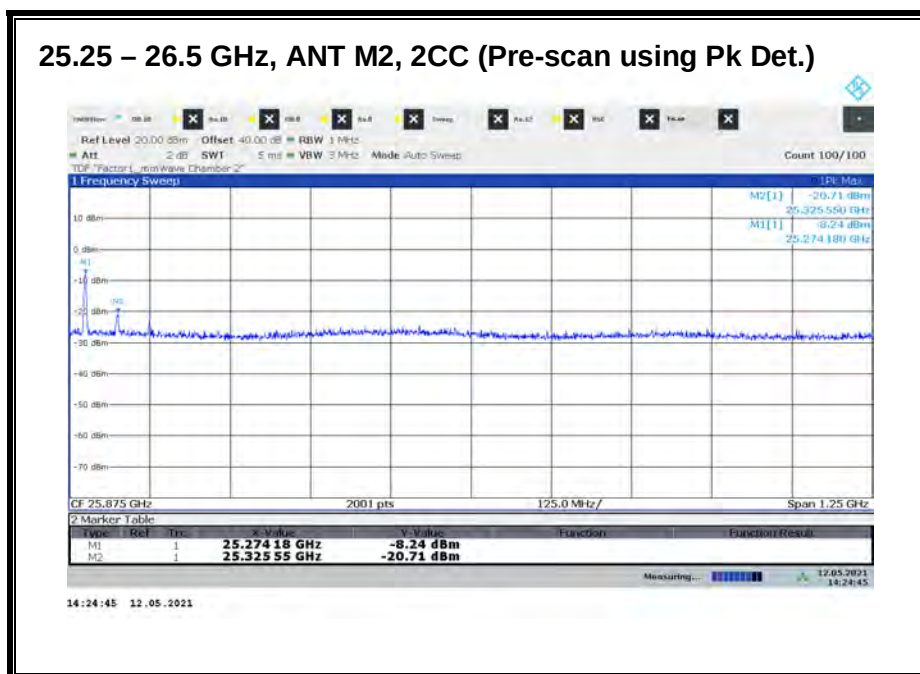
Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_High CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	25.274	3.5	H	-15.59	-13	-2.59



Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_High CH_RB Offset 1/15 (1RB-M)

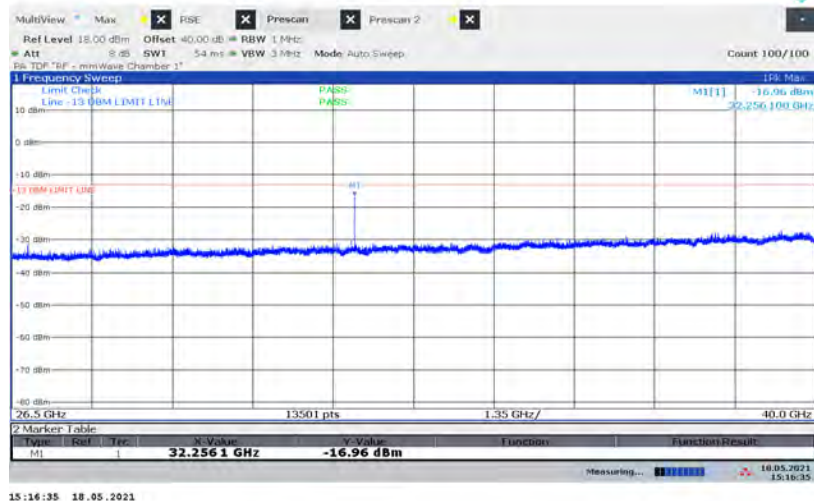
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

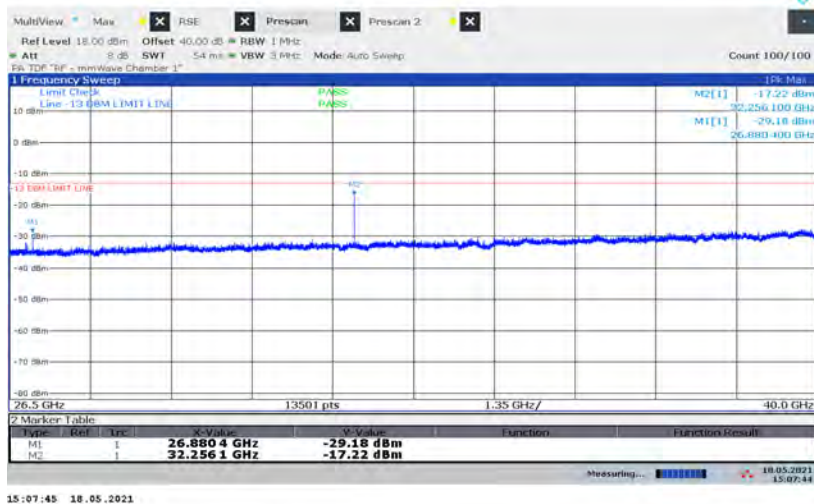
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	25.274	3.5	H	-18.41	-13	-5.41

8.4.13. RSE n258 SB2 26.5 - 40 GHz

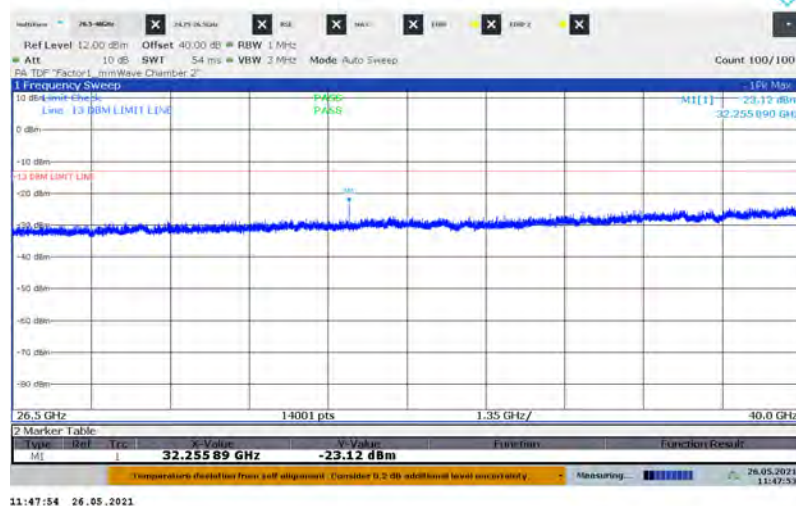
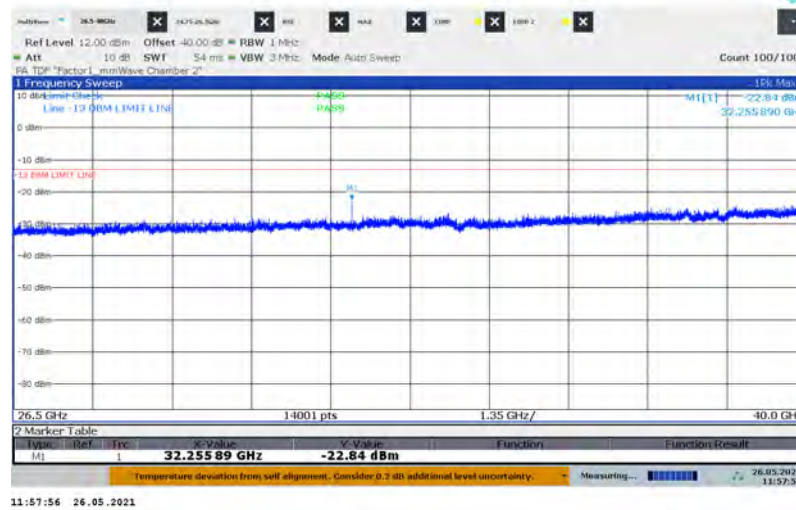
26.5 - 40 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal



26.5 - 40 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

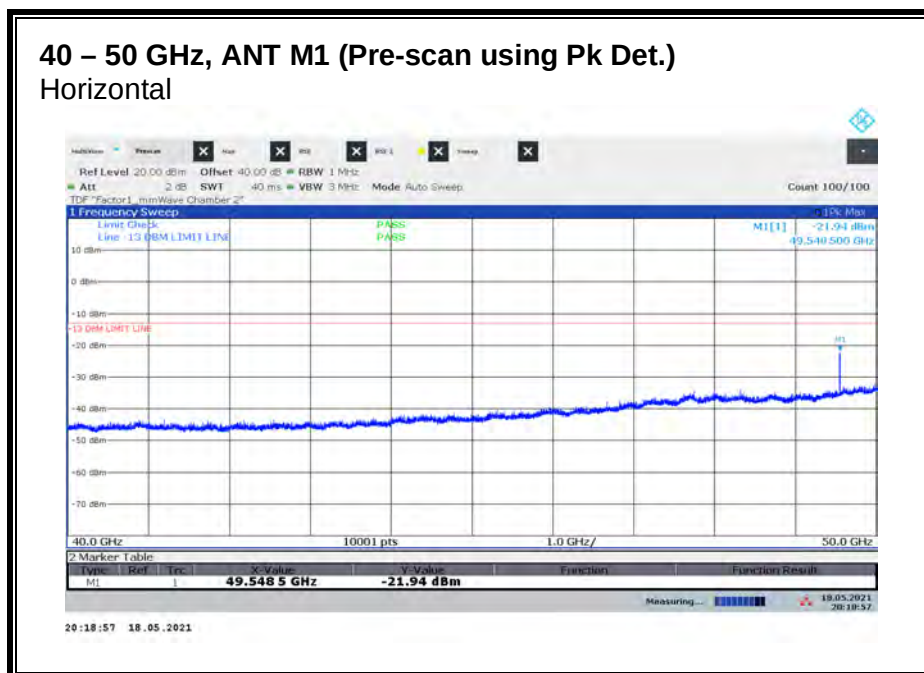


26.5 - 40 GHz n258 SB2

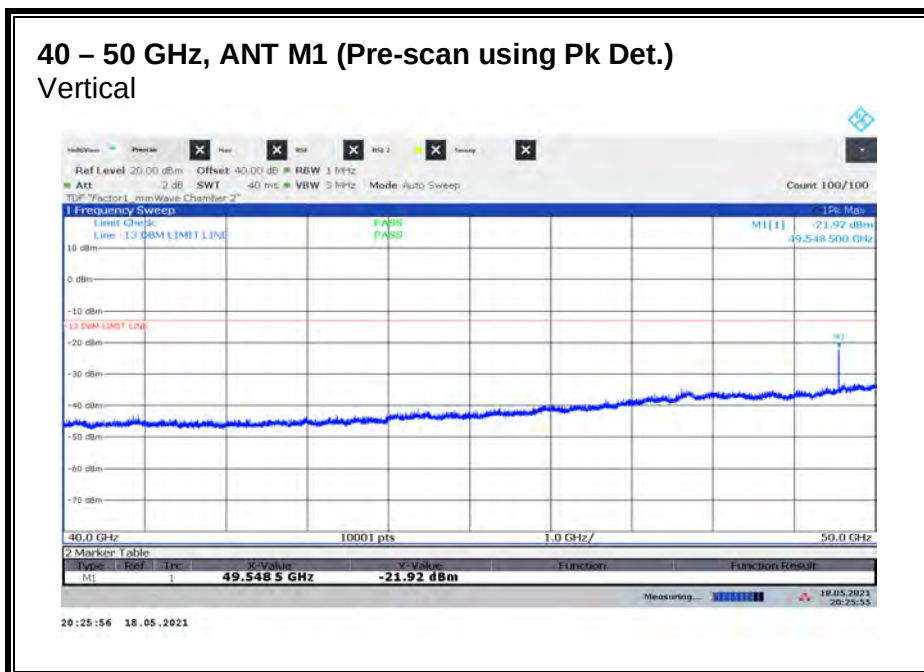
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	32.256	3	H	-32.13	-13	-19.13
M1	32.256	3	V	-16.45	-13	-3.45
M2	32.256	3	H	-28.62	-13	-15.62
M2	32.256	3	V	-20.89	-13	-7.89

8.4.14. RSE n258 SB2 40 - 50 GHz

40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal

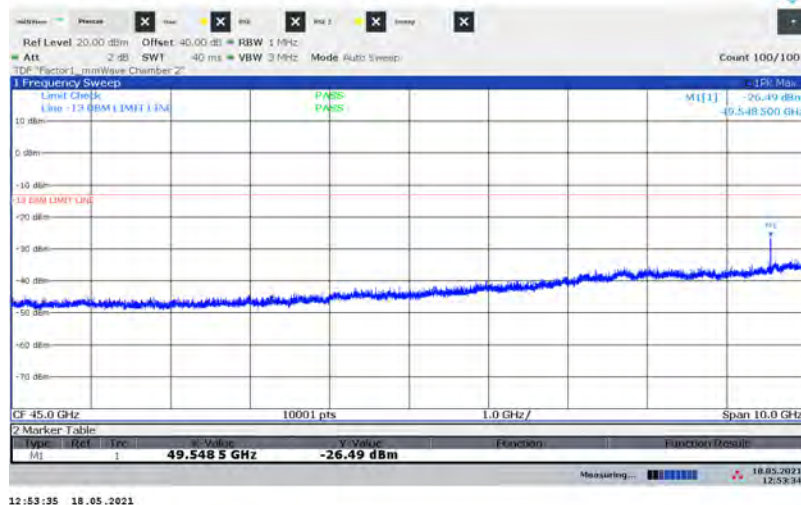


40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

40-50 GHz n258 SB2

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	49.548	3	H	-38.45	-13	-25.45
M1	49.548	3	V	-23.99	-13	-10.99
M2	49.548	3	H	-32.52	-13	-19.52
M2	49.548	3	V	-41.34	-13	-28.34

50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

50 - 75 GHz n258 SB2

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	74.997	1.5	H	-32.74	-13	-19.74
M1	74.997	1.5	V	-21.72	-13	-8.72
M2	74.997	1.5	H	-32.39	-13	-19.39
M2	74.997	1.5	V	-21.79	-13	-8.79

8.4.16. RSE n258 SB2 75 - 100 GHz

75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal



75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical



No emission detected using Peak Detection.

75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal

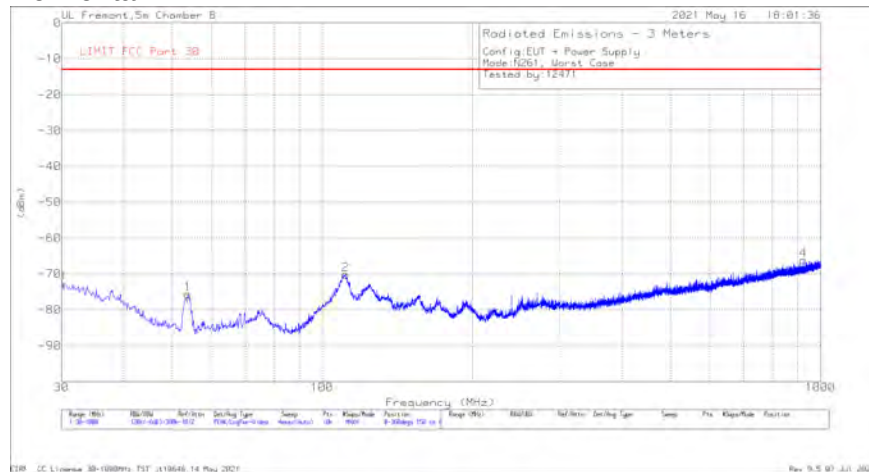


75 - 100 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



No emission detected using Peak Detection.

30 – 1000 MHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



Vertical

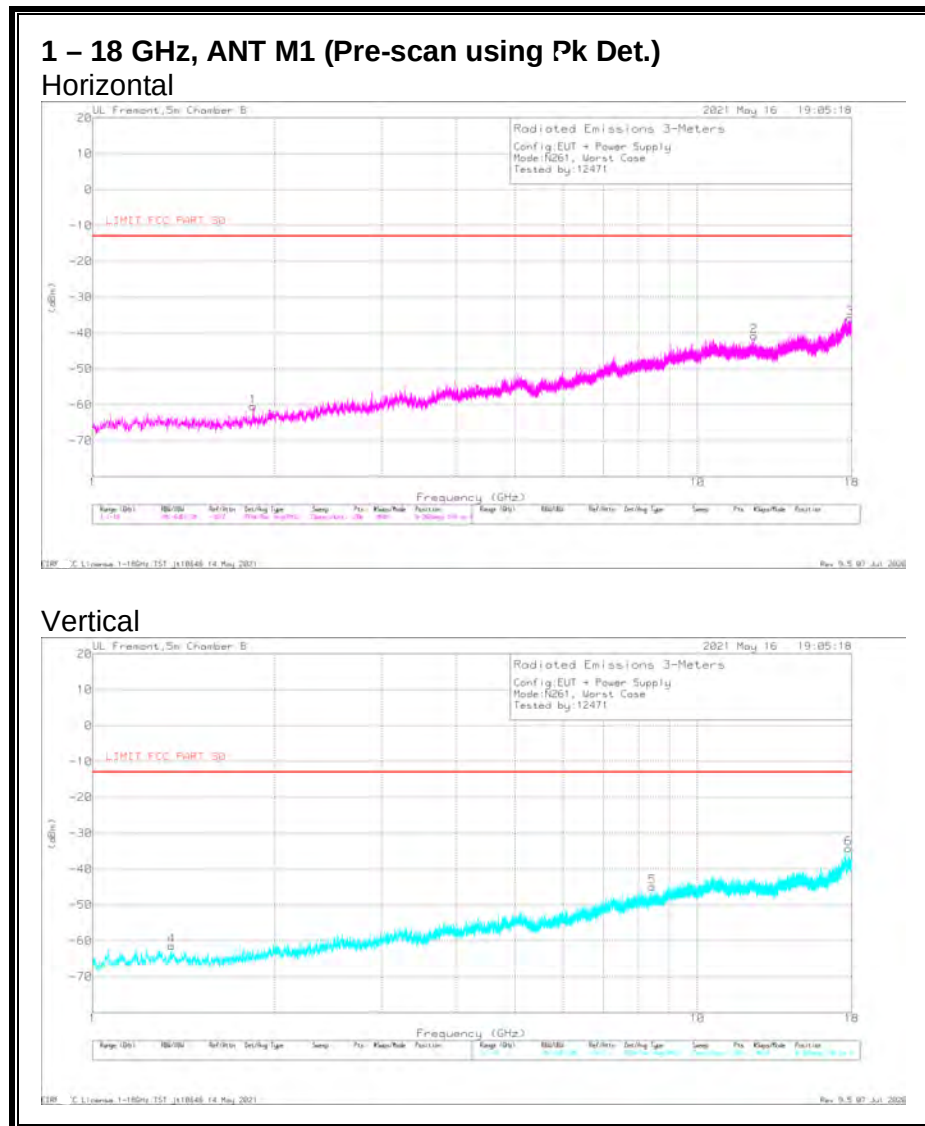


Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	30	-80.07	Pk	27.1	-31.4	11.7	-72.67	-13	-59.67	0-360	150	H
5	32.91	-73.22	Pk	25	-31.4	11.7	-67.92	-13	-54.92	0-360	150	V
6	41.446	-66.46	Pk	18.6	-31.3	11.7	-67.46	-13	-54.46	0-360	150	V
7	47.169	-64.4	Pk	14.9	-31.2	11.7	-69	-13	-56	0-360	150	V
1	53.765	-69.34	Pk	13	-31.1	11.7	-75.74	-13	-62.74	0-360	150	H
2	111.4315	-69.99	Pk	18.7	-30.6	11.7	-70.19	-13	-57.19	0-360	150	H
4	923.079	-79.52	Pk	28.3	-26.6	11.7	-66.12	-13	-53.12	0-360	150	H

Pk - Peak detector

8.4.18. RSE n261 1 - 18 GHz

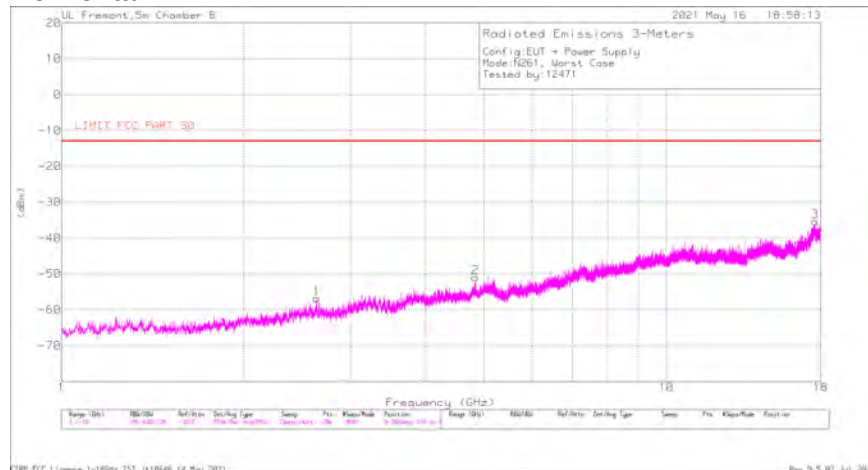


Trace Markers

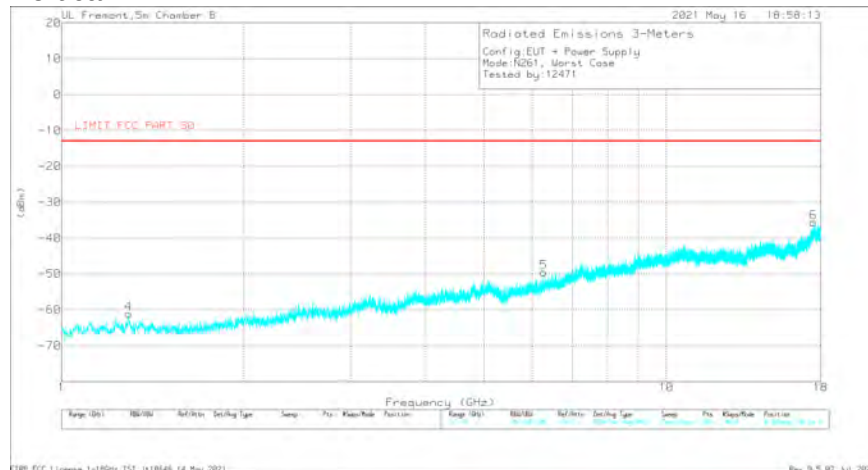
Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.34937	-70.26	Pk	25.3	-28.1	11.7	-61.36	-13	-48.36	0-360	149	V
1	1.84324	-70.85	Pk	26	-27.3	11.7	-60.45	-13	-47.45	0-360	149	H
5	8.42003	-73.91	Pk	37.5	-20.2	11.7	-44.91	-13	-31.91	0-360	149	V
2	12.41863	-74.7	Pk	40	-17.7	11.7	-40.7	-13	-27.7	0-360	149	H
6	17.77645	-74.66	Pk	42.9	-14.2	11.7	-34.26	-13	-21.26	0-360	149	V
3	17.8861	-75.35	Pk	43.1	-15.2	11.7	-35.75	-13	-22.75	0-360	149	H

Pk - Peak detector

1 – 18 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



Vertical



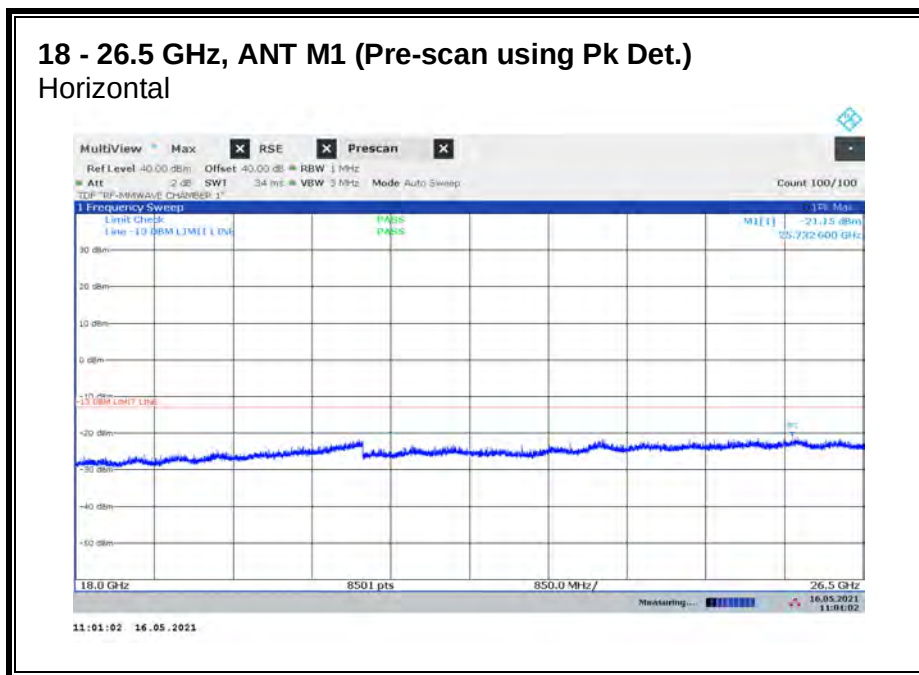
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.29071	-70.23	Pk	25.6	-28.2	11.7	-61.13	-13	-48.13	0-360	149	V
1	2.64143	-71.88	Pk	29.3	-26	11.7	-56.88	-13	-43.88	0-360	149	H
2	4.83369	-71.13	Pk	33.1	-24.6	11.7	-50.93	-13	-37.93	0-360	149	H
5	6.26687	-73.09	Pk	34.5	-22.6	11.7	-49.49	-13	-36.49	0-360	149	V
6	17.49933	-75.55	Pk	42.9	-14.7	11.7	-35.65	-13	-22.65	0-360	149	V
3	17.63194	-74.93	Pk	42.9	-15	11.7	-35.33	-13	-22.33	0-360	149	H

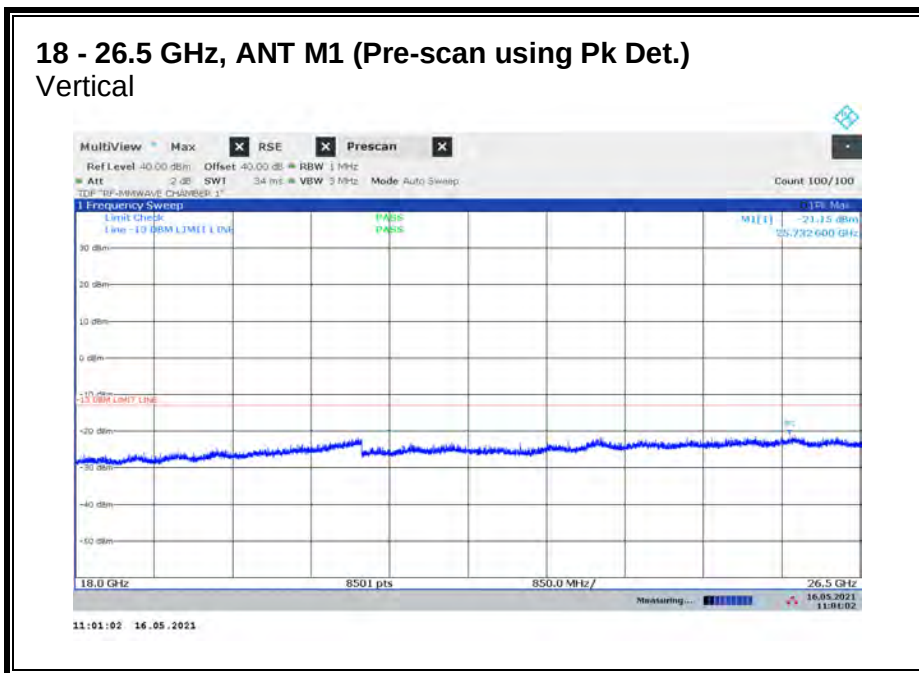
Pk - Peak detector

8.4.19. RSE n261 18 - 26.5 GHz

18 - 26.5 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal

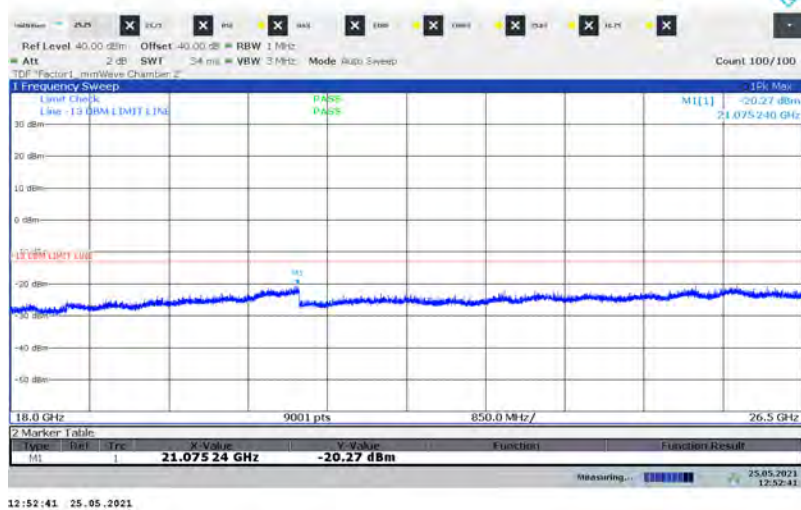


18 - 26.5 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical

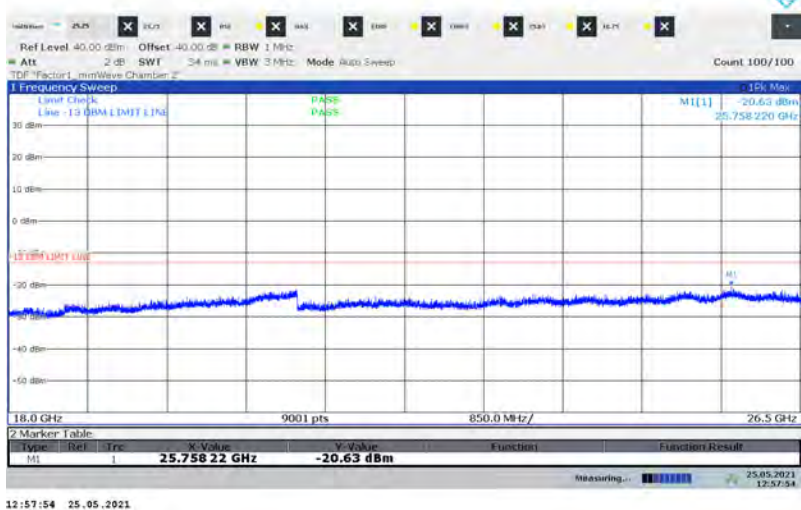


No emission detected using Peak Detection.

18 - 26.5 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal



18 - 26.5 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical

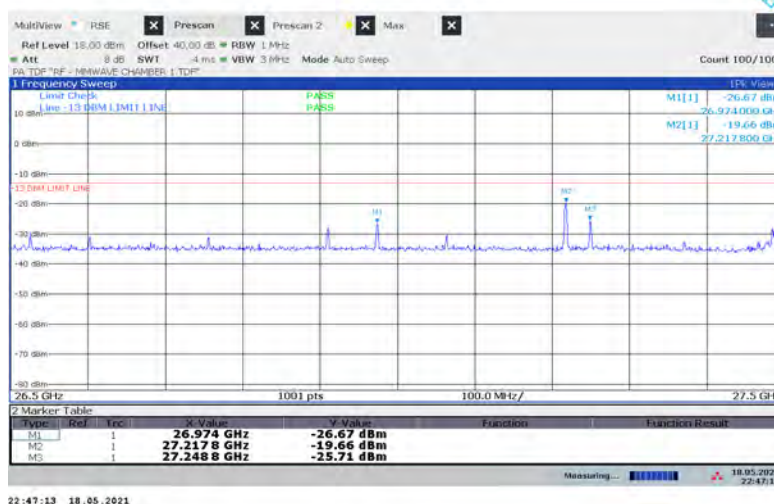


No emission detected using Peak Detection.

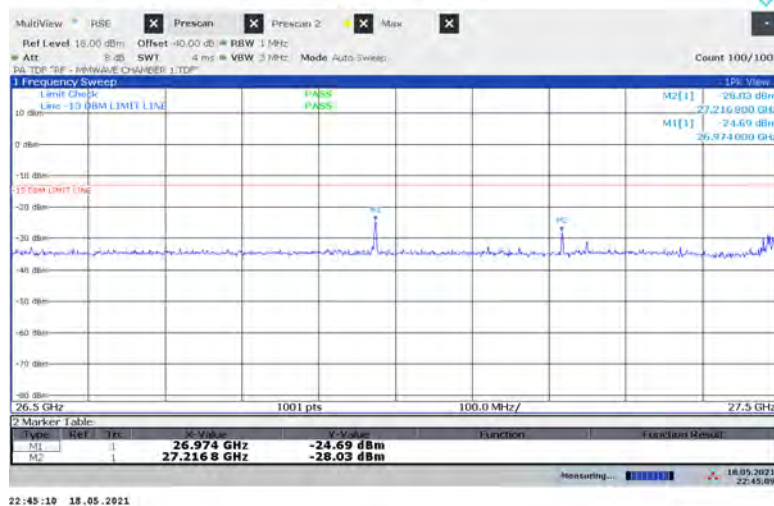
8.4.20. RSE n261 26.5 - 27.5 GHz

Note: 27.5-28.35 GHz covered by Fundamental and BE measurements.

26.5 - 27.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Horizontal

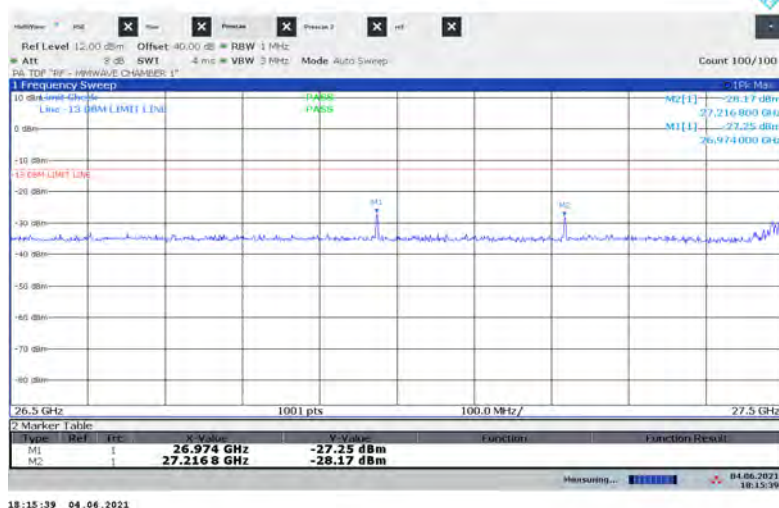


26.5 - 27.5 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Vertical

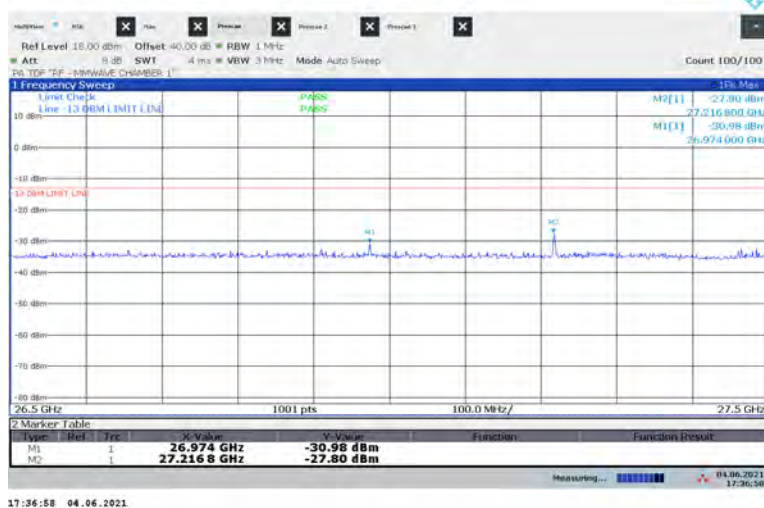


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

26.5 - 27.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Horizontal



26.5 - 27.5 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Vertical

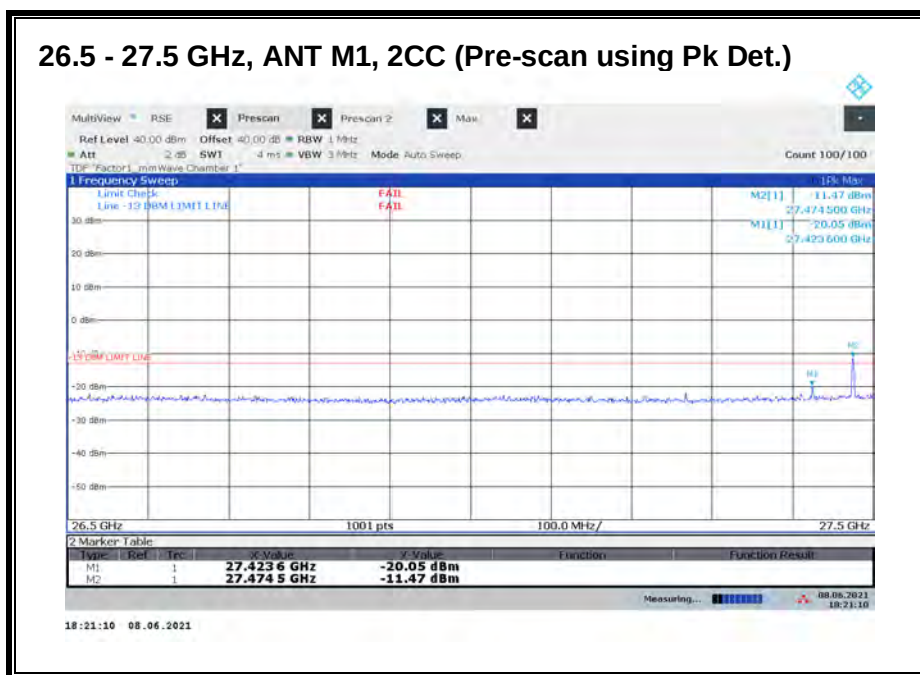


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

26.5 - 27.5 GHz n261, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	26.974	3	H	-33.57	-13	-20.57
M1	26.974	3	V	-26.60	-13	-13.60
M1	27.217	3	H	-22.29	-13	-9.29
M1	27.217	3	V	-35.45	-13	-22.45
M2	26.974	3	H	-27.25	-13	-14.25
M2	26.974	3	V	-33.65	-13	-20.65
M2	27.217	3	H	-25.85	-13	-12.85
M2	27.217	3	V	-28.69	-13	-15.69

26.5 – 27.5 GHz n261, 2CC



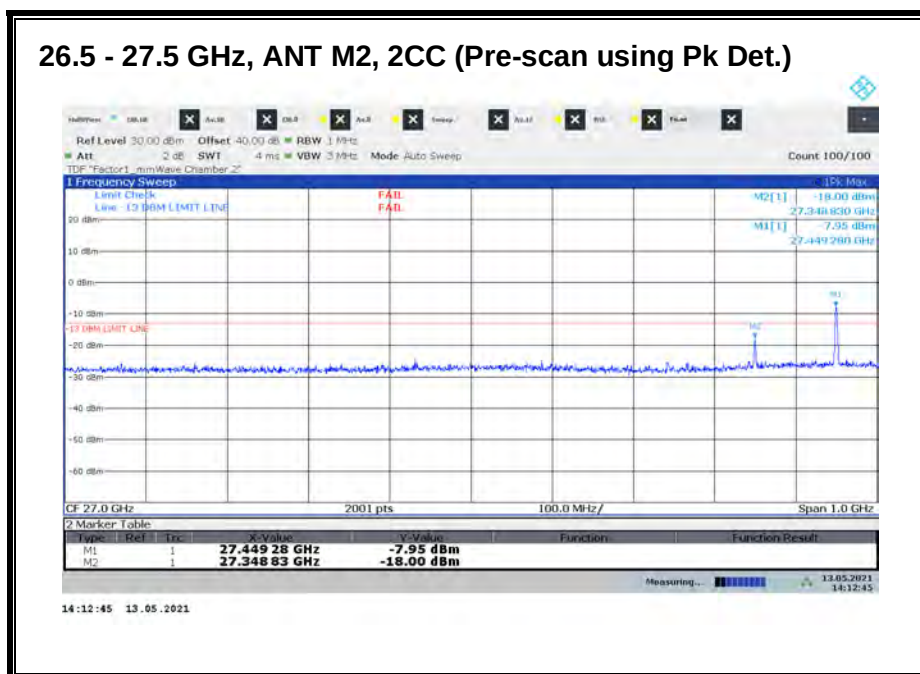
Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_Low CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	27.474	3	H	-15.14	-13	-2.14



Worst case configuration

SISO-DUAL_QPSK_(100 MHz + 100 MHz)_Low CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

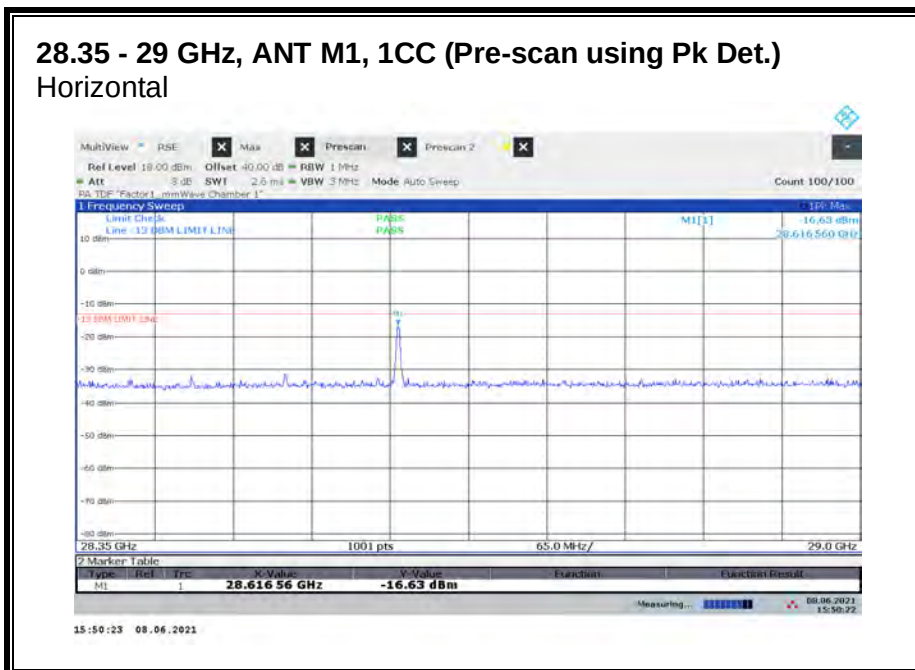
Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	27.449	3	H	-14.17	-13	-1.17

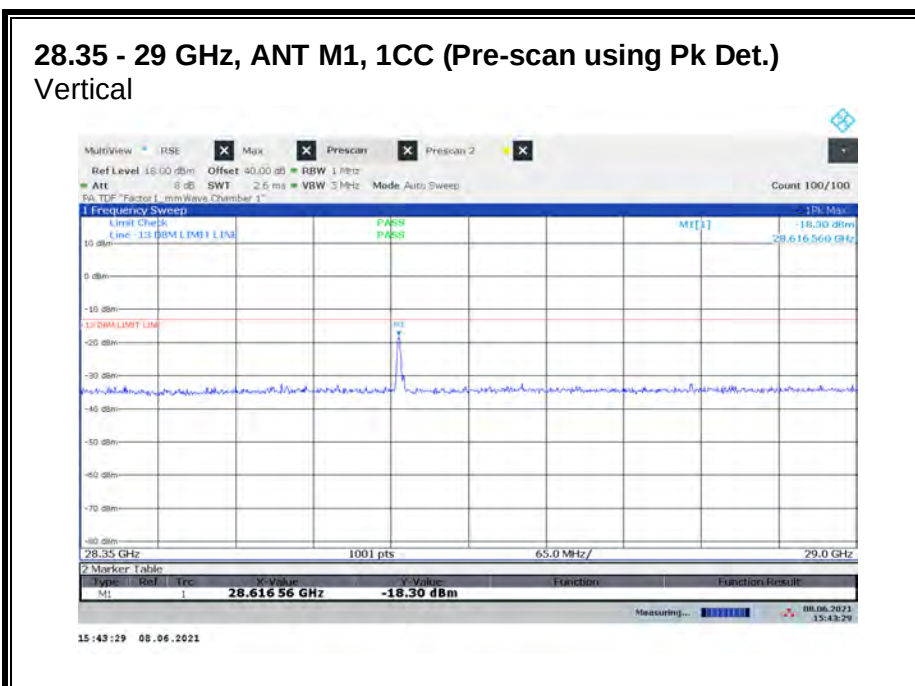
8.4.21. RSE n261 28.35 - 29 GHz

Note: 27.5 - 28.35 GHz covered by Fundamental and BE measurements.

28.35 - 29 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Horizontal

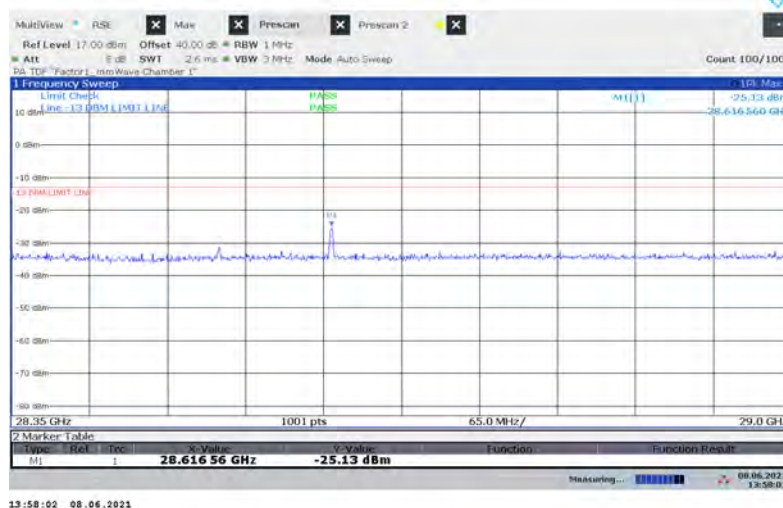


28.35 - 29 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Vertical

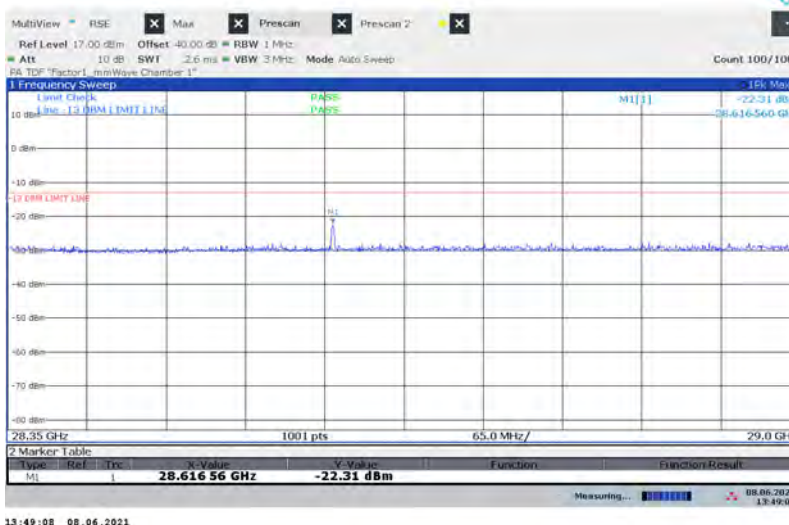


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

28.35 - 29 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Horizontal



28.35 - 29 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Vertical

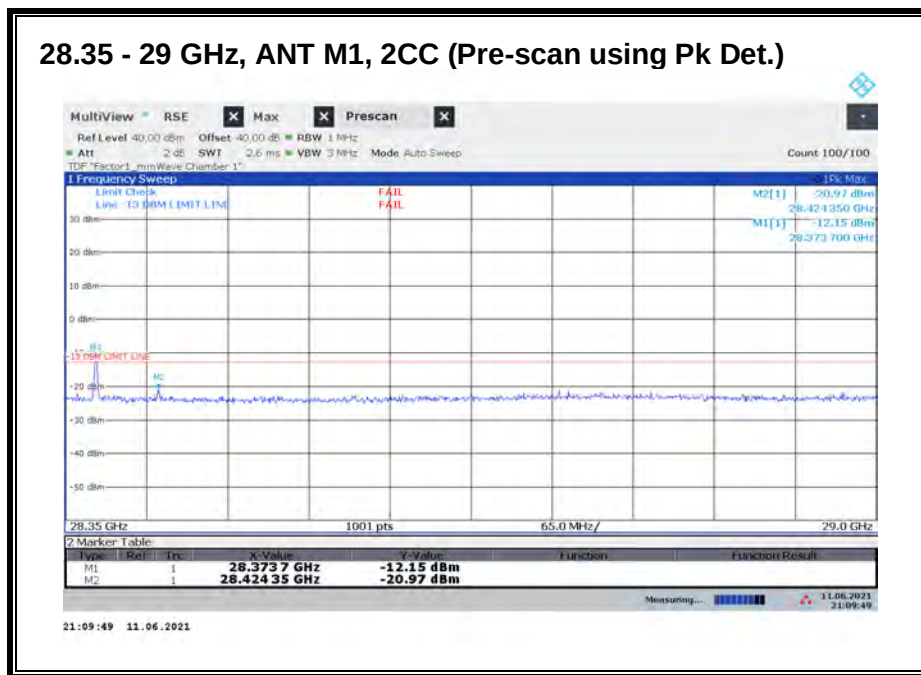


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

28.35 - 29 GHz n261, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	28.616	3	H	-31.28	-13	-18.28
M1	28.616	3	V	-18.30	-13	-5.30
M2	28.616	3	H	-21.85	-13	-8.85
M2	28.616	3	V	-27.04	-13	-14.04

28.35 - 29 GHz n261, 2CC



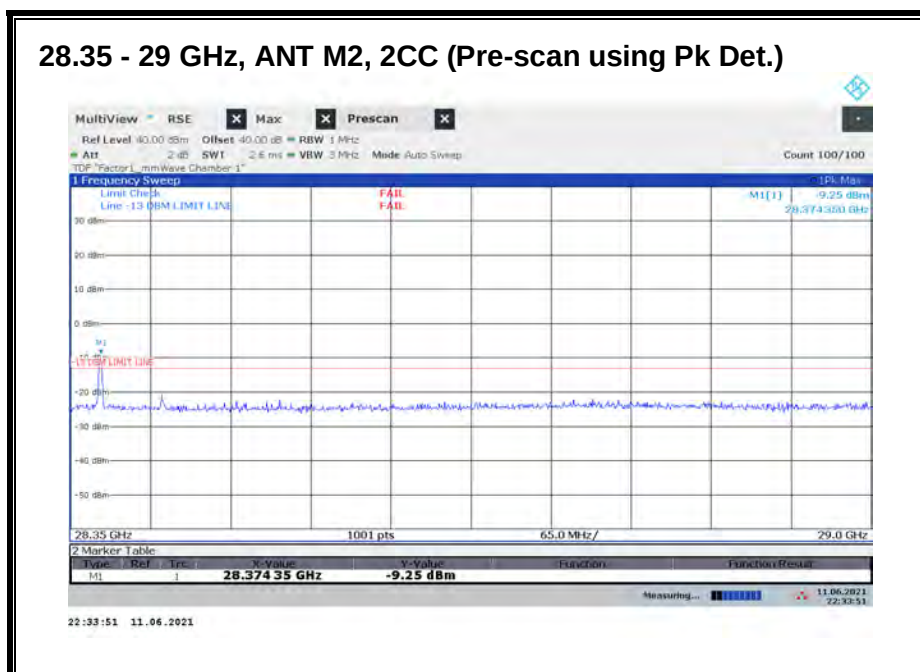
Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_High CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	28.374	3	H	-15.07	-13	-2.07



Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_High CH_RB Offset 1/15 (1RB-M)

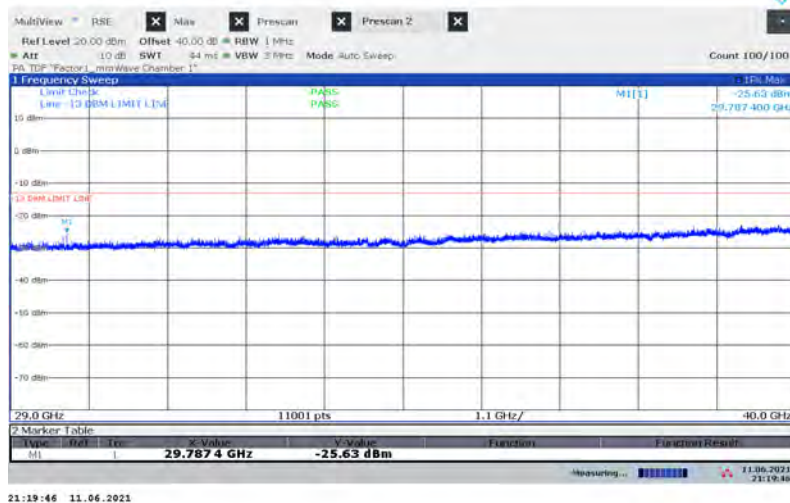
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

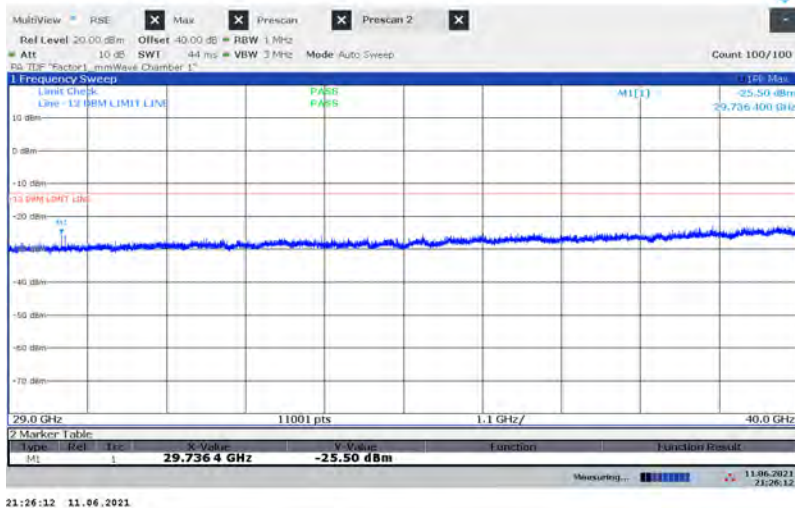
Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	28.374	3	V	-15.14	-13	-2.14

8.4.22. RSE n261 29 - 40 GHz

29 - 40 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal

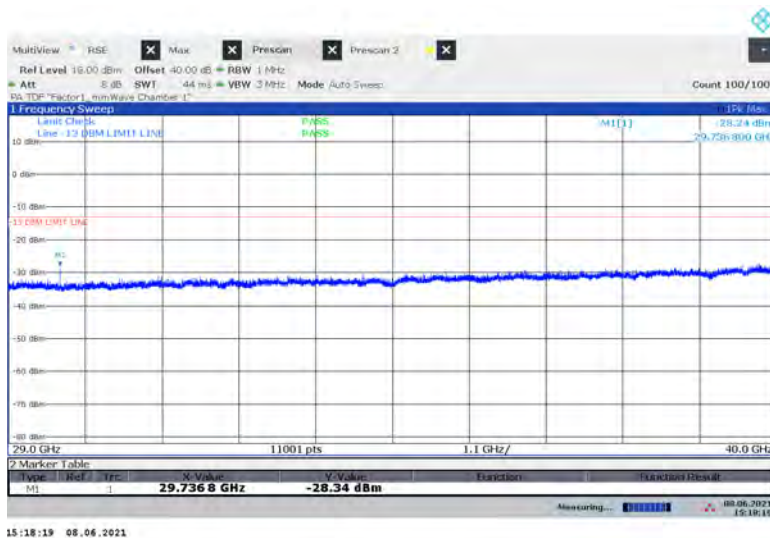


29 - 40 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical

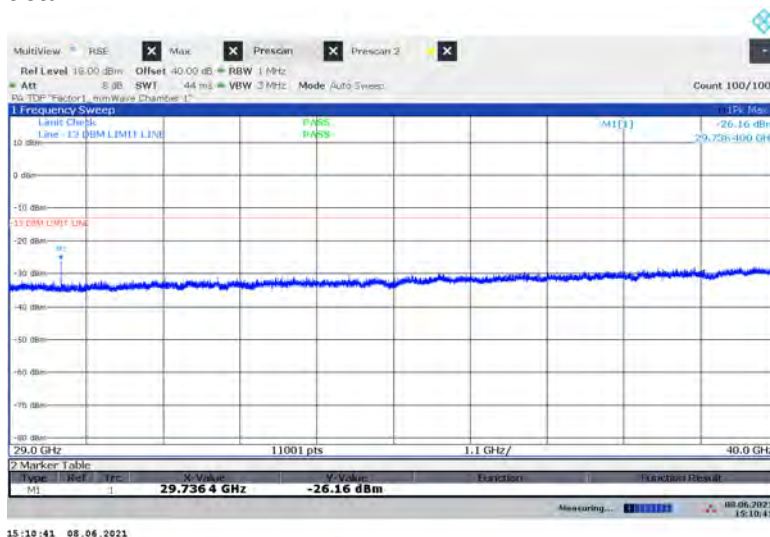


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

29 - 40 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



29 - 40 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

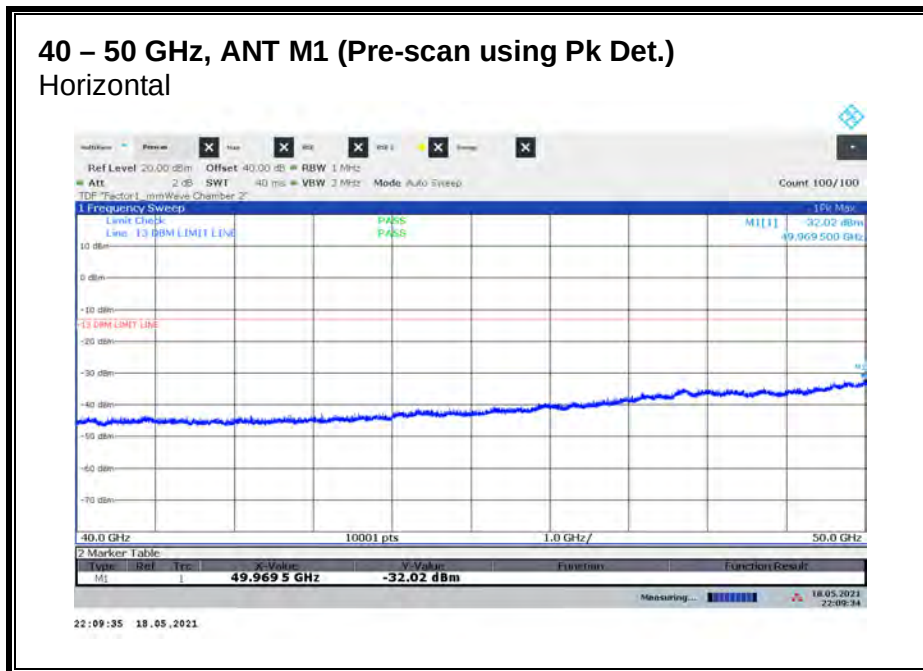
29-40 GHz n261 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	29.737	3	H	-20.35	-13	-7.35
M1	29.737	3	V	-26.48	-13	-13.48
M2	29.737	3	H	-28.75	-13	-15.75
M2	29.737	3	V	-25.45	-13	-12.45

8.4.23. RSE n261 40 - 50 GHz

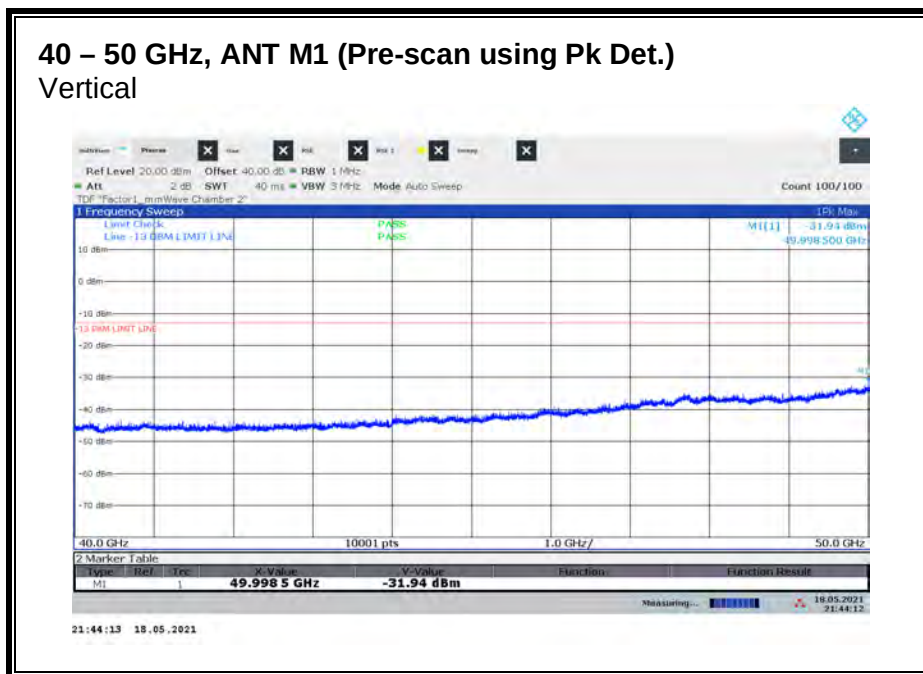
40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.)

Horizontal



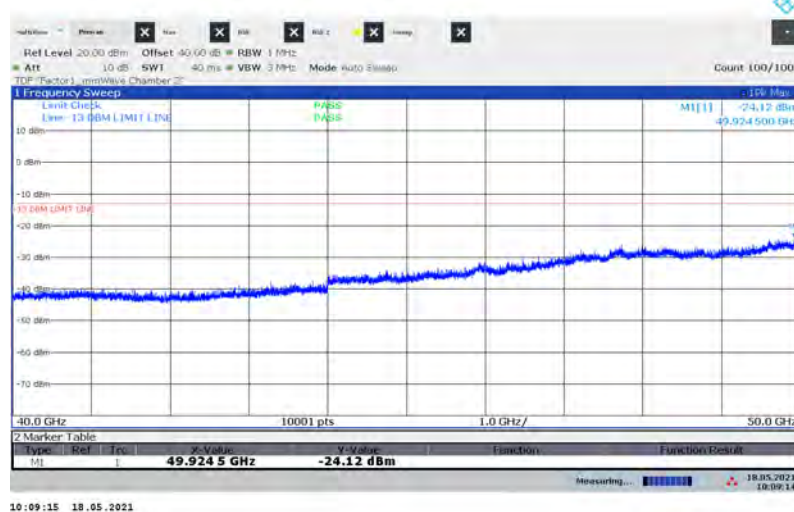
40 – 50 GHz, ANT M1 (Pre-scan using Pk Det.)

Vertical

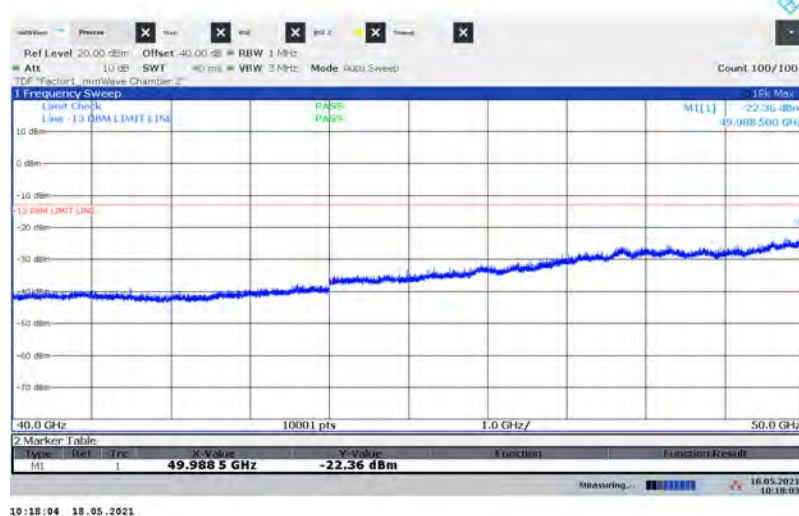


No emission detected using Peak Detection.

40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



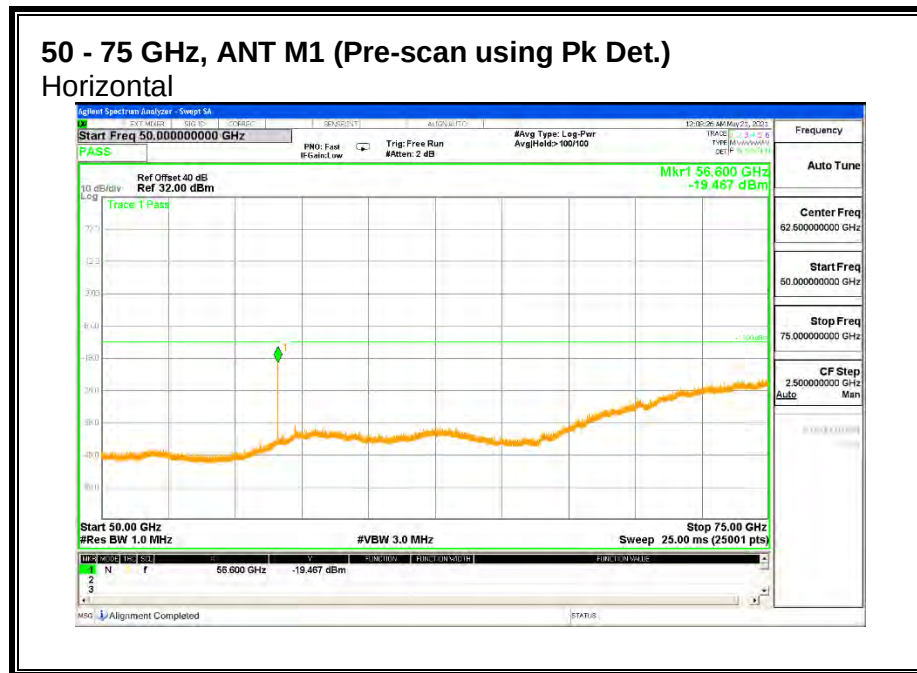
40 – 50 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



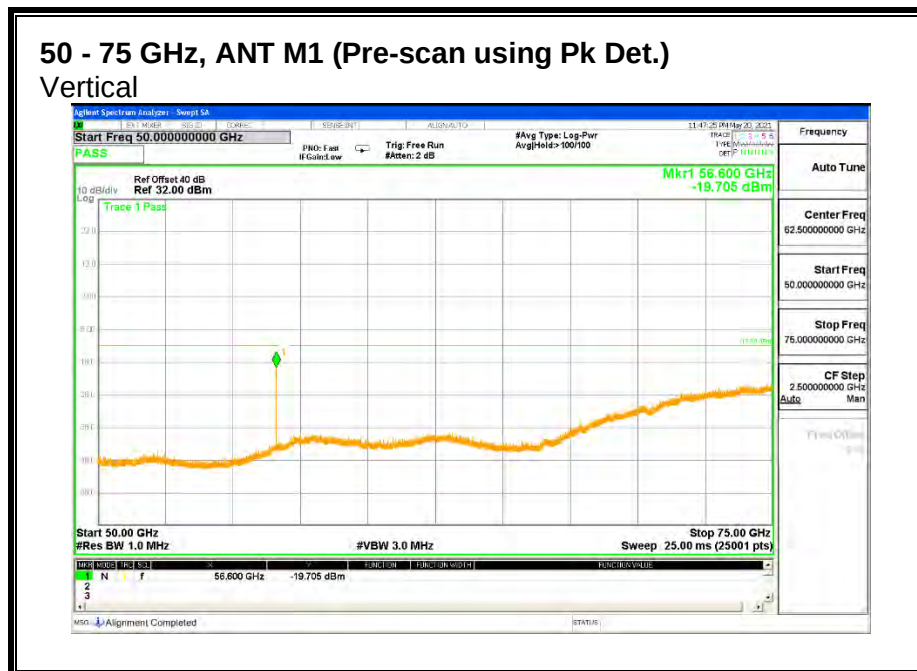
No emission detected using Peak Detection.

8.4.24. RSE n261 50 - 75 GHz

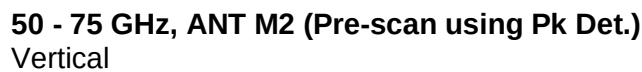
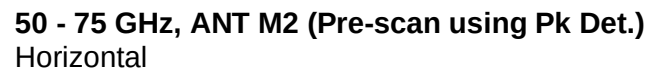
50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal



50 - 75 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical



Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.



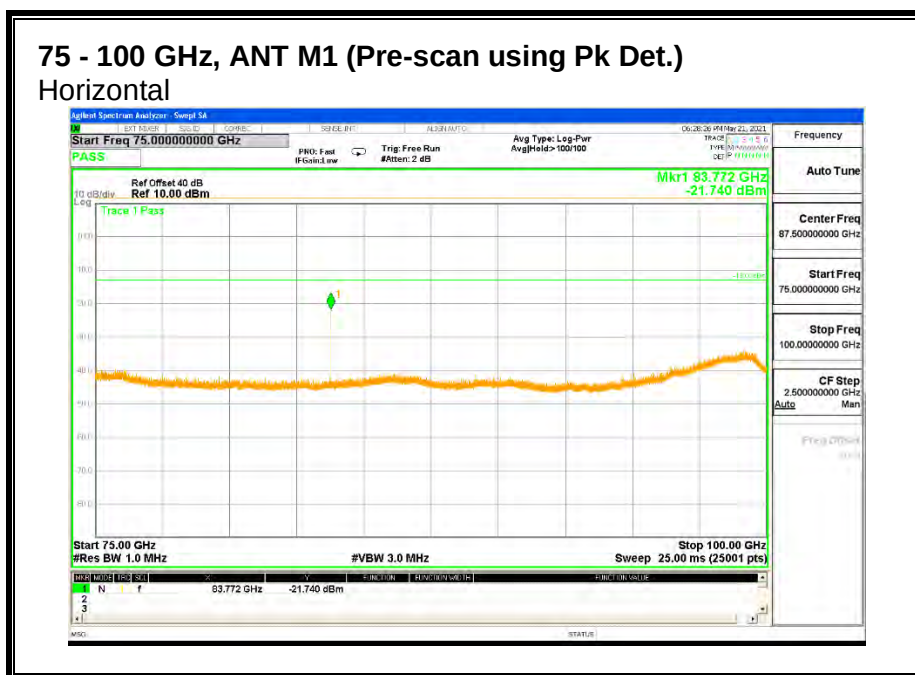
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50 - 75 GHz n261, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	56.598	1.5	H	-31.96	-13	-18.96
M1	56.598	1.5	V	-23.98	-13	-10.98
M2	56.648	1.5	H	-24.47	-13	-11.47
M2	56.648	1.5	V	-28.07	-13	-15.07

8.4.25. RSE n261 75 - 100 GHz

75 - 100 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal





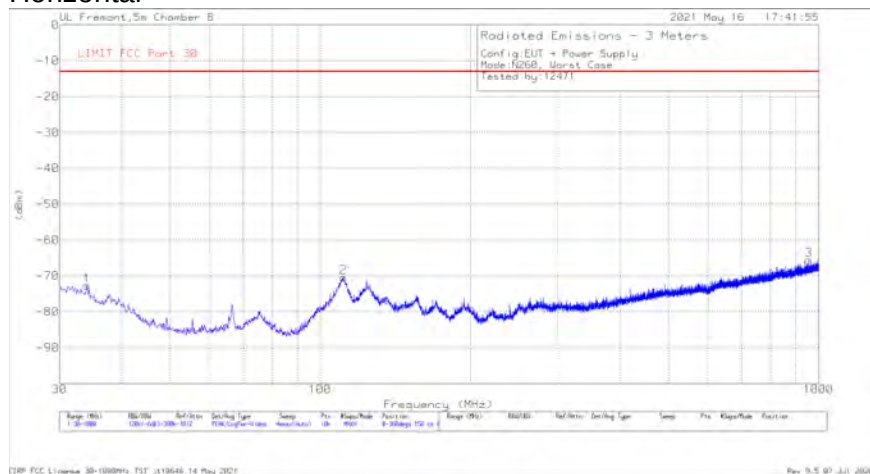
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75 - 100 GHz n261, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	83.772	1	H	-22.56	-13	-9.56
M1	83.772	1	V	-37.34	-13	-24.34
M2	83.772	1	H	-28.05	-13	-15.05
M2	83.772	1	V	-39.20	-13	-26.20

8.4.26. RSE n260 30 – 1000 MHz

30 – 1000 MHz, ANT M1 (Pre-scan using Pk Det.) Horizontal



Vertical



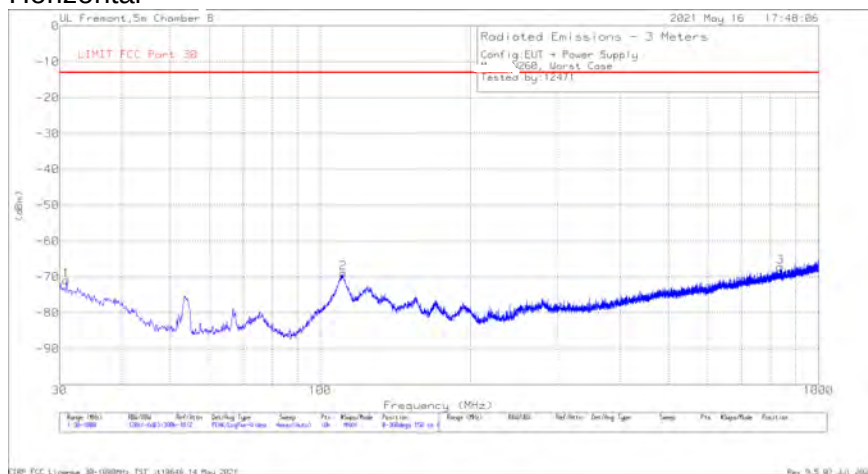
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	32.619	-73.49	Pk	25.2	-31.4	11.7	-67.99	-13	-54.99	0-360	150	V
1	34.074	-77	Pk	24	-31.4	11.7	-72.7	-13	-59.7	0-360	150	H
5	37.857	-67.53	Pk	21.3	-31.3	11.7	-65.83	-13	-52.83	0-360	150	V
6	45.132	-64.37	Pk	16.1	-31.2	11.7	-67.77	-13	-54.77	0-360	150	V
2	111.383	-70.16	Pk	18.7	-30.6	11.7	-70.36	-13	-57.36	0-360	150	H
3	955.671	-79.77	Pk	28.7	-26.1	11.7	-65.47	-13	-52.47	0-360	150	H

Pk - Peak detector

30 – 1000 MHz, ANT M2 (Pre-scan using Pk Det.)

Horizontal



Vertical

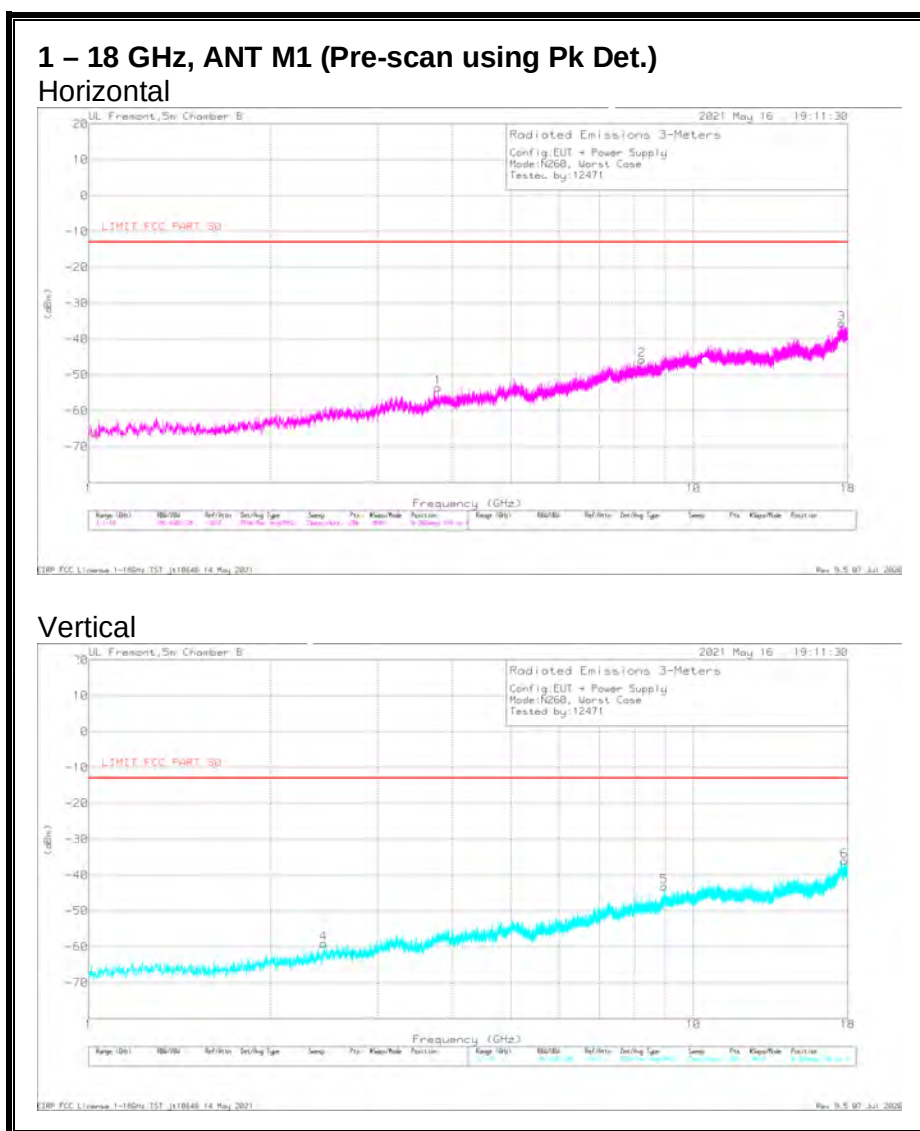


Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.97	-77.52	Pk	26.3	-31.4	11.7	-70.92	-13	-57.92	0-360	150	H
4	33.007	-73.98	Pk	24.9	-31.4	11.7	-68.78	-13	-55.78	0-360	150	V
5	40.282	-69.14	Pk	19.5	-31.3	11.7	-69.24	-13	-56.24	0-360	150	V
6	54.929	-62.59	Pk	13	-31.1	11.7	-68.99	-13	-55.99	0-360	150	V
2	111.189	-68.69	Pk	18.7	-30.6	11.7	-68.89	-13	-55.89	0-360	150	H
3	837.525	-79.29	Pk	27.7	-27.3	11.7	-67.19	-13	-54.19	0-360	150	H

Pk - Peak detector

8.4.27. RSE n260 1 - 18 GHz



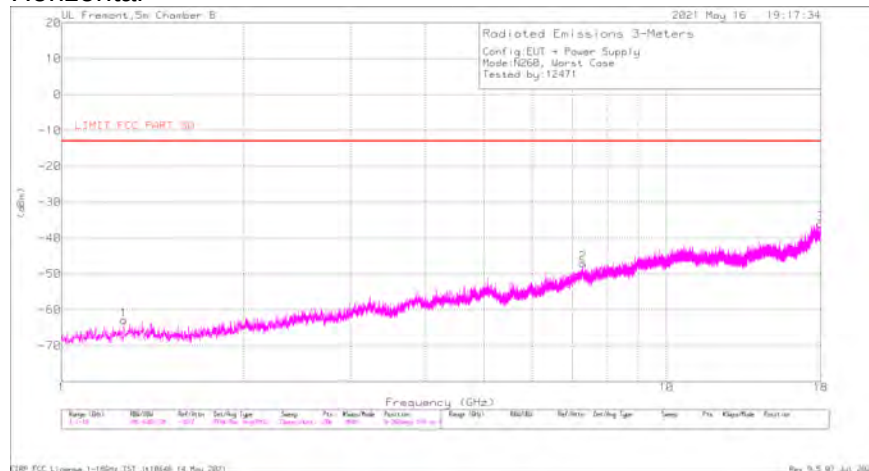
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.44507	-72.75	Pk	28.8	-26.8	11.7	-59.05	-13	-46.05	0-360	149	V
1	3.78474	-71.01	Pk	30.8	-25.1	11.7	-53.61	-13	-40.61	0-360	149	H
2	8.22027	-74.34	Pk	37.4	-20.5	11.7	-45.74	-13	-32.74	0-360	149	H
5	8.9462	-74.1	Pk	38.2	-18.9	11.7	-43.1	-13	-30.1	0-360	149	V
3	17.60474	-76.45	Pk	42.9	-13.7	11.7	-35.55	-13	-22.55	0-360	149	H
6	17.7943	-76.23	Pk	42.9	-14.4	11.7	-36.03	-13	-23.03	0-360	149	V

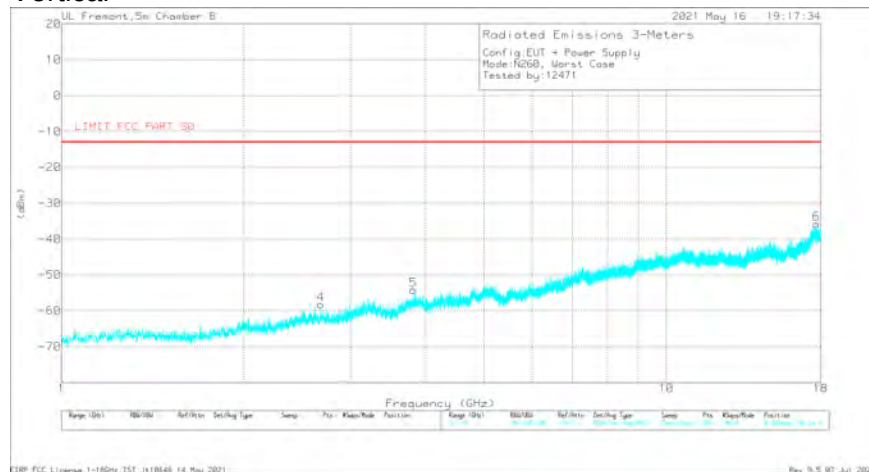
Pk - Peak detector

1 – 18 GHz, ANT M2 (Pre-scan using Pk Det.)

Horizontal



Vertical



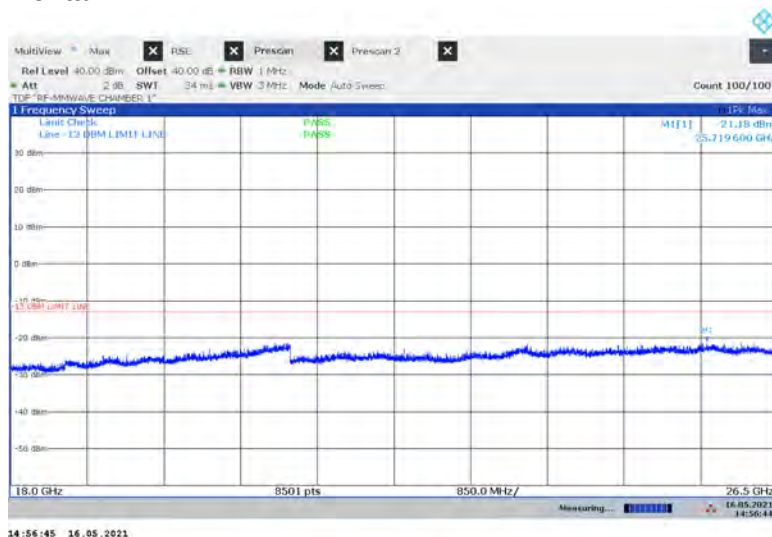
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AF (dB/m)	Amp/Cbl (dB)	Cbl (dB)	Corrected Reading (dBm)	LIMIT FCC Part 30 (dBm/MHz)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.26691	-71.78	Pk	25.6	-28.4	11.7	-62.88	-13	-49.88	0-360	149	H
4	2.68394	-72.86	Pk	29.2	-26.2	11.7	-58.16	-13	-45.16	0-360	149	V
5	3.81704	-71.71	Pk	31	-25.2	11.7	-54.21	-13	-41.21	0-360	149	V
2	7.28352	-75.48	Pk	37.1	-20.3	11.7	-46.98	-13	-33.98	0-360	149	H
6	17.71695	-75.42	Pk	42.8	-14.8	11.7	-35.72	-13	-22.72	0-360	149	V
3	17.98811	-76.21	Pk	43.2	-14.7	11.7	-36.01	-13	-23.01	0-360	149	H

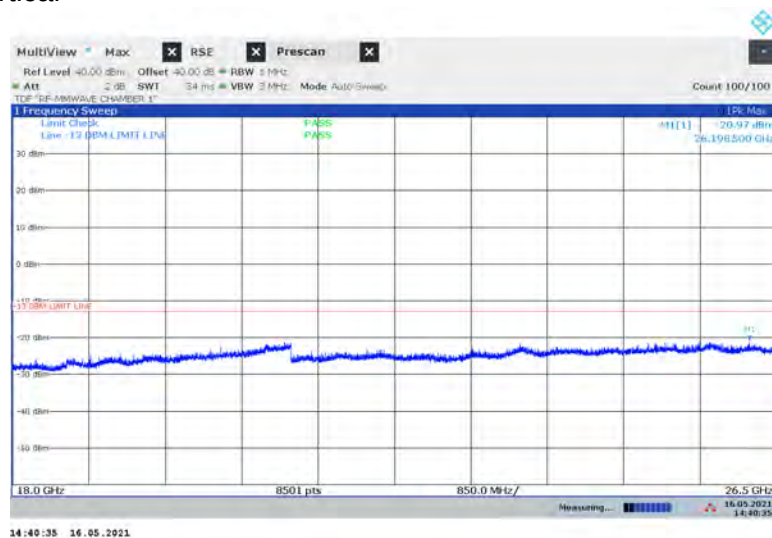
Pk - Peak detector

8.4.28. RSE n260 18 - 26.5 GHz

18 - 26.5 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal

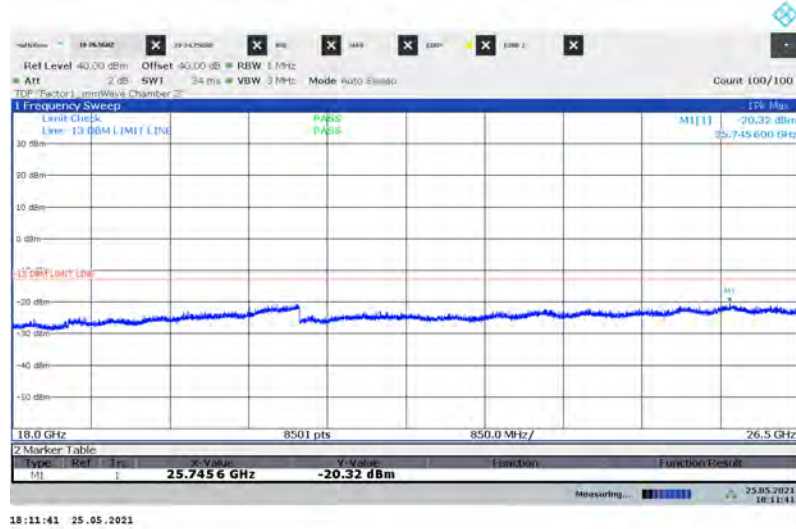


18 - 26.5 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical

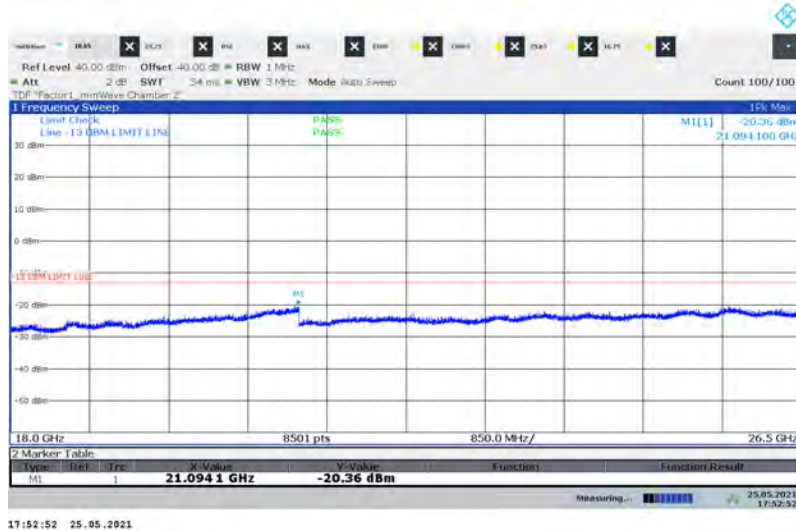


No emission detected using Peak Detection.

18 - 26.5 GHz, ANT M2 (Pre-scan using Pk Det.)
Horizontal



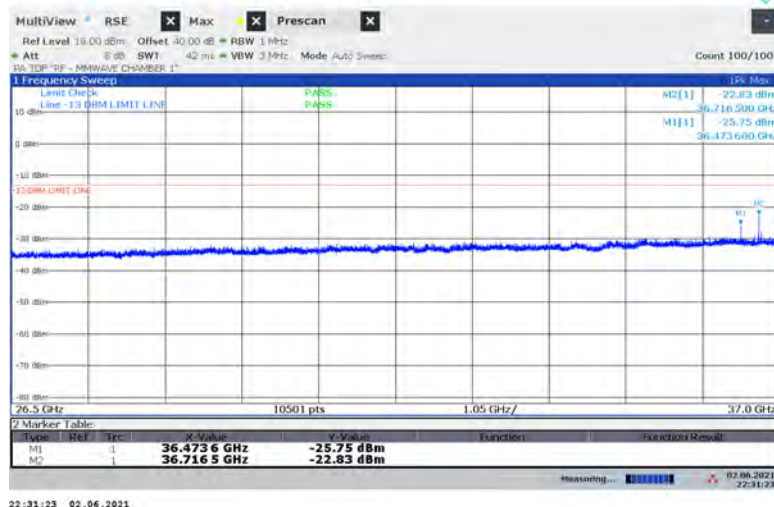
18 - 26.5 GHz, ANT M2 (Pre-scan using Pk Det.)
Vertical



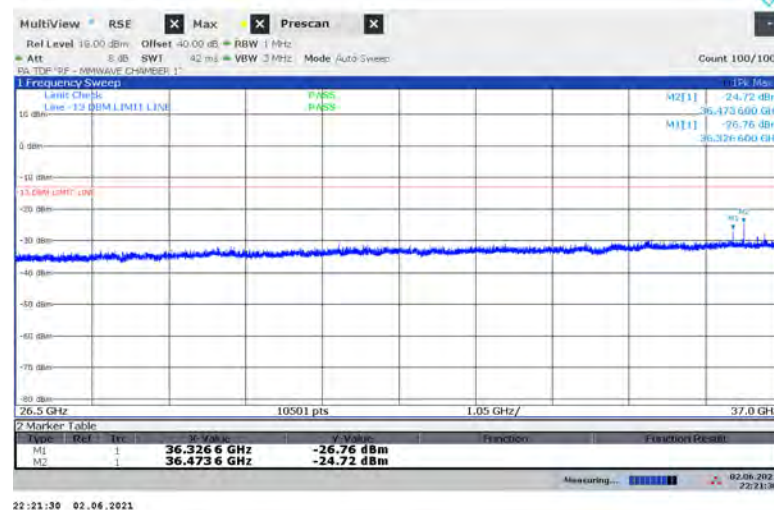
No emission detected using Peak Detection.

8.4.29. RSE n260 26.5 - 37 GHz

26.5 - 37 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Horizontal

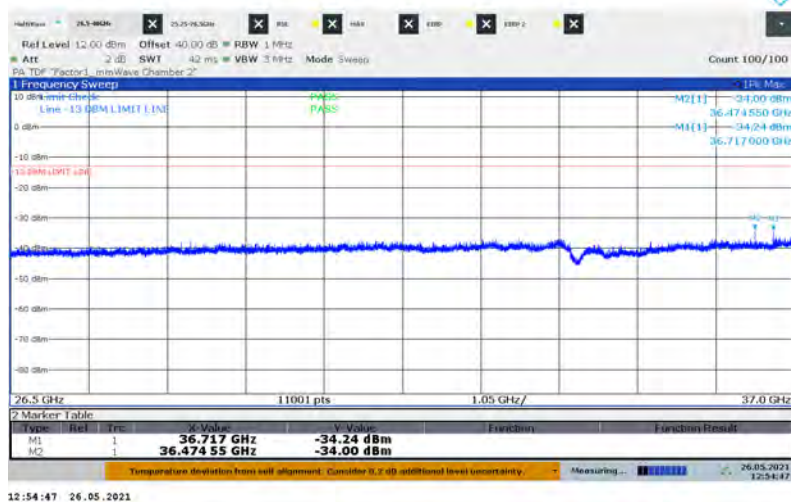


26.5 - 37 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Vertical

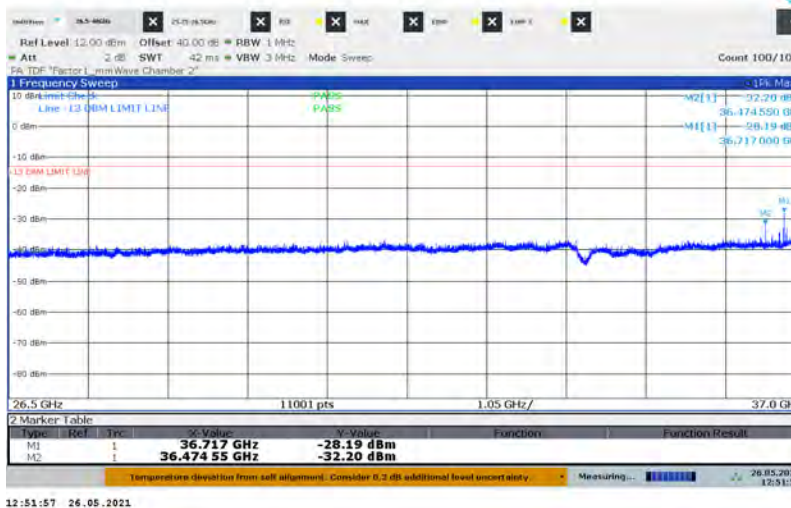


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

26.5 - 37 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Horizontal



26.5 - 37 GHz, ANT M2, 1CC (Pre-scan using Pk Det.) Vertical

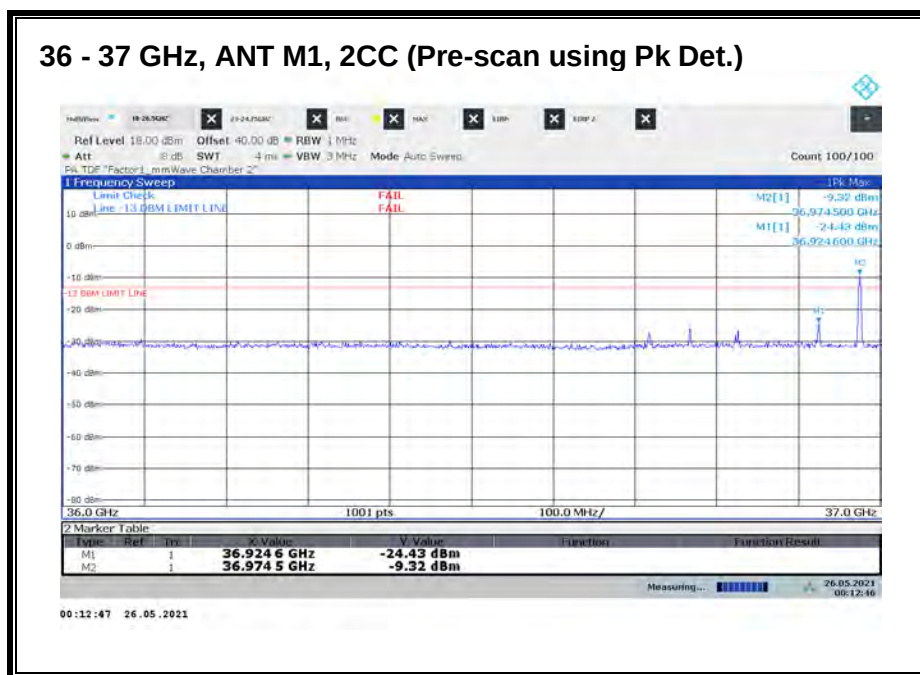


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

26.5 - 37 GHz n260, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	36.717	3	H	-26.27	-13	-13.27
M1	36.717	3	V	-30.11	-13	-17.11
M1	36.473	3	H	-30.84	-13	-17.84
M1	36.473	3	V	-30.96	-13	-17.96
M2	36.717	3	H	-39.10	-13	-26.10
M2	36.717	3	V	-29.45	-13	-16.45

36 - 37 GHz n260, 2CC



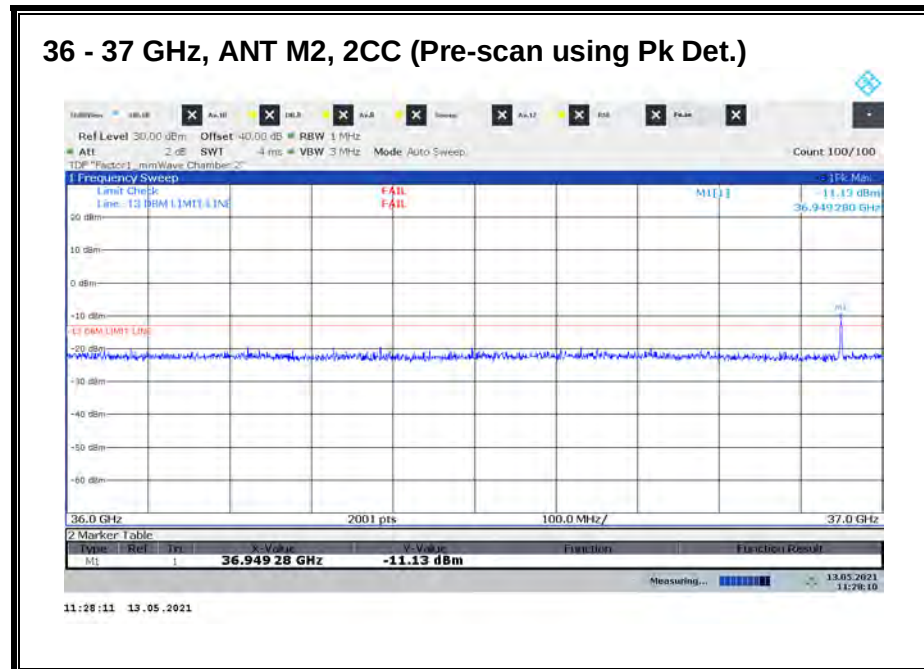
Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_Low CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	37.974	3	H	-18.53	-13	-5.53



Worst case configuration:

SISO-DUAL_QPSK_(100 MHz + 100 MHz)_Low CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

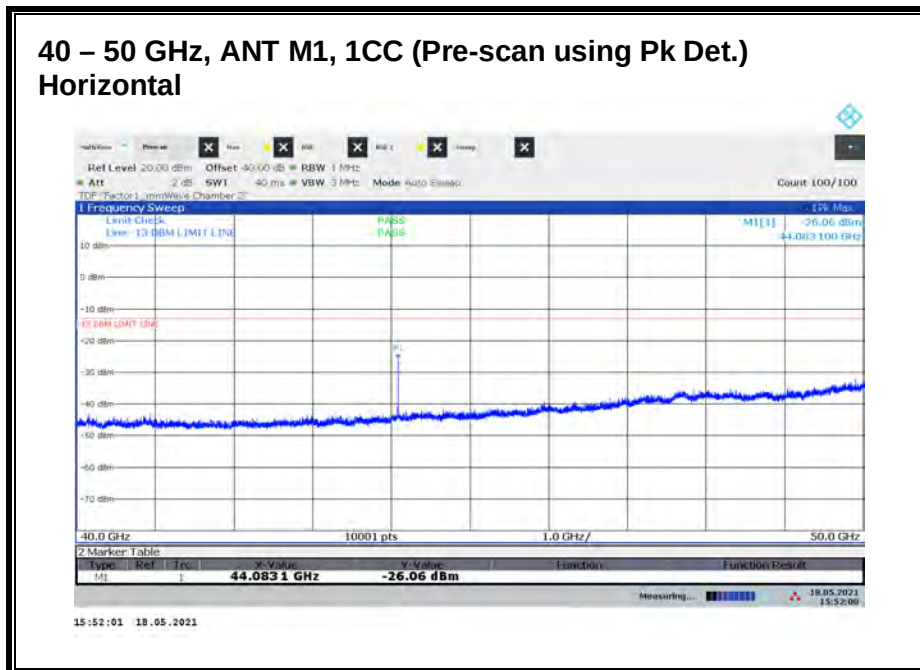
Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	36.949	3	V	-20.30	-13	-7.30

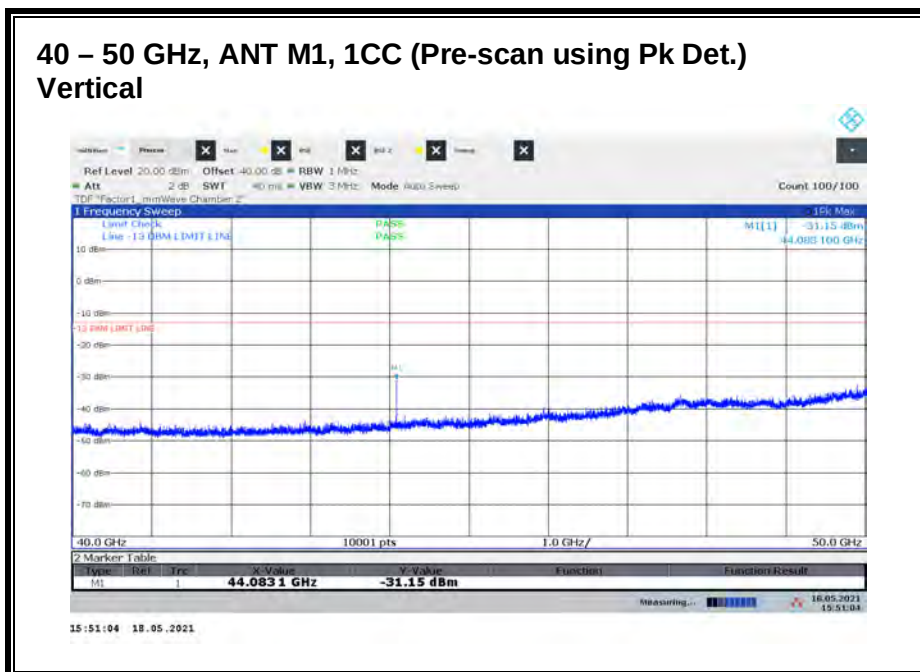
8.4.30. RSE n260 40 - 50 GHz

Note: 37 - 40 GHz covered by Fundamental and BE measurements.

40 – 50 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Horizontal

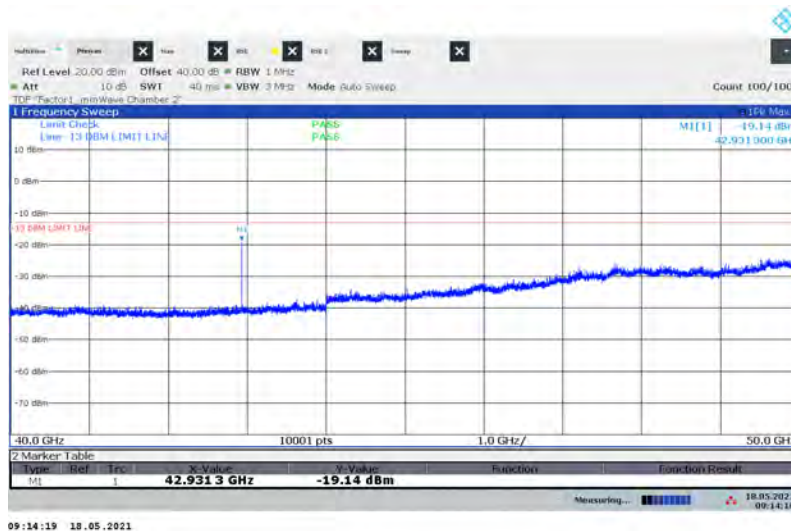


40 – 50 GHz, ANT M1, 1CC (Pre-scan using Pk Det.) Vertical

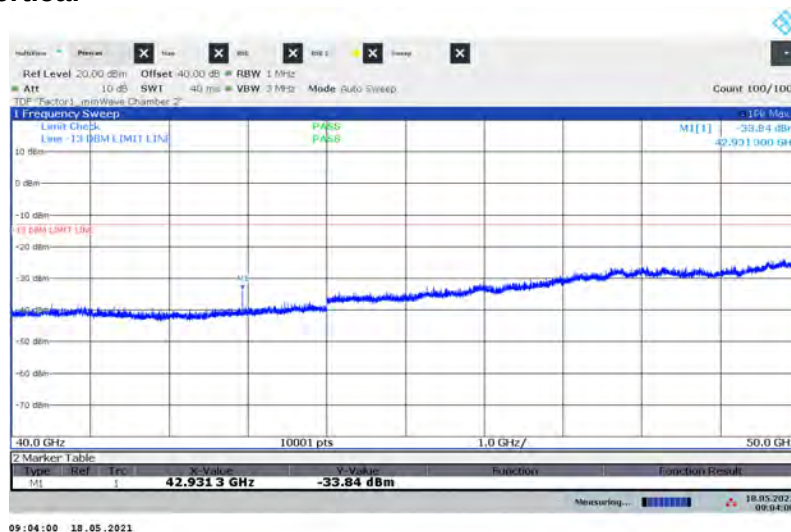


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

**40 – 50 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Horizontal**



**40 – 50 GHz, ANT M2, 1CC (Pre-scan using Pk Det.)
Vertical**

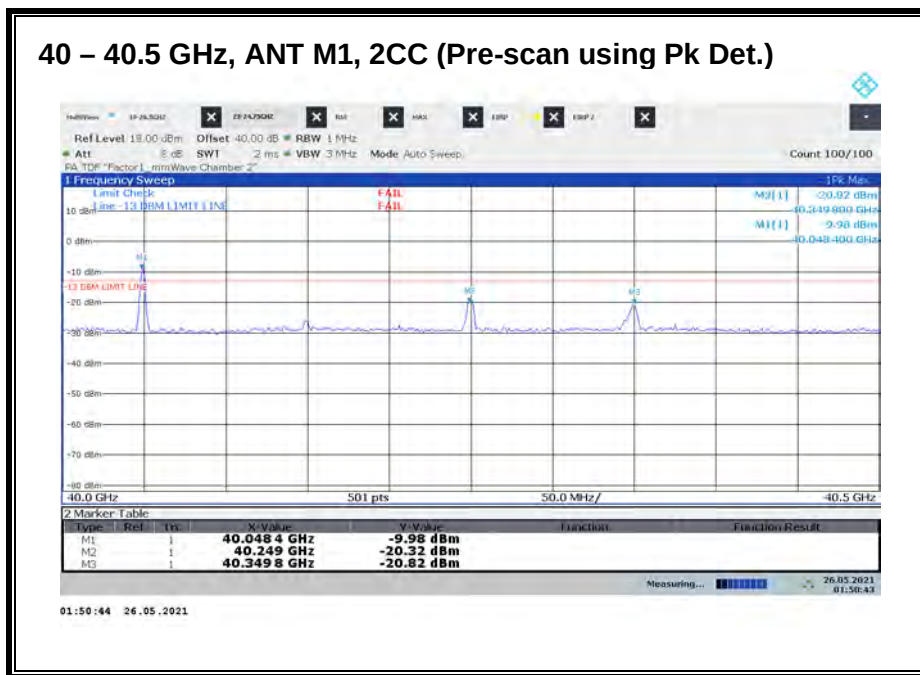


Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

40 - 50 GHz n260, 1CC

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	44.083	3	H	-27.03	-13	-14.03
M1	44.083	3	V	-33.55	-13	-20.55
M2	44.931	3	H	-20.21	-13	-7.21
M2	44.931	3	V	-39.82	-13	-26.82

40 – 40.5 GHz n260, 2CC



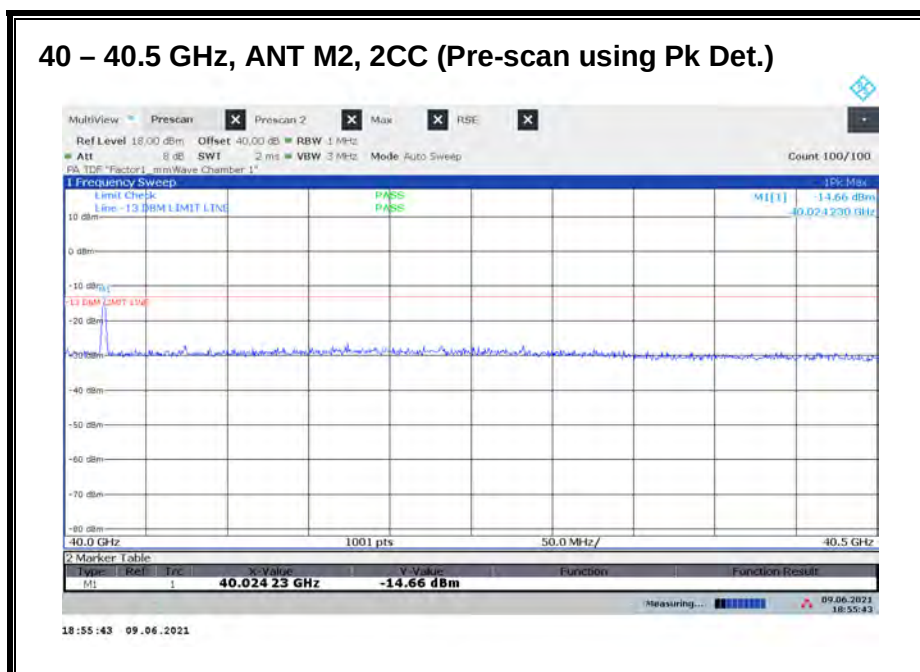
Worst case configuration:

SISO-DUAL_QPSK_(100 MHz + 100 MHz)_High CH_RB Offset 1/32 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	40.049	3	H	-21.79	-13	-8.79



Worst case configuration:

SISO-DUAL_QPSK_(50 MHz + 50 MHz)_High CH_RB Offset 1/15 (1RB-M)

Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

Highest emission in this band was investigated.

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M2	40.024	3	H	-20.20	-13	-7.20

50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



50 - 75 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



No emission detected using Peak Detection.

75 - 110 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



75 - 110 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



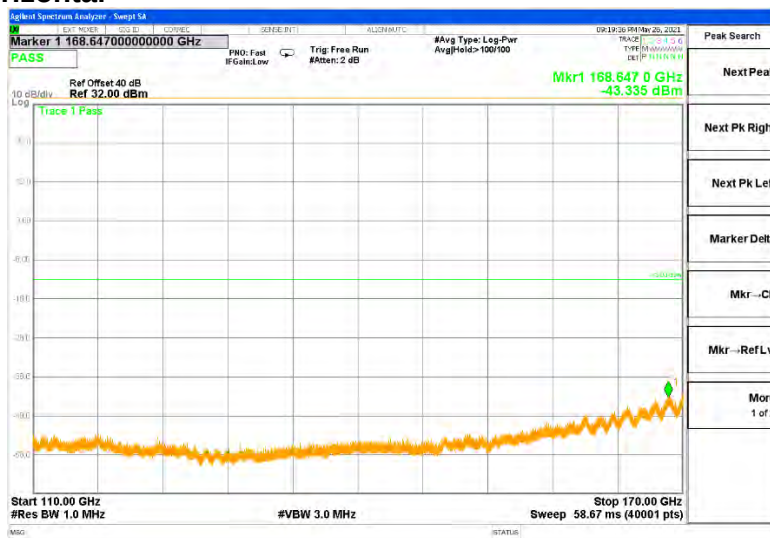
Emissions detected using Peak Detection at pre-scan. Avg EIRP was measured.

75 - 110 GHz n260

Antenna	Freq.	Meas. Distance	Rx Ant. Polarity	Corrected Avg EIRP	TRP Limit	Margin
	(GHz)	(m)	H/V	(dBm)	(dBm)	(dB)
M1	79.898	1	H	-39.57	-13	-26.57
M1	79.898	1	V	-41.70	-13	-28.70
M2	79.948	1	H	-39.98	-13	-26.98
M2	79.948	1	V	-36.33	-13	-23.33

8.4.33. RSE n260 110 - 170 GHz

110 - 170 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal



110 - 170 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical

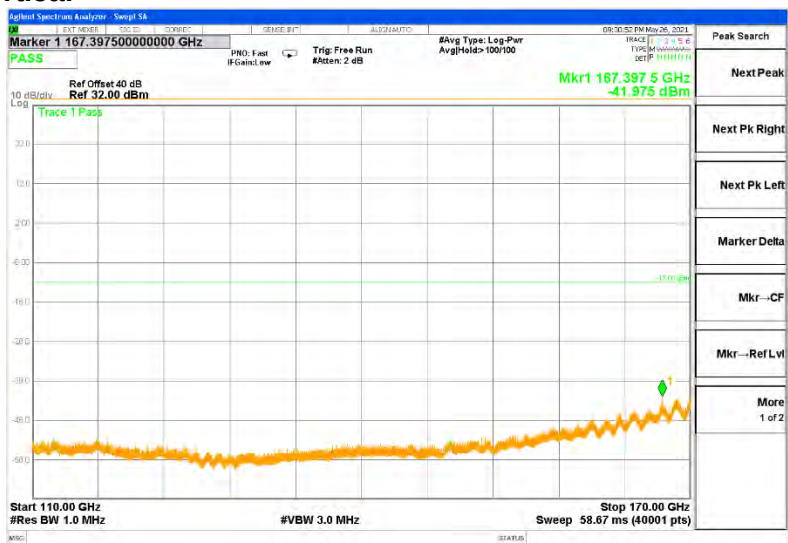


No emission detected using Peak Detection.

110 - 170 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



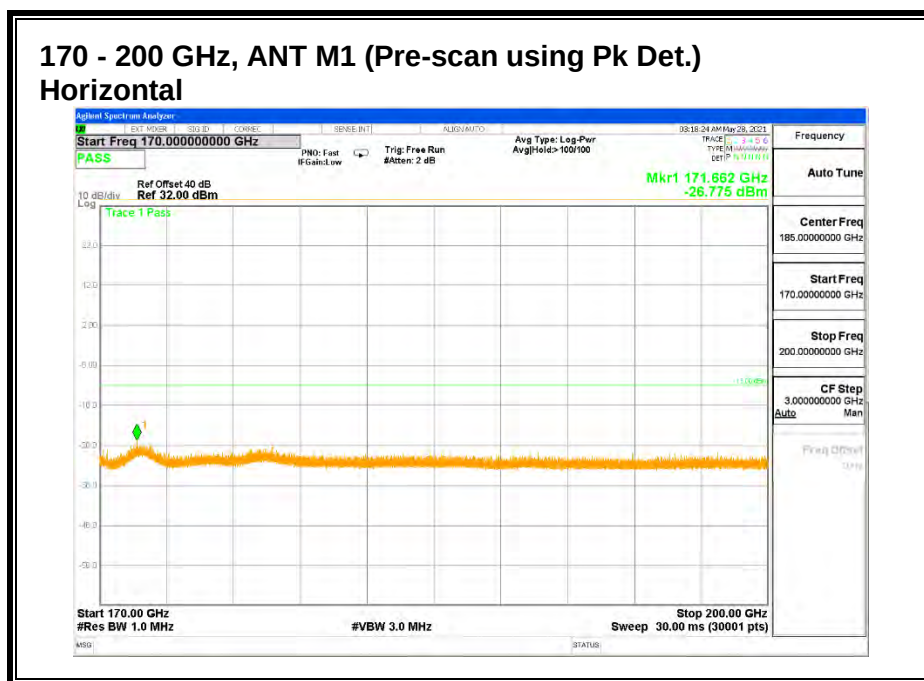
110 - 170 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



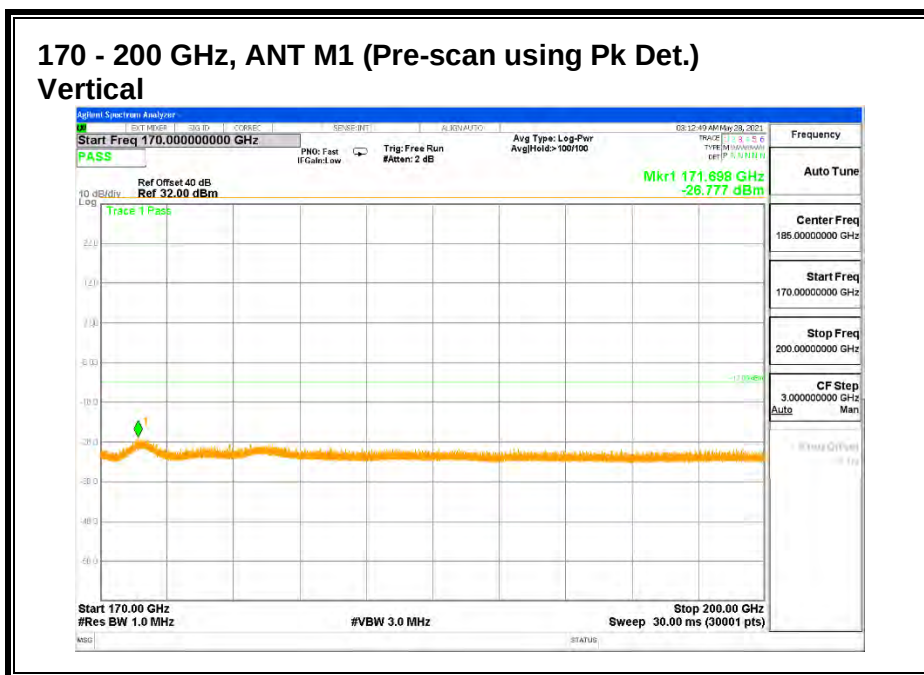
No emission detected using Peak Detection.

8.4.34. RSE n260 170 - 200 GHz

170 - 200 GHz, ANT M1 (Pre-scan using Pk Det.) Horizontal



170 - 200 GHz, ANT M1 (Pre-scan using Pk Det.) Vertical

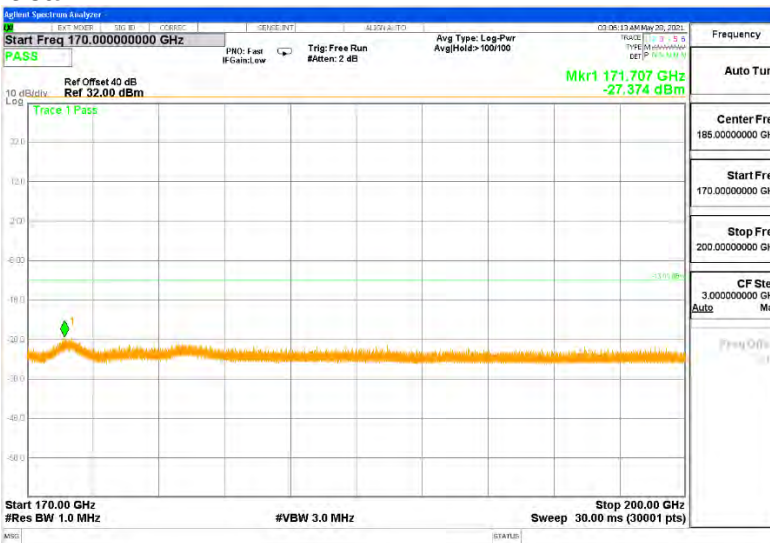


No emission detected using Peak Detection.

170 - 200 GHz, ANT M2 (Pre-scan using Pk Det.) Horizontal



170 - 200 GHz, ANT M2 (Pre-scan using Pk Det.) Vertical



No emission detected using Peak Detection.

8.5. FREQUENCY STABILITY

RULE PART(S)

FCC: §2.1055

LIMIT

For reporting purposes only

TEST PROCEDURES

KDB 842590 D01 Upper Microwave Flexible Use Service v01 Section 4.5
ANSI C63.26-2015 Section 5.6

Test procedures for temperature variation:

- a. Position the EUT in temperature/humidity chamber with power off.
 - b. Set chamber temperature to -30°C and stabilize the EUT for at least 30 minutes.
 - c. Record maximum change in frequency within one minute after powering the EUT.
 - d. Increase chamber temperature at 10°C intervals from -30°C to 50°C. Record maximum change in frequency at each temperature.
 - e. A period of at least 30 minutes is provided to allow stabilization of the equipment at each temperature level.
- Temp. = -30°C to +50°C

Test procedures for voltage variation:

- a. Position the EUT in temperature/humidity chamber with power off.
 - b. Set chamber temperature to 20°C.
 - c. Record maximum frequency change within one minute after powering the EUT.
 - d. The primary supply voltage is varied from 85% to 115% of the nominal value for hand-carried, battery-powered equipment. primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.
- Voltage = (85% - 115%)
 - Nominal: 3.8 VDC; Low: 3.32VDC; High: 4.37 VDC

The measurements were performed with the CW signal of center frequency of each frequency band. Testing of n258 SB1 and n261 bands on Ant M1 represent the performance of Chipset 1. Likewise, testing of n258 SB2 and n260 bands on Ant M2, represent the performance of Chipset 2.

RESULTS

See the following pages.

Employee IDs: 19459 & 19437

Test Date: 5/15/2021

Test Location: Temperature Chamber

8.5.1. FREQUENCY STABILITY n258 SB1

			Antenna M1 n258 SB1	
Input Voltage	Environment	Frequency	Frequency	Delta
	Temperature (°C)	(Hz)	(MHz)	(kHz)
Normal	50	2435486010	2435.4860100	-3.500
Normal	40	2435484520	2435.4845200	-4.990
Normal	30	2435492010	2435.4920100	2.500
Normal	20	2435489510	2435.4895100	Reference
Normal	10	2435496500	2435.4965000	6.990
Normal	0	2435506490	2435.5064900	16.980
Normal	-10	2435507990	2435.5079900	18.480
Normal	-20	2435508990	2435.5089900	19.480
Normal	-30	2435500000	2435.5000000	10.490
115%	20	2435486010	2435.4860100	-3.500
85%	20	2435488510	2435.4885100	-1.000

8.5.2. FREQUENCY STABILITY n258 SB2

			Antenna M2 n258 SB2	
Input Voltage	Environment	Frequency	Frequency	Delta
	Temperature (°C)	(Hz)	(MHz)	(kHz)
Normal	50	2500488510	2500.4885100	-4.500
Normal	40	2500478020	2500.4780200	-14.990
Normal	30	2500478520	2500.4785200	-14.490
Normal	20	2500493010	2500.4930100	Reference
Normal	10	2500496000	2500.4960000	2.990
Normal	0	2500519480	2500.5194800	26.470
Normal	-10	2500499000	2500.4990000	5.990
Normal	-20	2500510490	2500.5104900	17.480
Normal	-30	2500509990	2500.5099900	16.980
115%	20	2500491010	2500.4910100	-2.000
85%	20	2500502000	2500.5020000	8.990

8.5.3. FREQUENCY STABILITY n261

Input Voltage	Environment Temperature (°C)	Frequency (Hz)	Antenna M1 n261	
			Frequency (MHz)	Delta (kHz)
Normal	50	2792975510	2792.9755100	-9.000
Normal	40	2792981010	2792.9810100	-3.500
Normal	30	2792984510	2792.9845100	0.000
Normal	20	2792984510	2792.9845100	Reference
Normal	10	2792996490	2792.9964900	11.980
Normal	0	2793007480	2793.0074800	22.970
Normal	-10	2793009980	2793.0099800	25.470
Normal	-20	2793006480	2793.0064800	21.970
Normal	-30	2793006480	2793.0064800	21.970
115%	20	2792984010	2792.9840100	-0.500
85%	20	2792985500	2792.9855000	0.990

8.5.4. FREQUENCY STABILITY n260

Input Voltage	Environment Temperature (°C)	Frequency (Hz)	Antenna M2 n260	
			Frequency (MHz)	Delta (kHz)
Normal	50	3850485010	3850.4850100	3.990
Normal	40	3850470530	3850.4705300	-10.490
Normal	30	3850483520	3850.4835200	2.500
Normal	20	3850481020	3850.4810200	Reference
Normal	10	3850498500	3850.4985000	17.480
Normal	0	3850504500	3850.5045000	23.480
Normal	-10	3850511990	3850.5119900	30.970
Normal	-20	3850506990	3850.5069900	25.970
Normal	-30	3850527970	3850.5279700	46.950
115%	20	3850478020	3850.4780200	-3.000
85%	20	3850492510	3850.4925100	11.490

9. SETUP PHOTOS

Please refer to 13571601-EP20V1 for setup photos.

END OF REPORT

APPENDIX A

1. 50 - 80 GHz Keysight M1970V



Certificate Of Calibration

Certificate No: M1970VMY5139083020200903

Manufacturer: Keysight Technologies
Model No: M1970V
Options Installed With Specifications: 002

Description: Waveguide Harmonic Mixer
Serial No: MY51390830

Customer Asset:
Customer:
UL Verification Services Inc
47173 Benicia St
FREMONT CA 94538-7366
UNITED STATES

Location of Calibration:
Plot 44, Bayan Lepas Industrial Park IV
11900 Penang
Malaysia

Date of Calibration: 03-SEP-2020
Temperature: (23 ± 3)°C
Procedure: MTA-T0264

Received Date: 03-SEP-2020
Humidity: (20 to 70) % RH

This certifies that the equipment has been calibrated using applicable Keysight Technologies procedures in compliance with a quality management system registered to ISO 9001:2015.

As Received Conditions: Initial testing found the equipment to be IN SPECIFICATION at the points tested.

Action Taken: No corrective actions were necessary.

As Shipped Conditions: At the completion of calibration, measured values were IN SPECIFICATION at the parameters tested.

Remarks or special requirements:

Notes:

1. This calibration report may refer to equipment manufactured by HP, Agilent and Keysight as being manufactured by Keysight Technologies, Inc.
2. The test limits stated in the calibration report correspond to the published specifications of the equipment, at the points tested.
3. The documented test results relate to the equipment tested only.
4. This calibration report shall not be reproduced, except in full.

Traceability Information: Measurements are traceable to the International System of Units (SI) via national metrology institutes (www.keysight.com/find/NMI) that are signatories to the CIPM Mutual Recognition Arrangement.

Keysight Provider #71456				
CAL	03	09	20	NY
DUE				

2. 75 - 110 GHz Keysight M1970W



Certificate Of Calibration

Certificate No: M1970WMY5143078420200902

Manufacturer: Keysight Technologies
Model No: M1970W
Options Installed With Specifications: N/A

Description: Waveguide Harmonic Mixer
Serial No: MY51430784

Customer Asset:
Customer:
UL Verification Services Inc
47173 Benicia St
FREMONT CA 94538-7366
UNITED STATES

Location of Calibration:
Plot 44, Bayan Lepas Industrial Park IV
11900 Penang
Malaysia

Date of Calibration: 02-SEP-2020
Temperature: (23 ± 3)°C
Procedure: MTA-T0264

Received Date: 02-SEP-2020
Humidity: (20 to 70) % RH

This certifies that the equipment has been calibrated using applicable Keysight Technologies procedures in compliance with a quality management system registered to ISO 9001:2015.

As Received Conditions: Initial testing found the equipment to be IN SPECIFICATION at the points tested.

Action Taken: No corrective actions were necessary.

As Shipped Conditions: At the completion of calibration, measured values were IN SPECIFICATION at the parameters tested.

Remarks or special requirements:

Notes:

1. This calibration report may refer to equipment manufactured by HP, Agilent and Keysight as being manufactured by Keysight Technologies, Inc.
2. The test limits stated in the calibration report correspond to the published specifications of the equipment, at the points tested.
3. The documented test results relate to the equipment tested only.
4. This calibration report shall not be reproduced, except in full.

Traceability Information: Measurements are traceable to the International System of Units (SI) via national metrology institutes (www.keysight.com/find/NMI) that are signatories to the CIPM Mutual Recognition Arrangement.

Keysight Provider #71456			
	SO	MA	TY
CAL	02	09	20
DUE			NP

3. 110 - 170 GHz VDI WR6.5SAX



Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902
Phone: 434-297-3257
Fax: 434-297-3258

Certificate of Conformance

To: UL LLC
47173 Benicia Street
Fremont, CA 94538
United States

From: Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902

Packing List No: 201916
Shipping Date: 06/08/20

Today's Date: 06/08/20
PO Number: 7862016682

Quantity	Shipped	Unit	Description	Order-Job Number
1	EA	VDIWR6.5SAX WR6.5SAX / SN: SAX 650	20141D-01	

The VDI product(s) in this shipment meet(s) the guidelines for performance specifications established in accordance with the corresponding Purchase Order. Data presented in the User Guide, where applicable, has been obtained in accordance with VDI's Quality Management System. All instruments, used to obtain data, which require calibration have been calibrated with equipment traceable to the National Institute of Standards and Technology (NIST) and through NIST to the International System of Units (SI).


Authorized Signature
Virginia Diodes, Inc

Page 1 of 1

4. 170 - 260 GHz VDI WR4.3SAX



Virginia Diodes, Inc
979 2nd St. SE
Suite 309
Charlottesville, VA 22902
Phone: 434-297-3257
Fax: 434-297-3258

Certificate of Conformance

To: UL LLC
47173 Benicia Street
Fremont, CA 94538
United States

From: Virginia Diodes, Inc.
979 2nd St. SE
Suite 309
Charlottesville, VA 22902

Packing List No: 211687
Shipping Date: 05/18/21

Today's Date: 05/18/21
PO Number: 7862019330

Quantity	Shipped	Unit	Description	Order-Job Number
1	EA	UPGRADE-WR4.3SAX TO WR4.3SAX-F SAX 651	21064C-01	

The VDI product(s) in this shipment meet(s) the guidelines for performance specifications established in accordance with the corresponding Purchase Order. Data presented in the User Guide, where applicable, has been obtained in accordance with VDI's Quality Management System. All instruments, used to obtain data, which require calibration have been calibrated with equipment traceable to the National Institute of Standards and Technology (NIST) and through NIST to the International System of Units (SI).

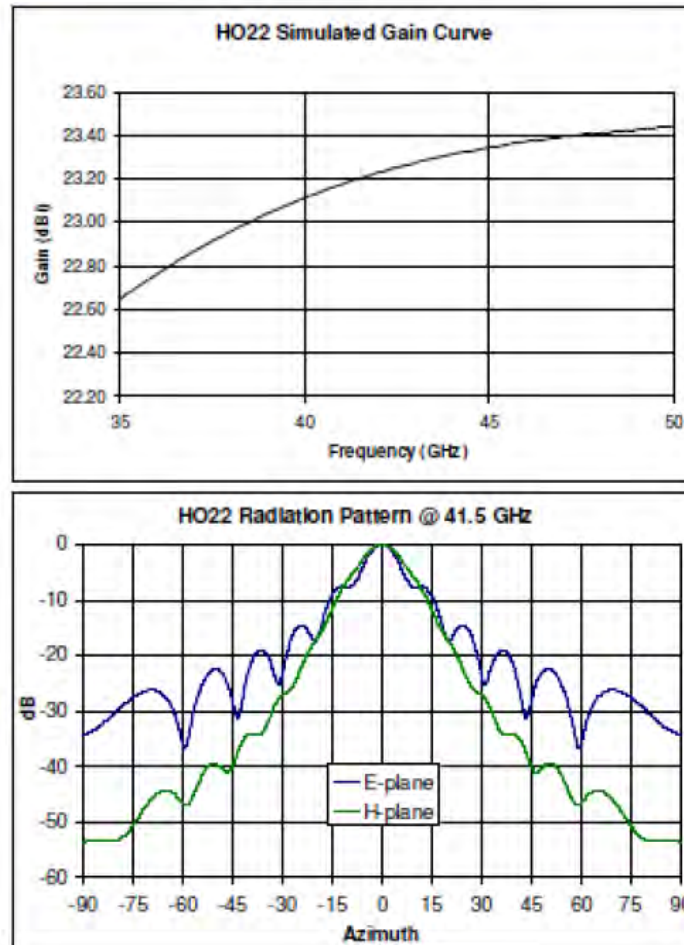

Authorized Signature
Virginia Diodes, Inc.

Page 1 of 1

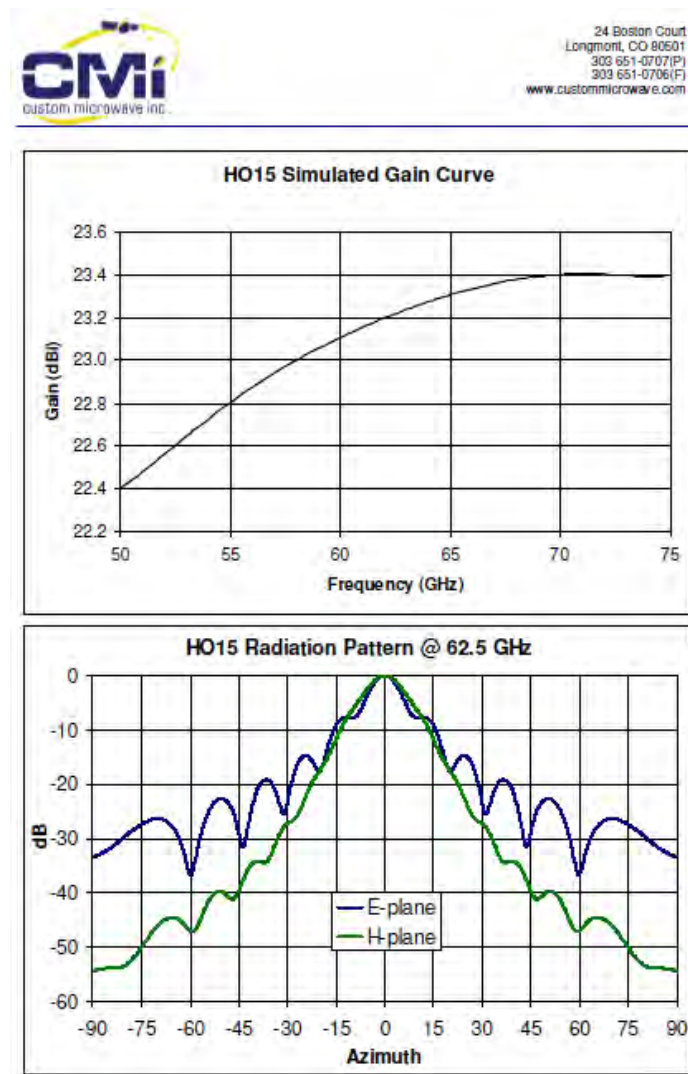
5. 35 - 50 GHz CMI HO22R HORN ANTENNA



24 Boston Court
Longmont, CO 80501
303.651-0707(F)
303.651-0706(F)
www.custommicrowave.com



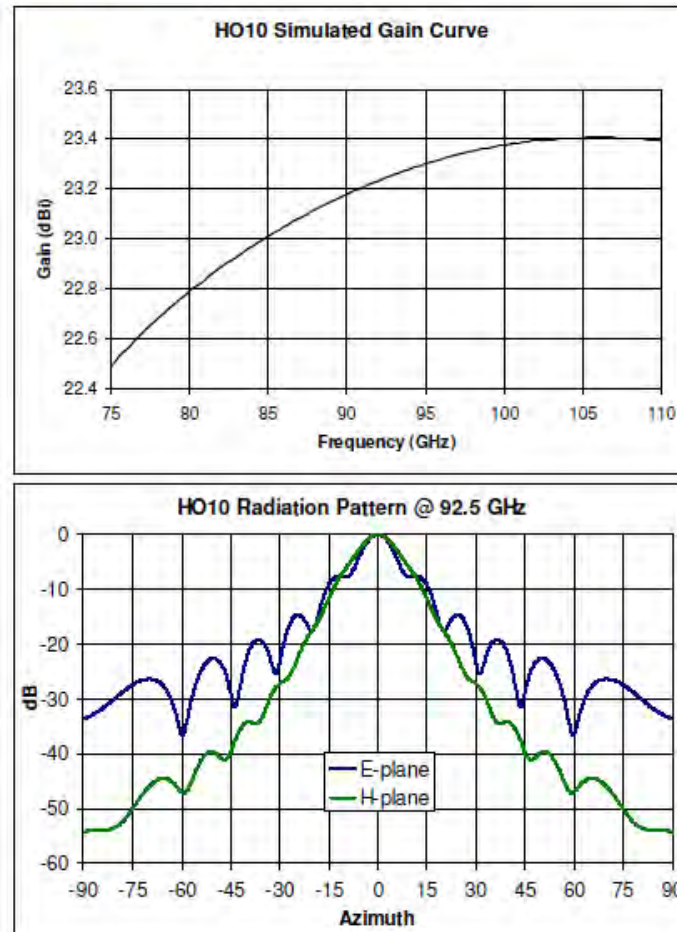
6. 50 - 75 GHz CMI HO15R HORN ANTENNA



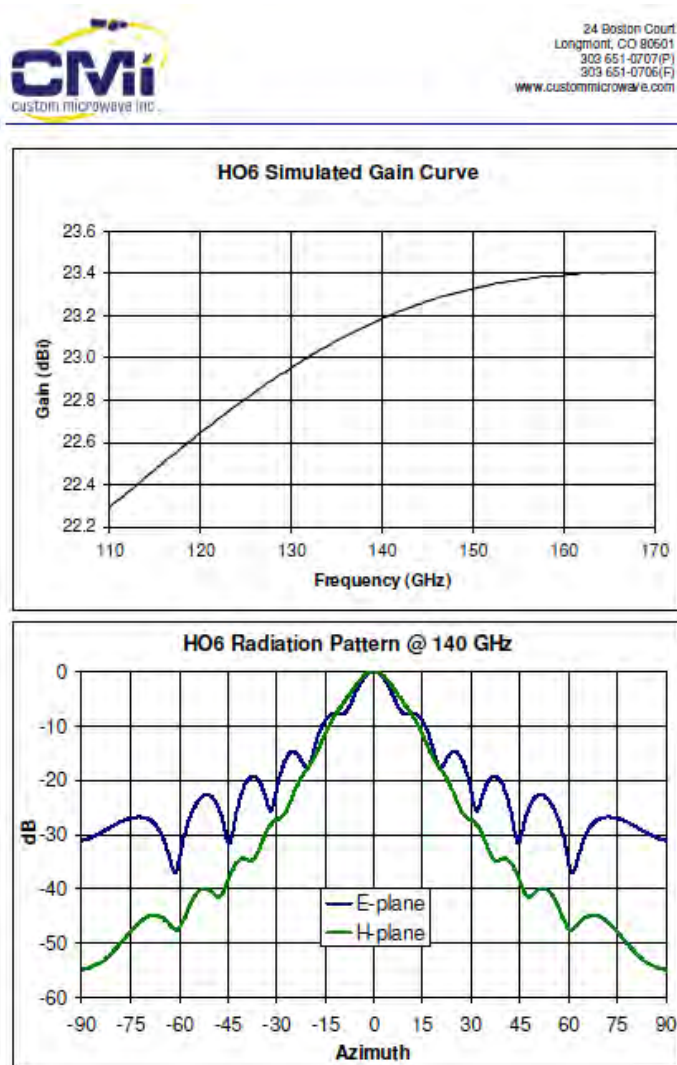
7. 75 - 110 GHz CMI HO10R HORN ANTENNA



24 Boston Court
Longmont, CO 80501
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303 661-3706(F)
www.custommicrowave.com



8. 110 - 170 GHz CMI HO6R HORN ANTENNA



9. 170 - 260 GHz CMI HO4R HORN ANTENNA

