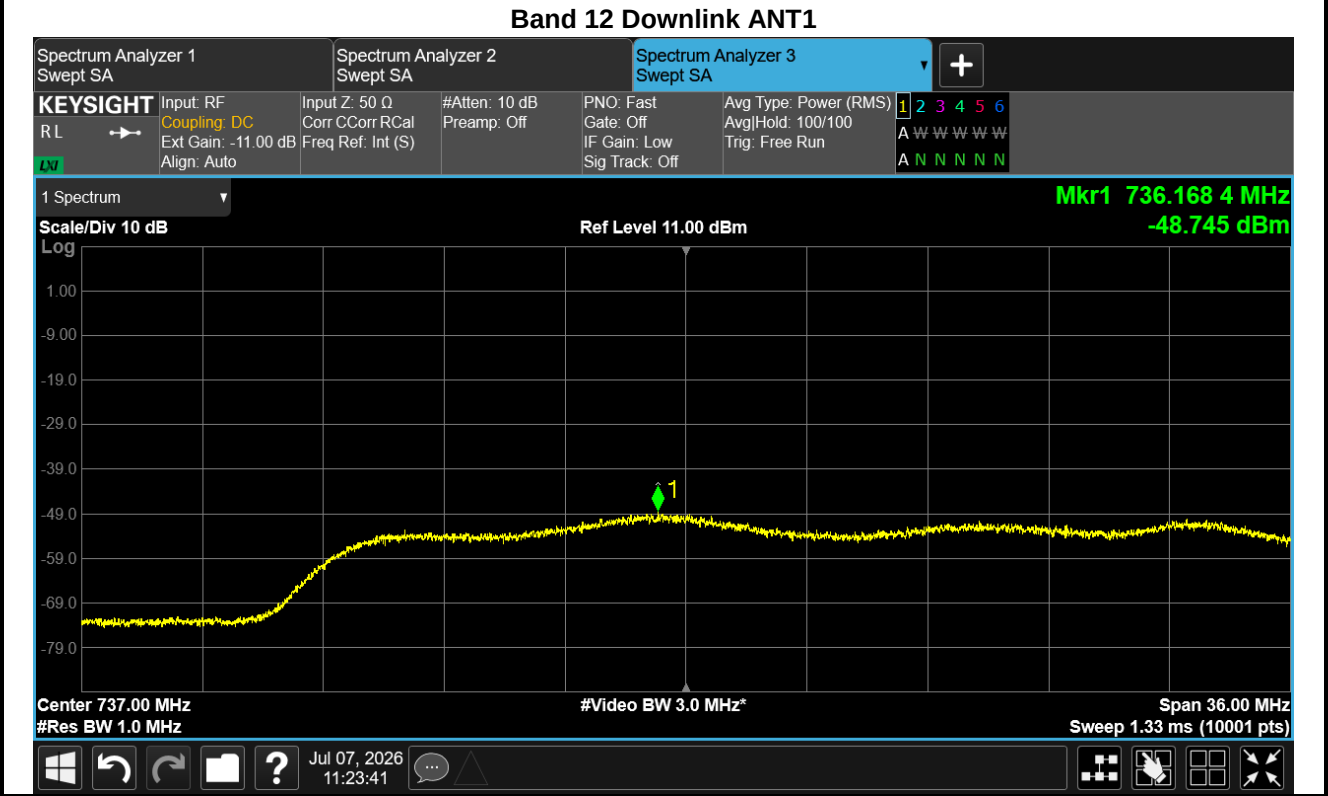
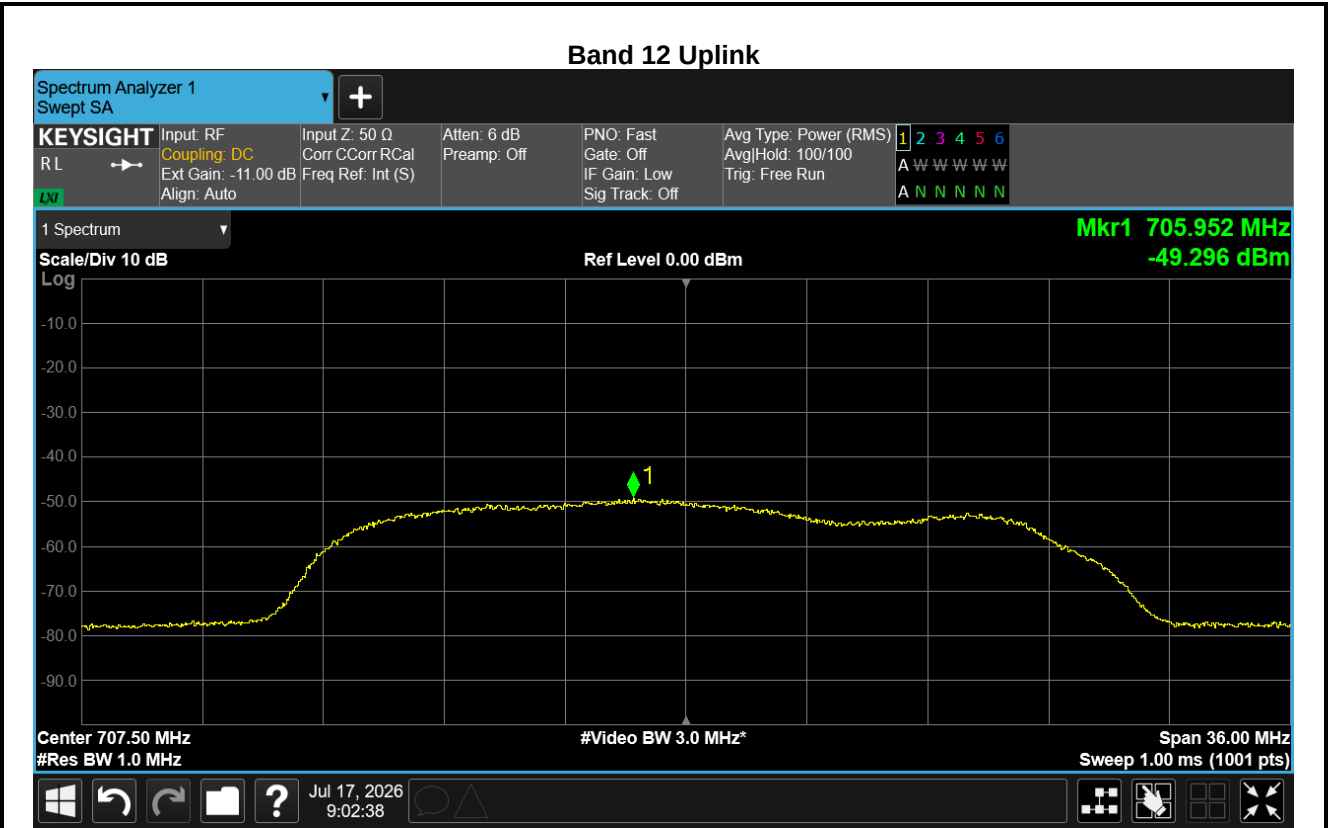
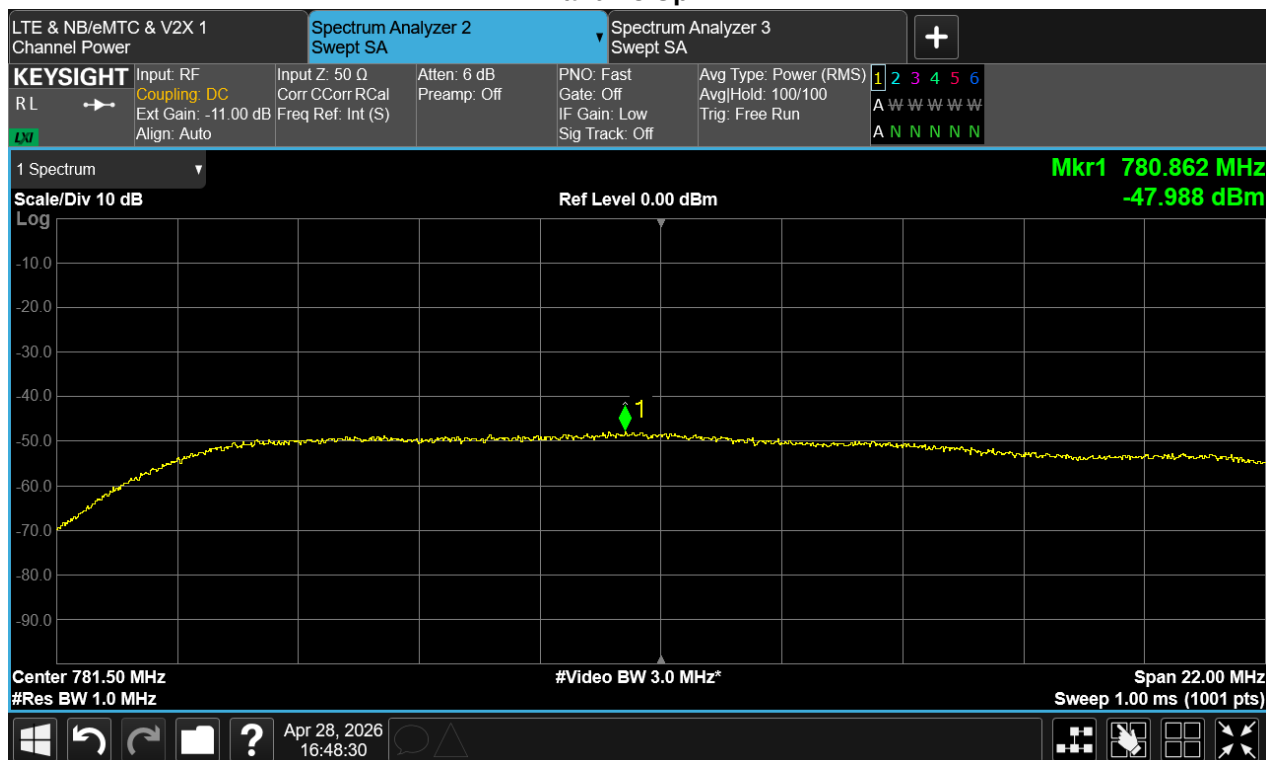




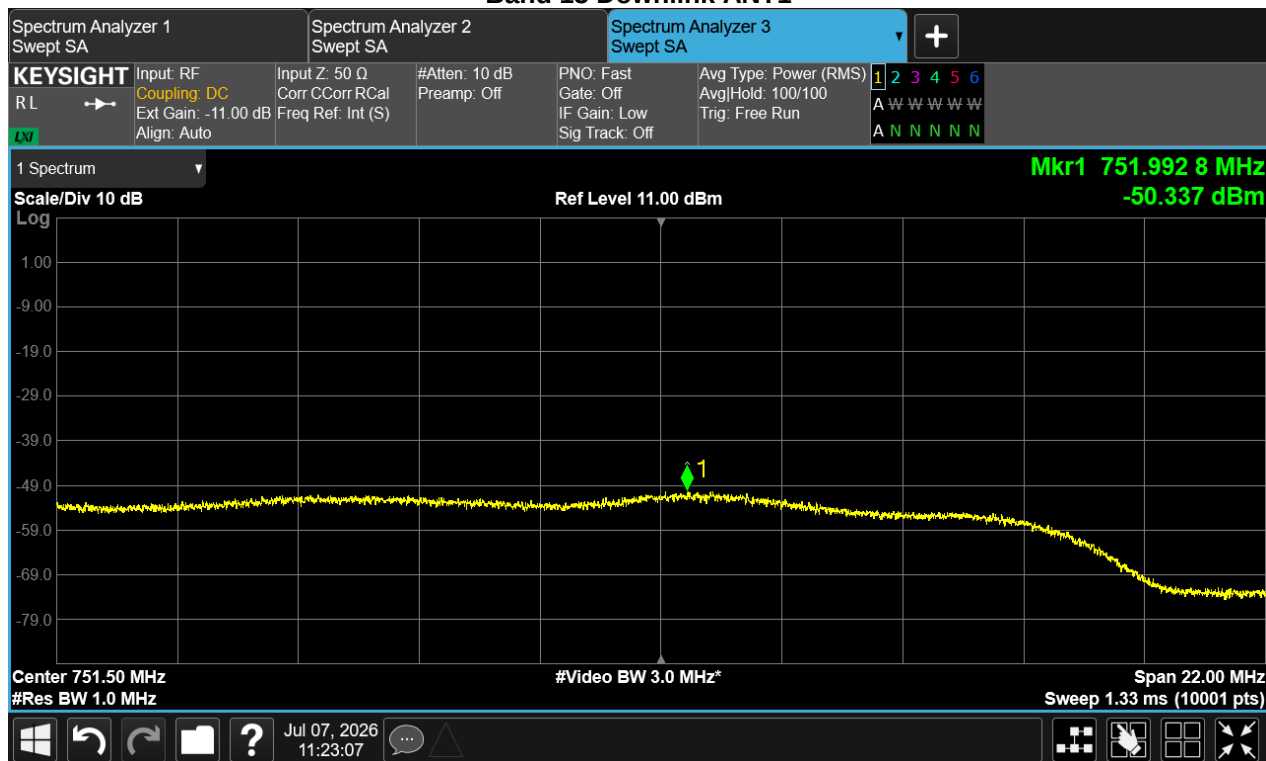
Band 12 Downlink ANT2



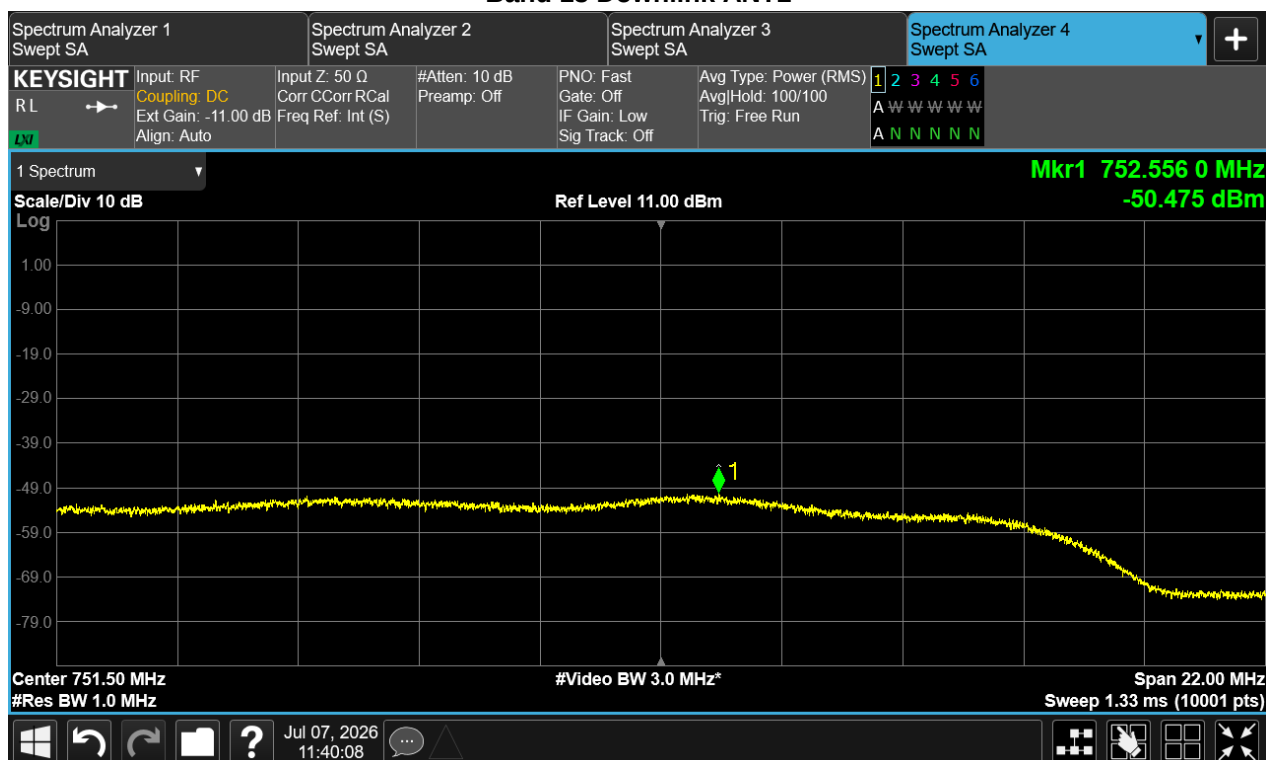
Band 13 Uplink



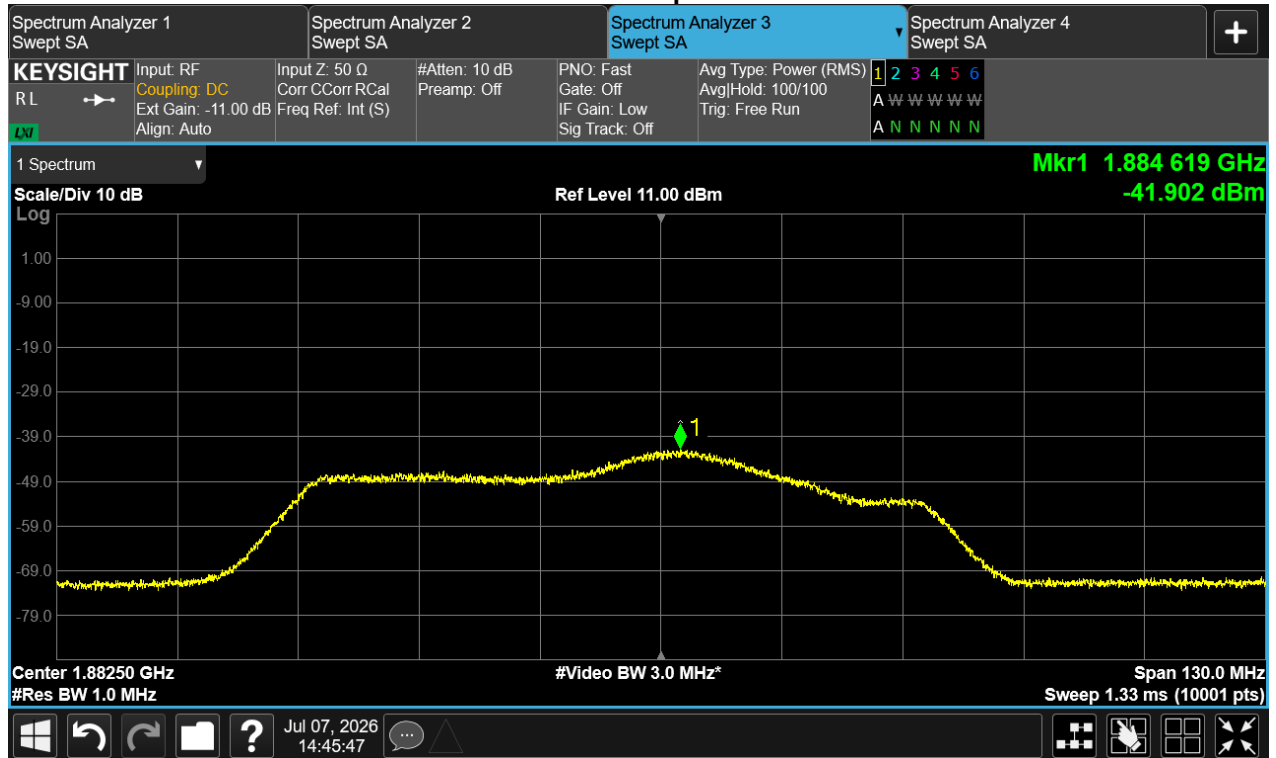
Band 13 Downlink ANT1



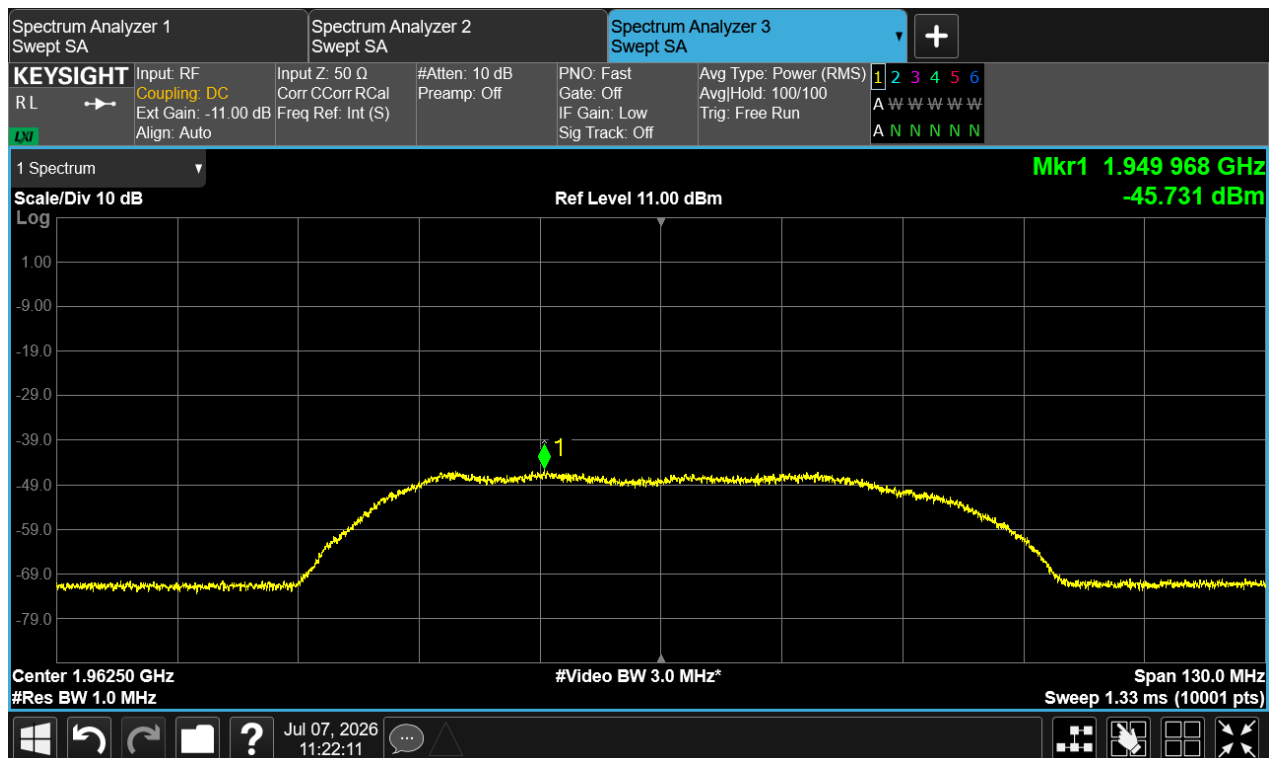
Band 13 Downlink ANT2

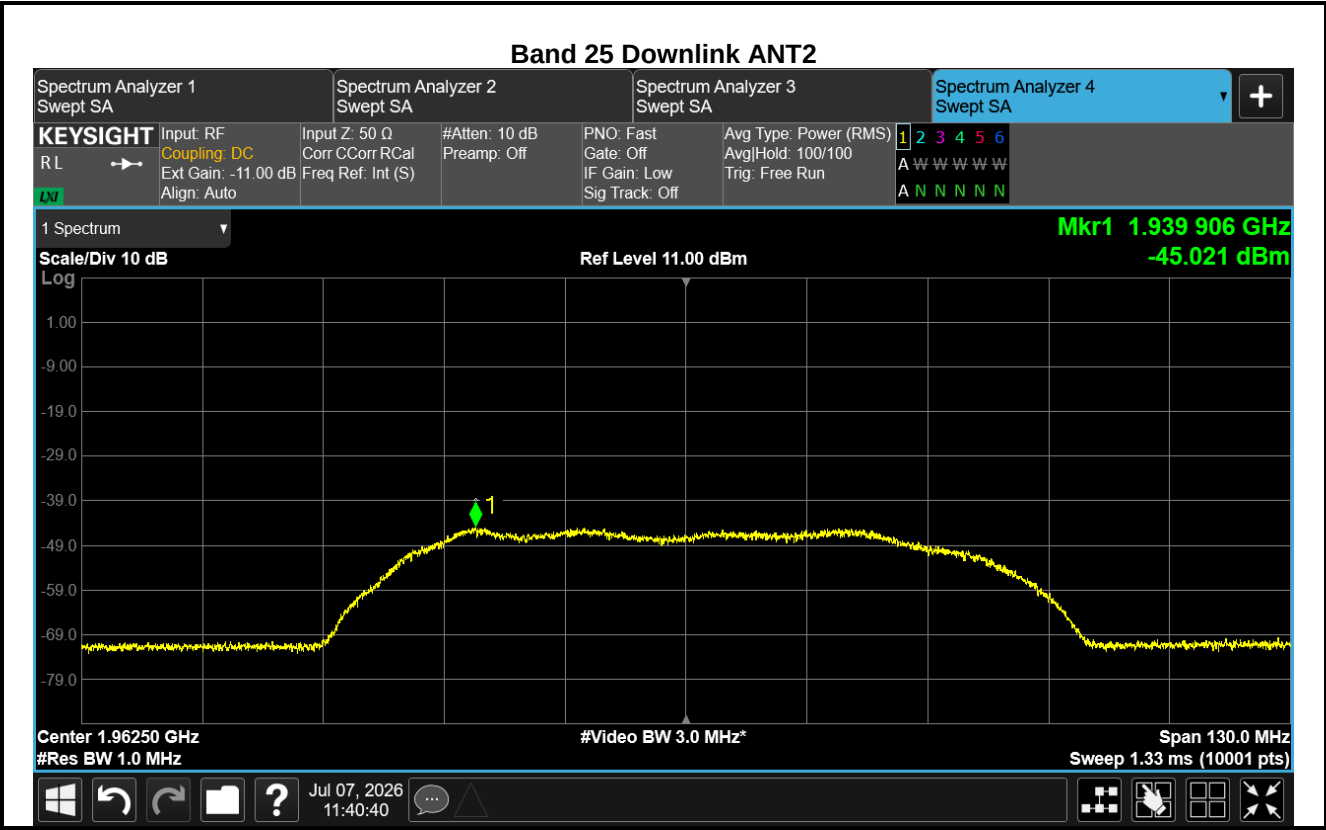


Band 25 Uplink

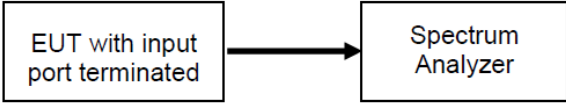


Band 25 Downlink ANT1





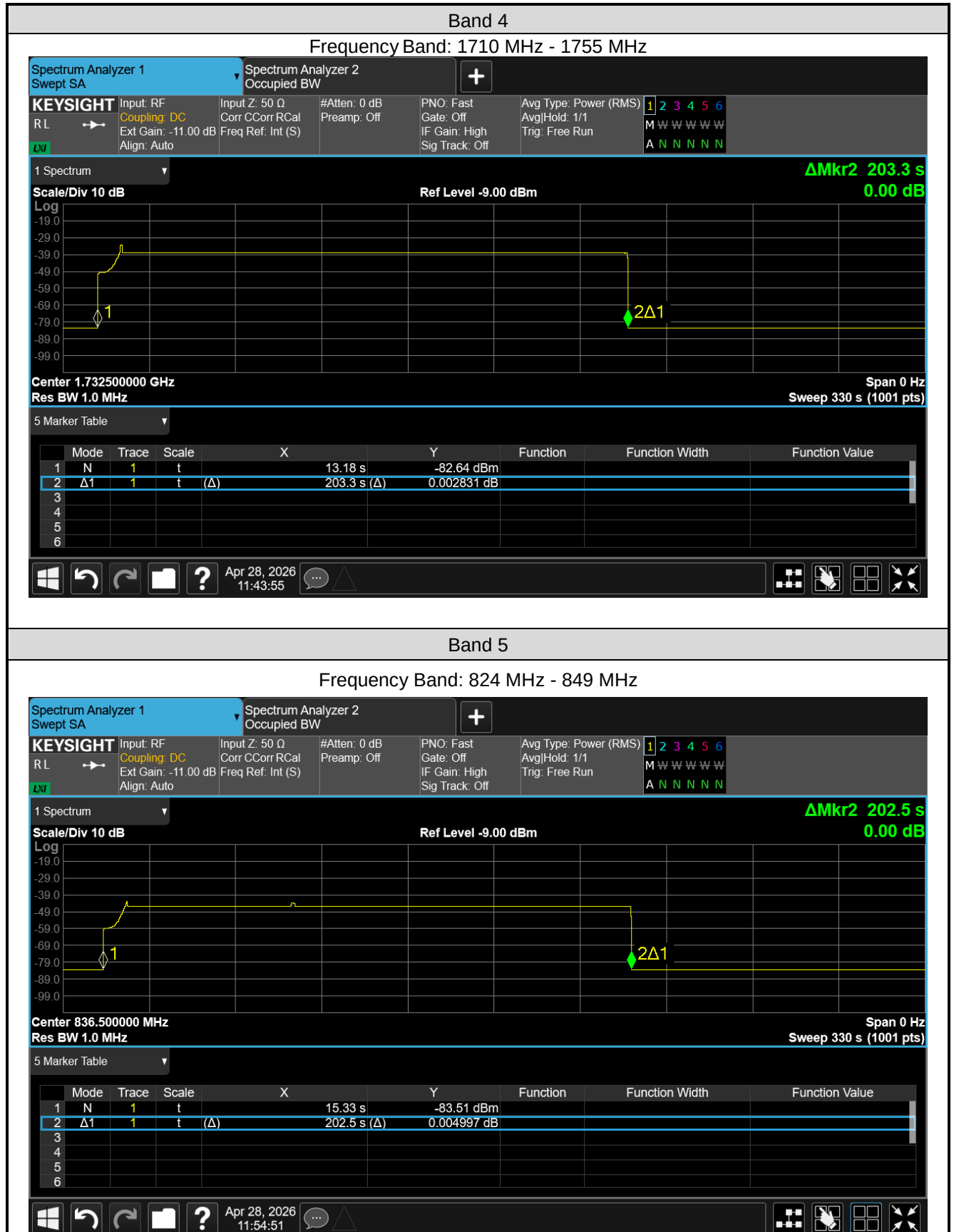
6.8. Uplink Inactivity

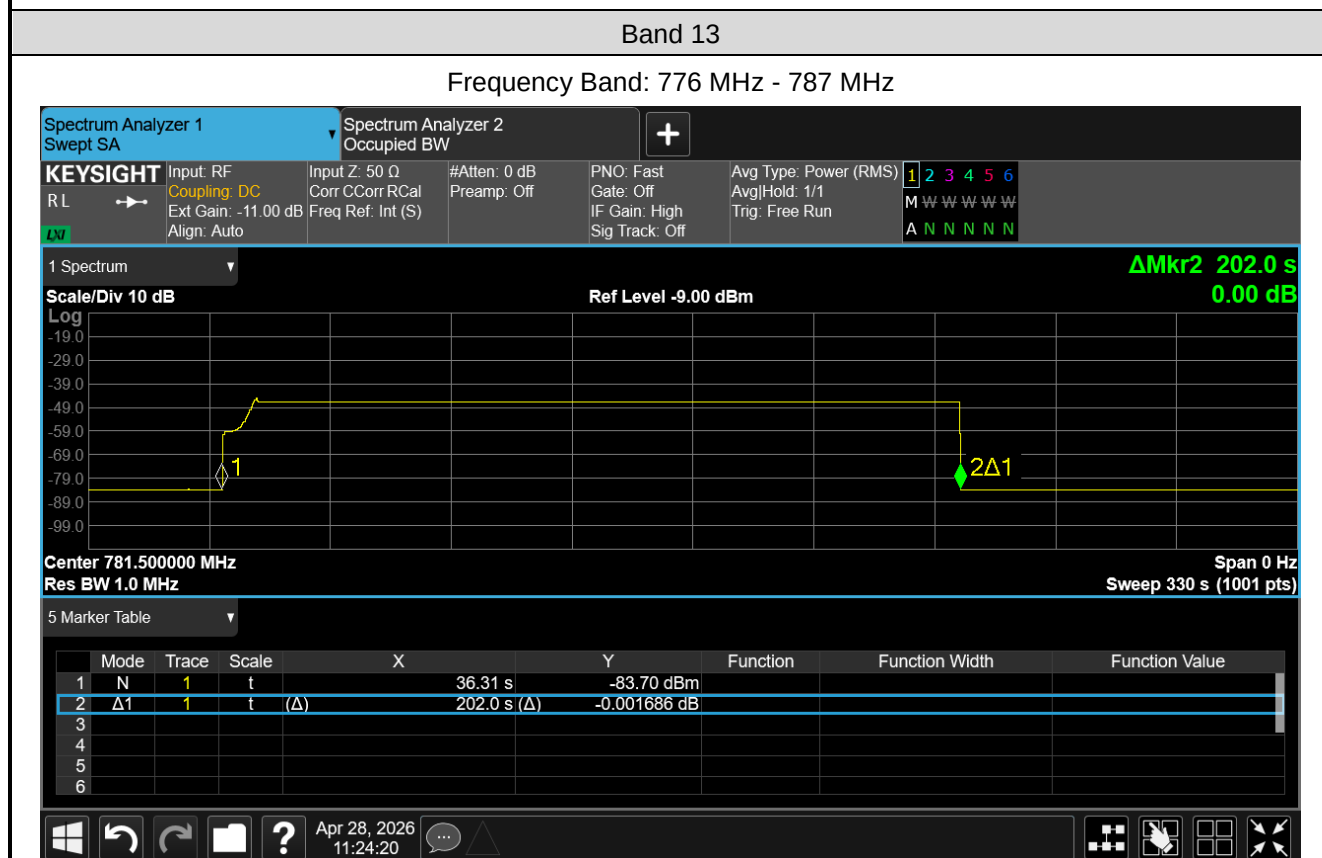
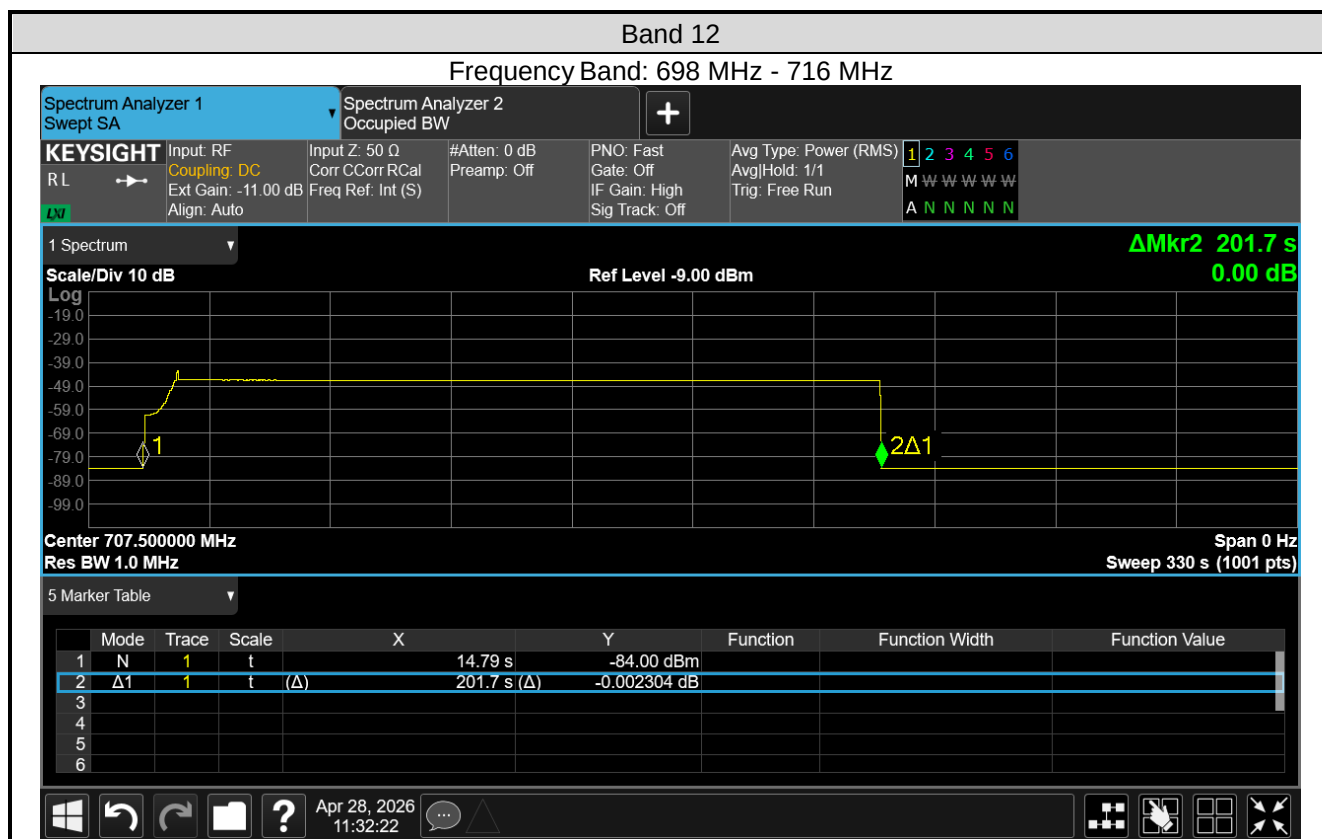
Test Requirement:	FCC part 20.21(e)(8)(i)(l)
Limit:	-70 dBm/MHz
Test setup:	 <pre> graph LR A[EUT with input port terminated] --> B[Spectrum Analyzer] </pre>
Test Procedure:	- Connect the EUT to the test equipment as shown in test setup with the uplink output (donor) port connected to the spectrum analyzer. - Select the power averaging (rms) detector. - Set the spectrum analyzer RBW for 1 MHz with the VBW $\geq$ 3 RBW. - Set the center frequency of the spectrum analyzer to the center of the uplink operational band. - Set the span for 0 Hz with a single sweep time for a minimum of 330 seconds. - Start to capture a new trace using MAX HOLD. - After approximately 15 seconds, turn on the EUT power. - After the full spectrum analyzer trace is complete, place a MARKER on the leading edge of the pulse, then use the DELTA MARKER METHOD to measure the time until the uplink becomes inactive. - Affirm that the noise level is below the uplink inactivity noise power limit, as specified by the rules. - Capture the plot for inclusion in the test report. - Measure noise using procedures in a) to f). - Repeat d) through k) for all operational uplink bands.
Test Instruments:	Refer to section 4.10 for details
Test mode:	Refer to section 4.4 for details
Test results:	Passed

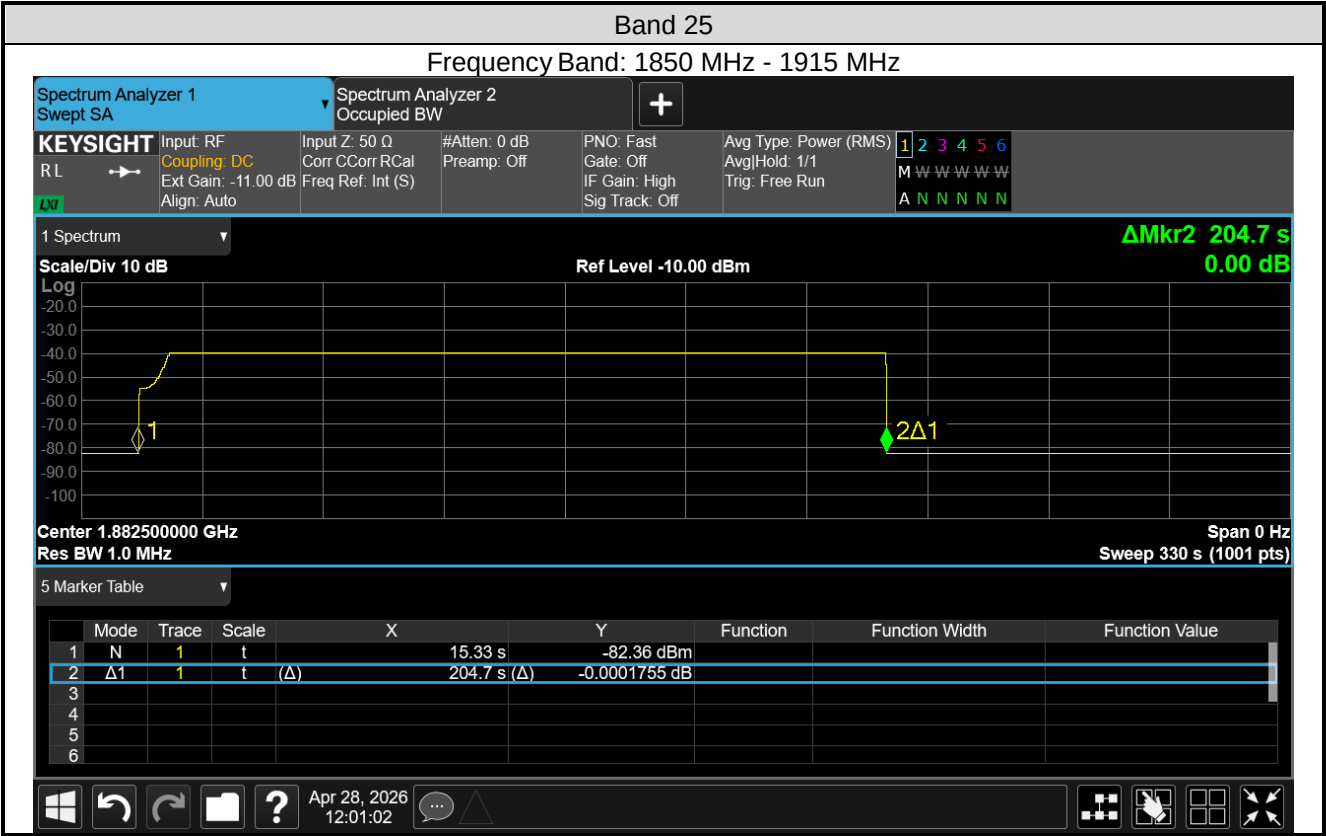
Measurement Data:

Frequency Band	Measured Time (s)	Limit (s)	Measured noise (ms)	Limit (dBm/MHz)	Result
Band 4					
1710~1755 MHz	203.3	300	-82.64	-70.00	Pass
Band 5					
824~849 MHz	202.5	300	-83.51	-70.00	Pass
Band 12					
698~716 MHz	201.7	300	-84.00	-70.00	Pass
Band 13					
776~787 MHz	202	300	-83.70	-70.00	Pass
Band 25					
1850~1915 MHz	204.7	300	-82.36	-70.00	Pass

Test plots as follows:







6.9. Variable Booster Gain

Test Requirement:	FCC Part 20.21(e)(8)(C)(1), FCC Part 20.21(e)(8)(i)(H)
Limit:	Variable Gain = -34 dB - RSSI + MSCL Transmit Power Off Mode = 23 dB or MSCL
Test setup:	
Test procedure:	1. Variable gain: a) Connect the EUT to the test equipment as shown in test setup with the uplink output (donor) port connected to signal generator #1. Affirm that the coupled path of the RF coupler is connected to the spectrum analyzer. b) Configure downlink signal generator #1 for AWGN operation with a 99% OBW of 4.1 MHz, tuned to the center of the operational band. c) Set the power level and frequency of signal generator #2 to a value that is 5 dB below the AGC level determined from 7.2. The signal type is AWGN with a 99% OBW of 4.1 MHz. d) Set RBW = 100 kHz. e) Set VBW ≥ 300 kHz. f) Select the CHANNEL POWER measurement mode. g) Select the power averaging (rms) detector. h) Affirm that the number of measurement points per sweep ≥ (2 x span)/RBW. i) Sweep time = auto couple or as necessary (but no less than auto couple value). j) Trace average at least 10 traces in power averaging (i.e., rms) mode. k) Measure the maximum channel power and compute maximum gain when varying the signal generator #1 output to a level from -90 dBm to -20 dBm, as measured at the input port, in 1 dB steps inside the RSSI-dependent region, and 10 dB steps outside the RSSI-dependent region. l) Repeat b) to k) for all operational uplink bands. 2. Variable uplink gain timing: a) Set the spectrum analyzer to the uplink frequency to be measured. b) Set the span to 0 Hz with a sweep time of 10 seconds. c) Set the power level of signal generator #1 to the lowest level of the RSSI-dependent gain. d) Select MAX HOLD and increase the power level of signal generator #1 by 10 dB for mobile boosters, and by 20 dB for fixed indoor boosters. Signal generator #2 remains same. e) Confirm that the uplink gain decreases to the specified levels, within 1 second for mobile devices, and within 3 seconds for fixed devices. f) Repeat a) to e) for all operational uplink bands.
Test Instruments:	Refer to section 4.10 for details
Test mode:	Refer to section 4.4 for details
Test results:	Passed

Measurement Data:

Band	Frequency (MHz)	D (m)	ANT Gain (dBi)	Path Loss (dB)	Cable loss (dB)	Polarity Loss (dB)	MCSL (dB)
4	1732.5	1	4.5	37.27	5.0	3.01	40.78
5	836.5	1	3.5	30.95	4.0	3.01	34.46
12	707	1	2.2	29.49	4.0	3.01	34.30
13	781.5	1	2.2	30.36	4.0	3.01	35.17
25	1962.5	1	4.5	37.99	5.0	3.01	41.50

Remark:

1. The booster in this filing is a direct connect booster (meaning the wireless device is connected directly to the booster input port) therefor there is no coupling loss

2. MSCL: $L_p = 20\log f + 20\log d - 27.5$

Where: L_p = Basic free space path loss,

f = frequency in MHz,

d = separation distance in meters

lowest MSCL value was utilized.

B4:

RSSI (dBm)	Input level (dBm)	Measured Output Power (dBm)	Measured Gain Level (dB)	Gain Limit (dB)	
				RSSI dependent	Frequency dependent
-75	-50.2	12.11	62.31	/	71.27
-74	-50.2	12.05	62.25	/	71.27
-64	-50.2	12.52	62.72	70.78	/
-60	-50.2	8.04	58.24	66.78	/
-50	-50.2	-0.97	49.23	56.78	/
-40	-50.2	-56.66	-6.46	46.78	/
-30	-50.2	-56.95	-6.75	36.78	/
-20	-50.2	-56.1	-5.9	26.78	/

B5:

RSSI (dBm)	Input level (dBm)	Measured Output Power (dBm)	Measured Gain Level (dB)	Gain Limit (dB)	
				RSSI dependent	Frequency dependent
-75	-52.5	2.78	55.28	/	64.95
-74	-52.5	2.68	55.18	/	64.95
-64	-52.5	3	55.5	64.46	/
-60	-52.5	0.62	53.12	60.46	/
-50	-52.5	-8.01	44.49	50.46	/
-40	-52.5	-55.12	-2.62	40.46	/
-30	-52.5	-54.88	-2.38	30.46	/
-20	-52.5	-54.77	-2.27	20.46	/

B12:

RSSI (dBm)	Input level (dBm)	Measured Output Power (dBm)	Measured Gain Level (dB)	Gain Limit (dB)	
				RSSI dependent	Frequency dependent
-75	-44.5	9.16	53.66	/	63.49
-74	-44.5	9.91	54.41	/	63.49
-64	-44.5	9.75	54.25	/	63.49
-60	-44.5	10.08	54.58	60.3	/
-50	-44.5	0.27	44.77	50.3	/
-40	-44.5	-56.95	-12.45	40.3	/
-30	-44.5	-56.83	-12.33	30.3	/
-20	-44.5	-56.58	-12.08	20.3	/

B13:

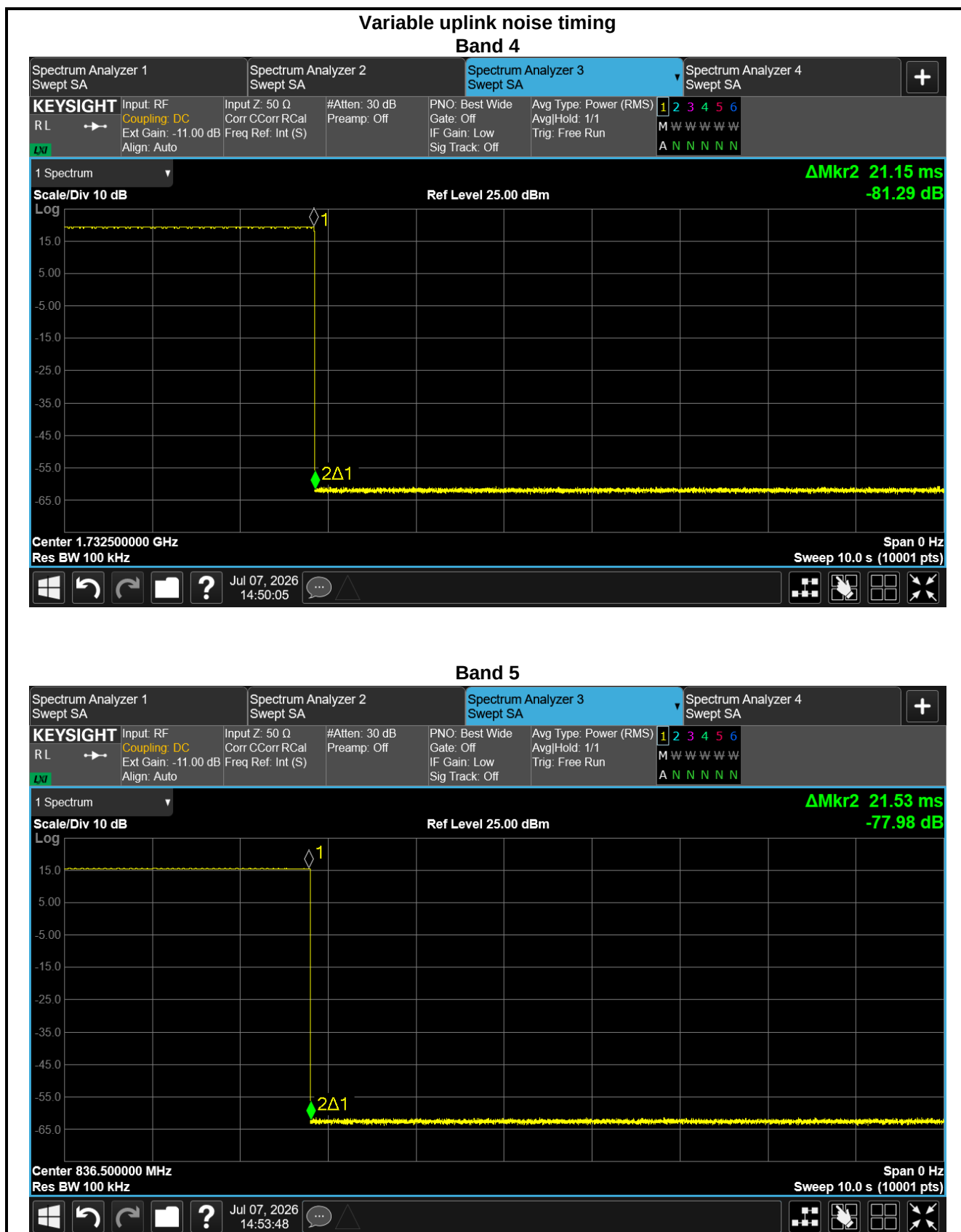
RSSI (dBm)	Input level (dBm)	Measured Output Power (dBm)	Measured Gain Level (dB)	Gain Limit (dB)	
				RSSI dependent	Frequency dependent
-75	-45.3	6.93	52.23	/	64.36
-74	-45.3	6.13	51.43	/	64.36
-64	-45.3	6.84	52.14	/	64.36
-60	-45.3	6.02	51.32	61.17	/
-50	-45.3	-2.58	42.72	51.17	/
-40	-45.3	-55.44	-10.14	41.17	/
-30	-45.3	-56.04	-10.74	31.17	/
-20	-45.3	-55.8	-10.5	21.17	/

B25:

RSSI (dBm)	Input level (dBm)	Measured Output Power (dBm)	Measured Gain Level (dB)	Gain Limit (dB)	
				RSSI dependent	Frequency dependent
-75	-55.08	6.58	61.66	/	71.99
-74	-55.08	6.62	61.7	/	71.99
-64	-55.08	6.32	61.4	71.5	/
-60	-55.08	3.69	58.77	67.5	/
-50	-55.08	-6.01	49.07	57.5	/
-40	-55.08	-55.51	-0.43	47.5	/
-30	-55.08	-55.22	-0.14	37.5	/
-20	-55.08	-55.17	-0.09	27.5	/

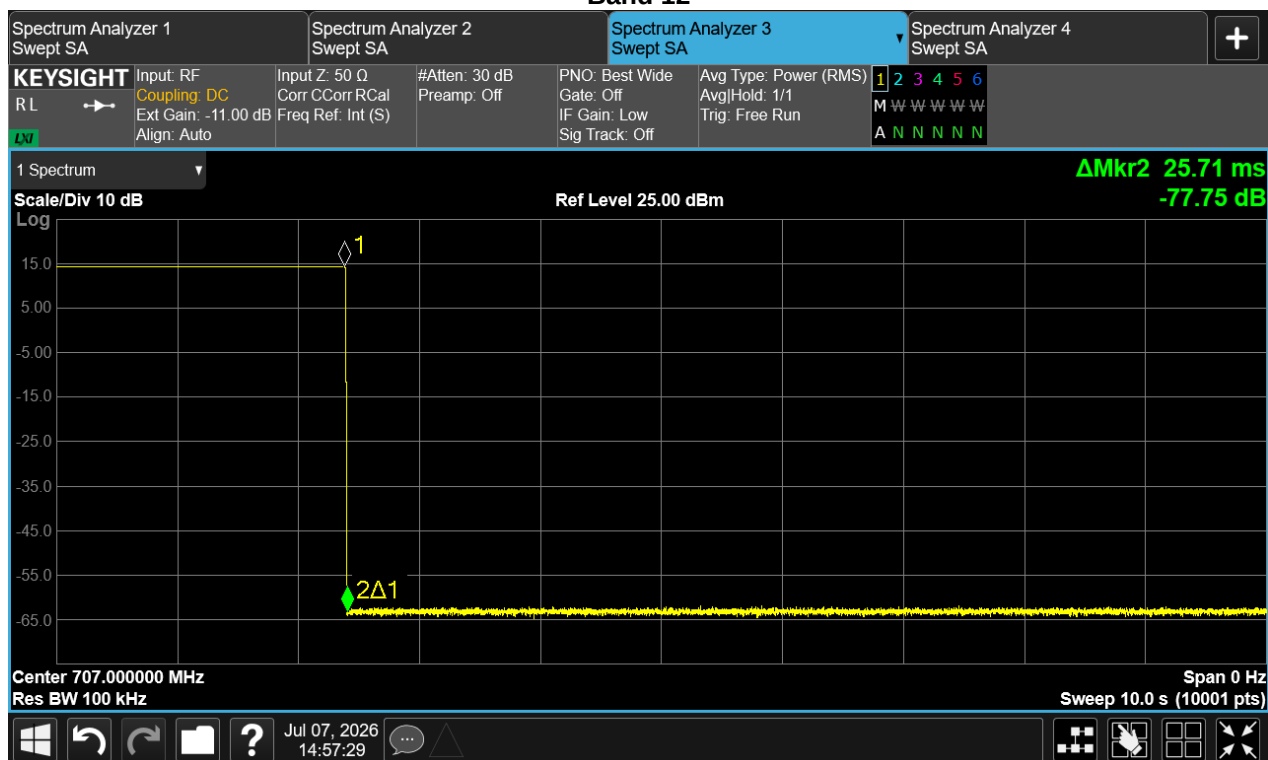
Variable uplink gain timing		
Frequency (MHz)	Measure timing (ms)	Limit(ms)
1710~1755MHz	21.15	3000
824~849MHz	21.53	3000
698~716MHz	25.71	3000
776~787MHz	32.60	3000
1850~1915MHz	27.90	3000

Test plots as follows:

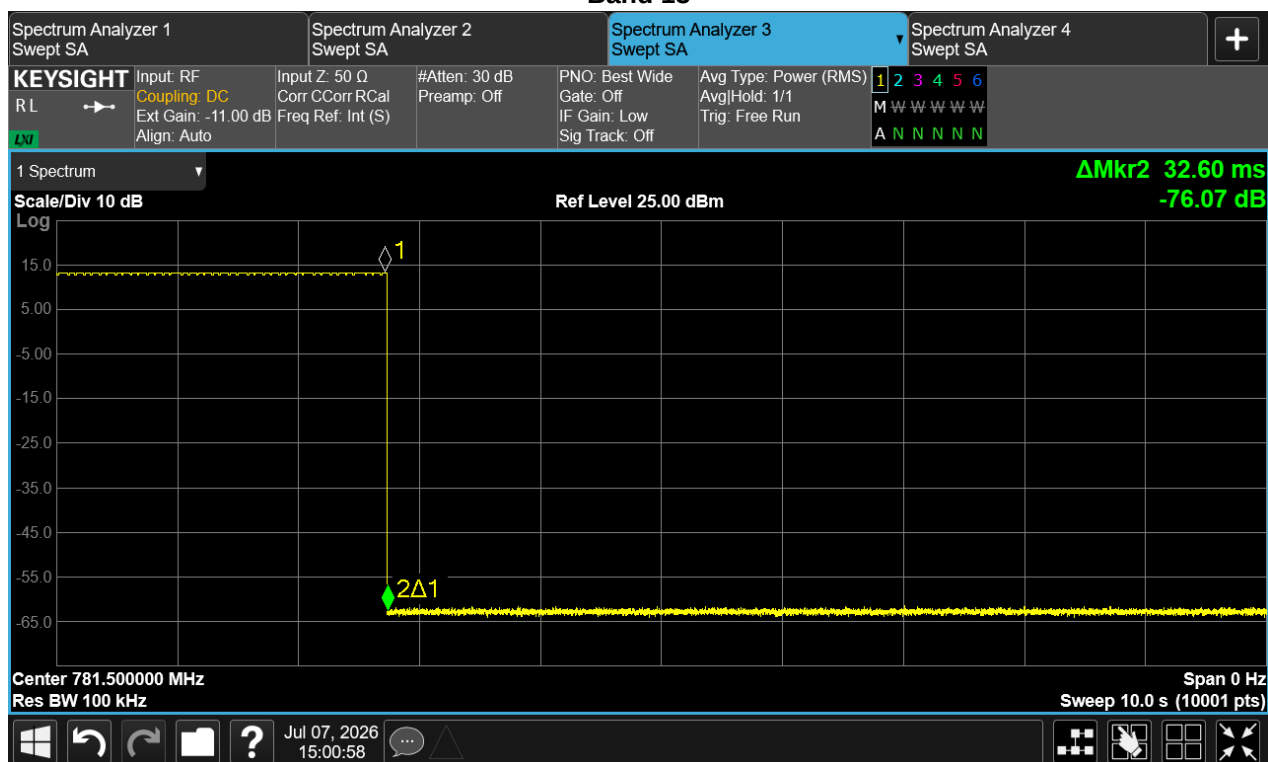


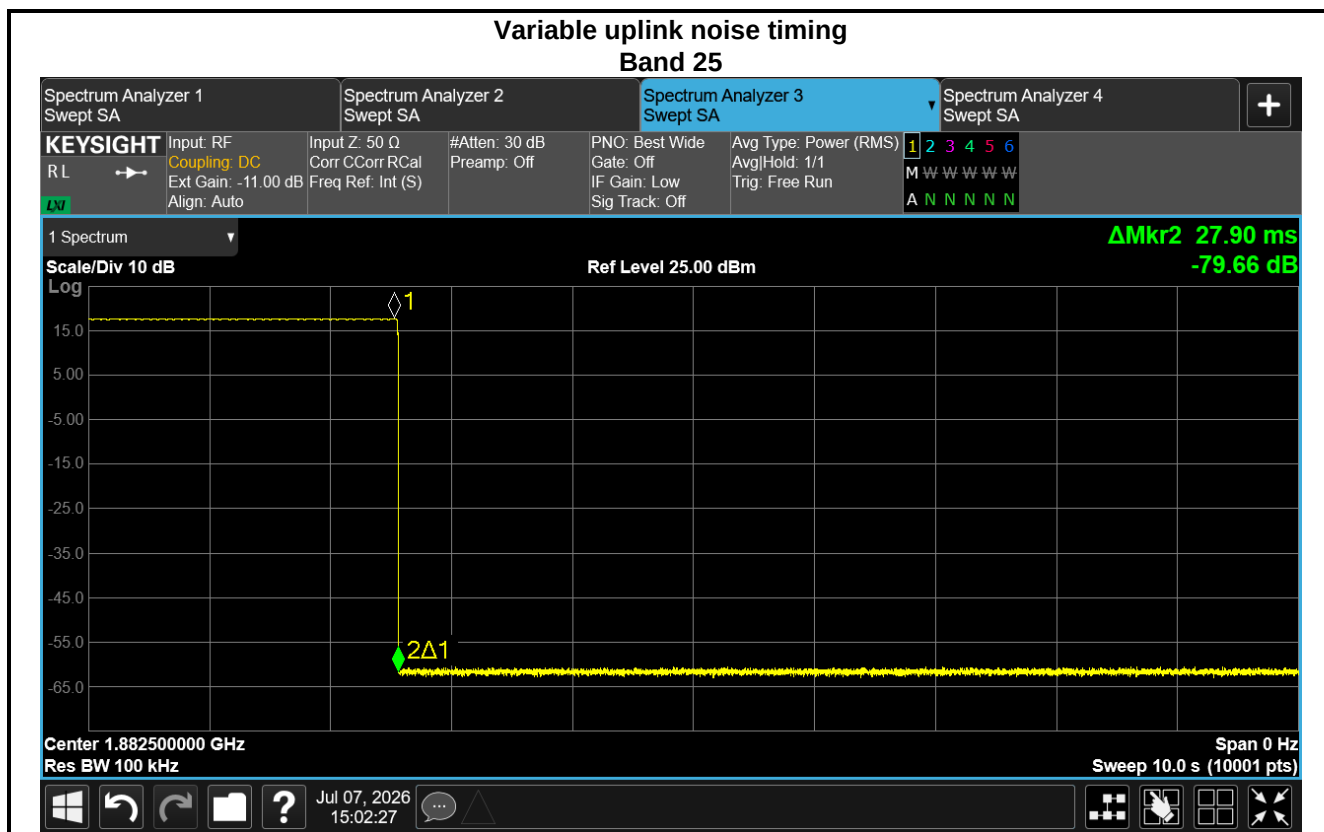
Variable uplink noise timing

Band 12

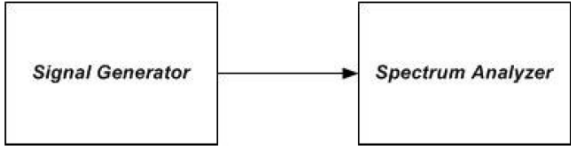
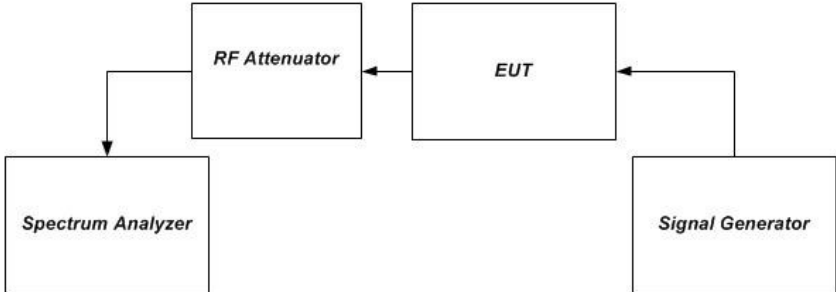


Band 13





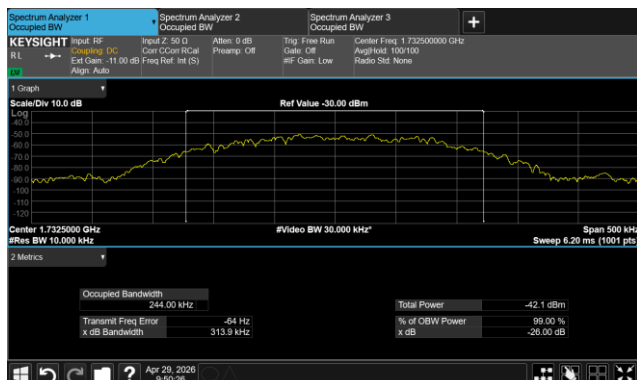
6.10. Occupied Bandwidth

Test Requirement:	FCC Part 2.1049
Test setup:	Setup 1:  <pre> graph LR SG1[Signal Generator] --> SA1[Spectrum Analyzer] </pre> Setup 2:  <pre> graph LR SG2[Signal Generator] --> EUT[EUT] EUT --> RA[RF Attenuator] RA --> SA2[Spectrum Analyzer] </pre>
Test procedure:	- Connect the test equipment as shown in test setup 1 to firstly measure the characteristics of the test signals produced by the signal generator. - Set VBW $\geq 3 \times$ RBW. - Set the center frequency of the spectrum analyzer to the center of the operational band. The span will be adjusted for each modulation type and OBW as necessary for accurately viewing the signals. - Set the signal generator for power level to match the values obtained from the tests of 7.2. - Set the signal generator modulation type for GSM with a PRBS pattern and allow the trace on the signal generator to stabilize adjusting the span as necessary - Set the spectrum analyzer RBW for 1% to 5% of the EBW. - Capture the spectrum analyzer trace for inclusion in the test report. - Repeat c) to g) for CDMA and W-CDMA modulation, adjusting the span as necessary. AWGN or LTE may be used in place of W-CDMA, as an option. - Repeat c) to h) for all uplink and downlink operational bands. - Connect the test equipment as shown in Figure 1, with the uplink output (donor) port connected to the spectrum analyzer, and the server port connected to the signal generator. - Repeat c) to i) with this EUT uplink path test setup. - Connect the test equipment as shown in test setup 2, with the downlink output (server) port connected to the spectrum analyzer, and the donor port connected to the signal generator. - Repeat c) to i) with this EUT downlink path test setup.
Test Instruments:	Refer to section 4.10 for details
Test mode:	Refer to section 4.4 for details
Test results:	Passed

Test plot as follows:

Band 4 Uplink

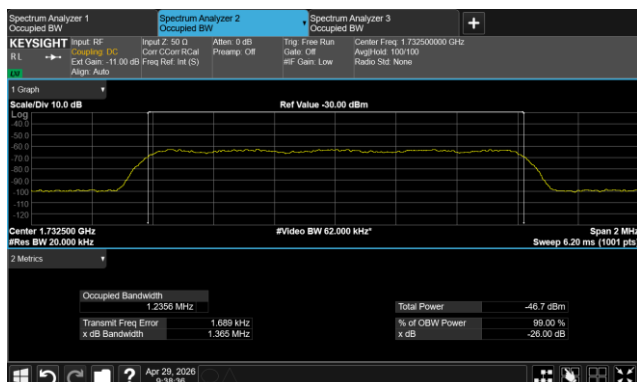
GSM Input



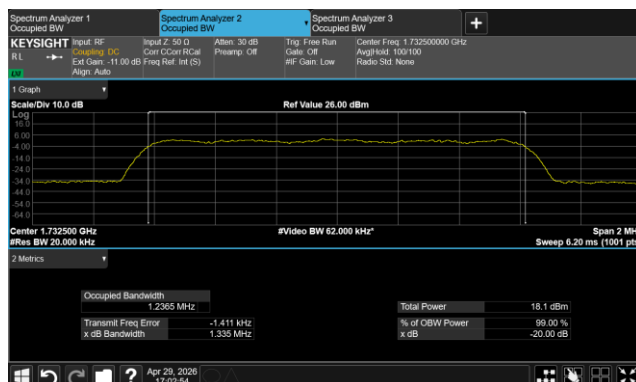
GSM Output



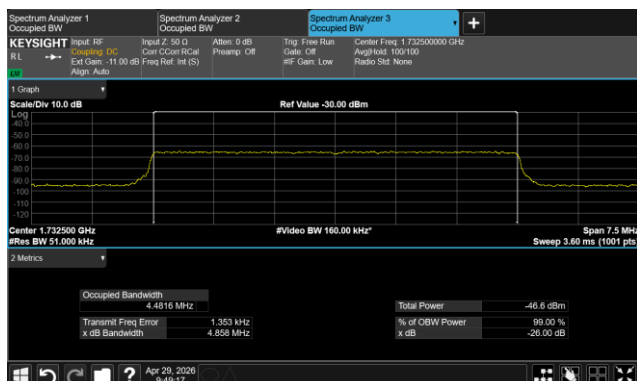
CDMA Input



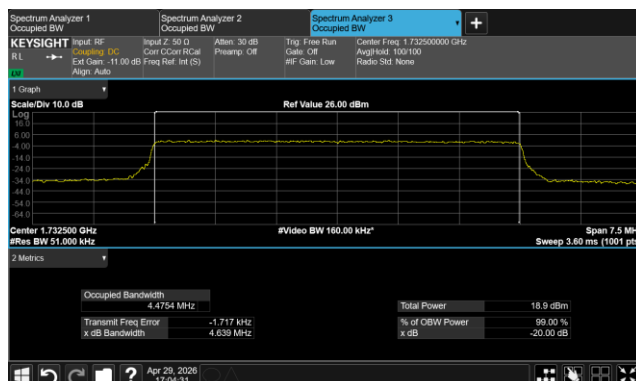
CDMA Output



LTE Input

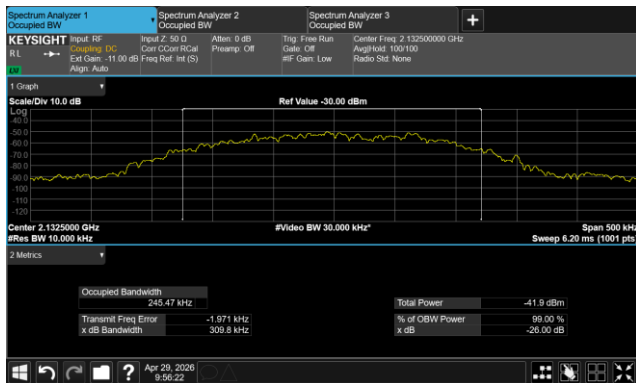


LTE Output

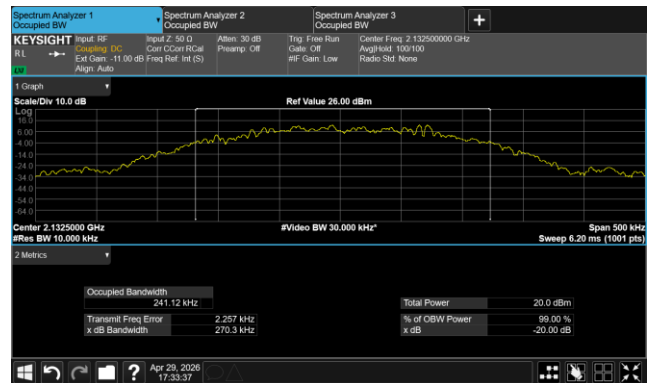


Downlink

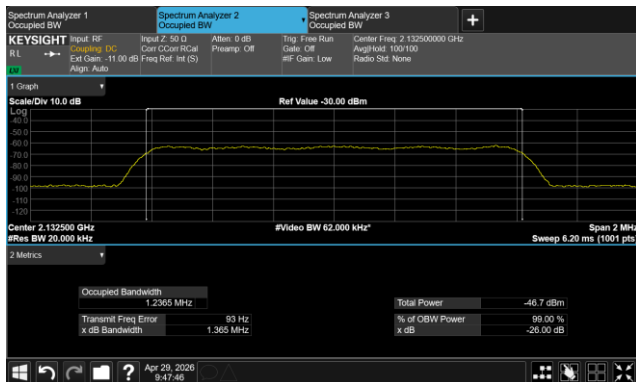
GSM Input



GSM Output



CDMA Input



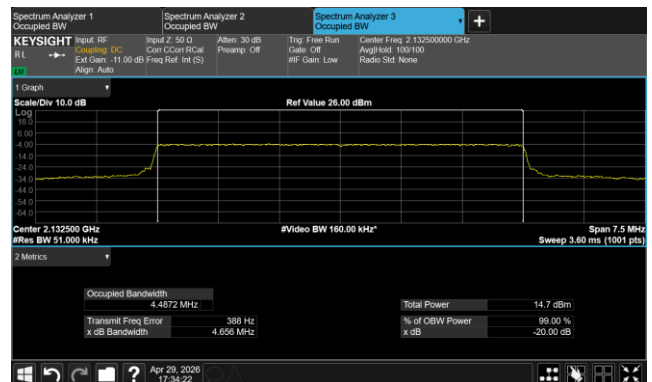
CDMA Output



LTE Input

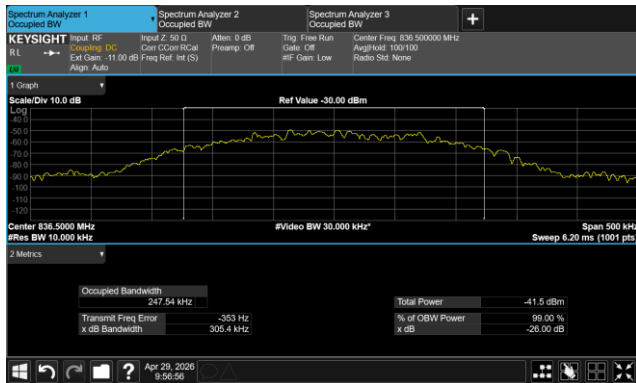


LTE Output

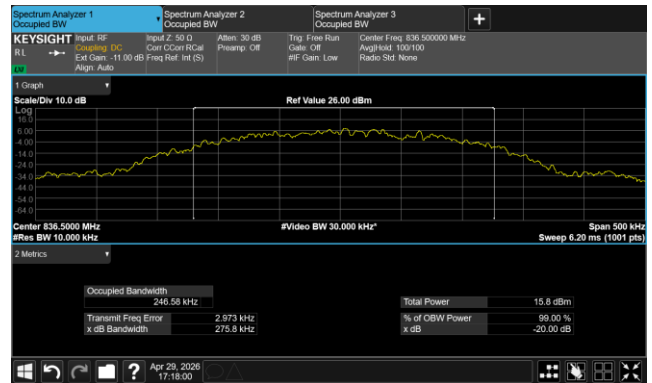


Band 5 Uplink

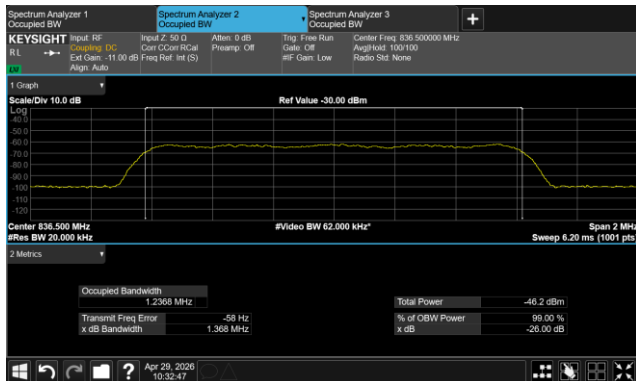
GSM Input



GSM Output



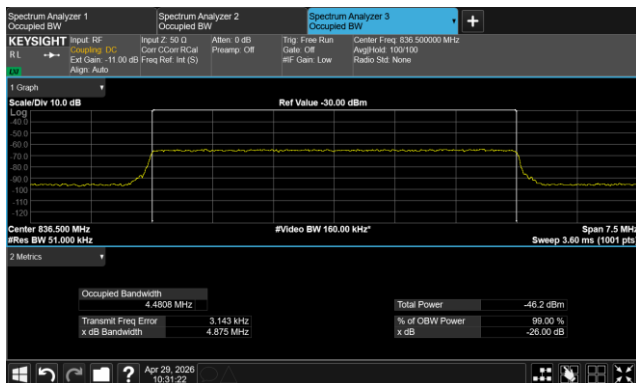
CDMA Input



CDMA Output



LTE Input



LTE Output



Downlink

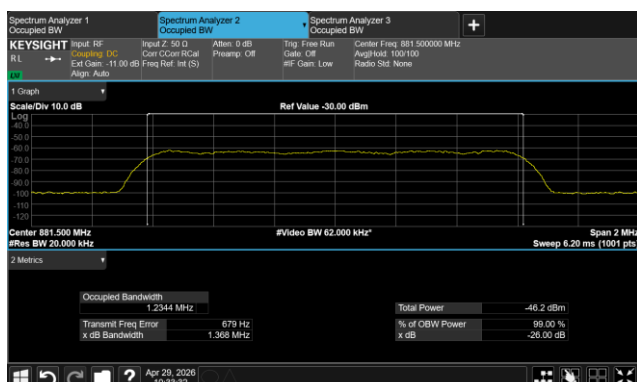
GSM Input



GSM Output



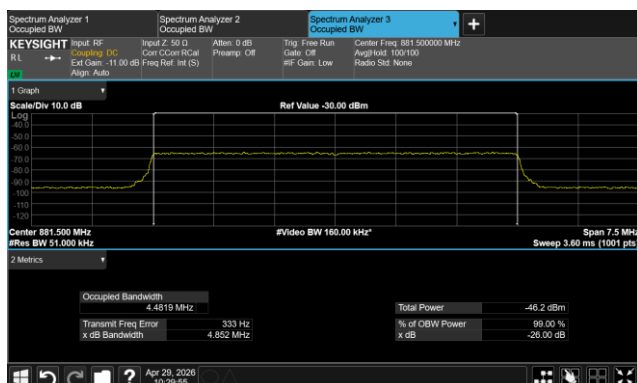
CDMA Input



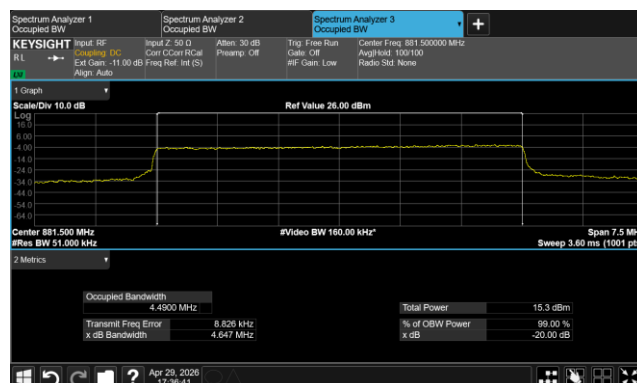
CDMA Output



LTE Input

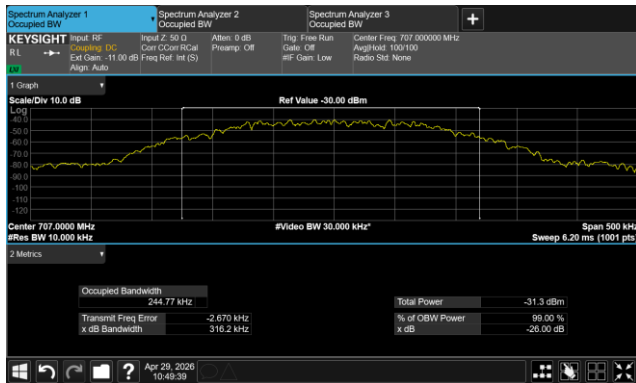


LTE Output



Band 12 Uplink

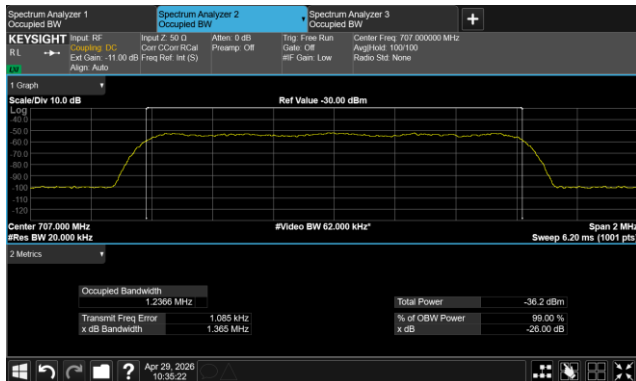
GSM Input



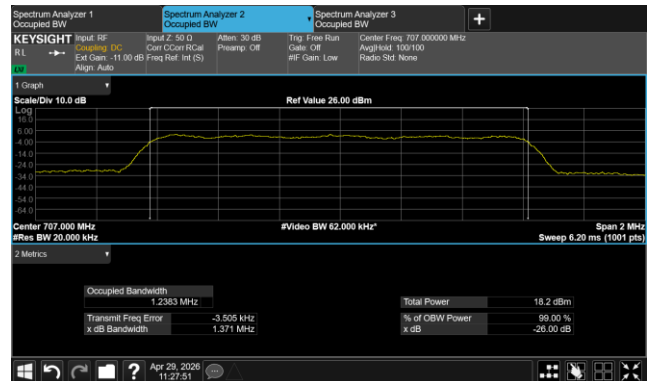
GSM Output



CDMA Input



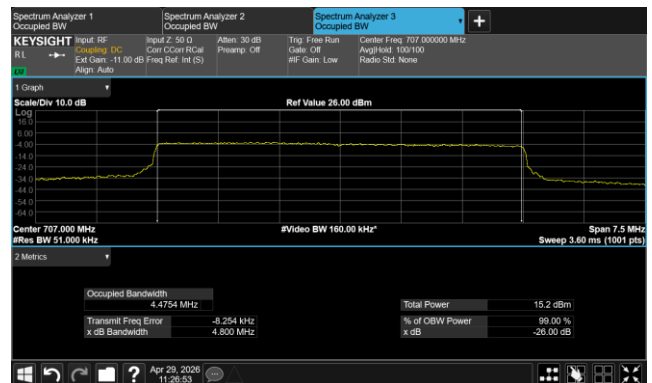
CDMA Output



LTE Input



LTE Output



Downlink

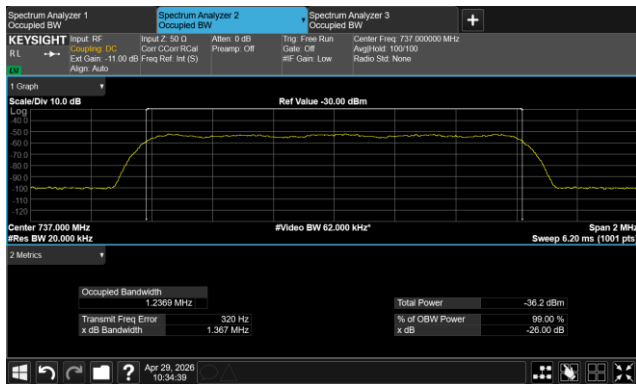
GSM Input



GSM Output



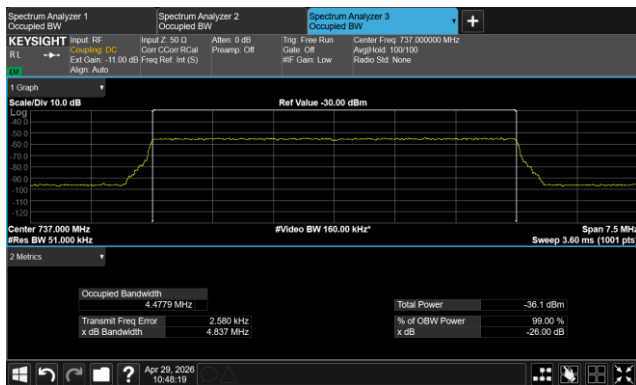
CDMA Input



CDMA Output



LTE Input



LTE Output



Band 13 Uplink

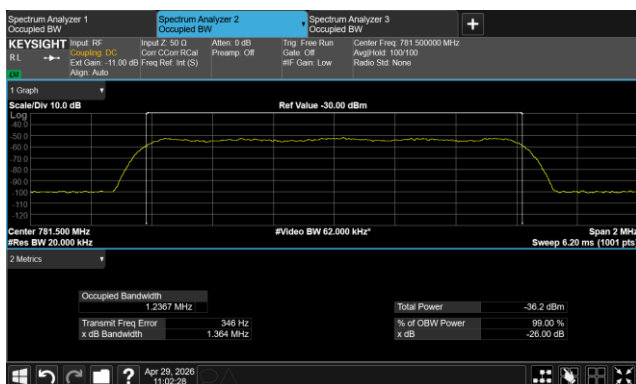
GSM Input



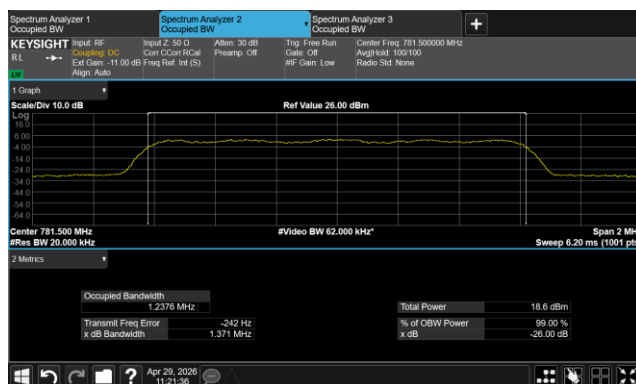
GSM Output



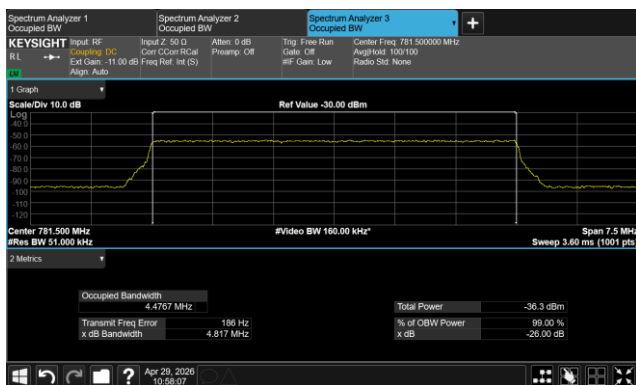
CDMA Input



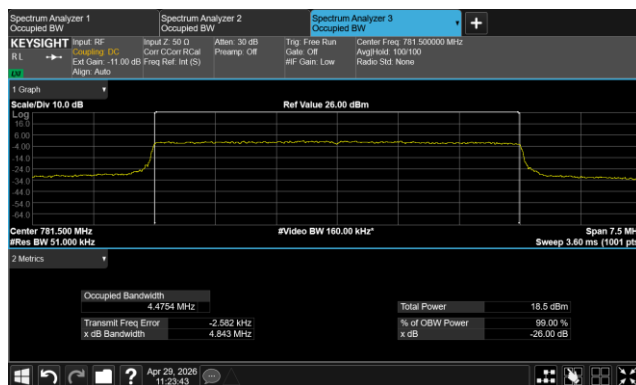
CDMA Output



LTE Input



LTE Output

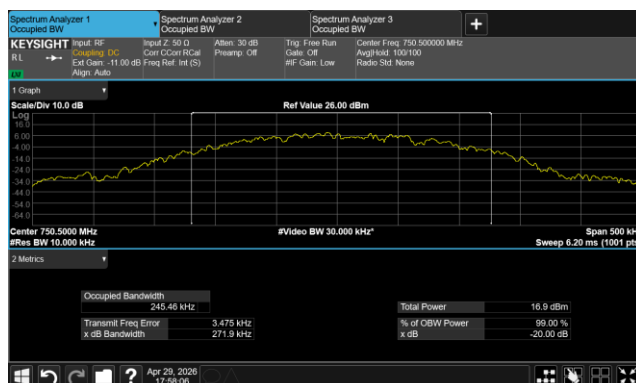


Downlink

GSM Input



GSM Output



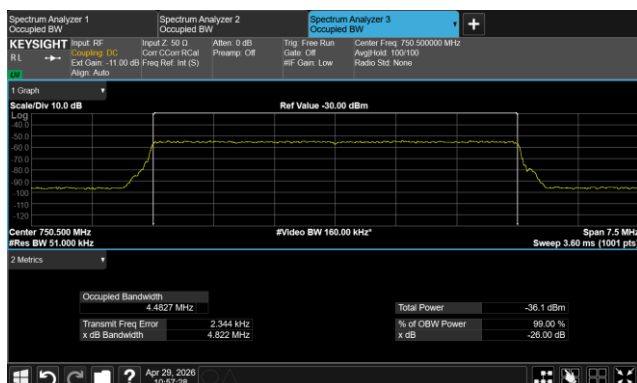
CDMA Input



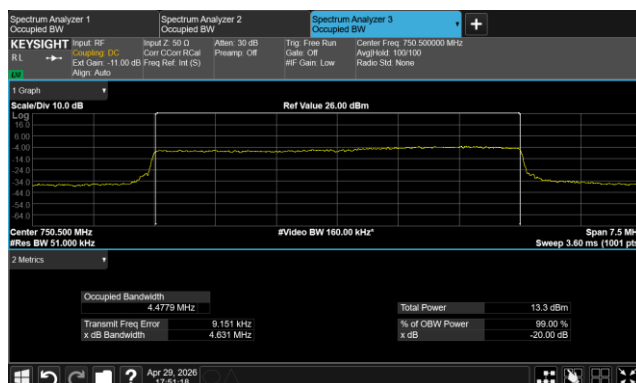
CDMA Output



LTE Input

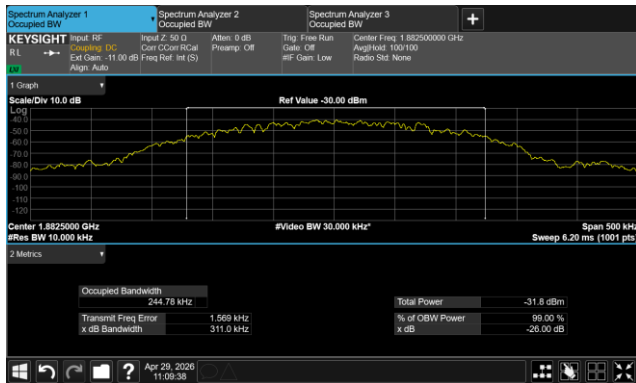


LTE Output

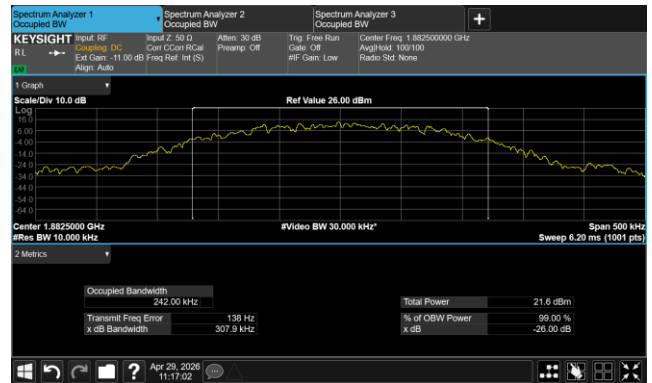


Band 25 Uplink

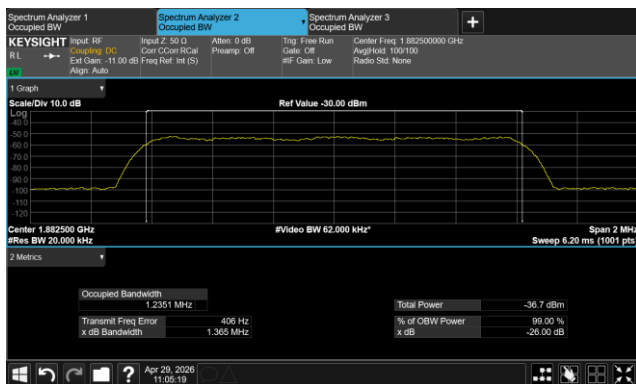
GSM Input



GSM Output



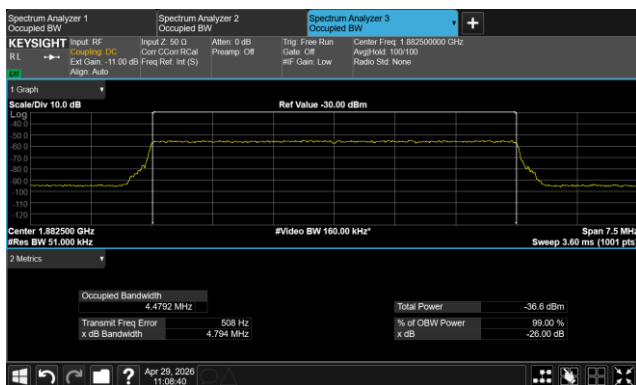
CDMA Input



CDMA Output



LTE Input

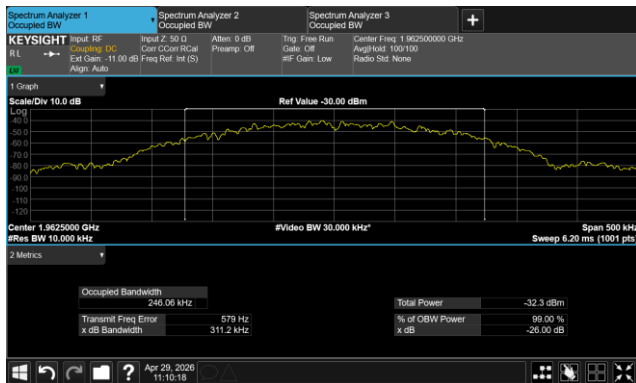


LTE Output

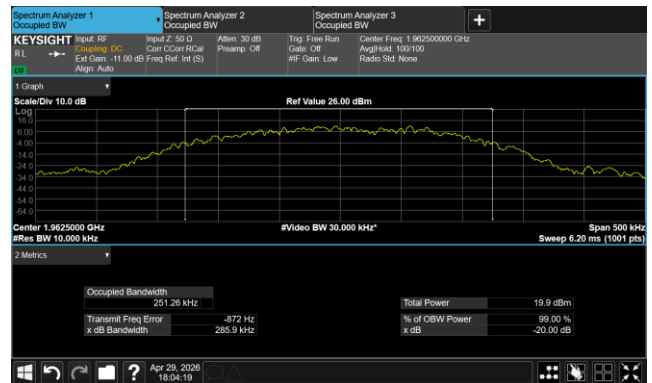


Downlink

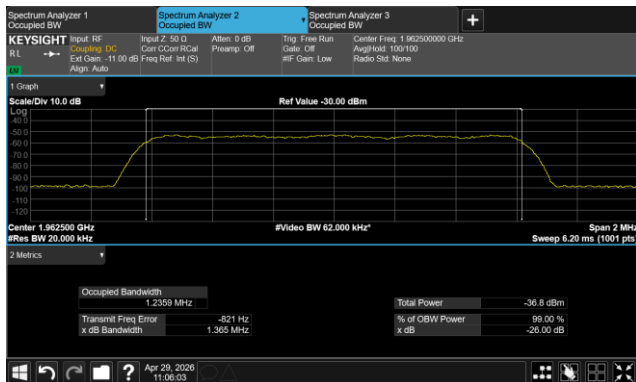
GSM Input



GSM Output



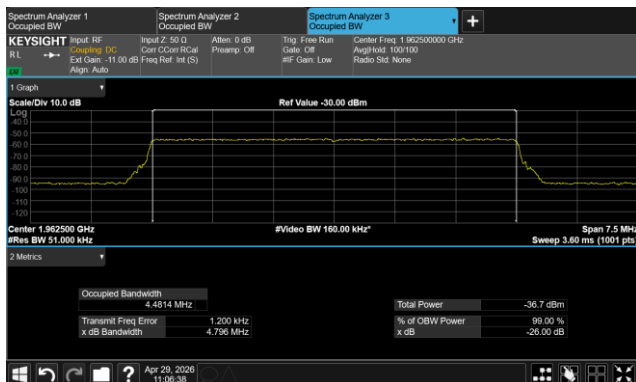
CDMA Input



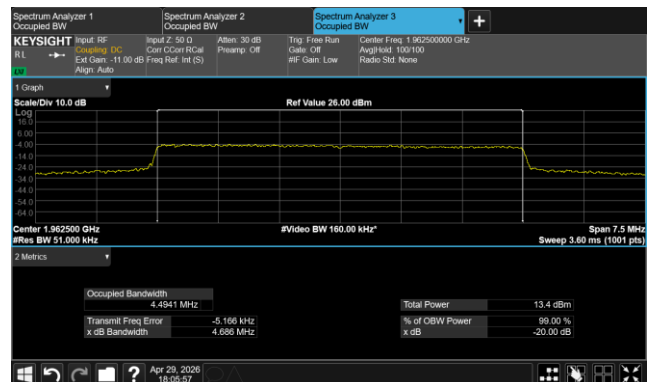
CDMA Output



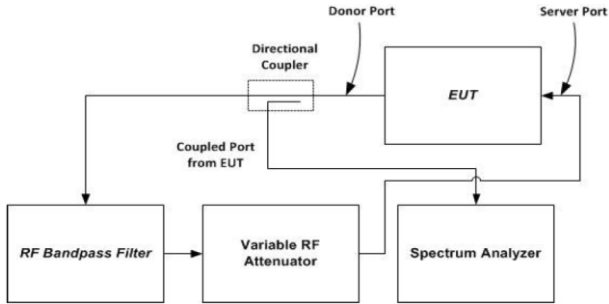
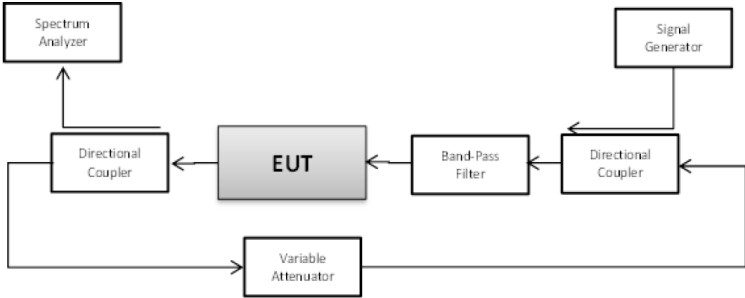
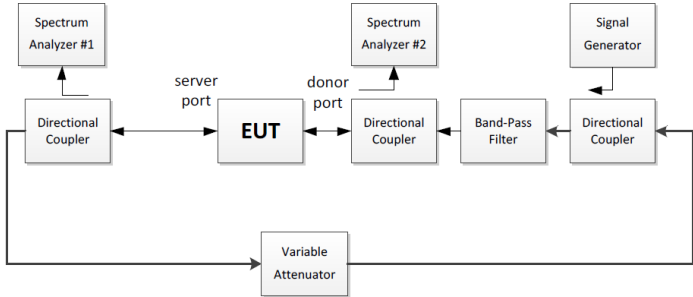
LTE Input



LTE Output



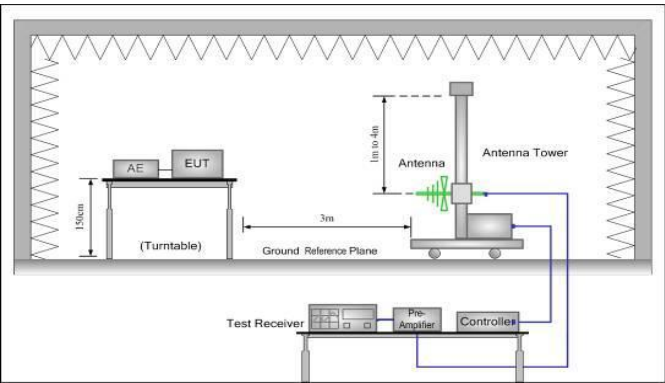
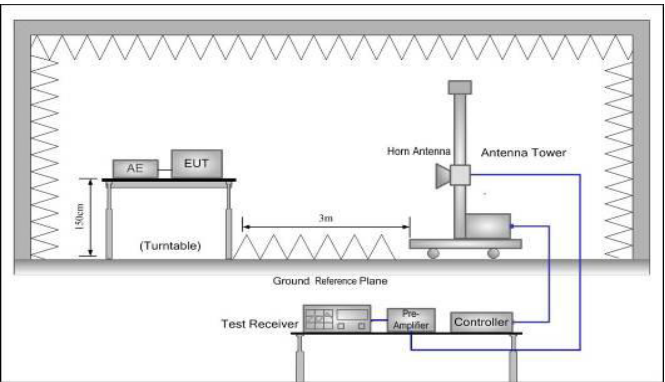
6.11. Anti - Oscillation

Test Requirement:	FCC Part 20.21(e)(ii)(A)
Limit:	Oscillation detection and mitigation must occur automatically within 0.3 seconds in the uplink band and within 1 second in the downlink band. In cases where oscillation is detected, the booster must continue mitigation for at least one minute before restarting. After five such restarts, the booster must not resume operation until manually reset.
Test setup:	Setup 1:  Setup 2:  Setup 3: 
Test procedure:	EUT to the test equipment as shown in setup 1/2/3. Detailed test procedure reference to KDB 935210 (latest version)
Test Instruments:	Refer to section 4.10 for details
Test mode:	Refer to section 4.4 for details
Test results:	Passed

Measurement Data:

Test results of detection time								
Frequency Band		Detection Time(s)	Limit(s)	Restarting Counts	Limit	Restarting Time(s)	Limit (s)	Limit
Uplink	1710~1755MHz	0.156	<0.3	2	5	65.33	60	PASS
	824~849 MHz	0.210	<0.3	2	5	65.47	60	PASS
	698~716 MHz	0.087	<0.3	2	5	65.31	60	PASS
	776~787 MHz	0.089	<0.3	2	5	65.42	60	PASS
	1850~1915 MHz	0.184	<0.3	3	5	65.44	60	PASS
Downlink	2110~2155 MHz	0.164	<1	2	5	65.46	60	PASS
	869~894 MHz	0.241	<1	2	5	65.73	60	PASS
	728~746 MHz	0.114	<1	2	5	65.25	60	PASS
	746~757 MHz	0.136	<1	2	5	65.31	60	PASS
	1930~1995 MHz	0.208	<1	3	5	65.49	60	PASS

6.12. Radiated Spurious Emissions

Test Requirement:	FCC part 2.1053
Limit:	-13dBm
Test setup:	Below 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method. 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. $ERP / EIRP = S.G. \text{ output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$
Test Instruments:	Refer to section 4.10 for details
Test mode:	Refer to section 4.4 for details
Test results:	Passed

Band 4 – 5 MHz uplink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3425.00	-63.03	-2.15	-65.18	-13.00	52.18	Vertical
5137.50	-64.75	3.80	-60.95	-13.00	47.95	Vertical
6850.00	-64.76	5.86	-58.90	-13.00	45.90	Vertical
3425.00	-63.54	-2.22	-65.76	-13.00	52.76	Horizontal
5137.50	-64.69	3.86	-60.83	-13.00	47.83	Horizontal
6850.00	-64.84	6.07	-58.77	-13.00	45.77	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.00	-63.49	-2.54	-66.03	-13.00	53.03	Vertical
5197.50	-64.28	3.25	-61.03	-13.00	48.03	Vertical
6930.00	-64.81	5.20	-59.61	-13.00	46.61	Vertical
3465.00	-63.36	-2.54	-65.90	-13.00	52.90	Horizontal
5197.50	-64.46	3.17	-61.29	-13.00	48.29	Horizontal
6930.00	-64.75	5.17	-59.58	-13.00	46.58	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3505.00	-63.65	-3.13	-66.78	-13.00	53.78	Vertical
5257.50	-64.02	3.11	-60.91	-13.00	47.91	Vertical
7010.00	-65.02	5.74	-59.28	-13.00	46.28	Vertical
3505.00	-63.30	-2.96	-66.26	-13.00	53.26	Horizontal
5257.50	-64.76	3.46	-61.30	-13.00	48.30	Horizontal
7010.00	-64.51	5.80	-58.71	-13.00	45.71	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band 4 – 5 MHz downlink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
4225.00	-64.44	0.98	-63.46	-13.00	50.46	Vertical
6337.50	-65.02	3.82	-61.20	-13.00	48.20	Vertical
8450.00	-66.92	8.37	-58.55	-13.00	45.55	Vertical
4225.00	-64.00	0.90	-63.10	-13.00	50.10	Horizontal
6337.50	-65.23	3.54	-61.69	-13.00	48.69	Horizontal
8450.00	-67.11	8.05	-59.06	-13.00	46.06	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
4265.00	-64.65	1.07	-63.58	-13.00	50.58	Vertical
6397.50	-64.55	3.83	-60.72	-13.00	47.72	Vertical
8530.00	-67.23	8.43	-58.80	-13.00	45.80	Vertical
4265.00	-64.44	0.92	-63.52	-13.00	50.52	Horizontal
6397.50	-64.81	3.58	-61.23	-13.00	48.23	Horizontal
8530.00	-67.51	8.05	-59.46	-13.00	46.46	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
4305.00	-64.90	1.12	-63.78	-13.00	50.78	Vertical
6457.50	-64.61	3.89	-60.72	-13.00	47.72	Vertical
8610.00	-67.62	8.43	-59.19	-13.00	46.19	Vertical
4305.00	-64.90	0.95	-63.95	-13.00	50.95	Horizontal
6457.50	-64.51	3.69	-60.82	-13.00	47.82	Horizontal
8610.00	-67.48	8.17	-59.31	-13.00	46.31	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band 5 – 5 MHz uplink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1653.00	-61.01	-11.51	-72.52	-13.00	59.52	Vertical
2479.50	-61.89	-8.67	-70.56	-13.00	57.56	Vertical
3306.00	-62.29	-3.89	-66.18	-13.00	53.18	Vertical
1653.00	-61.05	-10.85	-71.90	-13.00	58.90	Horizontal
2479.50	-61.24	-9.13	-70.37	-13.00	57.37	Horizontal
3306.00	-62.94	-3.96	-66.90	-13.00	53.90	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1673.30	-60.79	-10.70	-71.49	-13.00	58.49	Vertical
2509.50	-61.60	-8.66	-70.26	-13.00	57.26	Vertical
3346.00	-62.67	-3.33	-66.00	-13.00	53.00	Vertical
1673.30	-60.71	-10.28	-70.99	-13.00	57.99	Horizontal
2509.50	-61.65	-8.73	-70.38	-13.00	57.38	Horizontal
3346.00	-62.82	-3.42	-66.24	-13.00	53.24	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1693.00	-61.25	-9.90	-71.15	-13.00	58.15	Vertical
2539.50	-61.15	-8.45	-69.60	-13.00	56.60	Vertical
3386.00	-62.68	-2.59	-65.27	-13.00	52.27	Vertical
1693.00	-60.33	-9.70	-70.03	-13.00	57.03	Horizontal
2539.50	-61.46	-8.21	-69.67	-13.00	56.67	Horizontal
3386.00	-62.81	-2.65	-65.46	-13.00	52.46	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band 5 – 5 MHz downlink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1743.00	-61.41	-10.74	-72.15	-13.00	59.15	Vertical
2614.50	-60.83	-6.65	-67.48	-13.00	54.48	Vertical
3486.00	-63.77	-2.62	-66.39	-13.00	53.39	Vertical
1743.00	-61.54	-10.66	-72.20	-13.00	59.20	Horizontal
2614.50	-61.40	-7.40	-68.80	-13.00	55.80	Horizontal
3486.00	-63.23	-2.56	-65.79	-13.00	52.79	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1763.00	-61.42	-10.23	-71.65	-13.00	58.65	Vertical
2644.50	-61.08	-6.95	-68.03	-13.00	55.03	Vertical
3526.00	-63.29	-2.48	-65.77	-13.00	52.77	Vertical
1763.00	-61.70	-10.82	-72.52	-13.00	59.52	Horizontal
2644.50	-61.55	-6.92	-68.47	-13.00	55.47	Horizontal
3526.00	-63.21	-2.30	-65.51	-13.00	52.51	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1783.00	-60.98	-10.63	-71.61	-13.00	58.61	Vertical
2674.50	-61.28	-7.26	-68.54	-13.00	55.54	Vertical
3566.00	-63.72	-2.51	-66.23	-13.00	53.23	Vertical
1783.00	-62.02	-10.44	-72.46	-13.00	59.46	Horizontal
2674.50	-61.13	-6.52	-67.65	-13.00	54.65	Horizontal
3566.00	-63.30	-2.37	-65.67	-13.00	52.67	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band 12 – 5 MHz uplink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1401.00	-59.36	-11.68	-71.04	-13.00	58.04	Vertical
2101.50	-60.51	-9.89	-70.40	-13.00	57.40	Vertical
2802.00	-62.11	-7.09	-69.20	-13.00	56.20	Vertical
1401.00	-58.83	-11.43	-70.26	-13.00	57.26	Horizontal
2101.50	-60.65	-9.44	-70.09	-13.00	57.09	Horizontal
2802.00	-62.08	-6.71	-68.79	-13.00	55.79	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1414.00	-59.39	-11.77	-71.16	-13.00	58.16	Vertical
2121.00	-60.45	-9.58	-70.03	-13.00	57.03	Vertical
2828.00	-62.03	-6.50	-68.53	-13.00	55.53	Vertical
1414.00	-59.15	-11.45	-70.60	-13.00	57.60	Horizontal
2121.00	-60.60	-8.86	-69.46	-13.00	56.46	Horizontal
2828.00	-61.85	-5.97	-67.82	-13.00	54.82	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1430.60	-59.63	-11.92	-71.55	-13.00	58.55	Vertical
2145.90	-60.17	-9.51	-69.68	-13.00	56.68	Vertical
2861.20	-62.32	-5.55	-67.87	-13.00	54.87	Vertical
1430.60	-59.20	-11.66	-70.86	-13.00	57.86	Horizontal
2145.90	-60.36	-9.15	-69.51	-13.00	56.51	Horizontal
2861.20	-61.76	-5.44	-67.20	-13.00	54.20	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band 12 – 5 MHz downlink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1461.00	-59.61	-12.96	-72.57	-13.00	59.57	Vertical
2191.50	-61.08	-9.73	-70.81	-13.00	57.81	Vertical
2922.00	-61.34	-4.24	-65.58	-13.00	52.58	Vertical
1461.00	-59.48	-12.59	-72.07	-13.00	59.07	Horizontal
2191.50	-60.72	-9.84	-70.56	-13.00	57.56	Horizontal
2922.00	-61.44	-4.43	-65.87	-13.00	52.87	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1474.00	-59.76	-12.54	-72.30	-13.00	59.30	Vertical
2211.00	-60.96	-9.23	-70.19	-13.00	57.19	Vertical
2948.00	-61.32	-4.54	-65.86	-13.00	52.86	Vertical
1474.00	-59.95	-12.55	-72.50	-13.00	59.50	Horizontal
2211.00	-60.96	-9.61	-70.57	-13.00	57.57	Horizontal
2948.00	-61.63	-4.75	-66.38	-13.00	53.38	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1487.00	-59.44	-12.79	-72.23	-13.00	59.23	Vertical
2230.50	-60.53	-9.29	-69.82	-13.00	56.82	Vertical
2974.00	-60.95	-4.93	-65.88	-13.00	52.88	Vertical
1487.00	-60.15	-11.66	-71.81	-13.00	58.81	Horizontal
2230.50	-60.48	-9.99	-70.47	-13.00	57.47	Horizontal
2974.00	-61.92	-4.91	-66.83	-13.00	53.83	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band 13 – 5 MHz uplink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1557.00	-60.12	-11.55	-71.67	-40.00	31.67	Vertical
2335.50	-60.62	-9.40	-70.02	-13.00	57.02	Vertical
3114.00	-61.26	-2.81	-64.07	-13.00	51.07	Vertical
1557.00	-60.03	-12.18	-72.21	-40.00	32.21	Horizontal
2335.50	-60.78	-9.26	-70.04	-13.00	57.04	Horizontal
3114.00	-62.17	-3.05	-65.22	-13.00	52.22	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1563.00	-59.87	-11.57	-71.44	-40.00	31.44	Vertical
2344.50	-60.56	-9.38	-69.94	-13.00	56.94	Vertical
3126.00	-61.64	-2.66	-64.30	-13.00	51.30	Vertical
1563.00	-60.40	-12.12	-72.52	-40.00	32.52	Horizontal
2344.50	-60.92	-9.27	-70.19	-13.00	57.19	Horizontal
3126.00	-62.05	-3.01	-65.06	-13.00	52.06	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1569.00	-59.69	-11.63	-71.32	-40.00	31.32	Vertical
2353.50	-60.20	-9.35	-69.55	-13.00	56.55	Vertical
3138.00	-61.50	-2.48	-63.98	-13.00	50.98	Vertical
1569.00	-60.87	-12.06	-72.93	-40.00	32.93	Horizontal
2353.50	-60.56	-9.28	-69.84	-13.00	56.84	Horizontal
3138.00	-61.87	-2.96	-64.83	-13.00	51.83	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band 13 – 5 MHz downlink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1495.00	-59.61	-12.57	-72.18	-40.00	32.18	Vertical
2242.50	-60.86	-8.93	-69.79	-13.00	56.79	Vertical
2990.00	-61.77	-4.92	-66.69	-13.00	53.69	Vertical
1495.00	-59.86	-12.82	-72.68	-40.00	32.68	Horizontal
2242.50	-60.44	-9.61	-70.05	-13.00	57.05	Horizontal
2990.00	-61.93	-5.30	-67.23	-13.00	54.23	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1501.00	-59.67	-12.66	-72.33	-40.00	32.33	Vertical
2251.50	-60.65	-9.11	-69.76	-13.00	56.76	Vertical
3002.00	-61.64	-5.29	-66.93	-13.00	53.93	Vertical
1501.00	-60.22	-12.86	-73.08	-40.00	33.08	Horizontal
2251.50	-60.59	-9.66	-70.25	-13.00	57.25	Horizontal
3002.00	-61.76	-5.10	-66.86	-13.00	53.86	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1507.00	-59.61	-12.76	-72.37	-40.00	32.37	Vertical
2260.50	-60.22	-9.35	-69.57	-13.00	56.57	Vertical
3014.00	-61.27	-5.61	-66.88	-13.00	53.88	Vertical
1507.00	-60.42	-13.18	-73.60	-40.00	33.60	Horizontal
2260.50	-60.37	-9.74	-70.11	-13.00	57.11	Horizontal
3014.00	-62.05	-4.91	-66.96	-13.00	53.96	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band 25 – 5 MHz uplink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3705.00	-64.46	-0.36	-64.82	-13.00	51.82	Vertical
5557.50	-64.51	4.16	-60.35	-13.00	47.35	Vertical
7410.00	-66.01	6.10	-59.91	-13.00	46.91	Vertical
3705.00	-64.14	-0.17	-64.31	-13.00	51.31	Horizontal
5557.50	-64.41	4.07	-60.34	-13.00	47.34	Horizontal
7410.00	-65.71	5.76	-59.95	-13.00	46.95	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3765.00	-64.30	-1.01	-65.31	-13.00	52.31	Vertical
5647.50	-64.49	3.85	-60.64	-13.00	47.64	Vertical
7530.00	-65.77	5.56	-60.21	-13.00	47.21	Vertical
3765.00	-64.29	-0.54	-64.83	-13.00	51.83	Horizontal
5647.50	-64.37	4.08	-60.29	-13.00	47.29	Horizontal
7530.00	-65.31	5.56	-59.75	-13.00	46.75	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3825.00	-64.67	-0.36	-65.03	-13.00	52.03	Vertical
5737.50	-64.37	3.50	-60.87	-13.00	47.87	Vertical
7650.00	-65.99	6.54	-59.45	-13.00	46.45	Vertical
3825.00	-64.52	0.06	-64.46	-13.00	51.46	Horizontal
5737.50	-64.11	3.85	-60.26	-13.00	47.26	Horizontal
7650.00	-65.29	6.33	-58.96	-13.00	45.96	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

Band 25 – 5 MHz downlink						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3865.00	-63.56	1.38	-62.18	-13.00	49.18	Vertical
5797.50	-64.29	3.98	-60.31	-13.00	47.31	Vertical
7730.00	-65.50	8.56	-56.94	-13.00	43.94	Vertical
3865.00	-63.95	1.58	-62.37	-13.00	49.37	Horizontal
5797.50	-64.87	5.03	-59.84	-13.00	46.84	Horizontal
7730.00	-66.14	8.84	-57.30	-13.00	44.30	Horizontal
Middle channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3925.00	-63.55	1.47	-62.08	-13.00	49.08	Vertical
5887.50	-64.81	4.30	-60.51	-13.00	47.51	Vertical
7850.00	-65.75	8.60	-57.15	-13.00	44.15	Vertical
3925.00	-63.53	1.64	-61.89	-13.00	48.89	Horizontal
5887.50	-64.77	4.58	-60.19	-13.00	47.19	Horizontal
7850.00	-65.48	8.36	-57.12	-13.00	44.12	Horizontal
Highest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3985.00	-63.85	1.59	-62.26	-13.00	49.26	Vertical
5977.50	-64.68	4.43	-60.25	-13.00	47.25	Vertical
7970.00	-65.38	8.79	-56.59	-13.00	43.59	Vertical
3985.00	-63.60	1.79	-61.81	-13.00	48.81	Horizontal
5977.50	-64.47	4.62	-59.85	-13.00	46.85	Horizontal
7970.00	-65.84	8.49	-57.35	-13.00	44.35	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

-----End of report-----