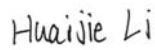


FCC TEST REPORT

Report No.: AB26080213FW01
FCC ID.....: **RSN-FULTRA5G**
Applicant.....: Cellphone-Mate Inc. dba SureCall
Address: 48346 Milmont Drive, Fremont, California 94538, United States
Manufacturer.....: Cellphone-Mate Inc. dba SureCall
Address.....: 48346 Milmont Drive, Fremont, California 94538, United States
Product Name: Broadband Consumer Signal Booster
Trade Mark: Surecall
Test Model: Fusion Ultra 5G
Additional Model(s).....: /
Standard.....: FCC 47 CFR Part 20.21
KDB 935210 D03 Signal Booster Measurements v04r04
Date of Receipt.....: Jun. 10, 2026
Date of Test Date.....: Jun. 10, 2026 - Aug. 09, 2026
Date of Issue: Aug. 10, 2026
Test Result.....: Pass

Compiled by: (Printed Name + Signature)	Huaijie Li	
Supervised by: (Printed Name + Signature)	David Huang	
Approved by: (Printed Name + Signature)	Jay Liu	

Testing Laboratory Name: Aibo Standard Technology (Shenzhen) Co., Ltd.
Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park,
Tianliao Community, Yutang Street, Guangming District, Shenzhen
City, Guangdong Province, China

This test report may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by Aibo. The test results in the report only apply to the tested sample. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver. Any objections must be raised to Aibo within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit. The test report merely correspond to the test sample.

Aibo Standard Technology (Shenzhen) Co., Ltd.

101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street,
Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +86 755 85250797

E-mail: aibo@aibonorm.com

Website: www.aibonorm.com

FCC TEST REPORT

EUT.....	: Broadband Consumer Signal Booster
Test Model.....	: Fusion Ultra 5G
Applicant.....	: Cellphone-Mate Inc. dba SureCall
Address.....	: 48346 Milmont Drive, Fremont, California 94538, United States
Manufacturer.....	: Cellphone-Mate Inc. dba SureCall
Address.....	: 48346 Milmont Drive, Fremont, California 94538, United States

Test Result	Positive
--------------------	-----------------

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

REPORT VERSION

Version No.	Issue Date	Description
01	2026.08.10	Initial Issue

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1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Product Name:	Broadband Consumer Signal Booster		
Trade Mark:	Surecall		
Test Model:	Fusion Ultra 5G		
Additional Model(s):	/		
Model Difference:	/		
Hardware Version:	Fusion Ultra 5G V1.1.0		
Software Version:	Fusion Ultra 5G V1.1.0		
Power Supply:	AC 100-240V, 50/60Hz, 1.2A		
Test Sample(s) Number:	ABA166260804-S005		
Radio Specification Subject to this Report			
Signal Booster Type:	Fixed Consumer Signal Booster		
Frequency Range:	PCS	Uplink:	1850MHz - 1915MHz
		Downlink:	1930MHz - 1995MHz
	AWS	Uplink:	1710MHz - 1755MHz
		Downlink:	2110MHz - 2155MHz
	Cellular	Uplink:	824MHz - 849MHz
		Downlink:	869MHz - 894MHz
	Lower700M Hz	Uplink:	698MHz - 716MHz
		Downlink:	728MHz - 746MHz
	Upper700M Hz	Uplink:	776MHz - 787MHz
		Downlink:	746MHz - 757MHz
Emission Designator:	F9W, G7D, G7W, GXW, W7D		
FCC Classification:	B2W/Wideband Consumer Booster (CMRS)		
Antenna information:	Refer to the Antenna kitting		

1.2. DESCRIPTION OF SUPPORT EQUIPMENT

Description	Manufacturer	Model	Serial Number	Supplied by
/	/	/	/	/

1.3. DESCRIPTION OF EXTERNAL I/O

I/O Port Description	Quantity	Cable
/	/	/

1.4. GENERAL DESCRIPTION OF APPLIED STANDARDS

The tests were performed according to following standards:

[FCC 47 CFR Part 20.21](#) - Signal boosters.

[FCC 47 CFR Part 2](#) - Frequency Allocations and Radio Treaty Matters; General Rules and Regulations

[ANSI C63.26-2015](#) - American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

[KDB 935210 D03](#) - KDB 935210 D03 Signal Booster Measurements v04r04

1.5. DESCRIPTION OF TEST FACILITY

Test Lab: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +86 755 85250797

E-mail: aibo@aibonorm.com

Website: www.aibonorm.com

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Certificate No.: 7514.01

Aibo Standard Technology (Shenzhen) Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC Accredited Lab.

Designation Number: CN1411

Test Firm Registration Number: 567066

ISED Wireless Device Testing Laboratories

Company Number: 33924

CAB identifier: CN0185

1.6. MEASUREMENT UNCERTAINTY

The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Items	Measurement Uncertainty
Radiated Spurious Emissions(9KHz~30MHz)	±2.70dB
Radiated Spurious Emissions(25MHz~1000MHz)	±1.60dB
Radiated Spurious Emissions(1GHz~20GHz)	±2.29dB
Radiated Spurious Emissions(20GHz~40GHz)	±5.32dB
RF Conducted Power	±0.57dB
Conducted Spurious Emissions	±1.60dB
RF Frequency	±6.0 x 10 ⁻⁷
Occupied Channel Bandwidth	±28.87KHz

Note: All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence.

1.7. ENVIRONMENTAL CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	+15°C ~ +35°C
Lative Humidity	20 % ~ 75 %
Air Pressure	98KPa ~ 101KPa

1.8. DESCRIPTION OF TEST MODES

EUT Operation during Tests:

The EUT was in a normal operating condition and the gain control of the EUT is adjust to the maximum. AWGN, GSM, CDMA, 5MHz LTE test signals described in were used for all tests as required per KDB 935210 D03. The AWGN test signal must have a 4.1 MHz 99 % occupied bandwidth (OBW) (representative of a 5MHz LTE channel). And GSM signal with a pulse width of 570 μ s and a duty cycle of 12.5% (i.e., one GSM timeslot).

System Test Configuration:

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, radiated emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario. Only the worst case data were recorded in this test report.

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, X/Y/Z axis, and antenna ports.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000MHz. The resolution is 1 MHz or greater for frequencies above 1000MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

2. SUMMARY OF TEST RESULT

FCC Rule	Description of Test Item(s)	Result	Test Engineer
§20.21(e)(3)	Authorized Frequency Band Verification Test	Pass	Claire Lai
§2.1046 20.21(e)(8)(i)(D)	Maximum Power Measurement Procedure	Pass	Claire Lai
§20.21(e)(8)(i)(B)	Maximum Booster Gain Computation	Pass	Claire Lai
§20.21(e)(8)(i)(F)	Intermodulation Product	Pass	Claire Lai
§2.1051; §22.917(a); §27.53(h); §27.53(c); §27.53(g); §24.238(a);	Out of Band Emissions	Pass	Claire Lai
§2.1051; §22.917(a); §27.53(h); §27.53(g); §27.53(c); §24.238(a);	Conducted Spurious Emission	Pass	Claire Lai
§20.21(e)(8)(i)(A)(2)(i) §20.21(e)(8)(i)(A)(1) §20.21(e)(8)(i)(H)	Noise Limit Procedure Variable Noise Variable Noise Timing	Pass	Claire Lai
§20.21(e)(8)(i)(I)	Uplink inactivity	Pass	Claire Lai
§20.21(e)(8)(i)(C) (1),(2)(i) §20.21(e)(8)(i)(H)	Variable Booster Gain Variable Uplink Gain Timing	Pass	Claire Lai
§2.1049	Occupied Band Width	Pass	Claire Lai
§20.21(e)(8)(ii)(A)	Anti-Oscillation	Pass	Claire Lai
§2.1053	Radiated Spurious Emission	Pass	Claire Lai
§20.21(e)(8)(i)(B)	Spectrum Block Filter	N/A	/

3. MEASUREMENT INSTRUMENTS LIST

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
1	Loop Antenna	Schwarzbeck	FMZB 1519	1519-025	01/18/2026	01/17/2028
2	Power Amplifier	HZEMC	HPA-9K0133	HYP A23029	01/20/2026	01/19/2027
3	Broadband Antenna	Schwarzbeck	VULB 9168	01763	01/29/2026	01/28/2028
4	Broadband Antenna	Schwarzbeck	VULB 9168	00227	01/29/2026	01/28/2028
5	Attenuator	PRM	ATT50-6-3	ATT50-6-3	01/20/2026	01/19/2027
6	Spectrum Analyzer	R&S	FSV40-N	101365	01/20/2026	01/19/2027
7	Horn Antenna	Schwarzbeck	BBHA 9120 D	02786	02/19/2026	02/18/2028
8	Horn Antenna	Schwarzbeck	BBHA 9120 D	02931	02/19/2026	02/18/2028
9	Horn Antenna	KMW	ZLB7-18-40G-77	072410839	02/19/2026	02/18/2028
10	Power Amplifier	HZEMC	PA0118-43	HYP A23030	01/20/2026	01/19/2027
11	Power Amplifier	HZEMC	PA01840-45	HYP A23031	01/20/2026	01/19/2027
12	EMI Test Receiver	R&S	ESCI	101196	01/20/2026	01/19/2027
13	LISN	R&S	ENV216	102374	01/20/2026	01/19/2027
14	Pulse Limiter	Schwarzbeck	ESH3-Z2	0357.8810.54	01/20/2026	01/19/2027
15	MXA Signal Analyzer	Keysight	N9020A	MY52091389	01/20/2026	01/19/2027
16	Power Sensor	Agilent	U2021XA	MY54110007	01/20/2026	01/19/2027
17	Power Sensor	Agilent	U2021XA	MY54110009	01/20/2026	01/19/2027
18	MXG Vector Signal Generator	Agilent	N5182A	MY47070153	01/20/2026	01/19/2027
19	Analog Signal Source	Keysight	N5173B	MY60403029	01/20/2026	01/19/2027
20	Vector Signal Generator	R&S	SMCV100B	106103	01/20/2026	01/19/2027

Test Software		
Software name	Model	Version
Radiated Emission Measurement Software	FASLAB	V4.1

4. Authorized frequency band verification test

4.1. LIMIT

The signal booster only operates on the CMRS frequency bands authorized for use by the NPS PCS

Uplink: 1850MHz - 1915MHz, Downlink: 1930MHz - 1995MHz

AWS

Uplink: 1710MHz - 1780MHz, Downlink: 2110MHz - 2200MHz

Cellular

Uplink: 824MHz - 849MHz, Downlink: 869MHz - 894MHz

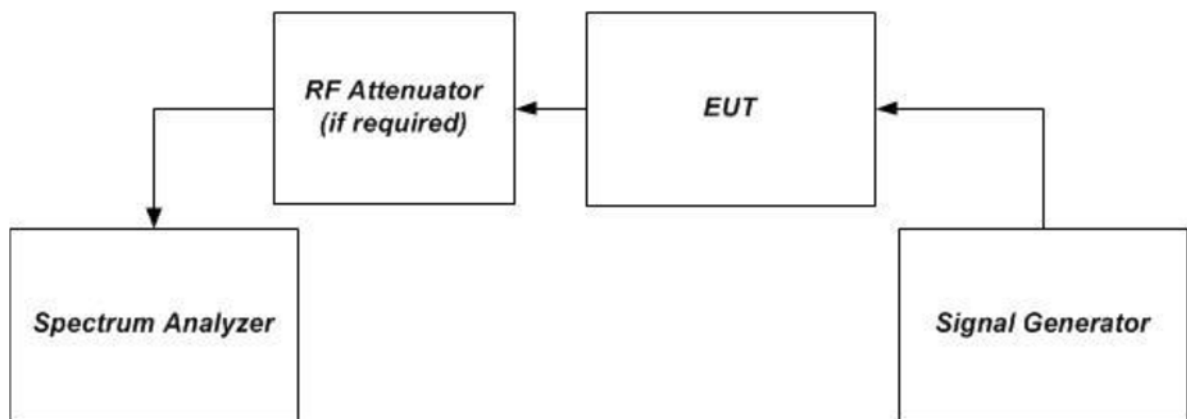
Lower700MHz

Uplink: 698MHz - 716MHz, Downlink: 728MHz - 746MHz

Upper700MHz

Uplink: 776MHz - 787MHz, Downlink: 746MHz - 757MHz

4.2. TEST SETUP



4.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

- Connect the EUT to the test equipment as shown in Figure 1. Begin with the uplink output (donor) port connected to the spectrum analyzer.
- Set the spectrum analyzer resolution bandwidth (RBW) for 100 kHz with the video bandwidth (VBW) ≥ 3 the RBW, using a PEAK detector with the MAX HOLD function.
- Set the center frequency of the spectrum analyzer to the center of the operational band under test with a span of 1 MHz.
- Set the signal generator for CW mode and tune to the center frequency of the operational band under test.
- Set the initial signal generator power to a level that is at least 6 dB below the AGC level specified by the manufacturer.
- Slowly increase the signal generator power level until the output signal reaches the AGC operational level.
- Reduce the signal generator power to a level that is 3 dB below the level noted above, then manually reset the EUT (e.g., cycle ac/dc power).
- Reset the spectrum analyzer span to 2 the width of the CMRS band under test. Adjust the tuned frequency of the signal generator to sweep 2 the width of the CMRS band using the sweep function. The AGC must be deactivated throughout the entire sweep.
- Using three markers, identify the CMRS band edges and the frequency with the highest power. Affirm that the values of all markers are visible on the display of the spectrum analyzer (e.g., marker table set to on).
- Capture the spectrum analyzer trace for inclusion in the test report.
- Repeat c) to j) for all operational uplink and downlink bands.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

4.4. TEST RESULT

Pass.

Please refer to the Appendix A Test Data.

5. Maximum power and Gain

5.1. LIMIT

Gain: Fixed Booster maximum gain shall not exceed $6.5 \text{ dB} + 20 \log_{10}(\text{Frequency})$

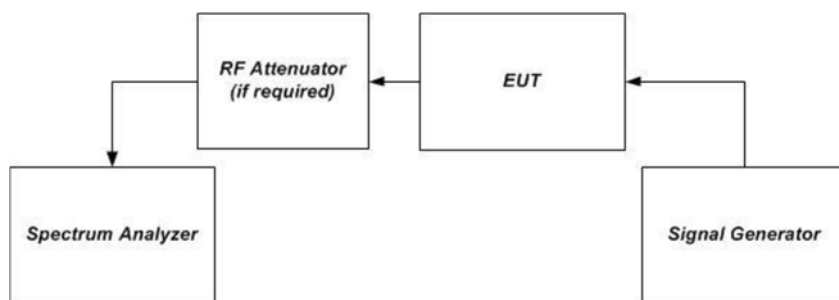
Where, Frequency is the uplink mid-band frequency of the supported spectrum bands in MHz.

Conducted Output Power: $17 \text{ dBm} \leq P_{\text{uplink}} \leq 30 \text{ dBm}$,

$P_{\text{downlink}} \leq 17 \text{ dBm}$.

EIRP: $\text{Uplink} \leq 30 \text{ dBm}$, $\text{Downlink} \leq 17 \text{ dBm}$.

5.2. TEST SETUP



5.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

- Connect the EUT to the test equipment as shown in test setup.
- Configure the signal generator and spectrum analyzer for operation on the frequency determined in 7.1 with the highest power level, but with the center frequency of the signal no closer than 2.5 MHz from the band edge. The spectrum analyzer span shall be set to at least 10 MHz.
- Set the initial signal generator power to a level well below that which causes AGC activation.
- Slowly increase the signal generator power level until the output signal reaches the AGC operational limit.
- Reduce power sufficiently on the signal generator to ensure that the AGC is not controlling the power output.
- Slowly increase the signal generator power to a level just below (and within 0.5 dB of) the AGC limit without triggering the AGC. Note the signal generator power level as P_{in} .
- Measure the output power, P_{out} , with the spectrum analyzer as follows.
 - Set RBW = 100 kHz for AWGN signal type, or 300 kHz for CW or GSM signal type.
 - Set VBW $\geq 3 \times \text{RBW}$.
 - Select either the BURST POWER or CHANNEL POWER measurement mode, as required for each signal type. For AWGN, the channel power integration bandwidth shall be the 99% OBW of the 4.1 MHz signal.
 - Select the power averaging (rms) detector.
 - Affirm that the number of measurement points per sweep $\geq (2 \times \text{span}) / \text{RBW}$. NOTE—This requirement does not apply for BURST power measurement mode.
 - Set sweep time = auto couple, or as necessary (but no less than auto couple value).
 - Trace average at least 100 traces in power averaging (i.e., rms) mode.
- Repeat step g) while increasing the signal generator amplitude in 2 dB steps until the maximum input level indicated in 5.5 is reached. If the booster has shut down at any point during the input power steps, it should be noted and step g) shall be repeated at an input level 1 dB less than that found to cause the shutdown. The test report shall include either a statement describing that the device complies at 10 dB above AGC or at the 5.5 power levels, or a table showing compliance at the additional input power(s) required.

- i) Repeat the entire procedure for each operational uplink and downlink frequency band supported by the booster.
- j) For both the uplink and downlink in each supported frequency band, use each of the POUT and PIN result pairs for all signal types used in 7.2 in the following equation to obtain the maximum gain, G:
$$G \text{ (dB)} = \text{POUT(dBm)} - \text{PIN(dBm)}.$$

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

5.4. TEST RESULT

Pass.

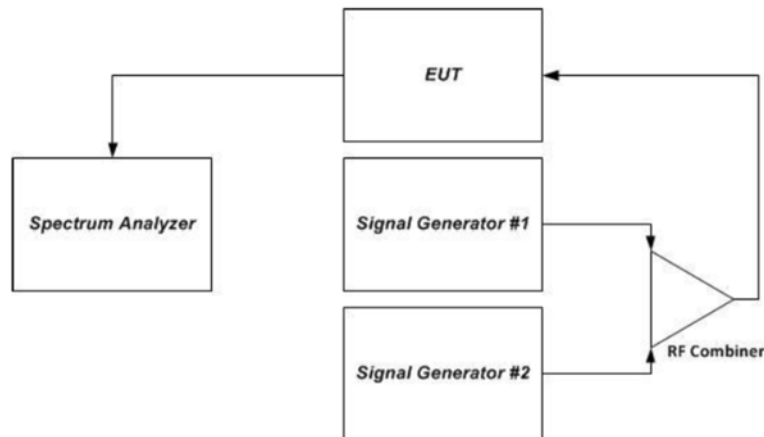
Please refer to the Appendix A for Test Data.

6. Intermodulation Product

6.1. LIMIT

-19dBm.

6.2. TEST SETUP



6.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

- Connect the signal booster to the test equipment as shown in test setup.
- Set the spectrum analyzer RBW = 3 kHz.
- Set the VBW $\geq 3 \times$ RBW.
- Select the rms detector.
- Set the spectrum analyzer center frequency to the center of the supported operational band under test.
- Set the span to 5 MHz. Affirm that the number of measurement points per sweep $\geq (2 \times \text{span})/\text{RBW}$.
- Configure the two signal generators for CW operation with generator #1 tuned 300 kHz below the operational band center frequency and generator #2 tuned 300 kHz above the operational band center frequency. If the maximum output power is not at the operational-band (booster pass band) center frequency, configure the test signal pair around the frequency with maximum output power as determined per 7.2.
- Set the signal generator amplitudes so that the power from each into the EUT is equivalent, then turn on the RF output.
- Simultaneously increase each signal generators' amplitude equally until just before the EUT begins AGC, then affirm that all intermodulation-product emissions (if any occur) are below the specified limit of -19 dBm.
- Use the trace averaging function of the spectrum analyzer, and wait for the trace to stabilize. Place a marker at the highest amplitude intermodulation-product emission.
- Record the maximum intermodulation product amplitude level that is observed.
- Capture the spectrum analyzer trace for inclusion in the test report.
- Repeat e) to l) for all uplink and downlink operational bands.
- Increase the signal generator amplitude in 2 dB steps to 10 dB above the AGC threshold determined in 7.4i), but not exceeding the maximum input level of 5.5, to affirm that the EUT maintains compliance with the intermodulation limit. The test report shall include either a statement describing that the device complies at 10 dB above AGC or at the 5.5 power levels, or a table showing compliance at the additional input power(s) required.

The spectrum analyzer Occupied Bandwidth tool was used to capture the occupied bandwidth data.

6.4. TEST RESULT

Pass.

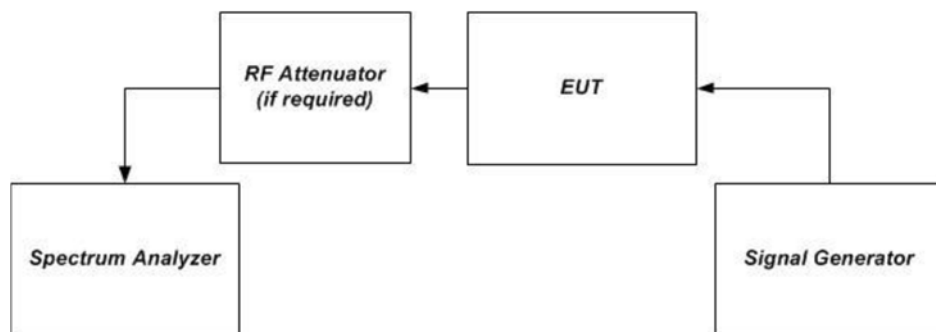
Please refer to the Appendix A for Test Data.

7. Out-of-band emission

7.1. LIMIT

-19dBm

7.2. TEST SETUP



7.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

- Connect the EUT to the test equipment as shown in test setup.
 - Configure the signal generator for the appropriate operation for all uplink and downlink bands:
 - GSM: 0.2 MHz from upper and lower band edges.
 - LTE (5 MHz): 2.5 MHz from upper and lower band edges.
 - CDMA: 1.25 MHz from upper and lower band edges, except for cellular band as follows (only the upper and lower frequencies need to be tested):
824.88 MHz, 845.73 MHz, 836.52 MHz, 848.10 MHz,
869.88 MHz, 890.73 MHz, 881.52 MHz, 893.10 MHz.
 - Set the signal generator amplitude to the maximum power level prior to AGC similar to 7.2.2e) to 7.2.2f) of the power measurement procedures for the appropriate modulations.
 - Set RBW = measurement bandwidth specified in the applicable rule section for the supported frequency band
 - Set VBW = 3*RBW.
 - Select the power averaging (rms) detector.
 - Sweep time = auto-couple.
 - Set the analyzer start frequency to the upper band/block edge frequency and the stop frequency to the upper band/block edge frequency plus: 300 kHz (when operational frequency is < 1 GHz), or 3 MHz (when operational frequency is ≥ 1 GHz).
 - Trace average at least 100 traces in power averaging (i.e., rms) mode.
 - Use peak marker function to find the maximum power level.
 - Capture the spectrum analyzer trace of the power level for inclusion in the test report.
 - Increase the signal generator amplitude in 2 dB steps until the maximum input level per 5.5 is reached. Affirm that the EUT maintains compliance with the OOB limits. The test report shall include either a statement describing that the device complies at 10 dB above AGC or at the 5.5 power levels, or a table showing compliance at the additional input power(s) required.
 - Reset the analyzer start frequency to the lower band/block edge frequency minus: 300 kHz (when operational frequency is < 1 GHz), or 3 MHz (when operational frequency is ≥ 1 GHz), and the stop frequency to the lower band/block edge frequency, then repeat 7.5i) to 7.5l).
 - Repeat 7.5b) through 7.5m) for each uplink and downlink operational band.
- Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

7.4. TEST RESULT

Pass.

Please refer to the Appendix A for Test Data.

8. Conducted Spurious emissions

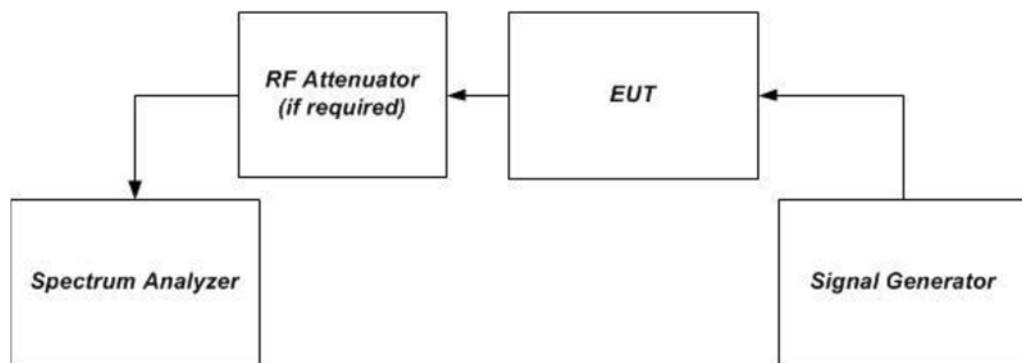
8.1. LIMIT

-13 dBm ;

For equipment operating in the frequency bands 776-787 MHz, The power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:

- (i) $76 + 10 \log_{10} p$ (watts), dB, for base and fixed equipment, and
- (ii) $65 + 10 \log_{10} p$ (watts), dB, for mobile and portable equipment.

8.2. TEST SETUP



8.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

- a) Connect the EUT to the test equipment as shown in test setup.
- b) Configure the signal generator for AWGN with a 99% OBW of 4.1 MHz, with a center frequency corresponding to the center of the CMRS band under test.
- c) Set the signal generator amplitude to the level determined in the power measurement procedure in 7.2.
- d) Turn on the signal generator RF output and measure the spurious emission power levels with an appropriate measuring instrument as follows.
 - 1) Set RBW = measurement bandwidth specified in the applicable rule section for the operational frequency band under consideration.
 - 2) Set VBW = 3 *RBW.
 - 3) Select the power averaging (rms) detector.
 - 4) Sweep time = auto-couple.
 - 5) Set the analyzer start frequency to the lowest radio frequency signal generated in the equipment, without going below 9 kHz, and the stop frequency to the lower band/block edge frequency minus 100 kHz or 1 MHz, as specified in the applicable rule part. Note that the number of measurement points in each sweep must be $\geq (2 * \text{span}/\text{RBW})$, which may require that the measurement range defined by the preceding start and stop frequencies be subdivided, depending on the available number of measurement points of the spectrum analyzer. Trace average at least 10 traces in power averaging (i.e., rms) mode.
 - 6) Sweep time = auto-couple.
 - 7) Use the peak marker function to identify the highest amplitude level over each measured frequency range.
 - 8) Reset the analyzer start frequency to the upper band/block edge frequency plus 100 kHz or 1 MHz, as specified in the applicable rule part, and the analyzer stop frequency to 10 times the highest frequency of the fundamental emission. Note that the number of measurement points in each sweep must be $\geq (2 * \text{span}/\text{RBW})$.

9) Use the peak marker function to identify the highest amplitude level over each of the measured frequency ranges. Record the frequency and amplitude and capture a plot for inclusion in the test report.

e) Repeat b) through d) for each supported frequency band of operation.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

8.4. TEST RESULT

Pass.

Please refer to the Appendix A for Test Data.

9. Noise limits

9.1. LIMIT

Not exceed -103 dBm/MHz —RSSI.

Not exceed $-102.5 \text{ dBm/MHz} + 20 \log (F)$, where Frequency is the uplink mid-band frequency of the supported spectrum bands in MHz.

9.2. TEST SETUP

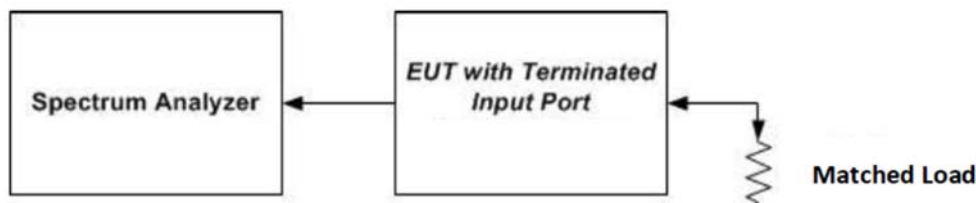


Figure 3 – Noise limit test setup (also used for 7.8)

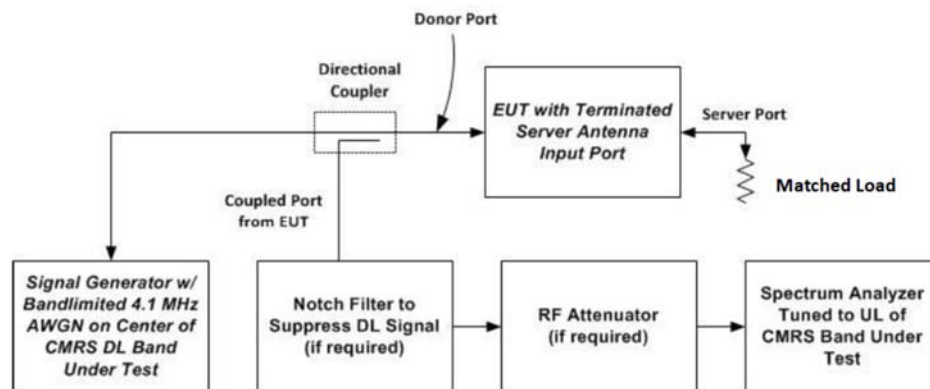


Figure 4 – Test setup for uplink noise power measurement in the presence of a downlink signal

9.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

For Maximum transmitter noise power level

- Connect the EUT to the test equipment as shown in Figure 3.
- Set the spectrum analyzer RBW to 1 MHz with the VBW $\geq 3 * \text{RBW}$.
- Select the power averaging (rms) detector and trace average over at least 100 traces.
- Set the center frequency of the spectrum analyzer to the center of the CMRS band under test with the span $\geq 2 * \text{the CMRS band}$.
- Measure the maximum transmitter noise power level.
- Save the spectrum analyzer plot as necessary for inclusion in the final test report.
- Repeat b) to f) for all operational uplink and downlink bands.
- Connect the EUT to the test equipment as shown in Figure 4 for uplink noise power measurement in the presence a downlink signal. Affirm the coupled path of the RF coupler is connected to the spectrum analyzer.
- Configure the signal generator for AWGN operation with a 99% OBW of 4.1 MHz.
- Set the spectrum analyzer RBW for 1 MHz, VBW $\geq 3 * \text{RBW}$, with a power averaging (rms) detector with at least 100 trace averages.

- k) Set the center frequency of the spectrum analyzer to the center of the CMRS band under test, with the span ≥ 2 *he CMRS band. This shall include all spectrum blocks in the particular CMRS band under test
 - l) For uplink noise measurements, set the spectrum analyzer center frequency for the uplink band under test, and tune the signal generator to the center of the paired downlink band.
 - m) Measure the maximum transmitter noise power level while varying the downlink signal generator output level from -90 dBm to -20 dBm, as measured at the input port, in 1 dB steps inside the RSSI-dependent region, and in 10 dB steps outside the RSSI-dependent region. Report the six values closest to the limit, with at least two points within the RSSI-dependent region of the limit.
 - n) Repeat h) through m) for all operational uplink bands.
- For Variable uplink noise 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 to the lowest level of the RSSI-dependent noise [see 7.7.1m)].
 - d) Select MAX HOLD and increase the power level of signal generator by 10 dB for mobile boosters, and 20 dB for fixed boosters.
 - e) Confirm that the uplink noise decreases to the specified level within 1 second for mobile devices, and within 3 seconds for fixed devices.¹⁸
 - f) Repeat a) to e) for all operational uplink bands.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

9.4. TEST RESULT

Pass.

Please refer to the Appendix A for Test Data.

10. Uplink inactivity

10.1. LIMIT

Consumer booster is not serving an active device connection after 5 minutes the uplink noise power shall not exceed -70 dBm/MHz.

10.2. TEST SETUP

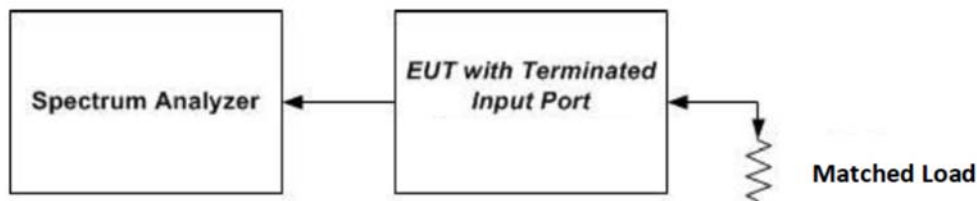


Figure 3 – Noise limit test setup (also used for 7.8)

10.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

- Connect the EUT to the test equipment as shown in Figure 3 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 $\geq 3 \times$ 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.
- Repeat d) through k) for all operational uplink bands.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

10.4. TEST RESULT

Pass.

Please refer to the Appendix A for Test Data.

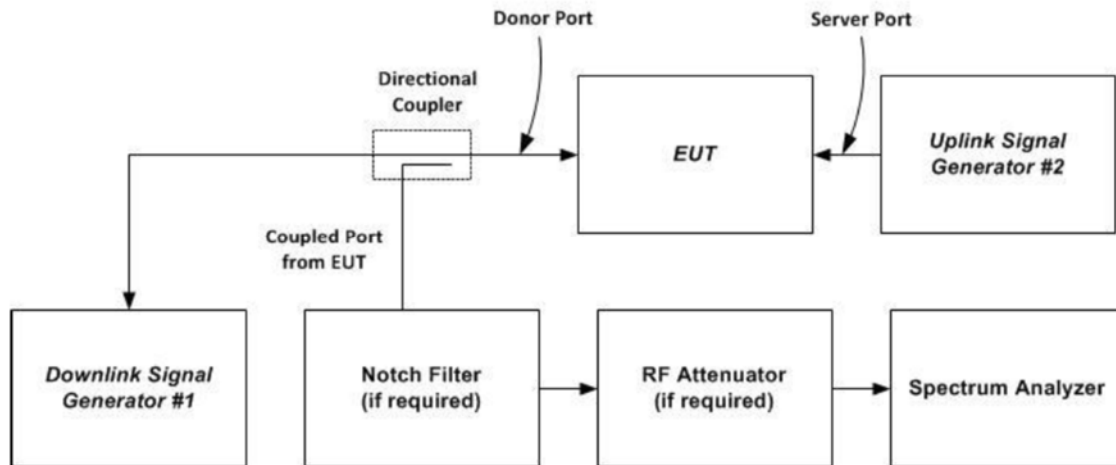
11. Variable booster gain and timing

11.1. LIMIT

Booster gain: $\leq -34 \text{ dB} - \text{RSSI} + \text{MSCL}$

Uplink gain timing: $\leq 3\text{s}$

11.2. TEST SETUP



11.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

For Variable gain

- Connect the EUT to the test equipment as shown in test setup
- Configure downlink signal generator #1 for AWGN operation with a 99% OBW of 4.1 MHz, tuned to the center of the operational band.
- 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.
- Set RBW = 100 kHz.
- Set VBW ≥ 300 kHz.
- Select the CHANNEL POWER measurement mode.
- Select the power averaging (rms) detector.
- Affirm that the number of measurement points per sweep $\geq (2 * \text{span})/\text{RBW}$.
- Sweep time = auto couple or as necessary (but no less than auto couple value).
- Trace average at least 10 traces in power averaging (i.e., rms) mode.
- 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 (i.e., downlink signal level at the booster donor port node of Figure 5), in 1 dB steps inside the RSSI-dependent region, and 10 dB steps outside the RSSI-dependent region. Report the six values closest to the limit, including at least two points from within the RSSI-dependent region of operation. See gain limit in charts in Appendix D for uplink gain requirements. Additionally, document that the EUT provides equivalent uplink and downlink gain, and when operating in shutoff mode that the uplink and downlink gain is within the transmit power off mode gain limits.
- Repeat b) to k) for all operational uplink bands.

For Variable uplink gain timing

- Set the spectrum analyzer to the uplink frequency to be measured.
- 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 [see 7.9.1k)].
 - 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, as described in 7.9.1c).
 - 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.
- Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

11.4. TEST RESULT

Pass.

Please refer to the Appendix A for Test Data.

12. Occupied bandwidth

12.1. LIMIT

No Limit, for reporting purposes only.

12.2. TEST SETUP

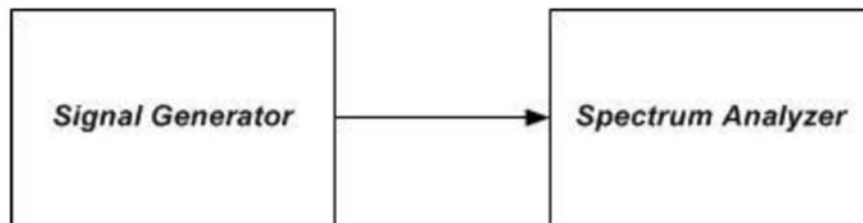


Figure 6 – Test setup for measuring characteristics of test signals used for subsequent EUT occupied bandwidth testing

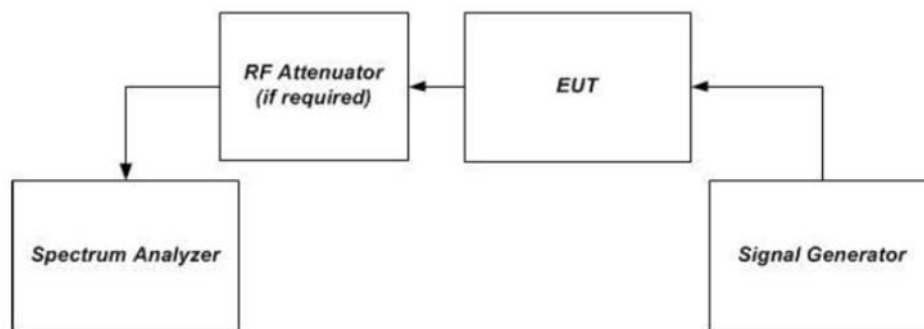


Figure 1 – Band verification test instrumentation setup

12.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

- Connect the test equipment as shown in Figure 6 to firstly measure the characteristics of the test signals produced by the signal generator.
- Set VBW $\geq 3 * RBW$.
- 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 7.10c) to 7.10g) 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 7.10c) to 7.10h) 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 7.10c) to 7.10i) with this EUT uplink path test setup.
- Connect the test equipment as shown in Figure 1, with the downlink output (server) port connected to the

spectrum analyzer, and the donor port connected to the signal generator.
m) Repeat c) to i) with this EUT downlink path test setup.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

12.4. TEST RESULT

Pass.

Please refer to the Appendix A for Test Data.

13. Oscillation Detection and Mitigation

13.1. LIMIT

Detection time: uplink: $\leq 0.3s$, downlink: $\leq 1s$

Restart times: ≤ 5 , time between restart: $\geq 60s$

Mitigation or Shutdown: the peak oscillation does not exceed by 12.0 dB the minimal output level or oscillation level measurement occur within 300 seconds.

13.2. TEST SETUP

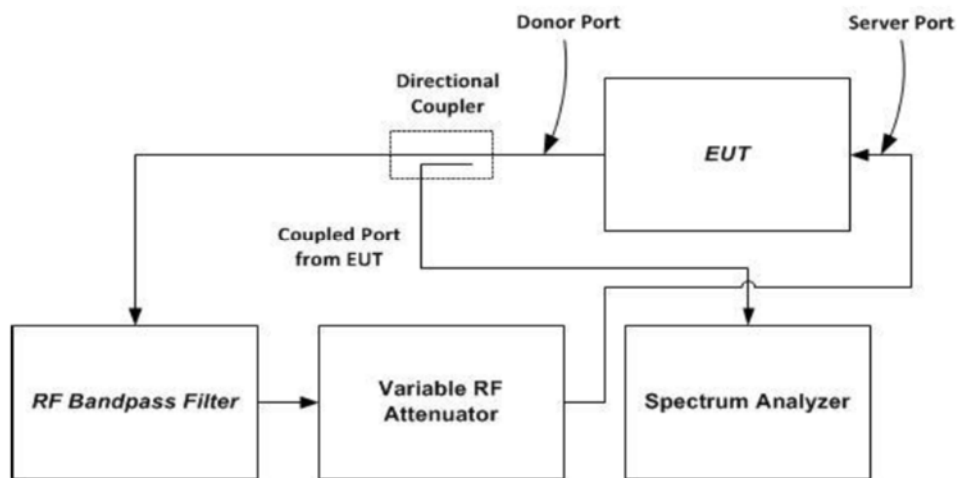


Figure 7 – Oscillation detection test setup

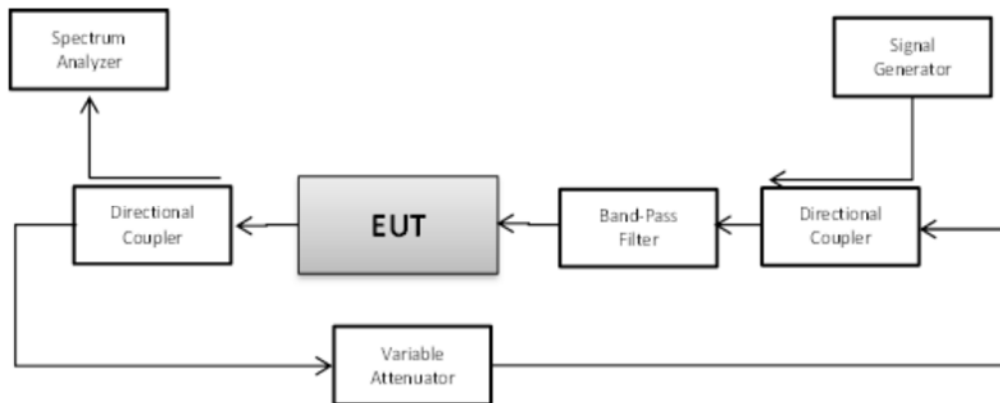


Figure 8 – Oscillation mitigation/shutdown test setup

13.3. TEST PROCEDURE

Refer to KDB 935210 D03 v04r04 & ANSI C63.26-2015 for test method.

For Oscillation detection and restart test

a) Connect the normal-operating mode EUT to the test equipment as shown in Figure 7 beginning with the spectrum analyzer on the uplink output (donor) port..

b) Spectrum analyzer settings:

- 1) Center frequency at the center of the band under test
- 2) Span equal or slightly exceeding the width of the band under test
- 3) Continuous sweep, max-hold

- 4) $RBW \geq 1$ MHz, $VBW > 3 \times RBW$
- c) Decrease the variable attenuator until the spectrum analyzer displays a signal within the band under test. Using a marker, identify the approximate center frequency of this signal on the max-hold display, increase the attenuation by 10 dB, then reset the EUT
- d) Repeat c) twice to ensure that the center of the signal created by the booster remains within 250 kHz of the spectrum analyzer display center frequency. If the frequency of the signal is unstable, confirm that the spectrum analyzer display is centered between the frequency extremes observed. If the signal is wider than 1 MHz, ensure that the spectrum analyzer display is centered on the signal by increasing the RBW. Reset the EUT after each oscillation event, if necessary. Set the spectrum analyzer sweep trigger level to just below the peak amplitude of the displayed EUT oscillation signal.
- e) Set the spectrum analyzer to zero-span, with a sweep time of 5 seconds, and single-sweep with max-hold. The spectrum analyzer sweep trigger level in this and the subsequent steps shall be the level identified in d).
- f) Decrease the variable attenuator until the spectrum analyzer sweep is triggered, increase the attenuation by 10 dB, then reset the EUT
- g) Reset the zero-span trigger of the spectrum analyzer, then repeat f) twice to ensure that the spectrum analyzer is reliably triggered, resetting the EUT after each oscillation event if necessary.
- h) Reset the zero-span sweep trigger of the spectrum analyzer, and reset the EUT.
- i) Force the EUT into oscillation by reducing the attenuation.
- j) Use the marker function of the spectrum analyzer to measure the time from the onset of oscillation until the EUT turns off, by setting Marker 1 on the leading edge of the oscillation signal and Marker 2 on the trailing edge. The spectrum analyzer sweep time may be adjusted to improve the time resolution of these cursors.
- k) Capture the spectrum analyzer zero-span trace for inclusion in the test report. Report the power level associated with the oscillation separately if it can't be displayed on the trace.
- l) Repeat b) to k) for all operational uplink and downlink bands.
- m) Set the spectrum analyzer zero-span sweep time for longer than 60 seconds, then measure the restart time for each operational uplink and downlink band.
- n) Replace the normal-operating mode EUT with the EUT that supports an anti-oscillation test mode.
- o) Set the spectrum analyzer zero-span time for a minimum of 120 seconds, and a single sweep.
- p) Manually trigger the spectrum analyzer zero-span sweep, and manually force the booster into oscillation as described in i).
- q) When the sweep is complete, place cursors between the first two oscillation detections, and save the Test Plots for inclusion in the test report. The time between restarts must match the manufacturer's timing for the test mode, and there shall be no more than 5 restarts.
- r) Repeat m) to q) for all operational uplink and downlink bands.

For measuring oscillation mitigation or shutdown

- a) Connect the normal-operating mode EUT to the test equipment as shown in Figure 8.
- b) Set the spectrum analyzer center frequency to the center of band under test, and use the following settings:
 - 1) $RBW = 30$ kHz, $VBW \geq 3 \times RBW$,
 - 2) power averaging (rms) detector,
 - 3) trace averages ≥ 100 ,
 - 4) span $\geq 120\%$ of operational band under test
 - 5) number of sweep points $\geq 2 \times \text{Span}/RBW$.
- c) Configure the signal generator for AWGN operation with a 99% OBW of 4.1 MHz, tuned to the frequency of 2.5 MHz above the lower edge or below the upper edge of the operating band under test. Adjust the RF output level of the signal generator such that the measured power level of the AWGN signal at the output port of the booster is 30 dB less than the maximum power of the booster for the band under test. Affirm that the input signal is not obstructing the measurement of the strongest oscillation peak in the band, and is not included within the span in the measurement.
 - 1) Boosters with operating spectrum passbands of 10 MHz or less may use a CW signal source at the band edge rather than AWGN.
 - 2) For device passbands greater than 10 MHz, standard CMRS signal sources may be used instead of AWGN at the band edge.
- d) Set the variable attenuator to a high attenuation setting such that the booster will operate at maximum gain when powered on. Reset the the EUT (e.g., cycle ac/dc power). Allow the EUT to complete its boot-up process, to reach full operational gain, and to stabilize its operation.
- e) Set the variable attenuator such that the insertion loss for the center of the band under test (isolation) between the booster donor port and server port is 5 dB greater than the maximum gain, as recorded in the maximum gain test procedure, for the band under test.
- f) Verify the EUT shuts down, i.e., to mitigate the oscillations. If the booster does not shut down, measure and

verify the peak oscillation level as follows.

- 1) Allow the spectrum analyzer trace to stabilize.
- 2) Place the marker at the highest oscillation level occurring within the span, and record its output level and frequency.
- 3) Set the spectrum analyzer center frequency to the frequency with the highest oscillation signal level, and reduce the span such that the upper and lower adjacent oscillation peaks are within the span.
- 4) Use the Minimum Search Marker function to find the lowest output level that is within the span, and within the operational band under test, and record its output level and frequency.
- 5) Affirm that the peak oscillation level measured in f2), does not exceed by 12.0 dB the minimal output level measured in f4). Record the measurement results of f2) and f4) in tabular format for inclusion in the test report.
- 6) The procedure of f1) to 7.11.3.f5) allows the spectrum analyzer trace to stabilize, and verification of shutdown or oscillation level measurement must occur within 300 seconds.
- 14 g) Decrease the variable attenuator in 1 dB steps, and repeat step f) for each 1 dB step. Continue testing to the level when the insertion loss for the center of band under test (isolation) between the booster donor port and server port is 5 dB lower than the maximum gain.
- h) Repeat a) to g) for all operational uplink and downlink bands.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

13.4. TEST RESULT

Pass.

Please refer to the Appendix A for Test Data.

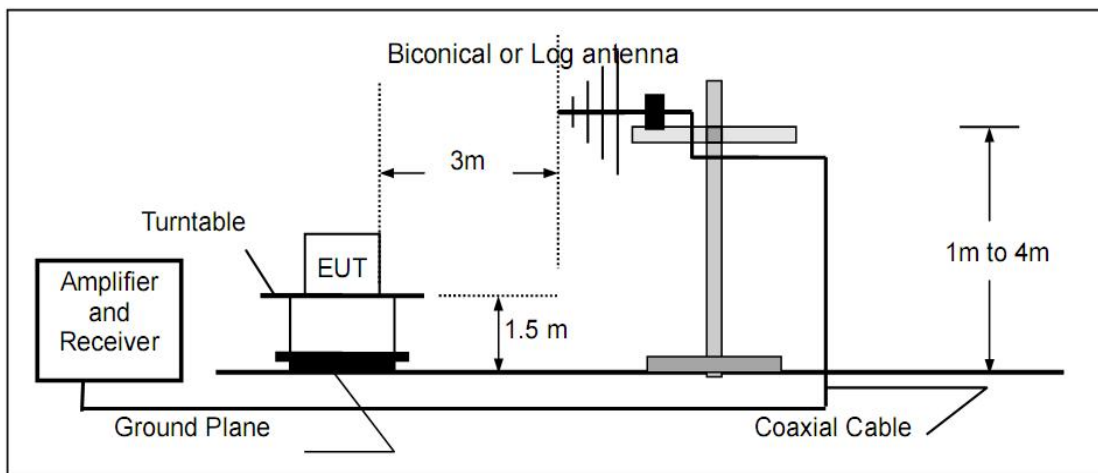
14. Radiated Spurious Emission

14.1. LIMIT

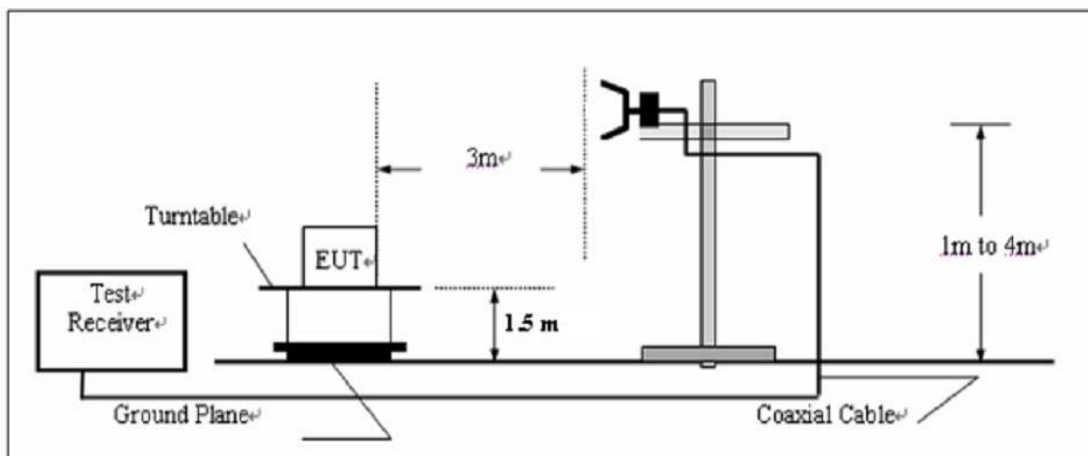
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

14.2. TEST SETUP

Radiated Below 1GHz

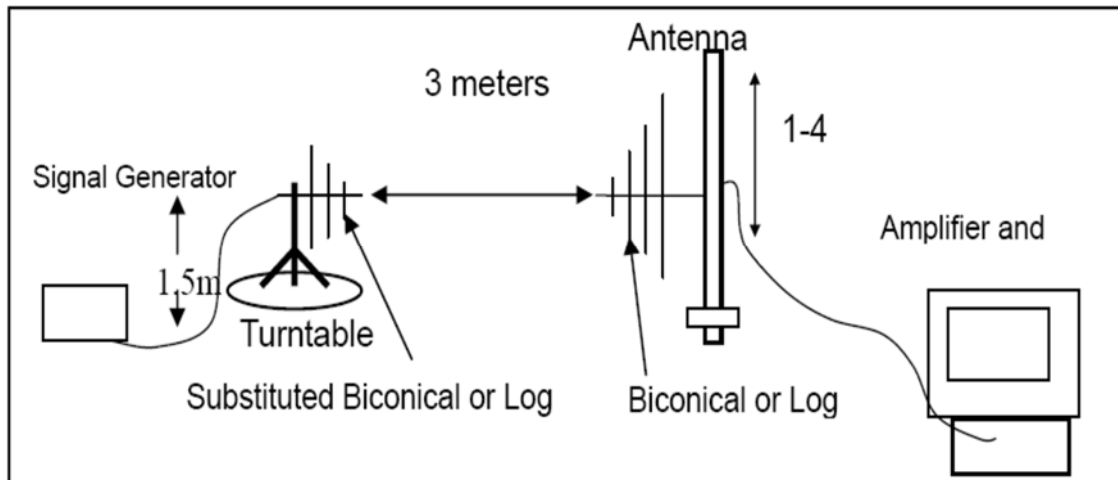


Radiated Above 1GHz

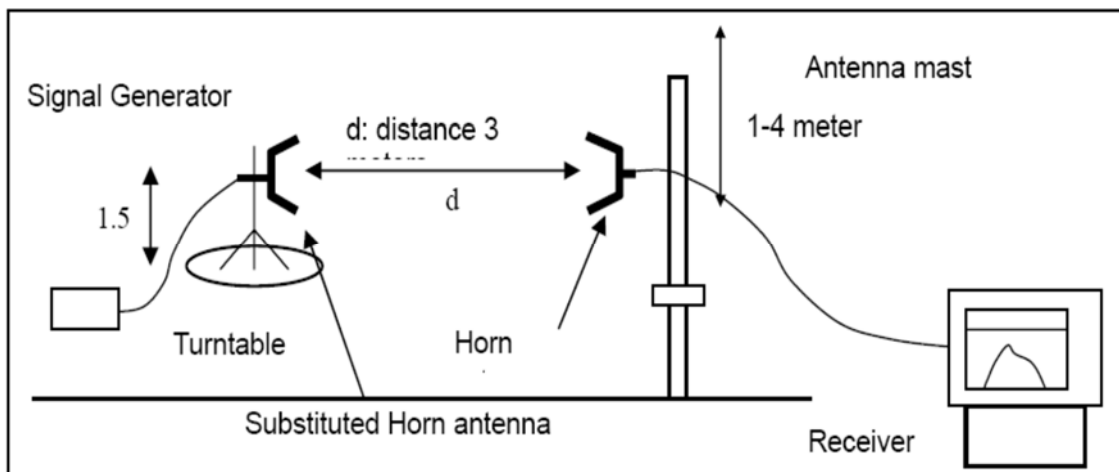


Substitution Method

Radiated Below 1GHz



Radiated Above 1 GHz



14.3. TEST PROCEDURE

Refer to KDB 971168 D01 v03r01 Section 7 for test method.

(1) EUT was placed on a 1.50 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.50m. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.

(2) A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.

(3) The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=1MHz, VBW=3MHz, and the maximum value of the receiver should be recorded as (P_r).

(4) The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (P_{Mea}) is applied to the input of the substitution antenna, and adjusts the level of the signal generator output until the value of the receiver reach the previously recorded (P_r). The power of signal source (P_{Mea}) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

(5) An amplifier should be connected to the Signal Source output port. And the cable should be connecting between the Amplifier and the Substitution Antenna. The cable loss (P_{cl}), the Substitution Antenna Gain (G_a) and the Amplifier Gain (P_{Ag}) should be recorded after test.

(6) The measurement results are obtained as described below:

$$\text{Power(EIRP)} = P_{Mea} - P_{Ag} - P_{cl} + G_a$$

We used signal generator which signal level can up to 33dBm, so we not used power Amplifier for substitution test; The measurement results are amend as described below:

$$\text{Power(EIRP)} = P_{Mea} - P_{cl} + G_a$$

(7) This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.

ERP can be calculated from EIRP by subtracting the gain of the dipole, $ERP = EIRP - 2.15\text{dBi}$.

(8) Test frequency range should extend to 10th harmonic of highest fundamental frequency.

14.4. TEST RESULT

Pass.

Remark:

a) By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "Y axis" position was the worst, and test data recorded in this report.

b) Pre-scan all modes and recorded the worst case in this report.

c) Radiated spurious emission test from 9KHz to 10th harmonic of fundamental was verified, and the emission levels from 9kHz to 30MHz are attenuated 20dB below the limit and not recorded in report.

A signal generator to produce a CW signal with the frequency set to the center of the operational band under test

PCS Uplink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	257.03	-73.4	0.89	-72.51	-13	-59.51	PK+	H
2	513.33	-66.26	5.99	-60.27	-13	-47.27	PK+	H
3	1035.06	-72.26	15.83	-56.43	-13	-43.43	PK+	H
4	4001.8	-54.45	-4.18	-58.63	-13	-45.63	PK+	H
5	9360.2	-64.97	10.05	-54.92	-13	-41.92	PK+	H
6	17916	-65.16	21.33	-43.83	-13	-30.83	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	468.93	-69.13	6.85	-62.28	-13	-49.28	PK+	V
2	959.96	-72.84	16.51	-56.33	-13	-43.33	PK+	V
3	2917.6	-59.21	8.24	-50.97	-13	-37.97	PK+	V
4	5103.1	-52.8	0.3	-52.5	-13	-39.5	PK+	V
5	11256.7	-65.16	13.1	-52.06	-13	-39.06	PK+	V
6	17904.8	-62.06	22.24	-39.82	-13	-26.82	PK+	V

PCS_Downlink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	172.28	-64.77	0.98	-63.79	-13	-50.79	PK+	H
2	420.63	-65.77	8.88	-56.89	-13	-43.89	PK+	H
3	1026.09	-72.6	16.8	-55.8	-13	-42.8	PK+	H
4	3812.1	-52.62	-4.91	-57.53	-13	-44.53	PK+	H
5	7865.1	-63.15	8.77	-54.38	-13	-41.38	PK+	H
6	17814.3	-60.83	18.54	-42.29	-13	-29.29	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	495.23	-64.08	6.81	-57.27	-13	-44.27	PK+	V
2	1082.26	-73.76	14.71	-59.05	-13	-46.05	PK+	V
3	2939.5	-56.72	7.5	-49.22	-13	-36.22	PK+	V
4	5907	-58.34	1.54	-56.8	-13	-43.8	PK+	V
5	11189.8	-65.48	11.29	-54.19	-13	-41.19	PK+	V
6	17909.1	-60.83	19.71	-41.12	-13	-28.12	PK+	V

AWS_Uplink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	239.43	-69.29	1.73	-67.56	-13	-54.56	PK+	H
2	378.14	-73.53	6.97	-66.56	-13	-53.56	PK+	H
3	1037.86	-66.42	14.7	-51.72	-13	-38.72	PK+	H
4	2154.9	-48.93	4.64	-44.29	-13	-31.29	PK+	H
5	5567.4	-51.52	1.23	-50.29	-13	-37.29	PK+	H
6	17962.3	-64.81	21.99	-42.82	-13	-29.82	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	204.34	-73.44	2.61	-70.83	-13	-57.83	PK+	V
2	457.68	-64.78	8.08	-56.7	-13	-43.7	PK+	V
3	1038.63	-72.2	15.26	-56.94	-13	-43.94	PK+	V
4	2094.5	-41.98	6.67	-35.31	-13	-22.31	PK+	V
5	6281	-54.66	3.4	-51.26	-13	-38.26	PK+	V
6	17937.7	-61.3	22.76	-38.54	-13	-25.54	PK+	V

AWS Downlink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	183.03	-71.51	3.12	-68.39	-13	-55.39	PK+	H
2	421.24	-74.33	5.89	-68.44	-13	-55.44	PK+	H
3	1025.26	-73.82	15.14	-58.68	-13	-45.68	PK+	H
4	2011.7	-48.96	5.87	-43.09	-13	-30.09	PK+	H
5	4282.3	-55.98	3.63	-52.35	-13	-39.35	PK+	H
6	17949.1	-64.2	21.98	-42.22	-13	-29.22	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	151.24	-71.27	2.18	-69.09	-13	-56.09	PK+	V
2	558.08	-70.87	8.13	-62.74	-13	-49.74	PK+	V
3	1015.83	-71.26	17.05	-54.21	-13	-41.21	PK+	V
4	2041.8	-48.69	5.07	-43.62	-13	-30.62	PK+	V
5	4277.9	-56.47	3.56	-52.91	-13	-39.91	PK+	V
6	17976.6	-68.97	23.48	-45.49	-13	-32.49	PK+	V

Cellular_Uplink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	154.78	-71.41	2.82	-68.59	-13	-55.59	PK+	H
2	626.39	-73.12	9.35	-63.77	-13	-50.77	PK+	H
3	1695.8	-37.61	-9.84	-47.45	-13	-34.45	PK+	H
4	3031.7	-54.24	1.55	-52.69	-13	-39.69	PK+	H
5	5152.5	-52.41	0.72	-51.69	-13	-38.69	PK+	H
6	8828.4	-63.17	10.04	-53.13	-13	-40.13	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	199.83	-65.22	2.81	-62.41	-13	-49.41	PK+	V
2	315.24	-66.14	4.82	-61.32	-13	-48.32	PK+	V
3	896.56	-66.86	14.2	-52.66	-13	-39.66	PK+	V
4	1683.2	-43.54	-11.35	-54.89	-13	-41.89	PK+	V
5	2955.7	-49.34	-0.25	-49.59	-13	-36.59	PK+	V
6	8930.3	-56.49	8.4	-48.09	-13	-35.09	PK+	V

Cellular Downlink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	188.98	-65.51	2.69	-62.82	-13	-49.82	PK+	H
2	602.59	-71.75	7.67	-64.08	-13	-51.08	PK+	H
3	1741.2	-42.87	-8.48	-51.35	-13	-38.35	PK+	H
4	2994.7	-49.05	1.89	-47.16	-13	-34.16	PK+	H
5	5098.8	-59.22	0.67	-58.55	-13	-45.55	PK+	H
6	8844.4	-57.25	7.45	-49.8	-13	-36.8	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	197.23	-65.51	2.3	-63.21	-13	-50.21	PK+	V
2	366.54	-71.83	2.88	-68.95	-13	-55.95	PK+	V
3	877.56	-65.88	14.12	-51.76	-13	-38.76	PK+	V
4	1808.3	-44.19	-10.48	-54.67	-13	-41.67	PK+	V
5	3013.5	-58.38	1.7	-56.68	-13	-43.68	PK+	V
6	8992	-57.93	10.04	-47.89	-13	-34.89	PK+	V

Lower700_ Uplink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	222.06	-67.71	2.86	-64.85	-13	-51.85	PK+	H
2	460.69	-73.07	4.33	-68.74	-13	-55.74	PK+	H
3	918.34	-68.72	14.97	-53.75	-13	-40.75	PK+	H
4	2148.9	-45.04	-8.89	-53.93	-13	-40.93	PK+	H
5	2972.9	-49.98	1.58	-48.4	-13	-35.4	PK+	H
6	6351.1	-57.73	6.33	-51.4	-13	-38.4	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	196.19	-67.96	2.38	-65.58	-13	-52.58	PK+	V
2	489.18	-68.27	4.21	-64.06	-13	-51.06	PK+	V
3	926.36	-65.92	13.48	-52.44	-13	-39.44	PK+	V
4	2076.2	-52.51	-8.56	-61.07	-13	-48.07	PK+	V
5	3043.3	-51.07	0.91	-50.16	-13	-37.16	PK+	V
6	6902.1	-53.36	7	-46.36	-13	-33.36	PK+	V

Lower700_Downlink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	231.16	-73.38	2.24	-71.14	-13	-58.14	PK+	H
2	518.79	-68.97	6.96	-62.01	-13	-49.01	PK+	H
3	892.94	-64.75	15.15	-49.6	-13	-36.6	PK+	H
4	2181	-41.25	-7.11	-48.36	-13	-35.36	PK+	H
5	2971.4	-51.69	-0.04	-51.73	-13	-38.73	PK+	H
6	6411.1	-54.05	5.04	-49.01	-13	-36.01	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	225.99	-71.43	3.68	-67.75	-13	-54.75	PK+	V
2	490.58	-63.79	4.03	-59.76	-13	-46.76	PK+	V
3	919.46	-66.49	14.25	-52.24	-13	-39.24	PK+	V
4	2162.7	-46	-6.77	-52.77	-13	-39.77	PK+	V
5	2978.2	-53.93	-0.05	-53.98	-13	-40.98	PK+	V
6	6890.9	-59.02	7.95	-51.07	-13	-38.07	PK+	V

Upper700_Uplink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	1608.1	-46.21	-12.25	-58.46	-13	-45.46	PK+	H
2	2275.8	-51.01	-8.97	-59.98	-13	-46.98	PK+	H
3	3033.7	-52.28	0.92	-51.36	-13	-38.36	PK+	H
4	3874.1	-49.5	-4.59	-54.09	-13	-41.09	PK+	H
5	6255.6	-53.02	5.35	-47.67	-13	-34.67	PK+	H
6	7887.6	-58.35	9.59	-48.76	-13	-35.76	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	1643	-48.95	-8.49	-57.44	-13	-44.44	PK+	V
2	2337.3	-52.97	-5.82	-58.79	-13	-45.79	PK+	V
3	3045.4	-56.05	-0.63	-56.68	-13	-43.68	PK+	V
4	4638.7	-52.52	-1.84	-54.36	-13	-41.36	PK+	V
5	7176.2	-54.63	4.86	-49.77	-13	-36.77	PK+	V
6	7988.1	-59.62	6.84	-52.78	-13	-39.78	PK+	V

Upper700_Downlink								
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	1567.6	-49.29	-8.75	-58.04	-13	-45.04	PK+	H
2	2327.6	-47.5	-8.53	-56.03	-13	-43.03	PK+	H
3	2971.9	-52.12	-1.62	-53.74	-13	-40.74	PK+	H
4	3895.7	-58.15	-1.54	-59.69	-13	-46.69	PK+	H
5	6317.2	-58.09	5.32	-52.77	-13	-39.77	PK+	H
6	7914.7	-55.62	9.18	-46.44	-13	-33.44	PK+	H
No.	Freq. (MHz)	Reading (dBm)	Corr. (dB)	Meas. (dBm)	Limit (dBm)	Margin (dB)	Det.	Pol.
1	1592.5	-51.77	-9.34	-61.11	-13	-48.11	PK+	V
2	2260.6	-55.06	-9.1	-64.16	-13	-51.16	PK+	V
3	3015	-56.78	0.99	-55.79	-13	-42.79	PK+	V
4	4632.6	-52.91	-1.59	-54.5	-13	-41.5	PK+	V
5	7180.7	-59.79	5.68	-54.11	-13	-41.11	PK+	V
6	7961.1	-59.22	9.03	-50.19	-13	-37.19	PK+	V

15. PHOTOGRAPHS OF TEST SETUP

Please refer to separated files for Test Setup Photos of the EUT.

16. EXTERNAL PHOTOGRAPHS OF THE EUT

Please refer to separated files for External Photos of the EUT.

17. INTERNAL PHOTOGRAPHS OF THE EUT

Please refer to separated files for Internal Photos of the EUT.

*****THE END*****