RADIO TEST REPORT

Report No.: STS2002188W18

Issued for

Winmate Inc.

9F, No.111-6, Shing-De Rd., San-Chung Dist., New Taipei City, 24158, Taiwan, R.O.C

Product Name:	Rugged Tablet PC
Brand Name:	Winmate
Model Name:	M700DQ8
Series Model:	M700XXXXXXXXXX (Where X can be A-Z,a-z ,0-9,"-", Blank or Slash)
FCC ID:	PX9M700DQ8002
Test Standard:	FCC Part 22H and 24E, 27

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Shenzhen STS Test Services Co., Ltd.
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TEST RESULT CERTIFICATION

Applicant's Name ..... :	Winmate Inc.
Address ..... :	9F, No.111-6, Shing-De Rd., San-Chung Dist., New Taipei City, 24158, Taiwan, R.O.C
Manufacture's Name ..... :	Winmate Inc.
Address ..... :	9F, No.111-6, Shing-De Rd., San-Chung Dist., New Taipei City, 24158, Taiwan, R.O.C

Product Description

Product Name ..... :	Rugged Tablet PC
Brand Name ..... :	Winmate
Model Name ..... :	M700DQ8
Series Model ..... :	M700XXXXXXXXXX(Where X can be A-Z,a-z ,0-9,"-", Blank or Slash)
Test Standards ..... :	FCC Part 22H and 24E, 27
Test Procedure ..... :	KDB 971168 D01 v03r01,ANSI C63.26(2015)

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
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Date of Test.....:

Date of receipt of test item.....:	27 Feb. 2020
Date (s) of performance of tests .:	27 Feb. 2020 ~ 10 June 2020
Date of Issue .....:	10 June 2020
Test Result .....:	Pass

Testing Engineer : Chris Chen
(Chris Chen)

Technical Manager : Sean She
(Sean she)

Authorized Signatory : Vita Li
(Vita Li)

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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	10 June 2020	STS2002188W18	ALL	Initial Issue

SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

The radiated emission testing was performed according to the procedures of KDB 971168 D01 v03r01 and ANSI C63.26(2015)

FCC Rules	Test Description	Test Limit	Test Result	Reference
2.1046	Conducted OutputPower	Reporting Only	PASS	
22.913d 24.232d	Peak-to-AverageRatio	< 13 dB	PASS	
2.1046 22.913 24.232 27.50	Effective Radiated Power/Equivalent Isotropic Radiated Power	< 7 Watts max. ERP(Part 22) < 2 Watts max. EIRP(Part 24) <1 Watts max. EIRP(Part 27)	PASS	
2.1049 22.917 24.238 27.53	Occupied Bandwidth	Reporting Only	PASS	
2.1055 22.355 24.235 27.54	Frequency Stability	< 2.5 ppm (Part 22) Emission must remain in band (Part 24) Emission must remain in band (Part 27)	PASS	
2.1051 22.917 24.238 27.53	Spurious Emission at Antenna Terminals	< 43+10log10(P[Watts])	PASS	
2.1053 22.917 24.238 27.53	Field Strength of Spurious Radiation	< 43+10log10(P[Watts])	PASS	
2.1051 22.917 24.238 27.53	Band Edge	< 43+10log10(P[Watts])	PASS	

1 INTRODUCTION

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD
Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China
FCC test Firm Registration Number: 625569
IC test Firm Registration Number: 12108A
A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements ofANSI C63.4-2014. All measurement uncertainty values are shown with a coverage factor of k = 2 toindicate a 95% level of confidence. The measurement data shown herein meets or exceeds the UCISPRmeasurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly tospecified limits to determine compliance.

No.	Item	Uncertainty
1	RF output power, conducted	±0.68dB
2	Unwanted Emissions, conducted	±2.988dB
3	All emissions, radiated 30-1GHz	±6.7dB
4	All emissions, radiated 1G-6GHz	±5.5dB
5	All emissions, radiated>6G	±5.8dB
6	Conducted Emission (9KHz-150KHz)	±4.43dB
7	Conducted Emission (150KHz-30MHz)	±5dB

2 PRODUCT INFORMATION

Product Name	Rugged Tablet PC
Trade Name	Winmate
Model Name	M700DQ8
Series Model	M700XXXXXXXXXX(Where X can be A-Z,a-z ,0-9,"-", Blank or Slash)
Model Difference	Only for marketing purpose
Tx Frequency:	WCDMA: Band V: 824 MHz ~ 849 MHz Band II: 1850 MHz ~ 1910 MHz Band IV: 1710 MHz ~ 1755 MHz
Rx Frequency:	WCDMA: Band V: 869 MHz ~ 894 MHz Band II: 1930 MHz ~ 1990 MHz Band IV: 2110 MHz ~ 2155 MHz
Max RF Output Power:	WCDMA Band V:22.83dBm, WCDMA Band II:23.24dBm WCDMA Band IV:23.47dBm
Type of Emission:	WCDMA850: 4M14F9W WCDMA1900: 4M15F9W WCDMA1700: 4M13F9W
Modulation Characteristics:	WCDMA: QPSK; HSDPA:QPSK/16QAM; HSUPA:BPSK
Power Class:	Power class 3
SIM Card:	Only support single SIM Card.
Antenna:	PIFA
Antenna gain:	WCDMA 850: 2dBi, WCDMA1900: 2dBi, WCDMA1700: 2dBi
Battery parameter:	Rated Voltage: 3.7 V Charge Limit: 4.2 V Capacity: 5300 mAh
Adapter:	Input: AC 100-240V, 50/60 Hz, 0.6A Output: DC 5V 3 A
Extreme Vol. Limits:	DC 3.33V~ DC 4.2V(Normal: DC 3.7V)
Extreme Temp. Tolerance:	-30℃ to +50℃
Hardware version number:	M700DQ8-300
Software version number:	M700DQ8_MB200_STD_P_SIE_200131
*** Note: The High Voltage 4.2V and Low Voltage 3.33V was declared by manufacturer, The EUT couldn't be operate normally with higher or lower voltage.*	

3 TEST CONFIGURATION OF EQUIPMENT UNDER TEST

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 and ANSI C63.26 2015 Power Meas. License Digital Systems with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 10th harmonic for WCDMA Band V.

2. 30 MHz to 10th harmonic for WCDMA Band IV.

3. 30 MHz to 10th harmonic for WCDMA Band II.

All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

	TEST MODES	
BAND	RADIATED TCS	CONDUCTED TCS
WCDMA BAND V	RMC 12.2KBPS LINK	RMC 12.2KBPS LINK
WCDMA BAND II	RMC 12.2KBPS LINK	RMC 12.2KBPS LINK
WCDMA BAND IV	RMC 12.2KBPS LINK	RMC 12.2KBPS LINK

Note: the battery is full-charged during the radited and RF conducted test.

4 MEASUREMENT INSTRUMENTS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2019.07.29	2020.07.28
Signal Analyzer	Agilent	N9020A	MY51110105	2020.03.05	2021.03.04
Wireless Communications Test Set	R&S	CMW 500	133884	2020.03.05	2021.03.04
Bilog Antenna	TESEQ	CBL6111D	34678	2017.11.02	2020.11.01
Horn Antenna	SCHWARZBECK	BBHA 9120D(1201)	9120D-1343	2018.10.19	2021.10.18
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2018.03.11	2021.03.10
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2019.10.09	2020.10.08
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2019.10.12	2020.10.11
Turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Temperature & Humidity	HH660	Mieo	N/A	2019.10.12	2020.10.11
Test SW	BULUN	BL410-E/18.905			

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Universal Radio communication tester	R&S	CMU200	11764	2019.10.11	2020.10.10
Wireless Communications Test Set	R&S	CMW 500	133884	2020.03.05	2021.03.04
Signal Analyzer	Agilent	N9020A	MY49100060	2019.10.09	2020.10.08
Temperature & Humidity	HH660	Mieo	N/A	2019.10.12	2020.10.11
Test SW	FARAD	LZ-RF /LzRf-3A3			

Equipment with a calibration date of “NCR” shown in this list was not used to make direct calibrated measurements.

5 TEST ITEMS

5.1 CONDUCTED OUTPUT POWER

Test overview

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

Test procedures

1. The transmitter output port was connected to the system simulator.

2. Set eut at maximum power through the system simulator.

3. Select lowest, middle, and highest channels for each band and different modulation.

4. Measure and record the power level from the system simulator.

Test setup

5.2 PEAK TO AVERAGE RATIO

TEST OVERVIEW

According to §24.232(d), power measurements for transmissions by stations authorized under this section may be made either in accordance with a commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 db.

TEST PROCEDURES

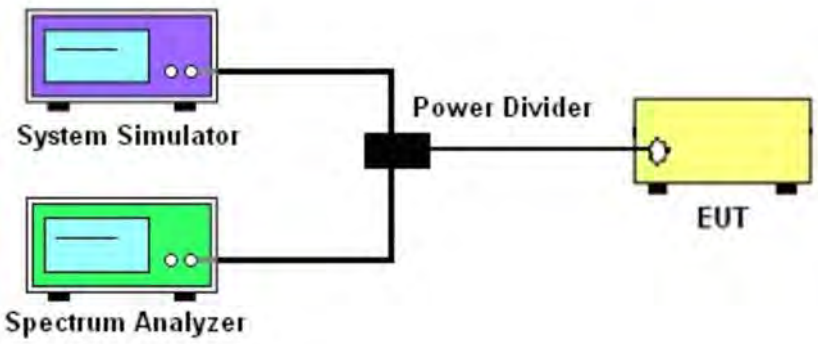
1. The testing follows fcckdb 971168 v03r01 section

2. The eut was connected to the and peak and av system simulator& spectrum analysis reads

3. Select lowest, middle, and highest channels for each band and different modulation.

4. Set the test probe and measure average power of the spectrum analysis

TEST SETUP



5.3 TRANSMITTER RADIATED POWER (EIRP/ERP)

TEST OVERVIEW

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI C63.26 2015 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

TEST PROCEDURE

1. The testing follows FCC KDB 971168 Section 5.8 and ANSI C63.26-2015 Section 5.2.
2. The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.
3. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
4. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
5. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a nonradiating cable. The absolute levels of the spurious emissions were measured by the substitution.
6. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to ANSI C63.26-2015. The EUT was replaced by the substitution antenna at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna.

The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain – Analyzer reading.
Then the EUT's EIRP/ERP was calculated with the correction factor, EIRP = P.SG + GT – LC,
ERP=EIRP-2.15 in radiated method
ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMe as, typically dBW or dBm);
PMeas(PK) = measured transmitter output power or PSD, in dBm or dBW;
GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

5.4 OCCUPIED BANDWIDTH

TEST OVERVIEW

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

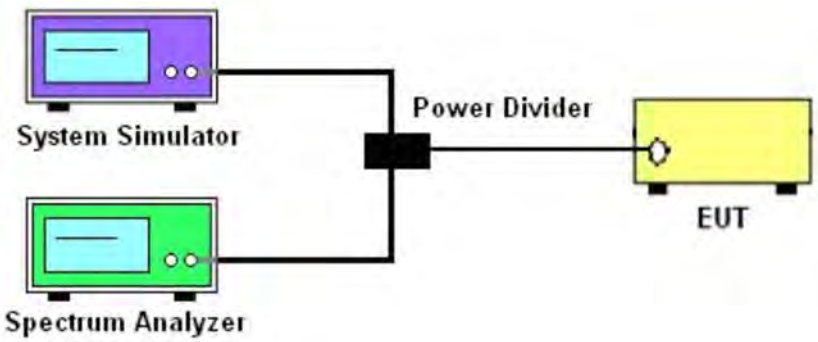
The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

All modes of operation were investigated and the worst case configuration results are reported in this section.

TEST PROCEDURE

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5% of the expected OBW
3. VBW ≥ 3 x RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5% of the 99% occupied bandwidth observed in Step 7

TEST SETUP



5.5 FREQUENCY STABILITY

Test Overview

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26 2015. The frequency stability of the transmitter is measured by:

a.) Temperature: The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.

b.) Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 22, the frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5 ppm) of the center frequency. For Part 24 the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure

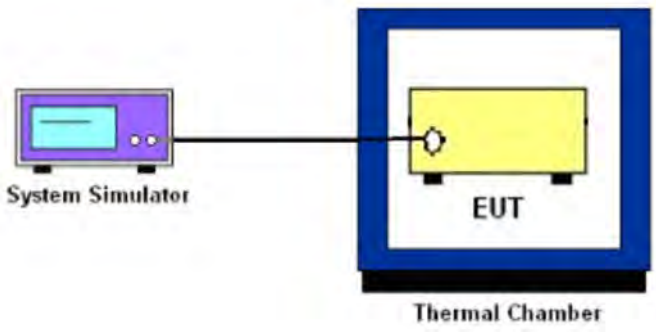
Temperature Variation

1. The testing follows fcckdb 971168 D01 section 9.0
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C steps up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

Voltage Variation

1. The testing follows FCC KDB 971168 D01 Section 9.0.
2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

TEST SETUP



5.6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Overview

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

Test procedure

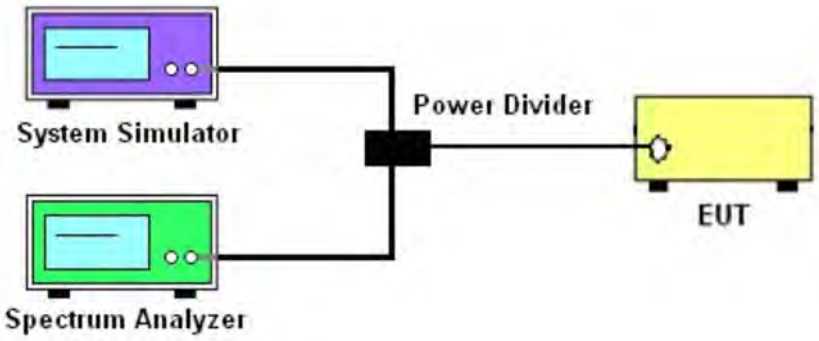
1. The testing FCC KDB 971168 D01 v03r01 Section 6.0. and ANSI C63.26-2015-Section 5.5
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

= P(W) - [43 + 10log(P)] (dB)

= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)

= -13dBm.

Test Setup



5.7 BAND EDGE

OVERVIEW

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The minimum permissible attenuation level of any spurious emission is 43 + log10(P[Watts]), where P is the transmitter power in Watts.

TEST PROCEDURE

1. The testing FCC KDB 971168 D01 v03r01 Section 6.0. and ANSI C63.26-2015-Section 5.7
2. Start and stop frequency were set such that the band edge would be placed in the center of the Plot.
3. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
4. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator.

The path loss was compensated to the results for each measurement.

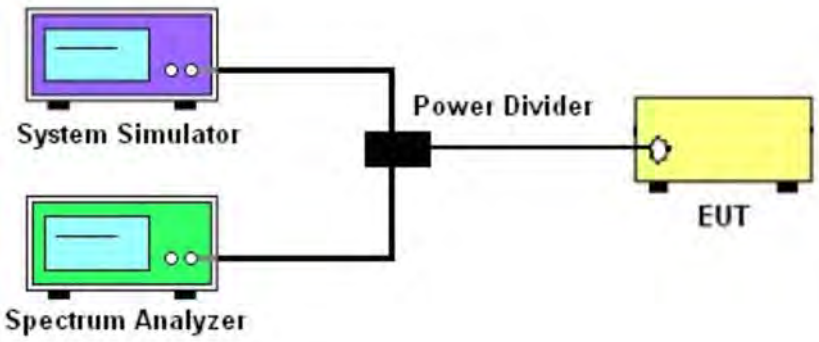
5. The band edges of low and high channels for the highest RF powers were measured.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

= P(W) - [43 + 10log(P)] (dB)

= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)

= -13dBm.

TEST SETUP



5.8 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

Test overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signalsoperating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas.Measurements on signals operating above 1GHz are performed using vertically and horizontally polarizedhorn antennas. All measurements are performed as peak measurements while the EUT isoperating at maximum power and at the appropriate frequencies.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

Test procedure

1. The testing FCC KDB 971168 D01 Section 5.8 and ANSI C63.26-2015-Section 5.5.
2. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
3. VBW ≥ 3 x RBW
4. Span = 1.5 times the OBW
5.No. of sweep points > 2 x span/RBW
6. Detector = Peak
7. Trace mode = max hold
8. The trace was allowed to stabilize
9. Effective Isotropic Spurious Radiation was measured by substitution method according to TIA/EIA-603-D. The EUT was replaced by the substitution antenna at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna.

The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain – Analyzer reading. Then the EUT's EIRP/ERP was calculated with the correction factor, ERP/EIRP = P.SG + GT – LC

ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, t ypically dBW or dBm);

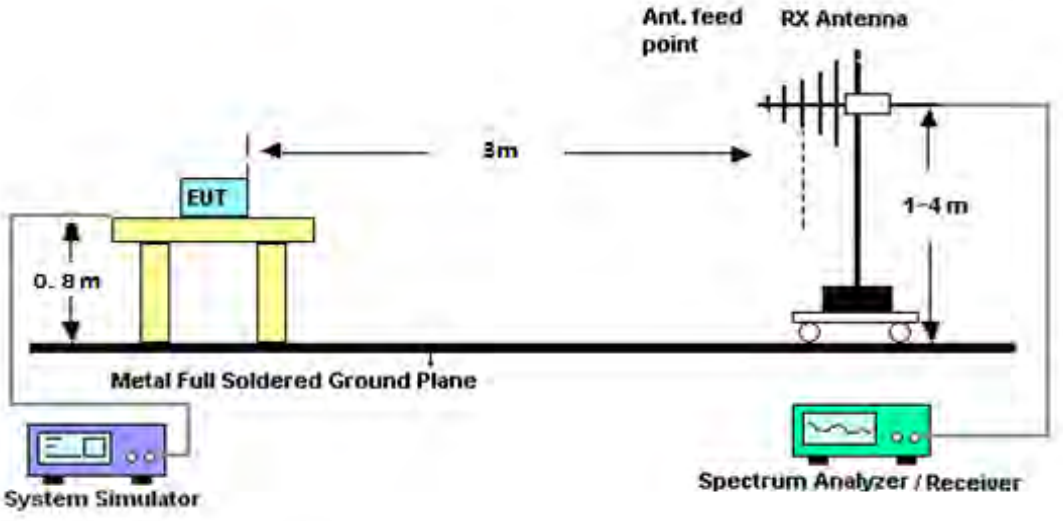
P.SG = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

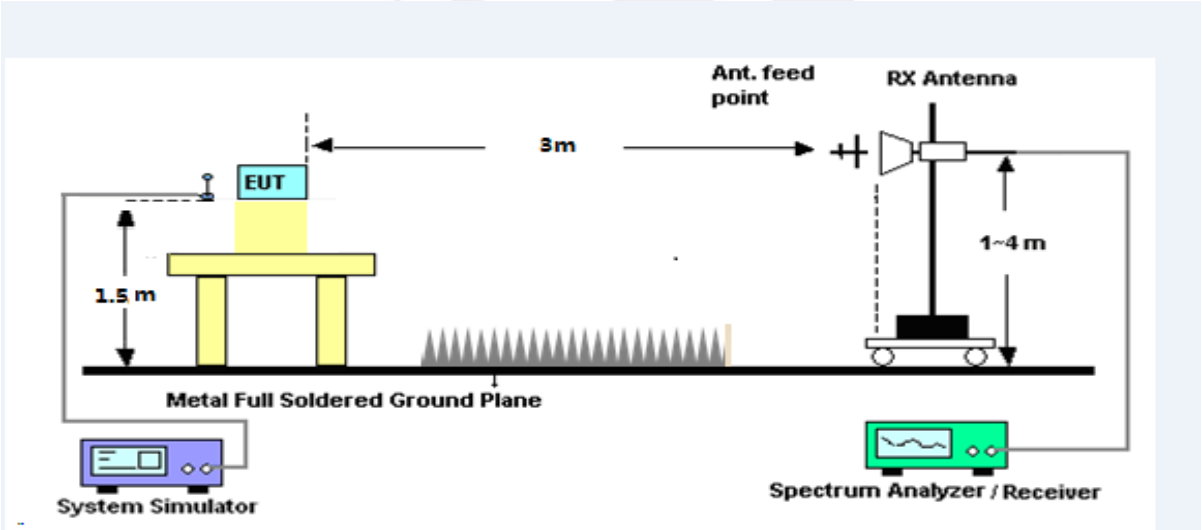
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

TEST SETUP

For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



APPENDIX A.TESTRESULT
A1.CONDUCTED OUTPUT POWER
UMTS BAND V

UMTS BAND V		
Mode	Frequency(MHz)	AVG Power
WCDMA 850 RMC	826.4	22.39
	836.6	22.45
	846.6	22.83
HSDPA Subtest 1	826.4	22.47
	836.6	22.52
	846.6	22.38
HSDPA Subtest 2	826.4	21.97
	836.6	22.09
	846.6	21.94
HSDPA Subtest 3	826.4	21.58
	836.6	21.61
	846.6	21.53
HSDPA Subtest 4	826.4	21.11
	836.6	21.23
	846.6	21.03
HSUPA Subtest 1	826.4	21.43
	836.6	21.68
	846.6	21.79
HSUPA Subtest 2	826.4	20.60
	836.6	20.71
	846.6	20.84
HSUPA Subtest 3	826.4	20.57
	836.6	20.21
	846.6	20.47
HSUPA Subtest 4	826.4	20.19
	836.6	19.71
	846.6	20.09
HSUPA Subtest 5	826.4	18.76
	836.6	18.26
	846.6	18.67

UMTS BAND II

UMTS BAND II		
Mode	Frequency(MHz)	AVG Power
WCDMA 1900 RMC	1852.4	23.24
	1880	22.87
	1907.6	22.90
HSDPA Subtest 1	1852.4	22.41
	1880	22.63
	1907.6	22.35
HSDPA Subtest 2	1852.4	21.97
	1880	22.13
	1907.6	21.93
HSDPA Subtest 3	1852.4	21.65
	1880	21.67
	1907.6	21.60
HSDPA Subtest 4	1852.4	21.27
	1880	21.18
	1907.6	21.20
HSUPA Subtest 1	1852.4	22.21
	1880	21.97
	1907.6	22.43
HSUPA Subtest 2	1852.4	21.40
	1880	21.01
	1907.6	21.44
HSUPA Subtest 3	1852.4	21.39
	1880	20.59
	1907.6	21.03
HSUPA Subtest 4	1852.4	20.96
	1880	20.24
	1907.6	20.72
HSUPA Subtest 5	1852.4	19.52
	1880	18.75
	1907.6	19.25

UMTS BAND IV

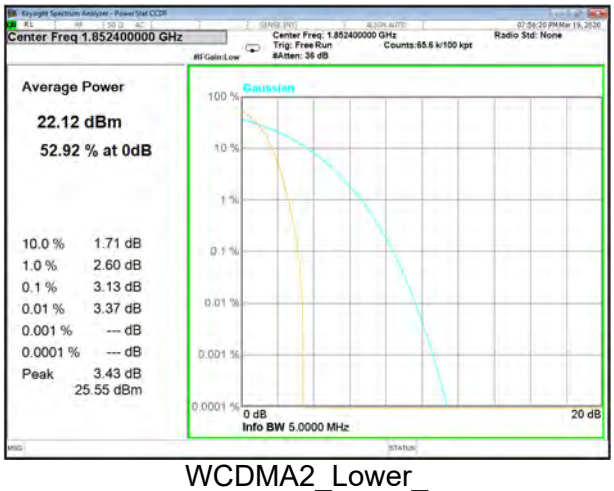
UMTS BAND IV		
Mode	Frequency(MHz)	AVG Power
WCDMA 1700 RMC	1712.6	23.22
	1740	22.71
	1752.4	23.47
HSDPA Subtest 1	1712.6	22.49
	1740	22.65
	1752.4	22.68
HSDPA Subtest 2	1712.6	22.07
	1740	22.22
	1752.4	22.27
HSDPA Subtest 3	1712.6	21.64
	1740	21.75
	1752.4	21.80
HSDPA Subtest 4	1712.6	21.18
	1740	21.30
	1752.4	21.44
HSUPA Subtest 1	1712.6	22.21
	1740	22.30
	1752.4	22.47
HSUPA Subtest 2	1712.6	21.29
	1740	21.37
	1752.4	21.55
HSUPA Subtest 3	1712.6	21.12
	1740	20.97
	1752.4	21.15
HSUPA Subtest 4	1712.6	20.63
	1740	20.50
	1752.4	20.77
HSUPA Subtest 5	1712.6	19.21
	1740	19.02
	1752.4	19.36

A2. PEAK-TO-AVERAGE RADIO

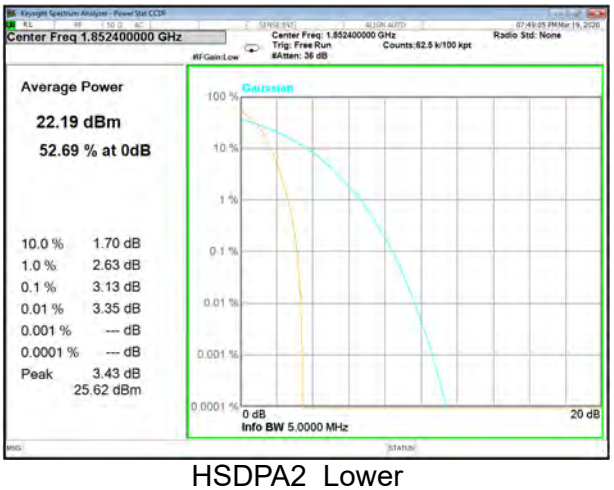
UMTS Band II		
Mode	Frequency (MHz)	PAR
WCDMA 1900 RMC	1852.4	3.13
	1880	3.06
	1907.6	3.19
HSDPA 1900	1852.4	3.13
	1880	3.12
	1907.6	3.09
HSUPA 1900	1852.4	3.38
	1880	3.26
	1907.6	3.50

UMTS Band V		
Mode	Frequency (MHz)	PAR
WCDMA 850 RMC	826.4	3.09
	836.6	3.22
	846.6	3.30
HSDPA 850	826.4	3.23
	836.6	3.34
	846.6	3.43
HSUPA 850	826.4	3.10
	836.6	3.18
	846.6	3.17

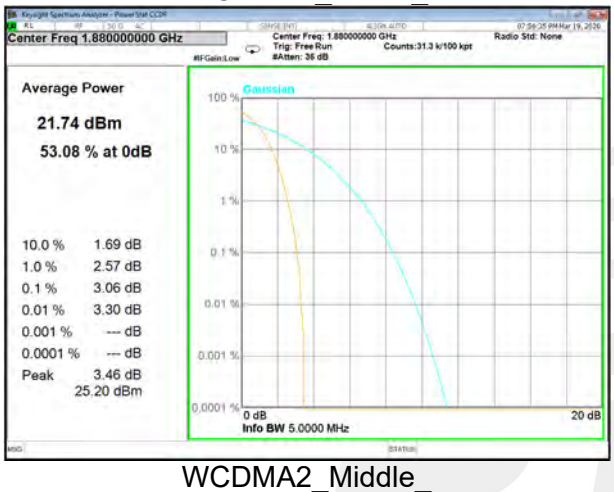
UMTS Band IV		
Mode	Frequency (MHz)	PAR
WCDMA 1700 RMC	1712.6	3.12
	1740	3.01
	1752.4	3.00
HSDPA 1700	1712.6	3.18
	1740	2.99
	1752.4	3.01
HSUPA 1700	1712.6	3.27
	1740	3.35
	1752.4	3.26



WCDMA2_Lower_

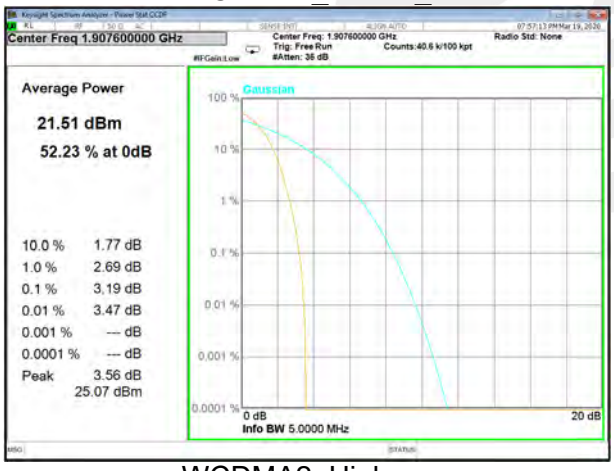


HSDPA2_Lower_

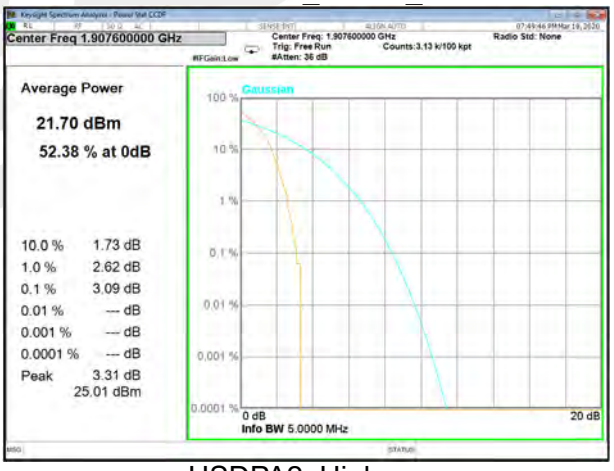


WCDMA2_Middle_

HSDPA2_Middle_



WCDMA2_Higher_



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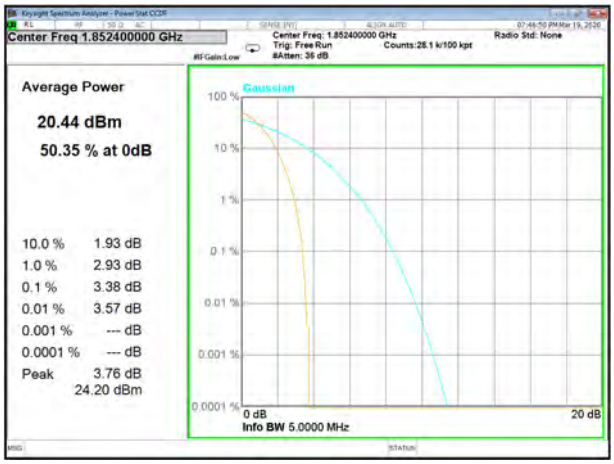

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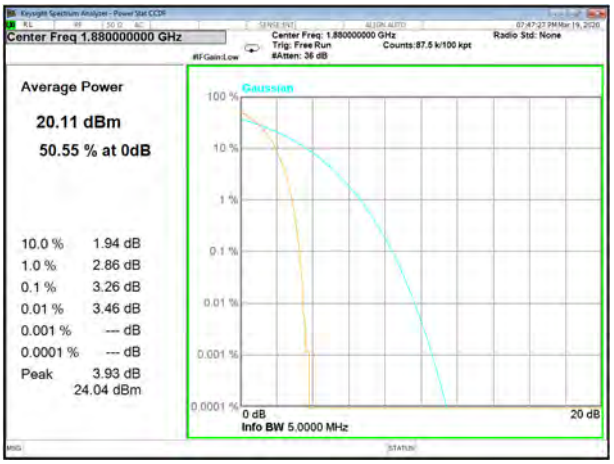

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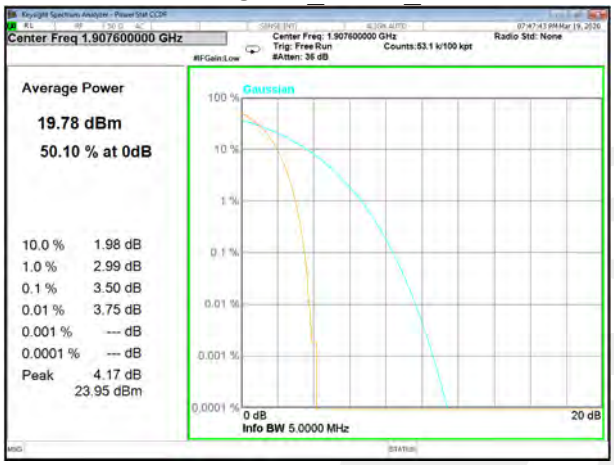

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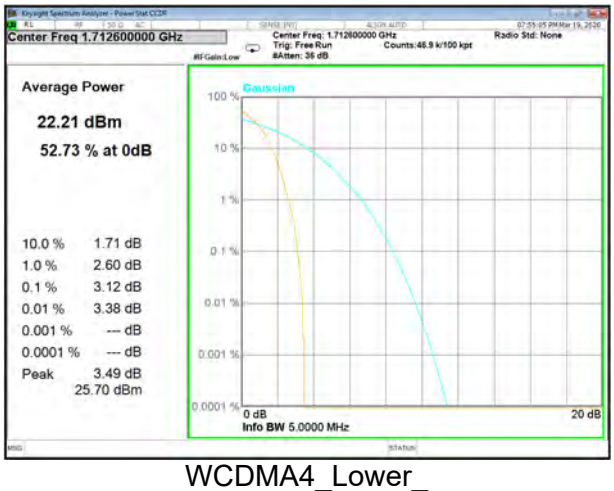
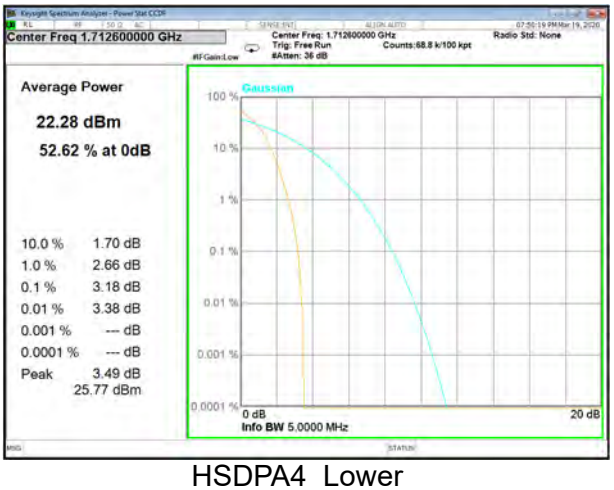


WCDMA4_Lower_



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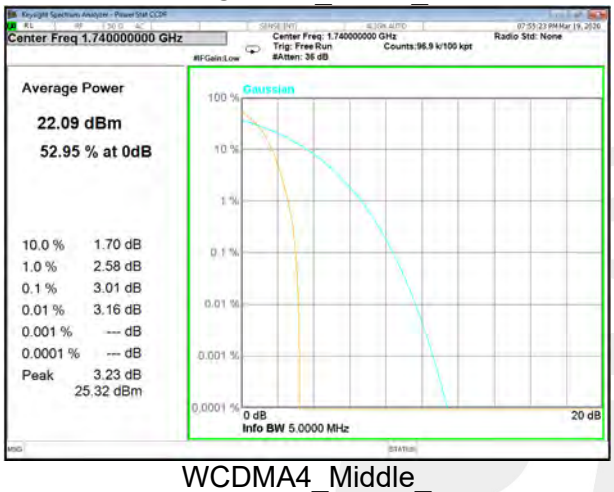

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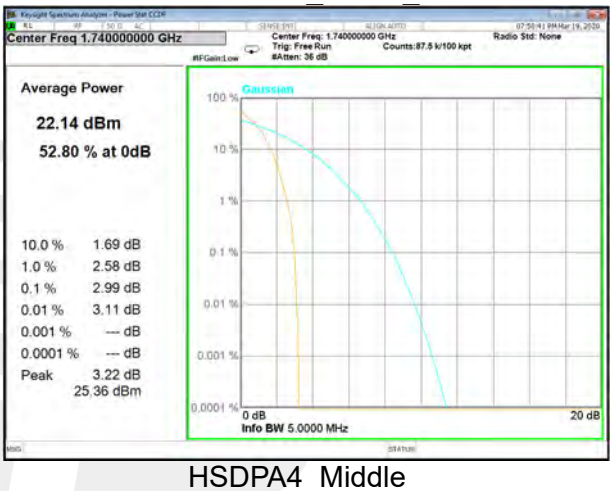

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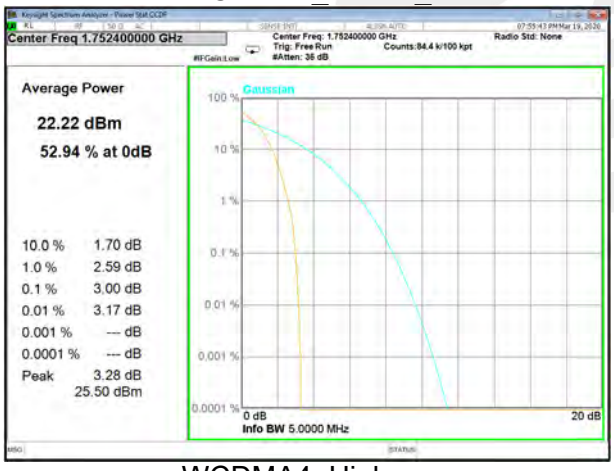
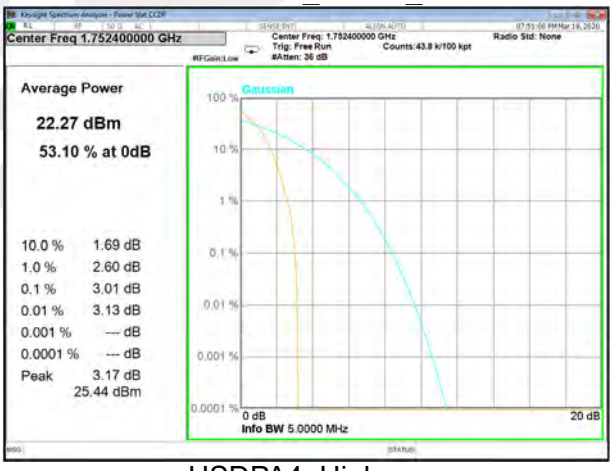
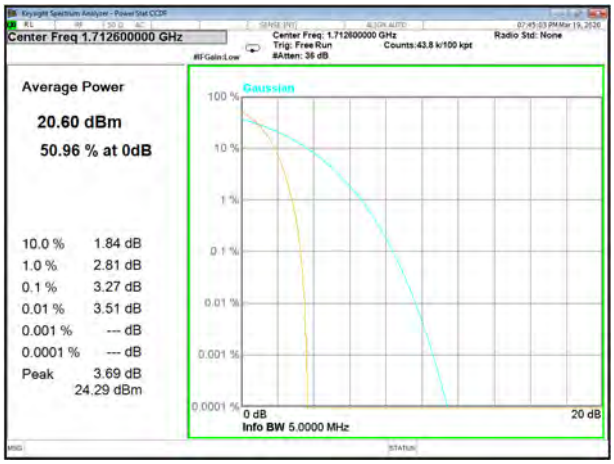


WCDMA4_Higher_



HSDPA4_Higher_



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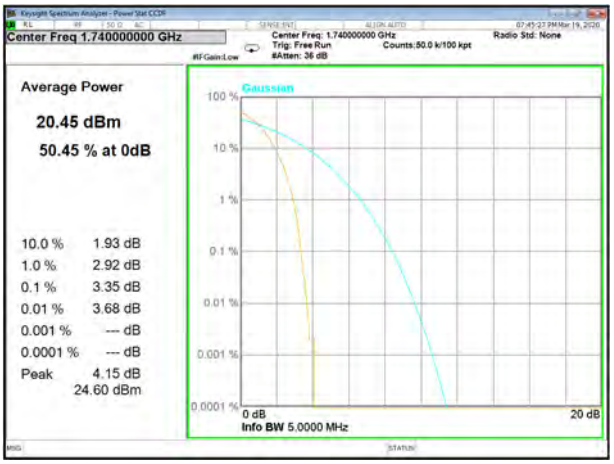

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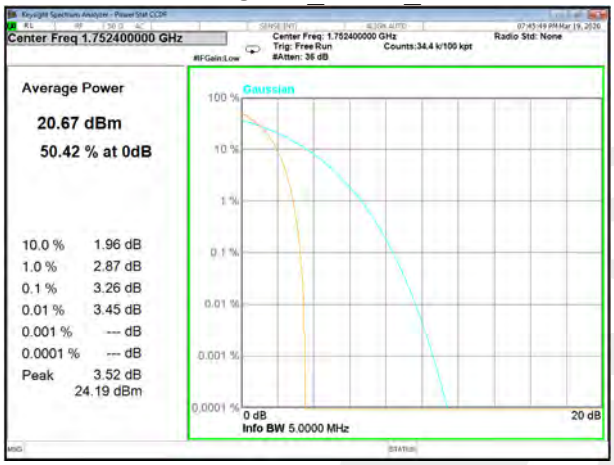
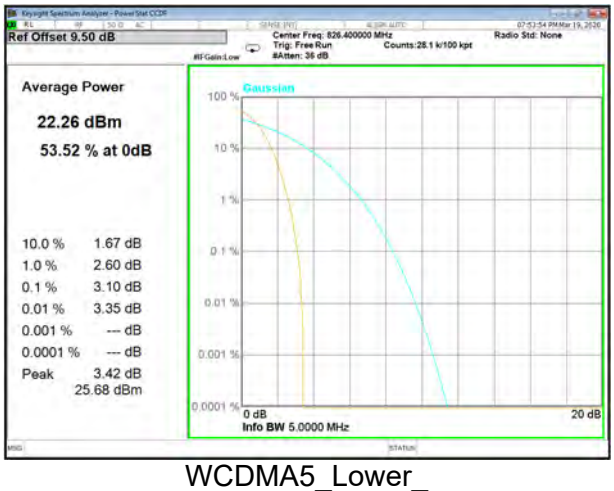
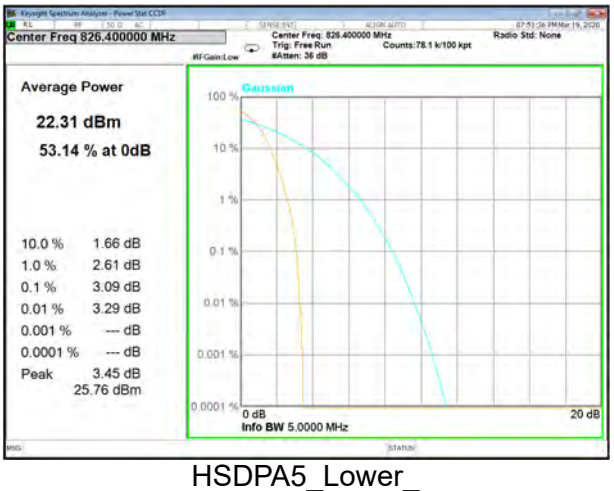


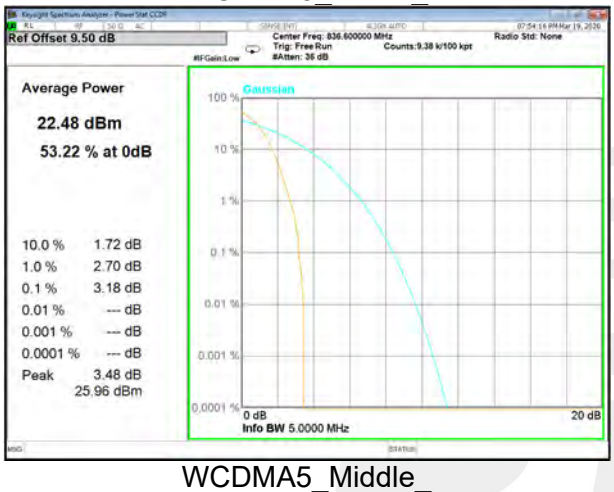
HSUPA4_Higher_



WCDMA5_Lower_

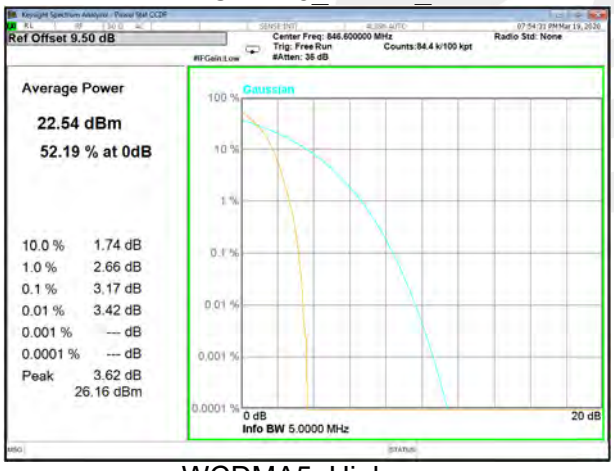


HSDPA5_Lower_

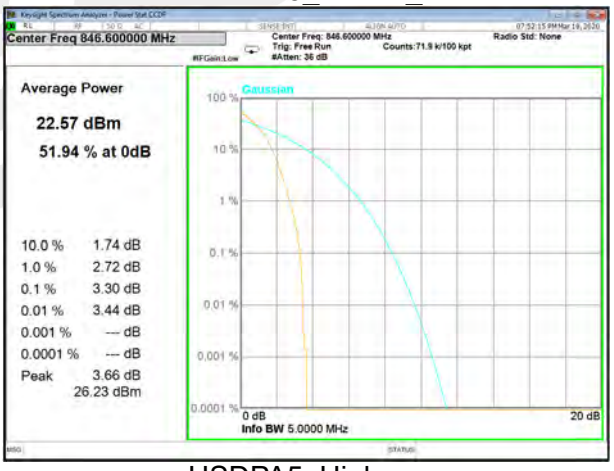


WCDMA5_Middle_

HSDPA5_Middle_



WCDMA5_Higher_



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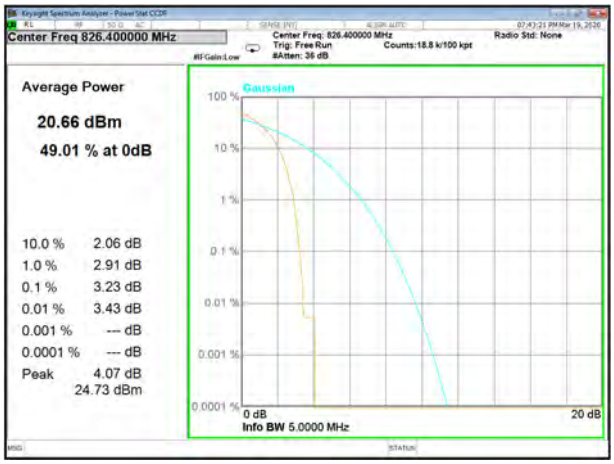

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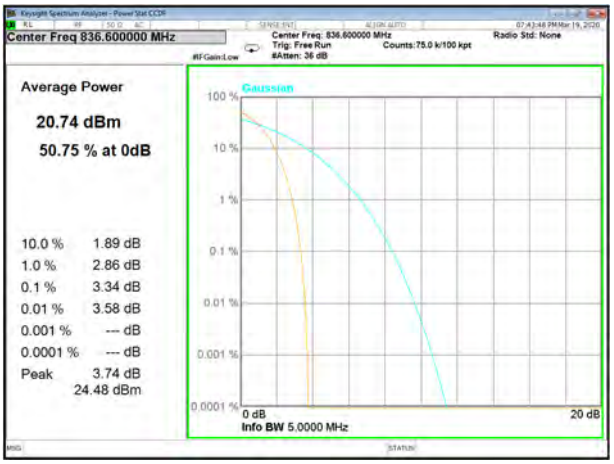
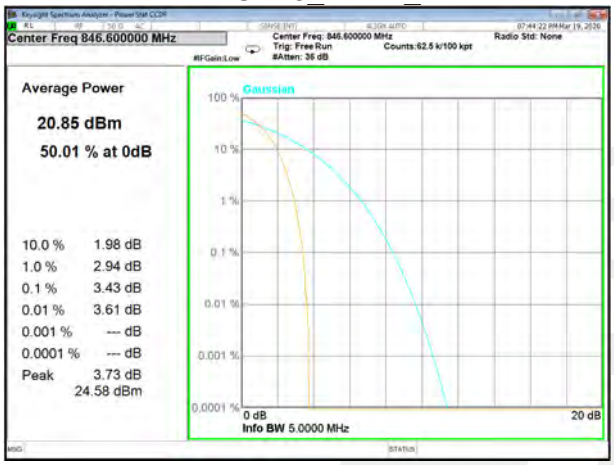


HSUPA5_Middle_



HSUPA5_Higher_

A3. TRANSMITTER RADIATED POWER (EIRP/ERP)

Note:Test is divided into three directions, X/Y/Z. X pattern for the worst

Radiated Power (EIRP) for WCDMA Band II							
Mode	Frequency	Result					Conclusion
		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P.(dBm)	Polarization Of Max. ERP	
WCDMA	1852.4	12.73	2.41	10.35	20.67	Horizontal	Pass
	1852.4	14.66	2.41	10.35	22.60	Vertical	Pass
	1880	12.43	2.42	10.35	20.36	Horizontal	Pass
	1880	14.25	2.42	10.35	22.18	Vertical	Pass
	1907.4	12.33	2.43	10.35	20.25	Horizontal	Pass
	1907.4	14.33	2.43	10.35	22.25	Vertical	Pass
HSUPA	1852.4	12.01	2.41	10.35	19.95	Horizontal	Pass
	1852.4	13.97	2.41	10.35	21.91	Vertical	Pass
	1880	12.11	2.42	10.35	20.04	Horizontal	Pass
	1880	13.81	2.42	10.35	21.74	Vertical	Pass
	1907.4	11.98	2.43	10.35	19.90	Horizontal	Pass
	1907.4	13.77	2.43	10.35	21.69	Vertical	Pass
HSDPA	1852.4	11.43	2.41	10.35	19.37	Horizontal	Pass
	1852.4	13.37	2.41	10.35	21.31	Vertical	Pass
	1880	11.28	2.42	10.35	19.21	Horizontal	Pass
	1880	13.28	2.42	10.35	21.21	Vertical	Pass
	1907.4	11.79	2.43	10.35	19.71	Horizontal	Pass
	1907.4	13.69	2.43	10.35	21.61	Vertical	Pass
Limit	EIRP<2W=33dBm						

Radiated Power (ERP) for WCDMA Band V								
Mode	Frequency	Result						Conclusion
		S G.Level (dBm)	Cable loss	Gain (dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
WCDMA	826.4	13.96	0.44	6.5	2.15	17.87	Horizontal	Pass
	826.4	15.81	0.44	6.5	2.15	19.72	Vertical	Pass
	836.6	13.87	0.45	6.5	2.15	17.77	Horizontal	Pass
	836.6	15.85	0.45	6.5	2.15	19.75	Vertical	Pass
	846.4	14.49	0.46	6.5	2.15	18.38	Horizontal	Pass
	846.4	16.28	0.46	6.5	2.15	20.17	Vertical	Pass
HSUPA	826.4	13.93	0.44	6.5	2.15	17.84	Horizontal	Pass
	826.4	15.73	0.44	6.5	2.15	19.64	Vertical	Pass
	836.6	13.94	0.45	6.5	2.15	17.84	Horizontal	Pass
	836.6	15.76	0.45	6.5	2.15	19.66	Vertical	Pass
	846.4	13.92	0.46	6.5	2.15	17.81	Horizontal	Pass
	846.4	15.70	0.46	6.5	2.15	19.59	Vertical	Pass
HSDPA	826.4	13.00	0.44	6.5	2.15	16.91	Horizontal	Pass
	826.4	14.72	0.44	6.5	2.15	18.63	Vertical	Pass
	836.6	13.07	0.45	6.5	2.15	16.97	Horizontal	Pass
	836.6	14.99	0.45	6.5	2.15	18.89	Vertical	Pass
	846.4	13.33	0.46	6.5	2.15	17.22	Horizontal	Pass
	846.4	15.16	0.46	6.5	2.15	19.05	Vertical	Pass
Limit	ERP<7W=38.45dBm							

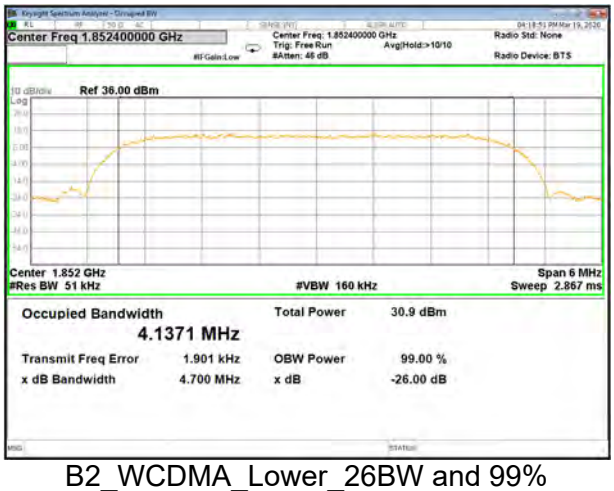
Radiated Power (EIRP) for WCDMA Band IV							
Mode	Frequency	Result					Conclusion
		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P.(dBm)	Polarization Of Max. ERP	
WCDMA	1712.6	12.5	2.07	10.13	20.56	Horizontal	Pass
	1712.6	14.29	2.07	10.13	22.35	Vertical	Pass
	1740	11.9	2.08	10.13	19.95	Horizontal	Pass
	1740	13.76	2.08	10.13	21.81	Vertical	Pass
	1752.4	13.05	2.09	10.13	21.09	Horizontal	Pass
	1752.4	14.88	2.09	10.13	22.92	Vertical	Pass
HSUPA	1712.6	12.12	2.07	10.13	20.18	Horizontal	Pass
	1712.6	13.83	2.07	10.13	21.89	Vertical	Pass
	1740	12.12	2.08	10.13	20.17	Horizontal	Pass
	1740	14.05	2.08	10.13	22.10	Vertical	Pass
	1752.4	12.04	2.09	10.13	20.08	Horizontal	Pass
	1752.4	13.95	2.09	10.13	21.99	Vertical	Pass
HSDPA	1712.6	11.67	2.07	10.13	19.73	Horizontal	Pass
	1712.6	13.37	2.07	10.13	21.43	Vertical	Pass
	1740	11.75	2.08	10.13	19.80	Horizontal	Pass
	1740	13.68	2.08	10.13	21.73	Vertical	Pass
	1752.4	11.75	2.09	10.13	19.79	Horizontal	Pass
	1752.4	13.56	2.09	10.13	21.60	Vertical	Pass
Limit	EIRP<3W=34.78dBm						

A4. OCCUPIED BANDWIDTH (99% OCCUPIED BANDWIDTH/26dB BANDWIDTH)

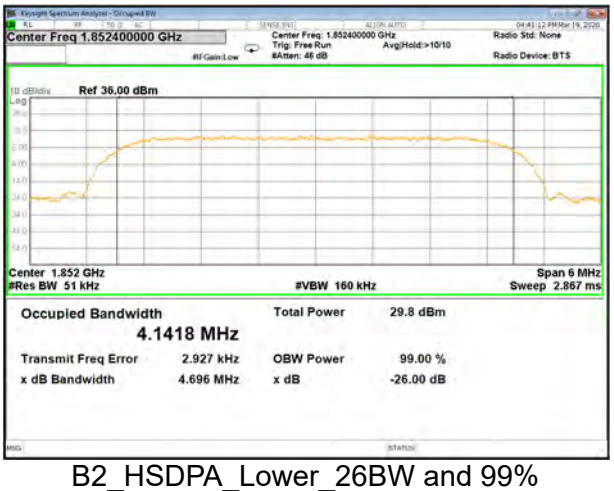
WCDMA Bandwidth [MHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
WCDMA II	4.137	4.7	4.142	4.703	4.1509	4.705
HSDPA II	4.142	4.696	4.1414	4.712	4.14	4.697
HSUPA II	4.147	4.701	4.146	4.691	4.153	4.694

WCDMA Bandwidth [MHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
WCDMA V	4.129	4.695	4.1269	4.679	4.137	4.687
HSDPA V	4.132	4.692	4.131	4.675	4.128	4.676
HSUPA V	4.1315	4.69	4.135	4.701	4.128	4.692

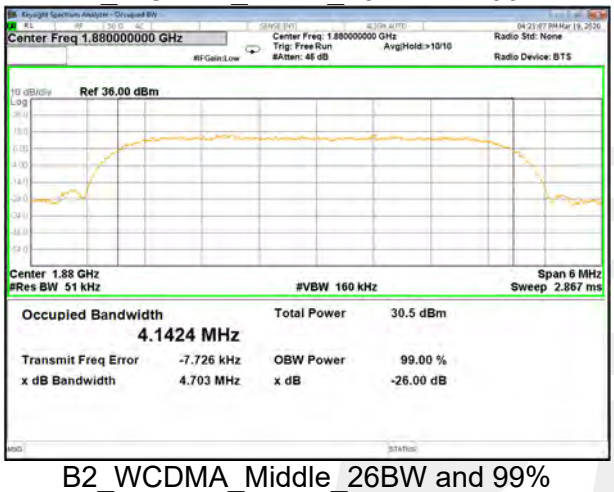
WCDMA Bandwidth [MHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
WCDMA IV	4.133	4.675	4.121	4.686	4.1254	4.684
HSDPA IV	4.13	4.681	4.133	4.694	4.132	4.695
HSUPA IV	4.1349	4.706	4.133	4.689	4.1334	4.69



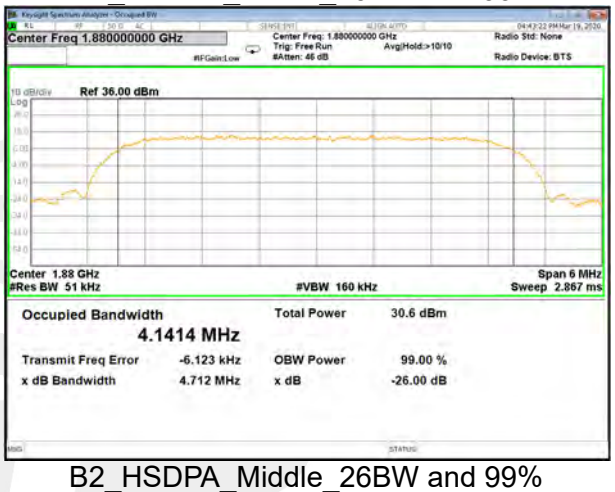
B2_WCDMA_Lower_26BW and 99%



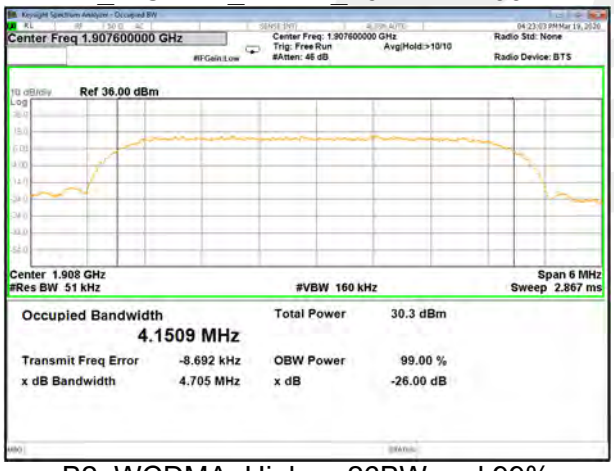
B2_HSDPA_Lower_26BW and 99%



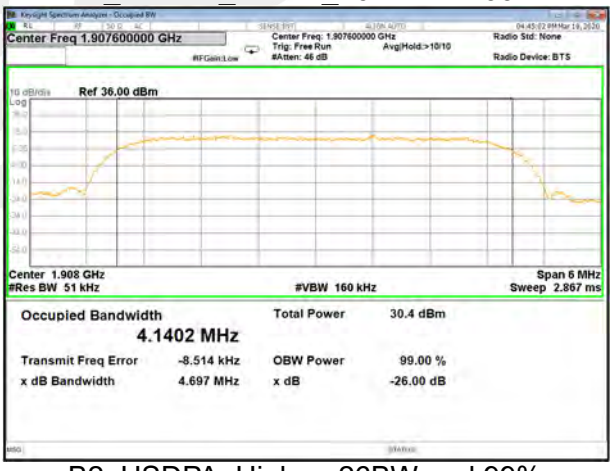
B2_WCDMA_Middle_26BW and 99%



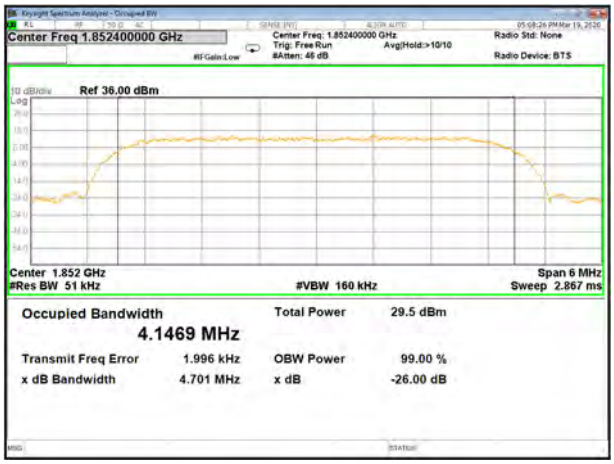
B2_HSDPA_Middle_26BW and 99%



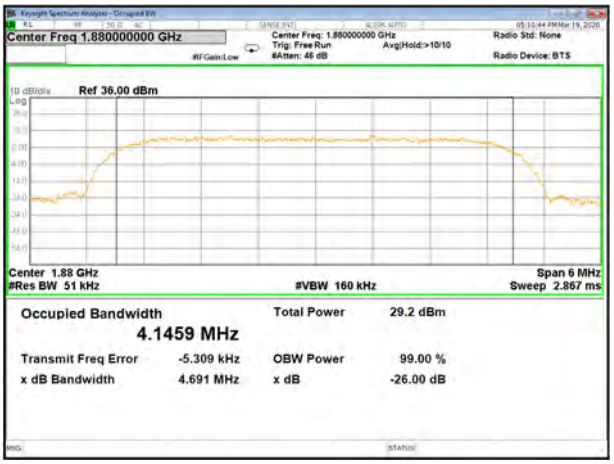
B2_WCDMA_Higher_26BW and 99%



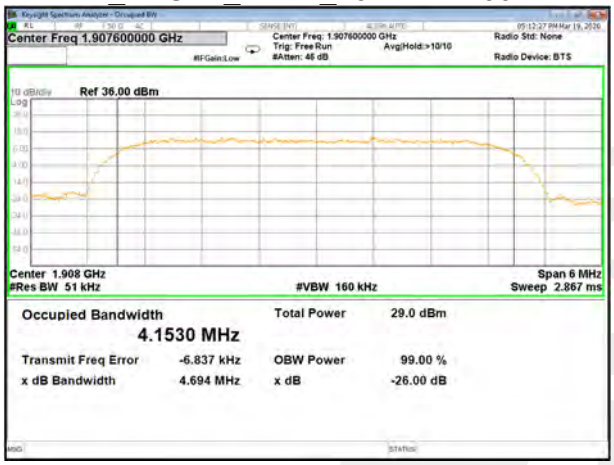
B2_HSDPA_Higher_26BW and 99%



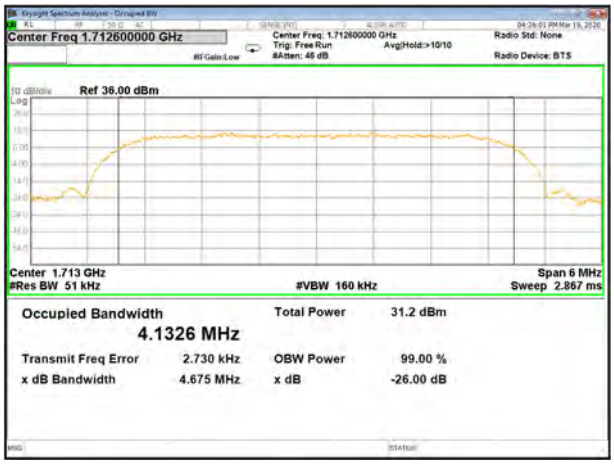
B2_HSUPA_Lower_26BW and 99%



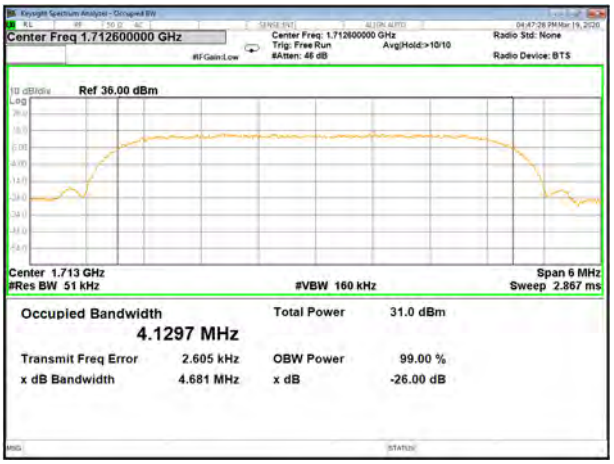
B2_HSUPA_Middle_26BW and 99%



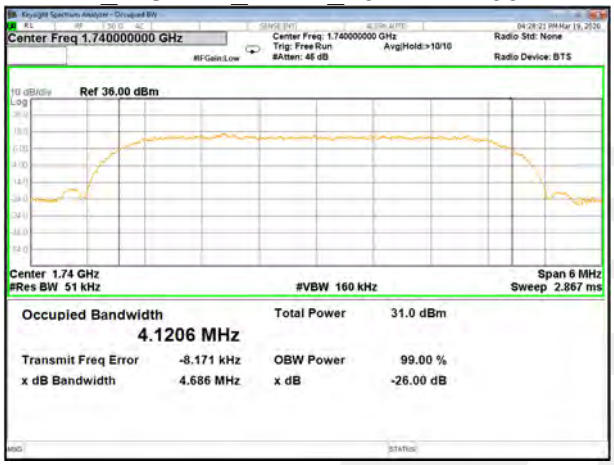
B2_HSUPA_Higher_26BW and 99%



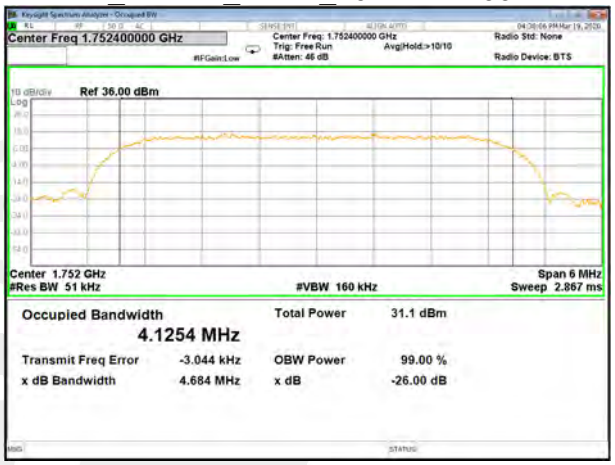
B4_WCDMA_Lower_26BW and 99%



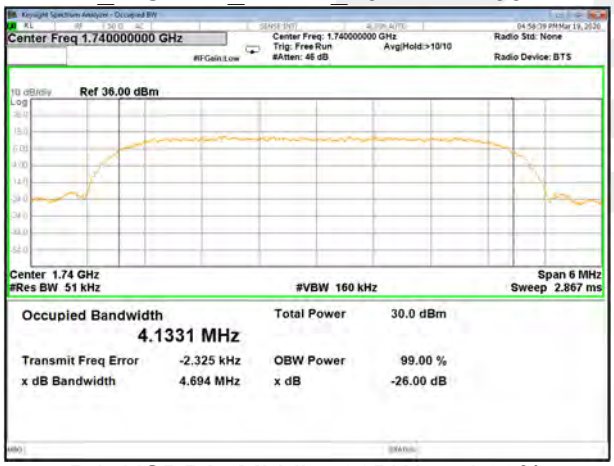
B4_HSDPA_Lower_26BW and 99%



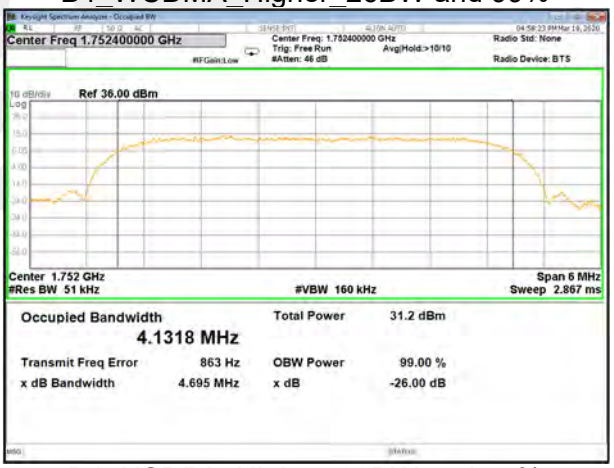
B4_WCDMA_Middle_26BW and 99%



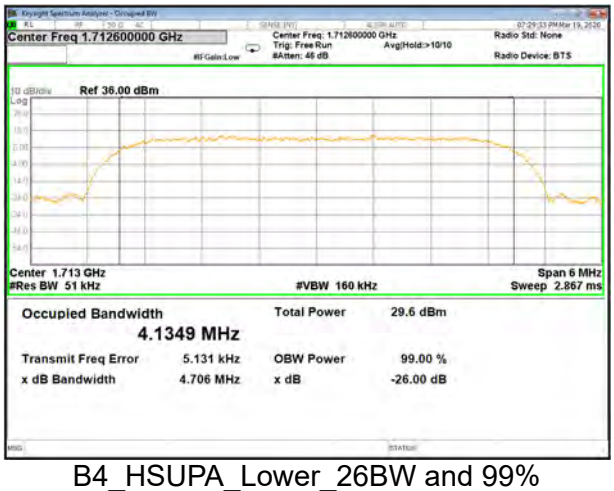
B4_WCDMA_Higher_26BW and 99%



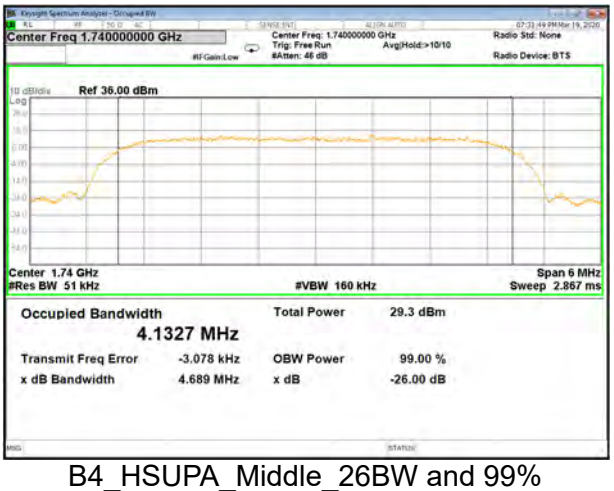
B4_HSDPA_Middle_26BW and 99%



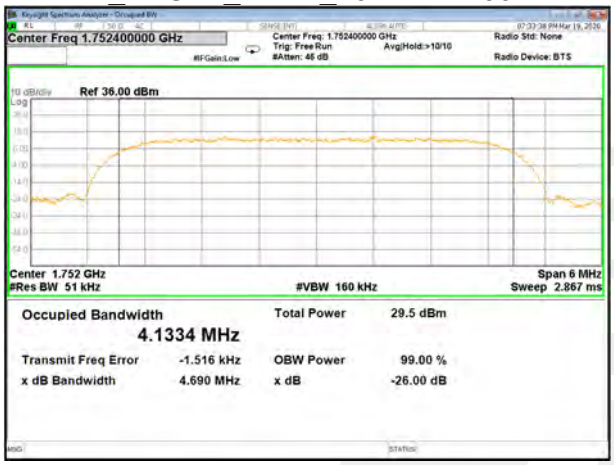
B4_HSDPA_Higher_26BW and 99%



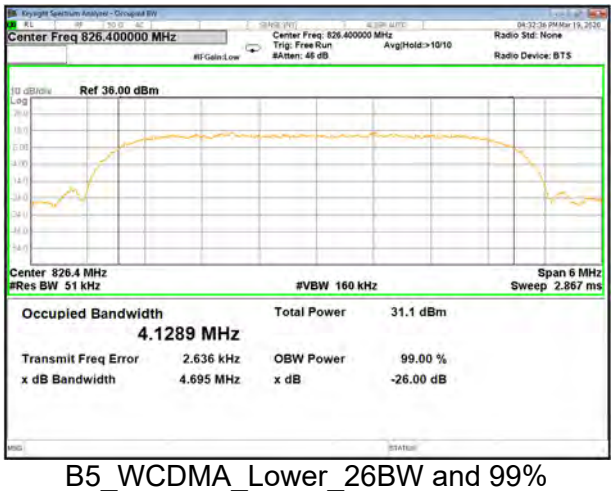
B4_HSUPA_Lower_26BW and 99%



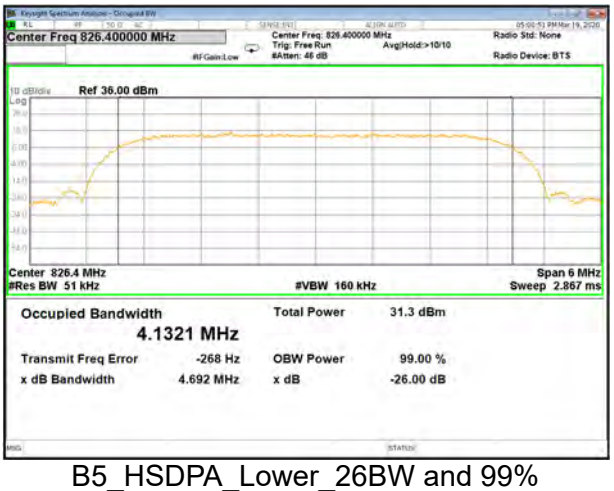
B4_HSUPA_Middle_26BW and 99%



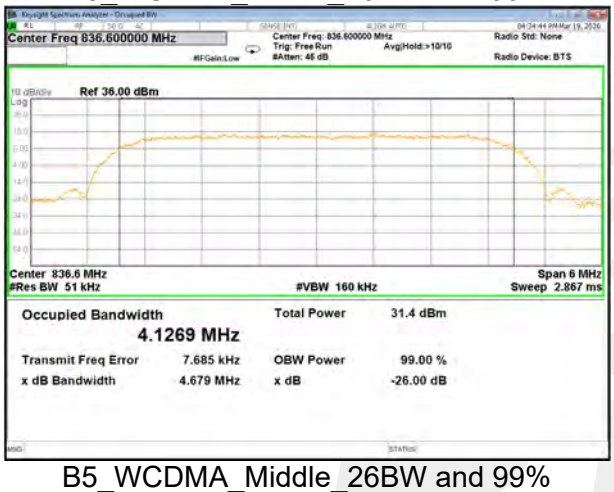
B4_HSUPA_Higher_26BW and 99%



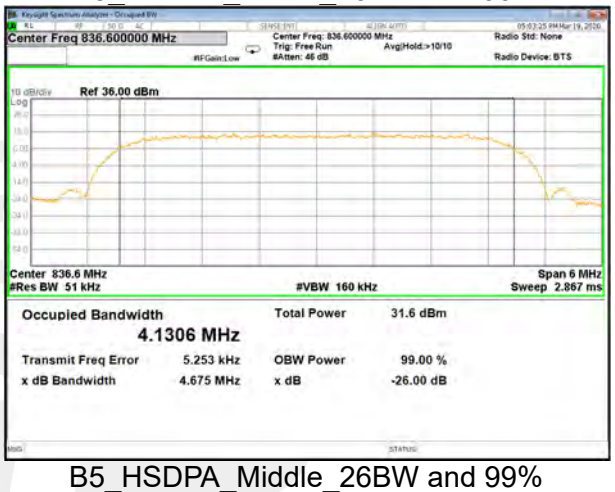
B5_WCDMA_Lower_26BW and 99%



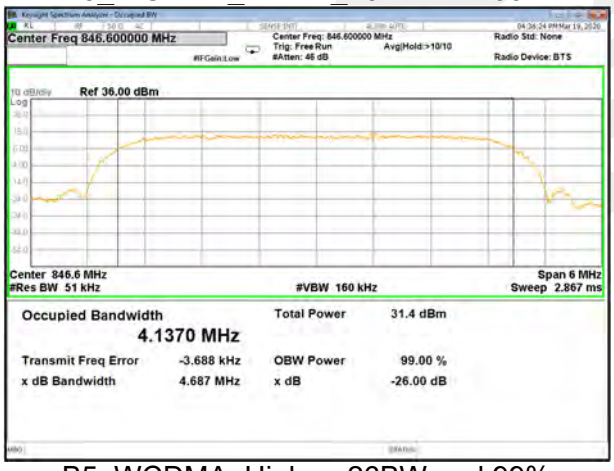
B5_HSDPA_Lower_26BW and 99%



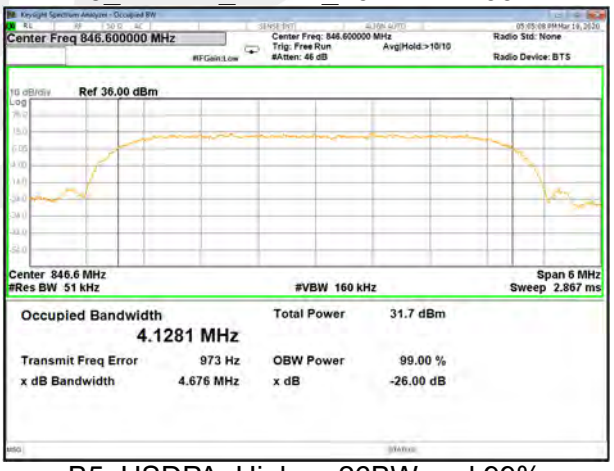
B5_WCDMA_Middle_26BW and 99%



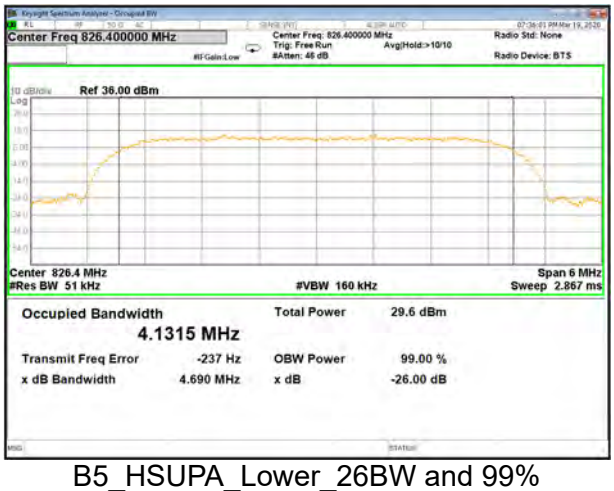
B5_HSDPA_Middle_26BW and 99%



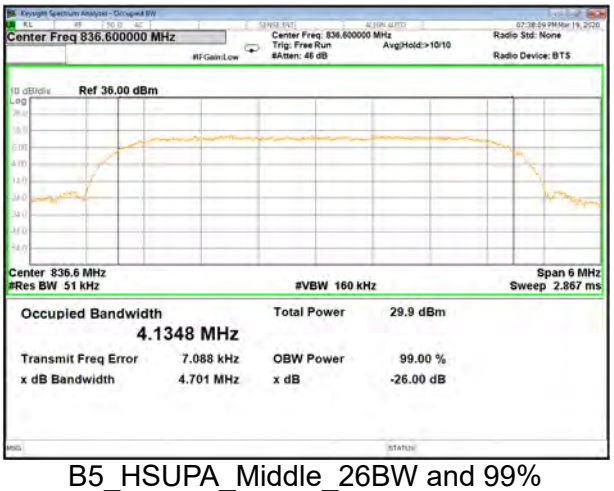
B5_WCDMA_Higher_26BW and 99%



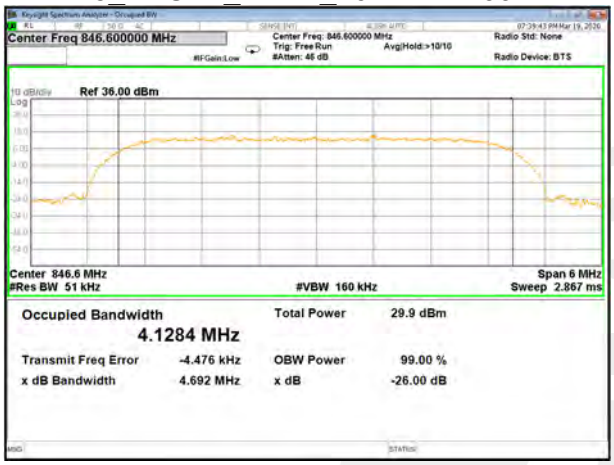
B5_HSDPA_Higher_26BW and 99%



B5_HSUPA_Lower_26BW and 99%



B5_HSUPA_Middle_26BW and 99%



B5_HSUPA_Higher_26BW and 99%

A5.FREQUENCY STABILITY

UMTS Band II /1880MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	12.30	0.007	Within Authorized Band	PASS
40		18.84	0.010		
30		27.29	0.015		
20		12.32	0.007		
10		16.58	0.009		
0		13.51	0.007		
-10		30.81	0.016		
-20		31.91	0.017		
-30		16.40	0.009		
25	Maximum Voltage	28.04	0.015		
25	BEP	22.16	0.012		

HSDPA Band II /1880MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	36.43	0.019	Within Authorized Band	PASS
40		24.13	0.013		
30		16.11	0.009		
20		28.82	0.015		
10		22.47	0.012		
0		20.60	0.011		
-10		13.84	0.007		
-20		25.78	0.014		
-30		17.34	0.009		
25	Maximum Voltage	26.73	0.014		
25	BEP	18.80	0.010		

HSUPA Band II /1880MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	30.29	0.016	Within Authorized Band	PASS
40		26.92	0.014		
30		20.91	0.011		
20		33.60	0.018		
10		29.27	0.016		
0		19.01	0.010		
-10		22.41	0.012		
-20		28.71	0.015		
-30		28.11	0.015		
25	Maximum Voltage	31.11	0.017		
25	BEP	29.54	0.016		

UMTS Band V / 836.6MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	20.98	0.025	2.5ppm	PASS
40		12.57	0.015		
30		28.55	0.034		
20		26.38	0.032		
10		23.14	0.028		
0		24.85	0.030		
-10		31.44	0.038		
-20		35.42	0.042		
-30		35.49	0.042		
25	Maximum Voltage	29.21	0.035		
25	BEP	20.72	0.025		

HSDPA Band V / 836.6MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev.	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	12.89	0.015	2.5ppm	PASS
40		14.04	0.017		
30		30.04	0.036		
20		29.14	0.035		
10		27.59	0.033		
0		31.29	0.037		
-10		18.86	0.023		
-20		14.29	0.017		
-30		25.15	0.030		
25	Maximum Voltage	24.33	0.029		
25	BEP	22.07	0.026		

HSUPA Band V / 836.6MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	16.69	0.020	2.5ppm	PASS
40		12.60	0.015		
30		12.63	0.015		
20		13.06	0.016		
10		33.07	0.040		
0		36.48	0.044		
-10		33.90	0.041		
-20		31.55	0.038		
-30		27.62	0.033		
25	Maximum Voltage	13.58	0.016		
25	BEP	14.44	0.017		

UMTS Band IV /1740MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	31.67	0.017	Within Authorized Band	PASS
40		28.24	0.015		
30		34.38	0.018		
20		15.81	0.008		
10		19.14	0.010		
0		21.81	0.012		
-10		25.94	0.014		
-20		20.96	0.011		
-30		23.33	0.012		
25	Maximum Voltage	16.15	0.009		
25	BEP	21.68	0.012		

HSDPA Band IV /1740MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	30.29	0.016	Within Authorized Band	PASS
40		33.15	0.018		
30		32.36	0.017		
20		36.20	0.019		
10		12.76	0.007		
0		25.57	0.014		
-10		24.89	0.013		
-20		14.77	0.008		
-30		20.87	0.011		
25	Maximum Voltage	17.73	0.009		
25	BEP	28.98	0.015		

HSUPA Band IV /1740MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	27.48	0.015	Within Authorized Band	PASS
40		33.30	0.018		
30		24.25	0.013		
20		12.81	0.007		
10		18.64	0.010		
0		34.42	0.018		
-10		27.66	0.015		
-20		29.15	0.016		
-30		15.78	0.008		
25	Maximum Voltage	36.18	0.019		
25	BEP	21.13	0.011		

1. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

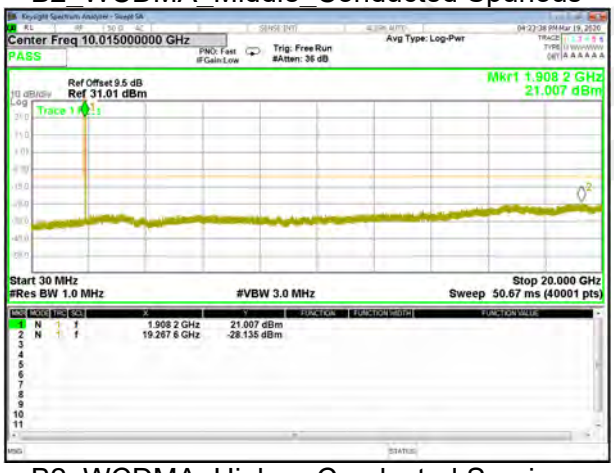
A6. SPURIOUS EMISSIONS AT ANTENNA TERMINALS

B2_WCDMA_Lower_Conducted Spurious

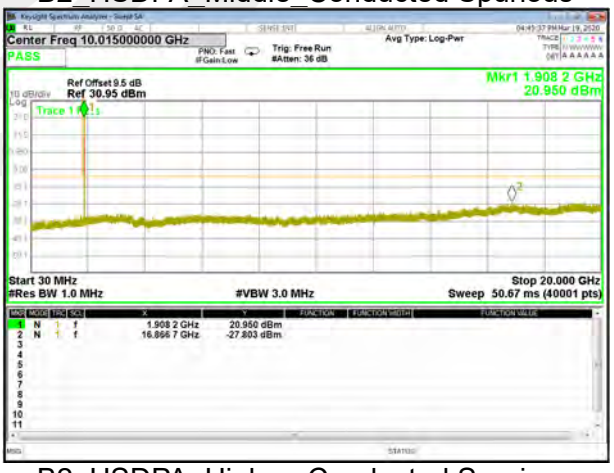
B2_HSDPA_Lower_Conducted Spurious

B2_WCDMA_Middle_Conducted Spurious

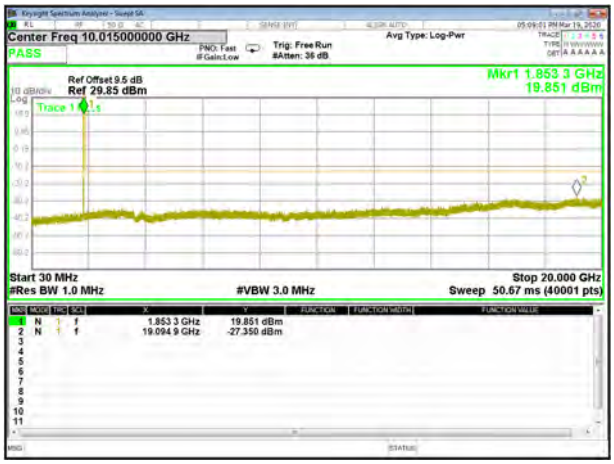
B2_HSDPA_Middle_Conducted Spurious



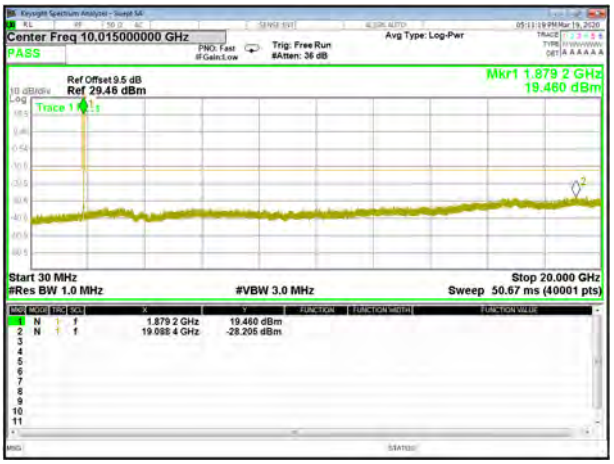
B2_WCDMA_Higher_Conducted Spurious



B2_HSDPA_Higher_Conducted Spurious

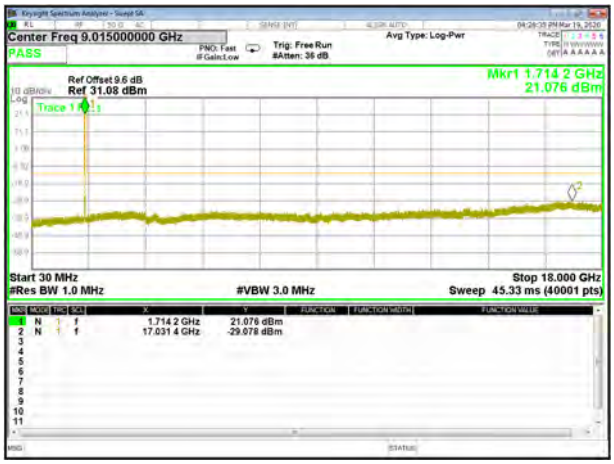


B2_HSUPA_Lower_Conducted Spurious

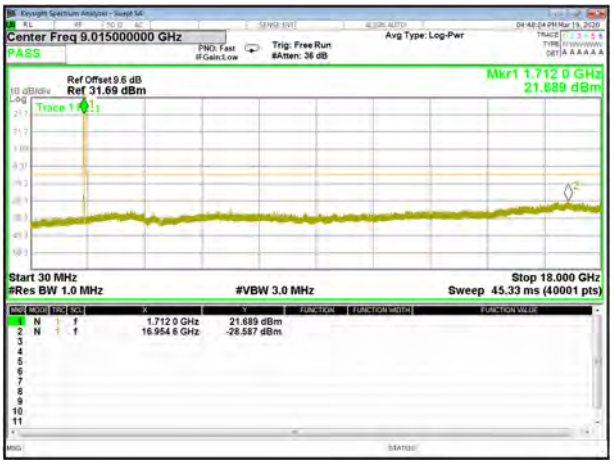


B2_HSUPA_Middle_Conducted Spurious

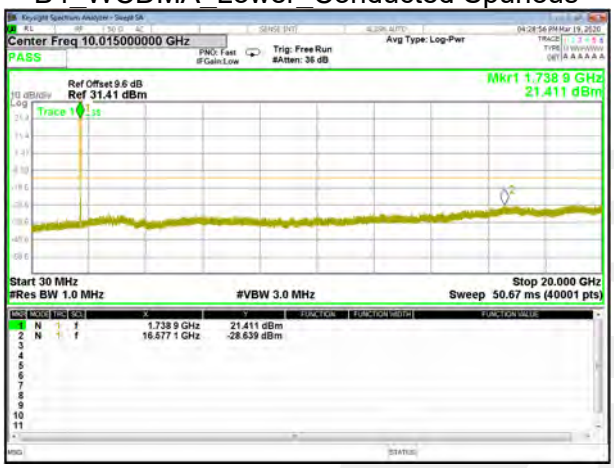
B2_HSUPA_Higher_Conducted Spurious



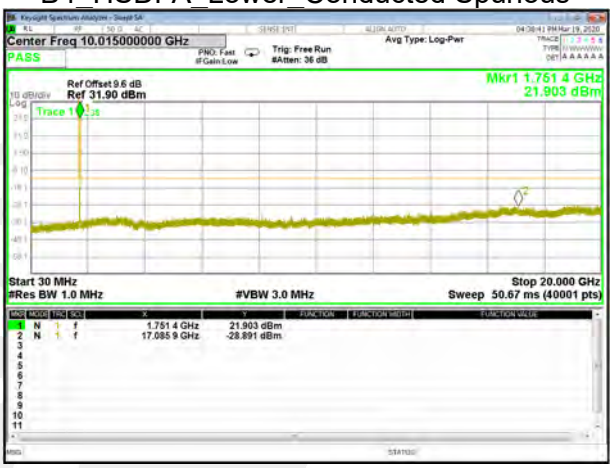
B4_WCDMA_Lower_Conducted Spurious



B4_HSDPA_Lower_Conducted Spurious

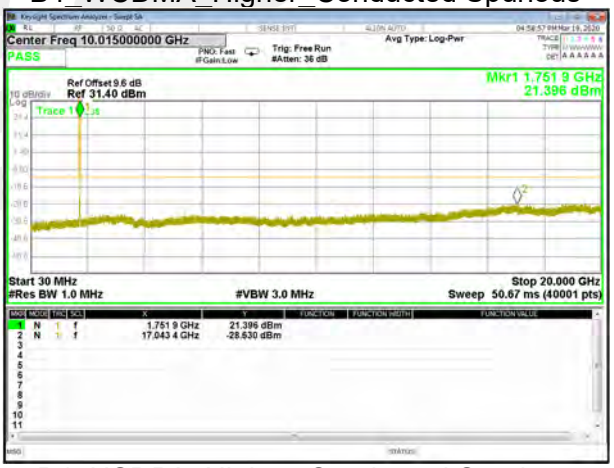


B4_WCDMA_Middle_Conducted Spurious

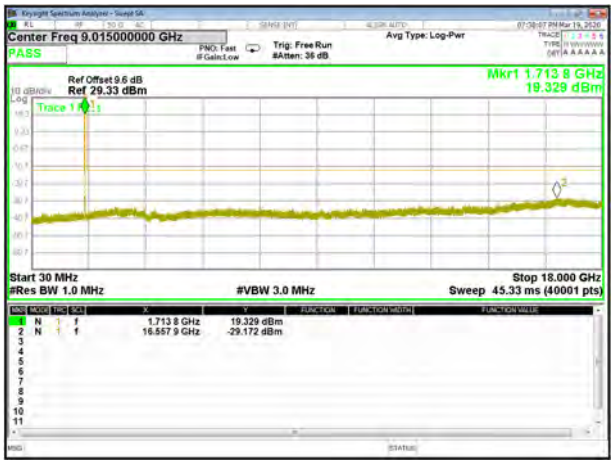


B4_WCDMA_Higher_Conducted Spurious

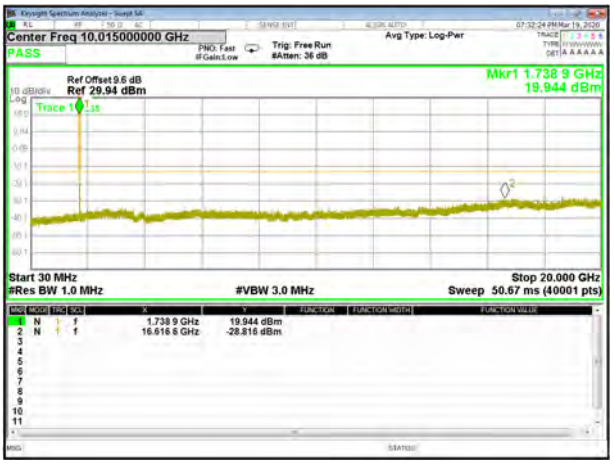
B4_HSDPA_Middle_Conducted Spurious



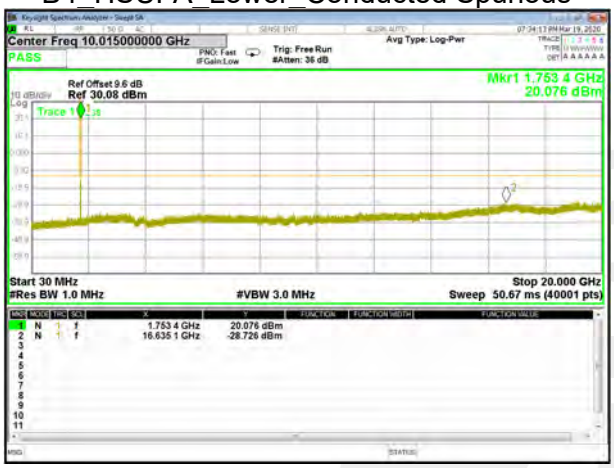
B4_HSDPA_Higher_Conducted Spurious



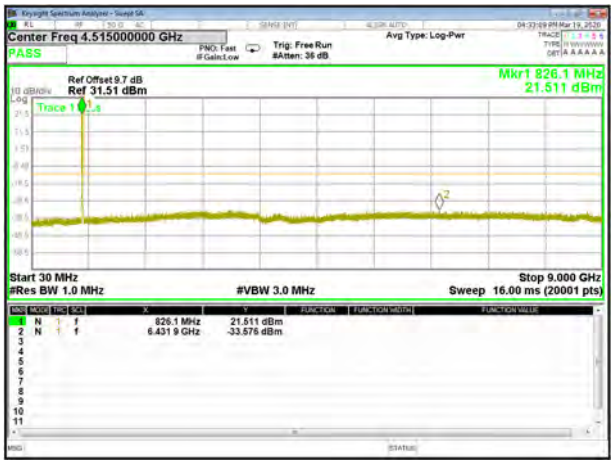
B4_HSUPA_Lower_Conducted Spurious



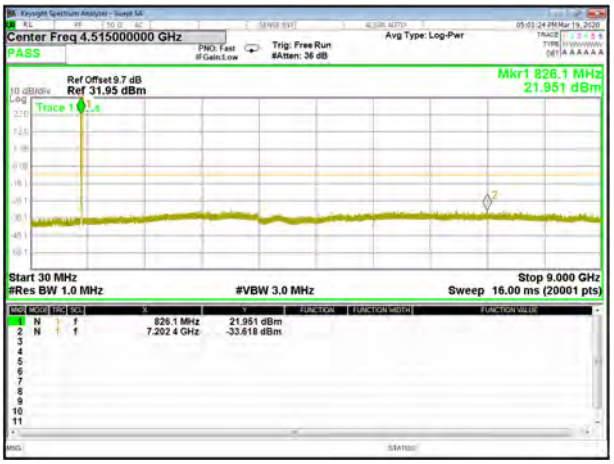
B4_HSUPA_Middle_Conducted Spurious



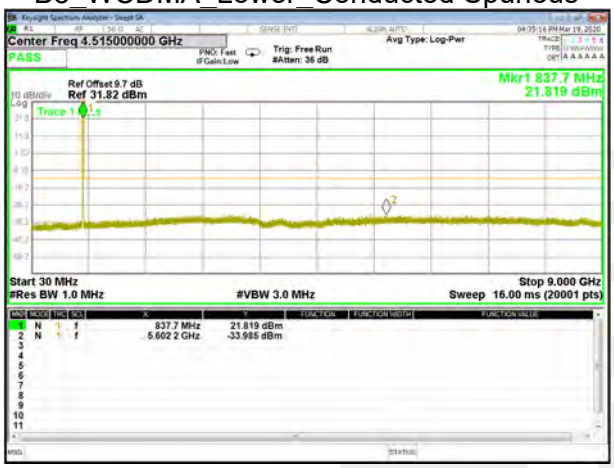
B4_HSUPA_Higher_Conducted Spurious



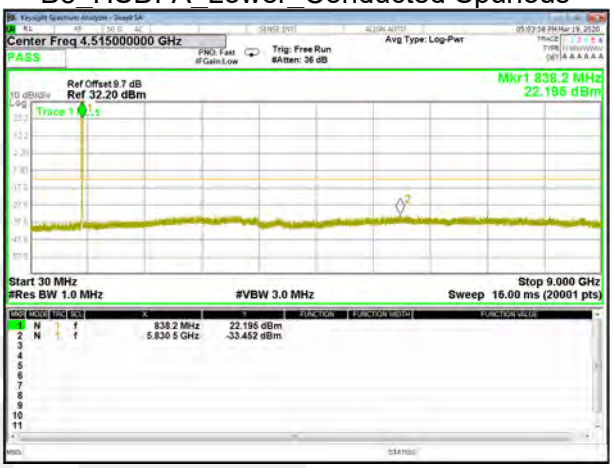
B5_WCDMA_Lower_Conducted Spurious



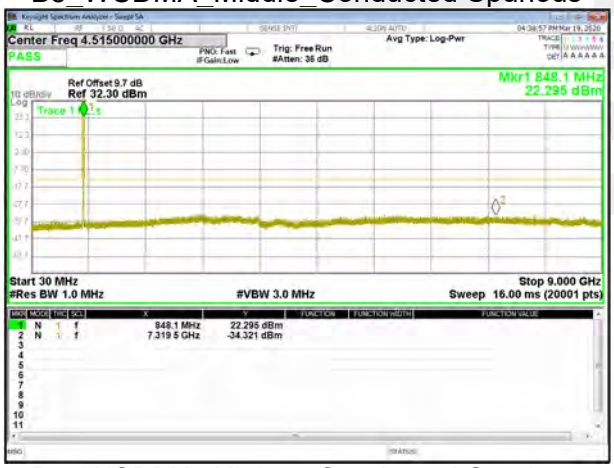
B5_HSDPA_Lower_Conducted Spurious



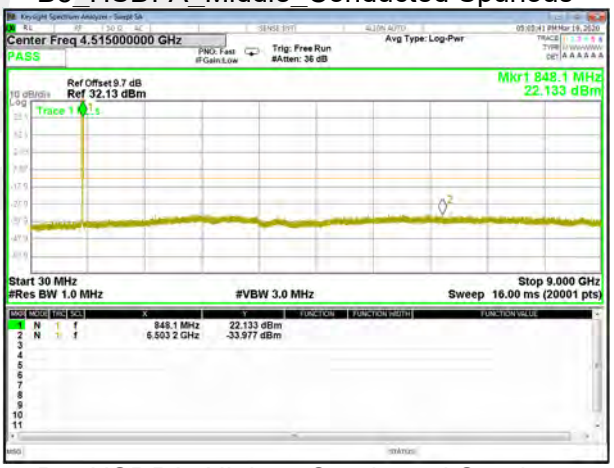
B5_WCDMA_Middle_Conducted Spurious



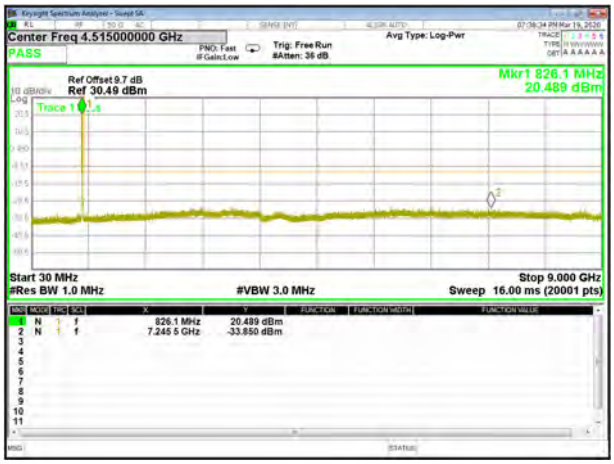
B5_HSDPA_Middle_Conducted Spurious



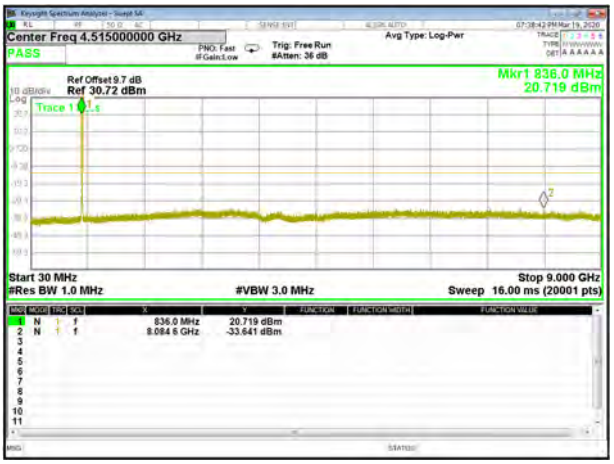
B5_WCDMA_Higher_Conducted Spurious



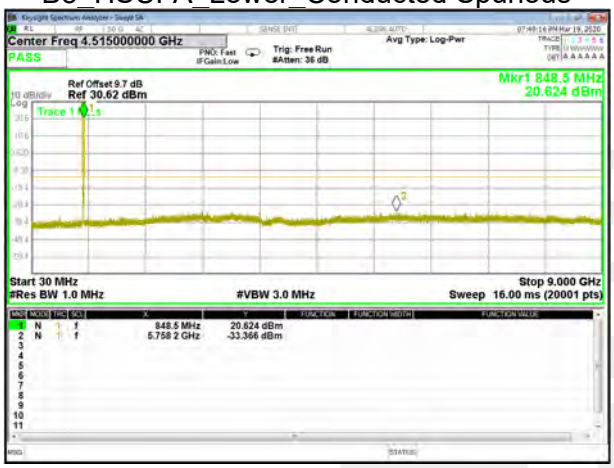
B5_HSDPA_Higher_Conducted Spurious



B5_HSUPA_Lower_Conducted Spurious

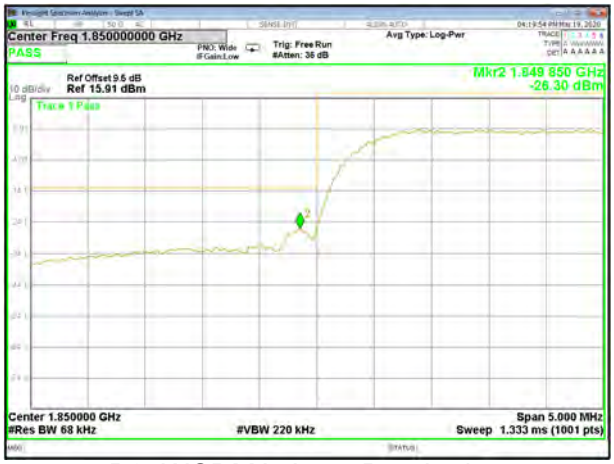


B5_HSUPA_Middle_Conducted Spurious



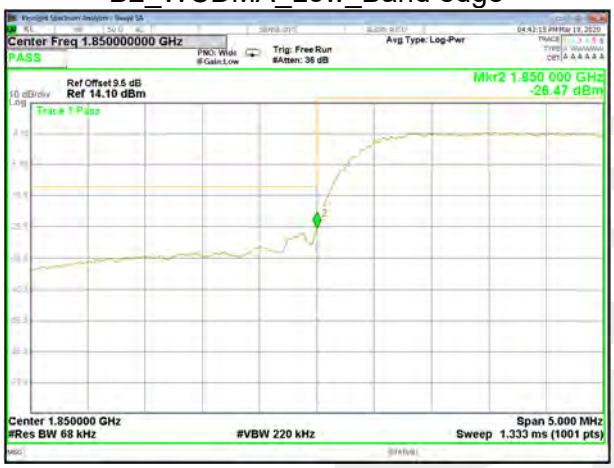
B5_HSUPA_Higher_Conducted Spurious

A7. BAND EDGE



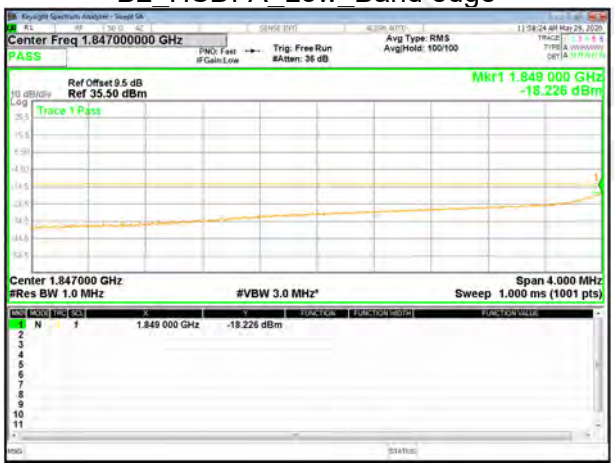
B2_WCDMA_Low_Band edge

B2_WCDMA_Low_Band edge



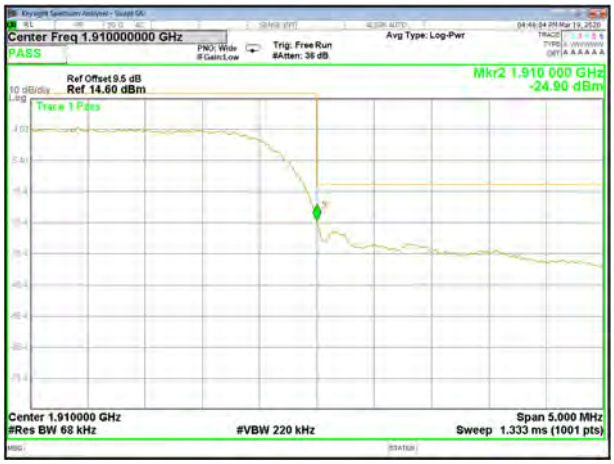
B2_HSDPA_Low_Band edge

B2_WCDMA_High_Band edge

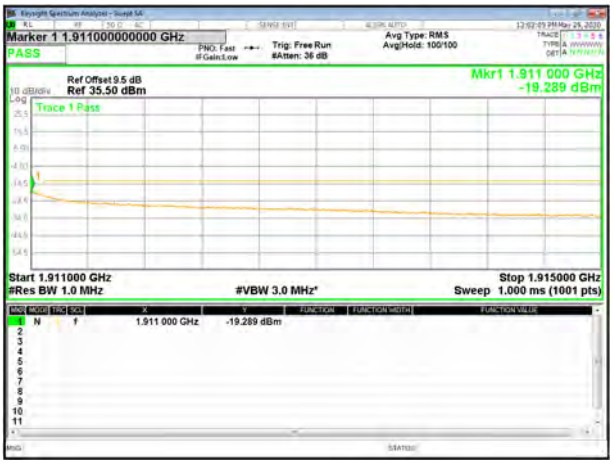


B2_HSDPA_Low_Band edge

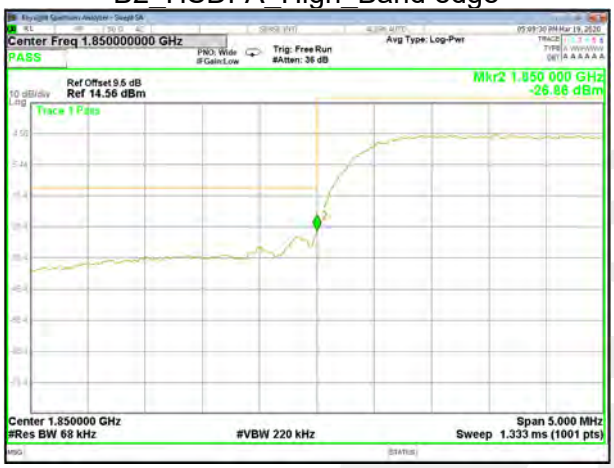
B2_WCDMA_High_Band edge



B2_HSDPA_High_Band edge

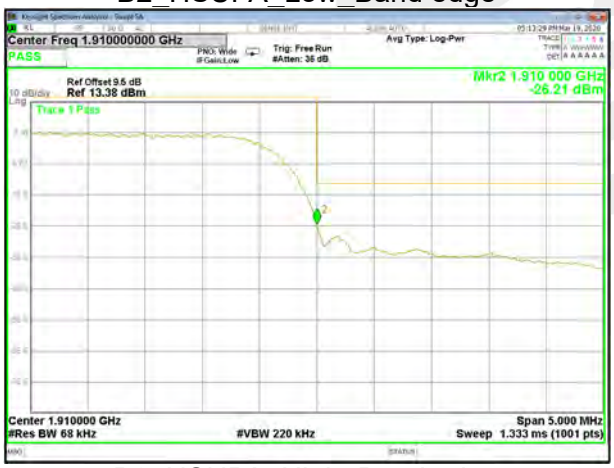


B2_HSDPA_High_Band edge



B2_HSUPA_Low_Band edge

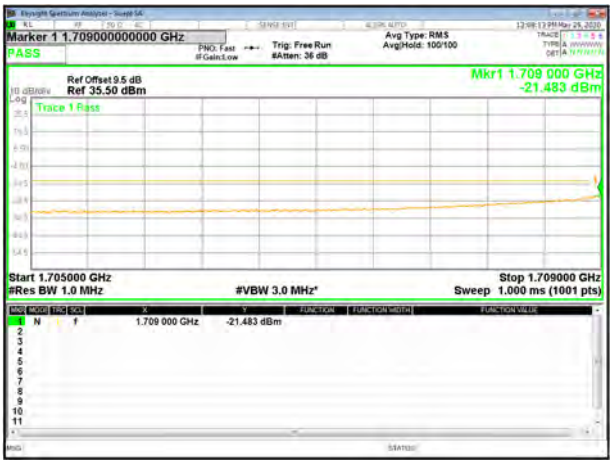
B2_HSUPA_Low_Band edge



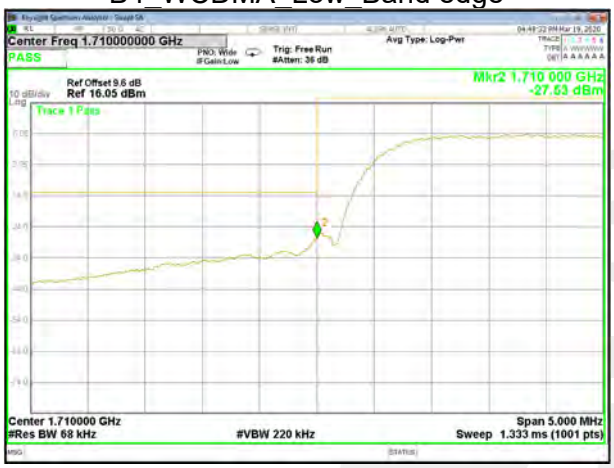
B2_HSUPA_High_Band edge

B2_HSUPA_High_Band edge

B4_WCDMA_Low_Band edge



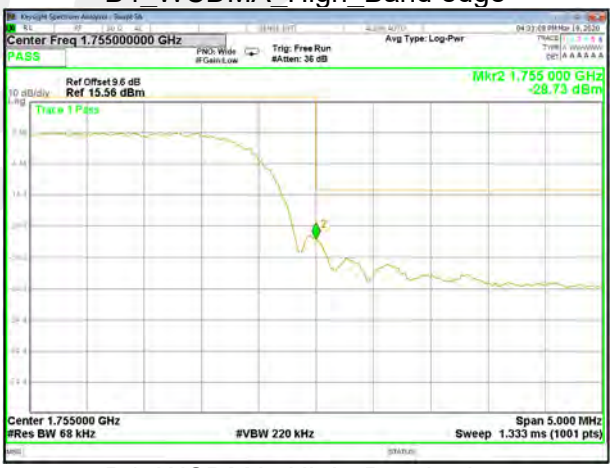
B4_WCDMA_Low_Band edge



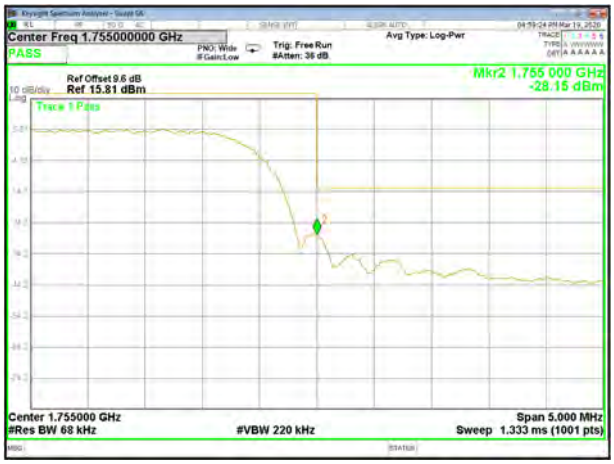
B4_HSDPA_Low_Band edge

B4_WCDMA_High_Band edge

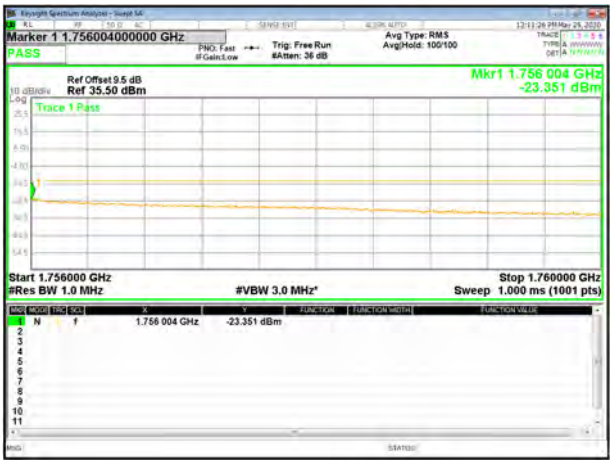
B4_HSDPA_Low_Band edge



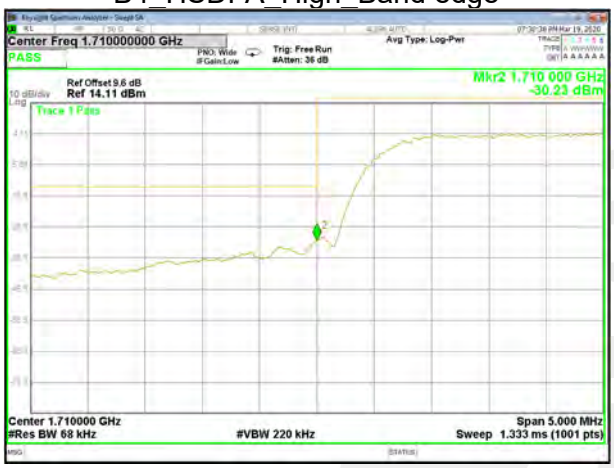
B4_WCDMA_High_Band edge



B4_HSDPA_High_Band edge

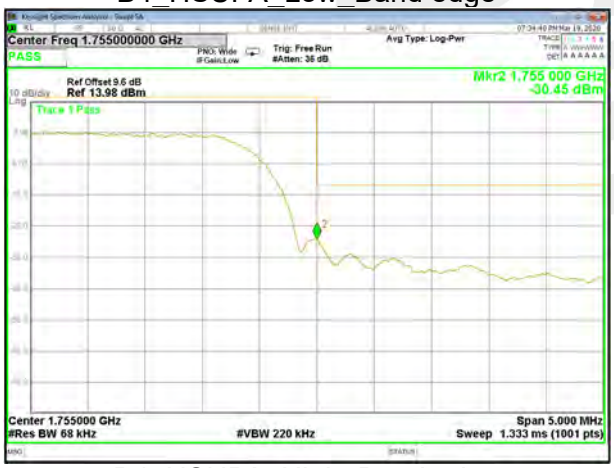


B4_HSDPA_High_Band edge



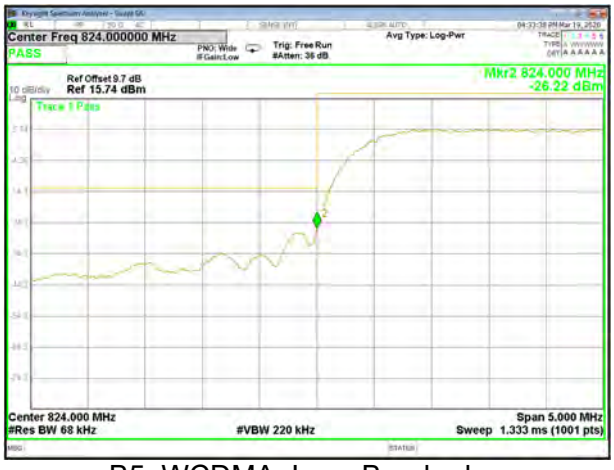
B4_HSUPA_Low_Band edge

B4_HSUPA_Low_Band edge



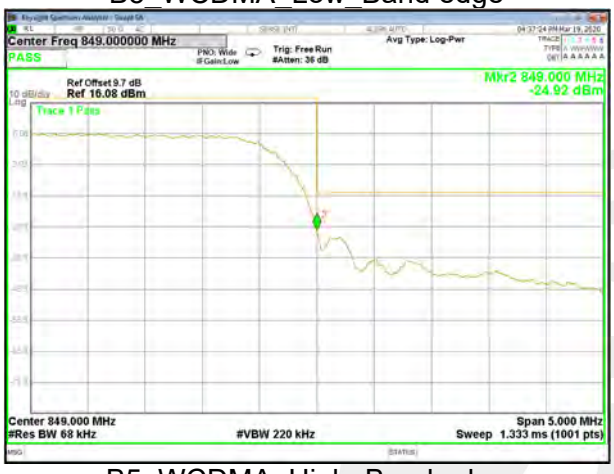
B4_HSUPA_High_Band edge

B4_HSUPA_High_Band edge



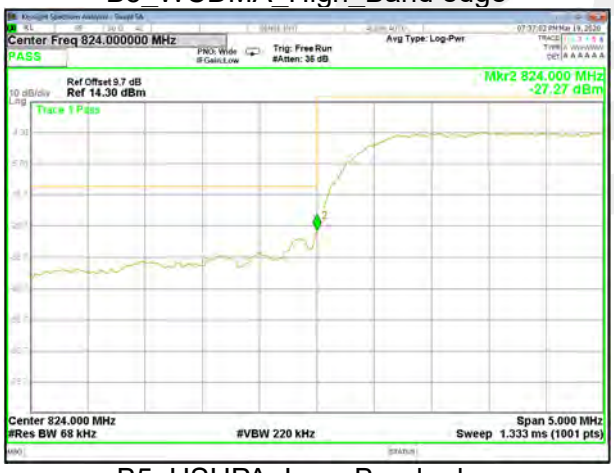
B5_WCDMA_Low_Band edge

B5_HSDPA_Low_Band edge



B5_WCDMA_High_Band edge

B5_HSDPA_High_Band edge



B5_HSUPA_Low_Band edge

B5_HSUPA_High_Band edge

A8. FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

Note: (1) Below 30MHz no Spurious found is the worst condition.

(2) Above 3.5GHz amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value

(3)Test is divided into three directions, X/Y/Z. X pattern for the worst.

WCDMA Band V: (30-9000)MHz							
The wost testresults channel 4132/826.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1652.20	-40.60	9.40	4.75	-35.95	-13.00	-22.95	H
2479.33	-39.48	10.60	8.39	-37.27	-13.00	-24.27	H
3305.59	-31.72	12.00	11.79	-31.51	-13.00	-18.51	H
1652.30	-43.75	9.40	4.75	-39.10	-13.00	-26.10	V
2479.48	-45.27	10.60	8.39	-43.06	-13.00	-30.06	V
3305.59	-43.02	12.00	11.79	-42.81	-13.00	-29.81	V
The Worst Test Results Channel 4183/836.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1673.23	-41.06	9.50	4.76	-36.32	-13.00	-23.32	H
2509.50	-40.20	10.70	8.40	-37.90	-13.00	-24.90	H
3346.13	-31.05	12.20	11.80	-30.65	-13.00	-17.65	H
1673.13	-44.19	9.40	4.75	-39.54	-13.00	-26.54	V
2509.76	-45.13	10.60	8.39	-42.92	-13.00	-29.92	V
3346.22	-42.65	12.20	11.82	-42.27	-13.00	-29.27	V
The Worst Test Results Channel 4233/846.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1693.62	-40.47	9.60	4.77	-35.64	-13.00	-22.64	H
2539.20	-39.48	10.80	8.50	-37.18	-13.00	-24.18	H
3386.00	-30.91	12.50	11.90	-30.31	-13.00	-17.31	H
1693.25	-44.03	9.60	4.77	-39.20	-13.00	-26.20	V
2539.49	-44.27	10.80	8.50	-41.97	-13.00	-28.97	V
3386.11	-43.27	12.50	11.90	-42.67	-13.00	-29.67	V

HSUPA Band V: (30-9000)MHz							
The wost testresults channel 4132/826.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1652.01	-40.36	9.40	4.75	-35.71	-13.00	-22.71	H
2479.64	-40.53	10.60	8.39	-38.32	-13.00	-25.32	H
3305.50	-31.34	12.00	11.79	-31.13	-13.00	-18.13	H
1652.02	-43.39	9.40	4.75	-38.74	-13.00	-25.74	V
2479.41	-44.02	10.60	8.39	-41.81	-13.00	-28.81	V
3305.88	-43.32	12.00	11.79	-43.11	-13.00	-30.11	V
The Worst Test Results Channel 4183/836.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1673.13	-40.59	9.50	4.76	-35.85	-13.00	-22.85	H
2509.87	-40.56	10.70	8.40	-38.26	-13.00	-25.26	H
3346.01	-31.68	12.20	11.80	-31.28	-13.00	-18.28	H
1673.02	-43.40	9.40	4.75	-38.75	-13.00	-25.75	V
2509.64	-44.03	10.60	8.39	-41.82	-13.00	-28.82	V
3346.05	-43.26	12.20	11.82	-42.88	-13.00	-29.88	V
The Worst Test Results Channel 4233/846.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1693.39	-41.01	9.60	4.77	-36.18	-13.00	-23.18	H
2539.13	-39.68	10.80	8.50	-37.38	-13.00	-24.38	H
3385.99	-31.10	12.50	11.90	-30.50	-13.00	-17.50	H
1693.29	-44.60	9.60	4.77	-39.77	-13.00	-26.77	V
2539.10	-45.43	10.80	8.50	-43.13	-13.00	-30.13	V
3386.15	-42.65	12.50	11.90	-42.05	-13.00	-29.05	V

HSDPA Band V: (30-9000)MHz							
The wost testresults channel 4132/826.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1652.46	-40.75	9.40	4.75	-36.10	-13.00	-23.10	H
2479.52	-40.51	10.60	8.39	-38.30	-13.00	-25.30	H
3305.47	-31.69	12.00	11.79	-31.48	-13.00	-18.48	H
1652.36	-44.52	9.40	4.75	-39.87	-13.00	-26.87	V
2479.34	-45.31	10.60	8.39	-43.10	-13.00	-30.10	V
3305.90	-43.21	12.00	11.79	-43.00	-13.00	-30.00	V
The Worst Test Results Channel 4183/836.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1673.10	-41.33	9.50	4.76	-36.59	-13.00	-23.59	H
2509.60	-40.00	10.70	8.40	-37.70	-13.00	-24.70	H
3346.42	-30.85	12.20	11.80	-30.45	-13.00	-17.45	H
1673.21	-43.79	9.40	4.75	-39.14	-13.00	-26.14	V
2509.88	-44.99	10.60	8.39	-42.78	-13.00	-29.78	V
3346.31	-43.23	12.20	11.82	-42.85	-13.00	-29.85	V
The Worst Test Results Channel 4233/846.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1693.59	-40.93	9.60	4.77	-36.10	-13.00	-23.10	H
2539.37	-40.10	10.80	8.50	-37.80	-13.00	-24.80	H
3386.27	-32.20	12.50	11.90	-31.60	-13.00	-18.60	H
1693.58	-43.23	9.60	4.77	-38.40	-13.00	-25.40	V
2539.38	-44.76	10.80	8.50	-42.46	-13.00	-29.46	V
3386.09	-43.54	12.50	11.90	-42.94	-13.00	-29.94	V

WCDMA Band II: (30-20000)MHz							
The Worst Test Results for Channel 9262/1852.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3704.30	-34.41	12.60	12.93	-34.74	-13.00	-21.74	H
5557.36	-34.35	13.10	17.11	-38.36	-13.00	-25.36	H
7409.95	-32.37	11.50	22.20	-43.07	-13.00	-30.07	H
3704.30	-35.76	12.60	12.93	-36.09	-13.00	-23.09	V
5557.27	-35.11	13.10	17.11	-39.12	-13.00	-26.12	V
7409.50	-32.08	11.50	22.20	-42.78	-13.00	-29.78	V
The Worst Test Results for Channel 9400/1880MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3760.18	-33.55	12.60	12.93	-33.88	-13.00	-20.88	H
5640.20	-34.57	13.10	17.11	-38.58	-13.00	-25.58	H
7520.20	-32.92	11.50	22.20	-43.62	-13.00	-30.62	H
3760.06	-34.52	12.60	12.93	-34.85	-13.00	-21.85	V
5639.92	-34.13	13.10	17.11	-38.14	-13.00	-25.14	V
7520.00	-31.79	11.50	22.20	-42.49	-13.00	-29.49	V
The Worst Test Results for Channel 9538/1907.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3815.27	-33.60	12.60	12.93	-33.93	-13.00	-20.93	H
5722.21	-34.23	13.10	17.11	-38.24	-13.00	-25.24	H
7630.28	-33.48	11.50	22.20	-44.18	-13.00	-31.18	H
3815.49	-34.76	12.60	12.93	-35.09	-13.00	-22.09	V
5722.48	-34.65	13.10	17.11	-38.66	-13.00	-25.66	V
7630.25	-32.93	11.50	22.20	-43.63	-13.00	-30.63	V

HSUPA Band II: (30-20000)MHz							
The Worst Test Results for Channel 9262/1852.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3704.09	-33.72	12.60	12.93	-34.05	-13.00	-21.05	H
5557.55	-35.11	13.10	17.11	-39.12	-13.00	-26.12	H
7409.52	-32.89	11.50	22.20	-43.59	-13.00	-30.59	H
3704.47	-35.30	12.60	12.93	-35.63	-13.00	-22.63	V
5557.50	-34.53	13.10	17.11	-38.54	-13.00	-25.54	V
7409.82	-32.96	11.50	22.20	-43.66	-13.00	-30.66	V
The Worst Test Results for Channel 9400/1880MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3759.90	-34.21	12.60	12.93	-34.54	-13.00	-21.54	H
5640.05	-34.00	13.10	17.11	-38.01	-13.00	-25.01	H
7519.98	-32.85	11.50	22.20	-43.55	-13.00	-30.55	H
3760.30	-35.66	12.60	12.93	-35.99	-13.00	-22.99	V
5640.20	-33.99	13.10	17.11	-38.00	-13.00	-25.00	V
7519.86	-33.06	11.50	22.20	-43.76	-13.00	-30.76	V
The Worst Test Results for Channel 9538/1907.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3815.68	-34.81	12.60	12.93	-35.14	-13.00	-22.14	H
5722.03	-35.36	13.10	17.11	-39.37	-13.00	-26.37	H
7630.15	-32.24	11.50	22.20	-42.94	-13.00	-29.94	H
3815.33	-35.47	12.60	12.93	-35.80	-13.00	-22.80	V
5722.41	-33.94	13.10	17.11	-37.95	-13.00	-24.95	V
7630.20	-33.07	11.50	22.20	-43.77	-13.00	-30.77	V

HSDPA Band II: (30-20000)MHz							
The Worst Test Results for Channel 9262/1852.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3704.44	-34.23	12.60	12.93	-34.56	-13.00	-21.56	H
5557.25	-34.35	13.10	17.11	-38.36	-13.00	-25.36	H
7409.57	-32.53	11.50	22.20	-43.23	-13.00	-30.23	H
3704.43	-34.90	12.60	12.93	-35.23	-13.00	-22.23	V
5557.45	-34.24	13.10	17.11	-38.25	-13.00	-25.25	V
7409.57	-32.53	11.50	22.20	-43.23	-13.00	-30.23	V
The Worst Test Results for Channel 9400/1880MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3759.77	-34.82	12.60	12.93	-35.15	-13.00	-22.15	H
5640.06	-34.21	13.10	17.11	-38.22	-13.00	-25.22	H
7520.16	-33.36	11.50	22.20	-44.06	-13.00	-31.06	H
3759.96	-34.86	12.60	12.93	-35.19	-13.00	-22.19	V
5640.10	-34.21	13.10	17.11	-38.22	-13.00	-25.22	V
7519.94	-32.80	11.50	22.20	-43.50	-13.00	-30.50	V
The Worst Test Results for Channel 9538/1907.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3815.57	-34.21	12.60	12.93	-34.54	-13.00	-21.54	H
5722.37	-34.39	13.10	17.11	-38.40	-13.00	-25.40	H
7630.30	-32.72	11.50	22.20	-43.42	-13.00	-30.42	H
3815.34	-34.65	12.60	12.93	-34.98	-13.00	-21.98	V
5722.25	-34.77	13.10	17.11	-38.78	-13.00	-25.78	V
7630.08	-32.68	11.50	22.20	-43.38	-13.00	-30.38	V

WCDMA Band IV: (30-20000)MHz							
The Worst Test Results for Channel 1313/1712.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3425.12	-33.62	12.90	12.05	-32.77	-13.00	-19.77	H
5137.40	-34.18	12.80	16.27	-37.65	-13.00	-24.65	H
6850.23	-32.94	12.30	20.13	-40.77	-13.00	-27.77	H
3425.06	-35.77	12.90	12.05	-34.92	-13.00	-21.92	V
5137.31	-34.61	12.80	16.27	-38.08	-13.00	-25.08	V
6850.09	-33.01	12.30	20.13	-40.84	-13.00	-27.84	V
The Worst Test Results for Channel 1450/1740.0MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3479.82	-34.82	12.90	12.05	-33.97	-13.00	-20.97	H
5219.89	-34.33	12.80	16.27	-37.80	-13.00	-24.80	H
6959.86	-33.34	12.30	20.13	-41.17	-13.00	-28.17	H
3479.68	-34.84	12.90	12.05	-33.99	-13.00	-20.99	V
5219.85	-35.17	12.80	16.27	-38.64	-13.00	-25.64	V
6959.84	-32.31	12.30	20.13	-40.14	-13.00	-27.14	V
The Worst Test Results for Channel 1512/1752.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3504.51	-34.57	12.90	12.05	-33.72	-13.00	-20.72	H
5256.93	-34.08	12.80	16.27	-37.55	-13.00	-24.55	H
7009.33	-33.40	12.30	20.13	-41.23	-13.00	-28.23	H
3504.71	-35.73	12.90	12.05	-34.88	-13.00	-21.88	V
5256.75	-34.43	12.80	16.27	-37.90	-13.00	-24.90	V
7009.39	-32.22	12.30	20.13	-40.05	-13.00	-27.05	V

HSUPA Band IV: (30-20000)MHz							
The Worst Test Results for Channel 1313/1712.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3424.79	-34.18	12.90	12.05	-33.33	-13.00	-20.33	H
5137.30	-35.20	12.80	16.27	-38.67	-13.00	-25.67	H
6850.11	-32.36	12.30	20.13	-40.19	-13.00	-27.19	H
3424.89	-35.79	12.90	12.05	-34.94	-13.00	-21.94	V
5137.78	-33.85	12.80	16.27	-37.32	-13.00	-24.32	V
6849.96	-31.83	12.30	20.13	-39.66	-13.00	-26.66	V
The Worst Test Results for Channel 1450/1740.0MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3479.80	-34.82	12.90	12.05	-33.97	-13.00	-20.97	H
5219.65	-34.76	12.80	16.27	-38.23	-13.00	-25.23	H
6959.70	-33.40	12.30	20.13	-41.23	-13.00	-28.23	H
3479.87	-35.05	12.90	12.05	-34.20	-13.00	-21.20	V
5219.90	-34.82	12.80	16.27	-38.29	-13.00	-25.29	V
6959.63	-32.05	12.30	20.13	-39.88	-13.00	-26.88	V
The Worst Test Results for Channel 1512/1752.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3504.34	-33.47	12.90	12.05	-32.62	-13.00	-19.62	H
5256.94	-34.31	12.80	16.27	-37.78	-13.00	-24.78	H
7009.42	-33.53	12.30	20.13	-41.36	-13.00	-28.36	H
3504.37	-35.21	12.90	12.05	-34.36	-13.00	-21.36	V
5257.10	-35.21	12.80	16.27	-38.68	-13.00	-25.68	V
7009.22	-32.29	12.30	20.13	-40.12	-13.00	-27.12	V

HSDPA Band IV: (30-20000)MHz							
The Worst Test Results for Channel 1313/1712.6MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3425.13	-34.35	12.90	12.05	-33.50	-13.00	-20.50	H
5137.66	-34.08	12.80	16.27	-37.55	-13.00	-24.55	H
6850.22	-33.01	12.30	20.13	-40.84	-13.00	-27.84	H
3424.93	-35.33	12.90	12.05	-34.48	-13.00	-21.48	V
5137.42	-34.49	12.80	16.27	-37.96	-13.00	-24.96	V
6850.27	-32.94	12.30	20.13	-40.77	-13.00	-27.77	V
The Worst Test Results for Channel 1450/1740.0MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3479.93	-34.01	12.90	12.05	-33.16	-13.00	-20.16	H
5219.99	-34.85	12.80	16.27	-38.32	-13.00	-25.32	H
6959.95	-33.63	12.30	20.13	-41.46	-13.00	-28.46	H
3479.79	-35.24	12.90	12.05	-34.39	-13.00	-21.39	V
5219.81	-34.14	12.80	16.27	-37.61	-13.00	-24.61	V
6959.82	-32.25	12.30	20.13	-40.08	-13.00	-27.08	V
The Worst Test Results for Channel 1512/1752.4MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3504.52	-34.79	12.90	12.05	-33.94	-13.00	-20.94	H
5257.00	-34.23	12.80	16.27	-37.70	-13.00	-24.70	H
7009.48	-33.64	12.30	20.13	-41.47	-13.00	-28.47	H
3504.40	-34.73	12.90	12.05	-33.88	-13.00	-20.88	V
5257.10	-34.96	12.80	16.27	-38.43	-13.00	-25.43	V
7009.53	-32.97	12.30	20.13	-40.80	-13.00	-27.80	V

APPENDIX-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

※※※※※END OF THE REPORT※※※※※