S T S LAB

RADIO TEST REPORT

Report No.: STS2009201W04

Issued for

Nativ Mobile, LLC

213 West Institute Place, #307, Chicago, Illinois 60610 USA

Product Name:	Mobile Phone
Brand Name:	N/A
Model Name:	MD_G1212U
Series Model:	N/A
FCC ID:	2AXN9MDG1212U
Test Standard:	FCC Part 22H and 24E, 27

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TEST RESULT CERTIFICATION

Applicant's Name ..... :	Nativ Mobile, LLC
Address ..... :	213 West Institute Place, #307, Chicago, Illinois 60610 USA
Manufacturer's Name ..... :	Revomovil Telecommunication Technologies Co. Limited
Address ..... :	Room 1602, Building 34, No.258, Xinzhuan road, Xinqiao Town, Songjiang District, Shanghai, China

Product Description

Product Name ..... :	Mobile Phone
Brand Name ..... :	N/A
Model Name ..... :	MD_G1212U
Series Model ..... :	N/A
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..... :	10 Sept. 2020
Date (s) of performance of tests .:	10 Sept. 2020 ~ 21 Sept. 2020
Date of Issue ..... :	21 Sept. 2020
Test Result ..... :	Pass

Testing Engineer : Chris Chen

(Chris Chen)

Technical Manager : Sean She

(Sean she)

Authorized Signatory : Vita Li

(Vita Li)

TESTING • CONSULTING • SOLUTION • CERTIFICATION
STS APPROVAL

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Revision History

Rev.	Issue Date	Report NO.	Effect Page	Contents
00	21 Sept. 2020	STS2009201W04	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 Output Power	Reporting Only	PASS	
22.913d 24.232d	Peak-to-Average Ratio	< 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	±5.6dB
4	All emissions, radiated 1G-6GHz	±5.5dB
5	All emissions, radiated>6G	±5.8dB
6	Conducted Emission (9KHz-150KHz)	±3.37dB
7	Conducted Emission (150KHz-30MHz)	±3.83dB

2 PRODUCT INFORMATION

Product Name	Mobile Phone
Trade Name	N/A
Model Name	MD_G1212U
Series Model	N/A
Model Difference	N/A
Tx Frequency:	GSM/GPRS/EDGE: 850: 824 MHz ~ 849MHz 1900: 1850 MHz ~ 1910MHz WCDMA: Band V: 824 MHz ~ 849 MHz Band II: 1850 MHz ~ 1910 MHz Band IV: 1710 MHz ~ 1755 MHz
Rx Frequency:	GSM/GPRS/EDGE: 850: 869 MHz ~ 894 MHz 1900: 1930 MHz ~ 1990MHz WCDMA: Band V: 869 MHz ~ 894 MHz Band II: 1930 MHz ~ 1990 MHz Band IV: 2110 MHz ~ 2155 MHz
Max RF Output Power:	GSM850:31.53dBm, PCS1900:28.50dBm GPRS850(1-Slot):31.47dBm, GPRS1900(1-Slot):28.47dBm GPRS850(2-Slot):31.04dBm, GPRS1900(2-Slot):28.02dBm GPRS850(3-Slot):30.57dBm, GPRS1900(3-Slot):27.54dBm GPRS850(4-Slot):30.11dBm, GPRS1900(4-Slot):27.08dBm EDGE 850(1-Slot):28.27dBm, EDGE 1900(1-Slot):25.74dBm EDGE 850(2-Slot):27.54dBm, EDGE 1900(2-Slot):25.02Bm EDGE 850(3-Slot):26.83dBm, EDGE 1900(3-Slot):24.32dBm EDGE 850(4-Slot):26.06dBm, EDGE 1900(4-Slot):23.61dBm WCDMA Band V:22.52dBm, WCDMA Band II:22.02dBm WCDMA Band IV:23.51dBm
Type of Emission:	GSM(850): 246KGXW; PCS(1900): 247KGXW GPRS(850): 244KGXW; GPRS(1900): 245KGXW EDGE(850): 252KG7W; EDGE(1900): 241KG7W WCDMA850: 4M15F9W WCDMA1900: 4M16F9W WCDMA1700: 4M16F9W
Modulation Characteristics:	GMSK for GSM/GPRS; GMSK and 8PSK for EDGE WCDMA: QPSK; HSDPA:QPSK/16QAM; HSUPA:BPSK
SIM Card:	SIM 1 and SIM 2 is a chipset unit and tested as single chipset, SIM 1 is used to tested.
Antenna:	PIFA
Antenna gain:	GSM 850: 0.5dBi ,PCS 1900: 0.9dBi WCDMA 850: 0.5dBi, WCDMA1900: 0.9dBi, WCDMA1700: 0.8dBi

Battery parameter:	Rated Voltage: 3.85V Charge Limit: 4.4V Capacity: 4000mAh
Adapter:	Input: AC 100-240V 50/60Hz 0.3A Output: DC 5V 1.5A
GPRS/EDGE Class:	Multi-Class12
Extreme Vol. Limits:	DC 3.4V~ DC 4.4V(Normal: DC 3.85V)
Extreme Temp. Tolerance:	-30℃ to +50℃
Hardware version number:	RE77A_E33_10M4
Software version number:	re77e_XX16_RUIO_incell_20200903
*** Note: The High Voltage 4.4V and Low Voltage 3.4V 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 GSM850 and WCDMA Band V.

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

3. 30 MHz to 10th harmonic for GSM1900 and 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
GSM 850	GSM LINK GPRS/EDGE CLASS 12 LINK	GSM LINK GPRS/EDGE CLASS 12 LINK
GSM 1900	GSM LINK GPRS/EDGE CLASS 12 LINK	GSM LINK GPRS/EDGE CLASS 12 LINK
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

RF Function	Band	Mode	Modulation	Power Class	Ant Gain(dBi)	Ant Type	SIM Card
GSM	850	GSM	GMSK	4(power control level 5)	GSM850:0.5 PCS1900:0.9	PIFA	2 SIM 1 is used to tested.
		GPRS (Class12)	GMSK	4			
		EDGE(Class12)	GMSK, 8PSK	E2			
	1900	GSM	GMSK	1(power control level 0)			
		GPRS (Class12)	GMSK	1			
		EDGE(Class12)	GMSK, 8PSK	E2			
RF Function	Band	Mode	Modulation	Power Class	Ant Gain(dBi)	Ant Type	SIM Card
WCDMA	2/4/5	WCDMA	QPSK	3	WCDMA1900:0.9 WCDMA1700:0.8 WCDMA850:0.5	PIFA	2 SIM 1 is used to tested.
		HSDPA	QPSK, 16QAM				
		HSUPA	BPSK				

4 MEASUREMENT INSTRUMENTS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2019.10.09	2020.10.08
Signal Analyzer	Agilent	N9020A	MY51110105	2020.03.05	2021.03.04
Signal Generator	Agilent	83752A	3610A02740	2019.10.09	2020.10.08
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
Bilog Antenna	TESEQ	CBL6111D	45873	2018.10.26	2021.10.25
Horn Antenna	SCHWARZBECK	BBHA 9120D(1201)	9120D-2014	2019.10.15	2022.10.14
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
Pre-Amplifier (18G-40GHz)	SKET	LNPA-1840-50	SK2018101801	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	2019.10.17	2020.10.16
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	119907	2020.10.11	2021.10.10
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	2019.10.17	2020.10.16
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

TEST RESULT

Note: Test data See Appendix 1.

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

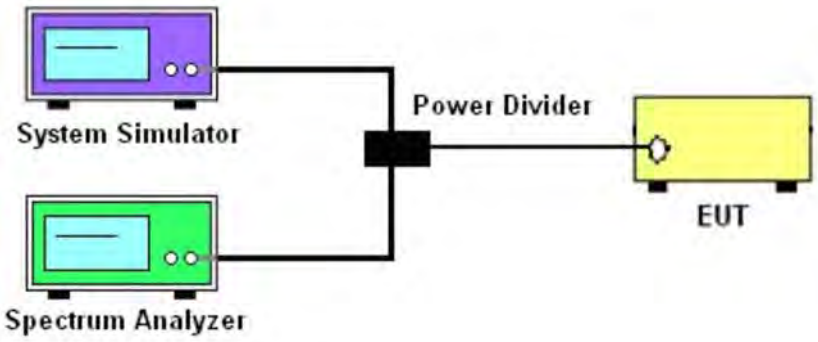
1. The testing follows FCC KDB 971168 v03r01 section.

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

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



TEST RESULT

Note: Test data See Appendix 2.

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.

EIRP=S.G Level+ Gain-Cable loss; ERP=S.G Level+ Gain-Cable loss-2.15.

TEST RESULT

Note: Test data See Appendix 3.

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.

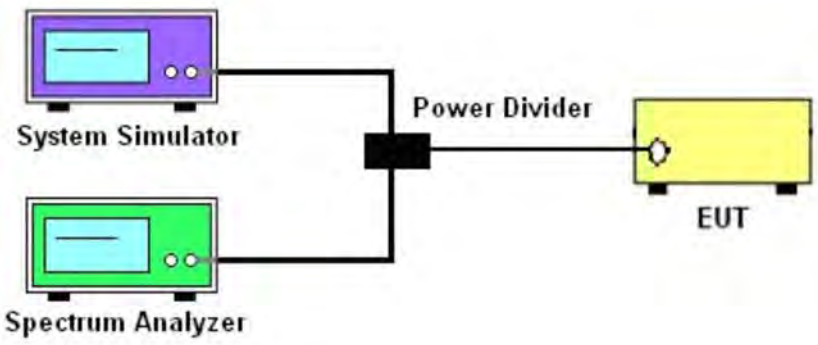
The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) 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



TEST RESULT

Note: Test data See Appendix 4.

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

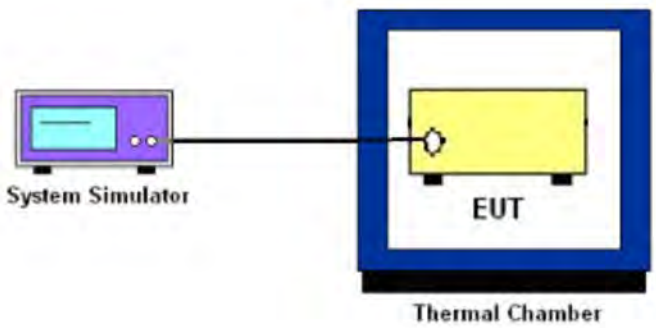
Temperature Variation

1. The testing follows FCC KDB 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



TEST RESULT

Note: Test data See Appendix 5.

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

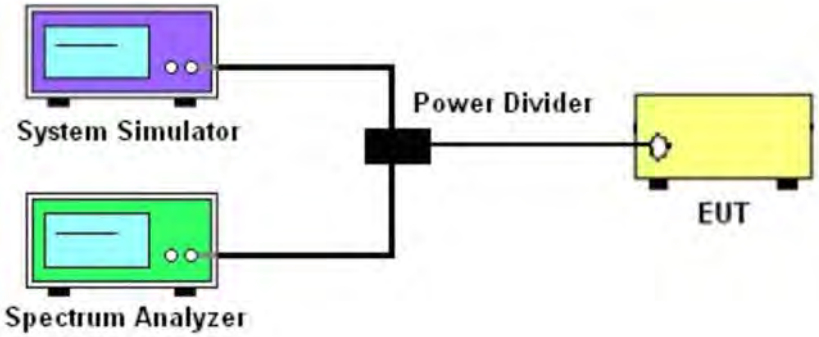
1. The testing FCC KDB 971168 D01 v03r01 Section 6.0. and ANSI C63.26-2015-Section 5.7.
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated 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



TEST RESULT

Note: Test data See Appendix 6.

5.7 BAND EDGE

TEST 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

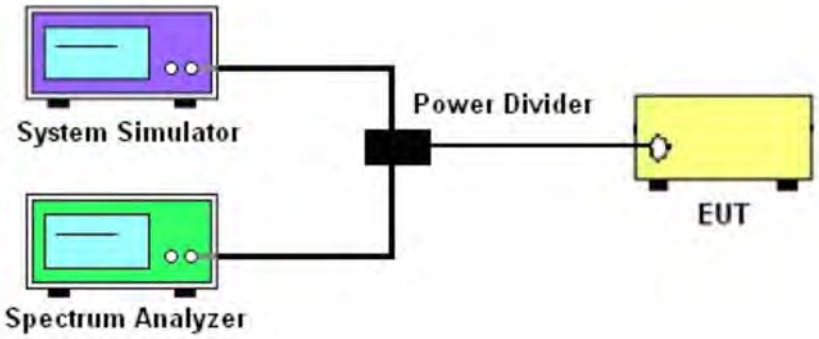
1. The testing FCC KDB 971168 D01 v03r01 Section 6.0 and ANSI C63.26-2015-Section 5.7
2. Start and stop frequency were set such that the band edge would be placed in the center of the Plot.
3. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
4. The RF output of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



TEST RESULT

Note: Test data See Appendix 7.

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.

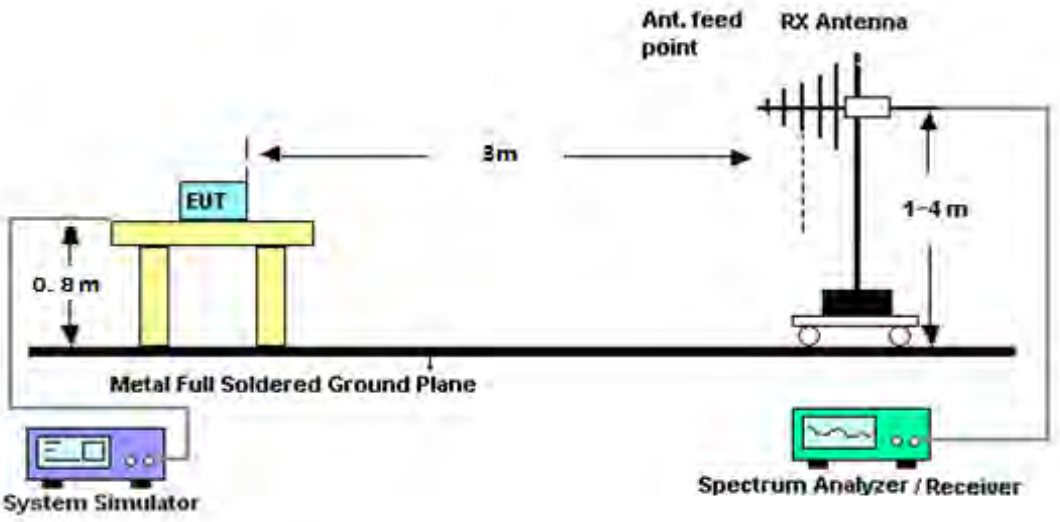
TEST PROCEDURE

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.

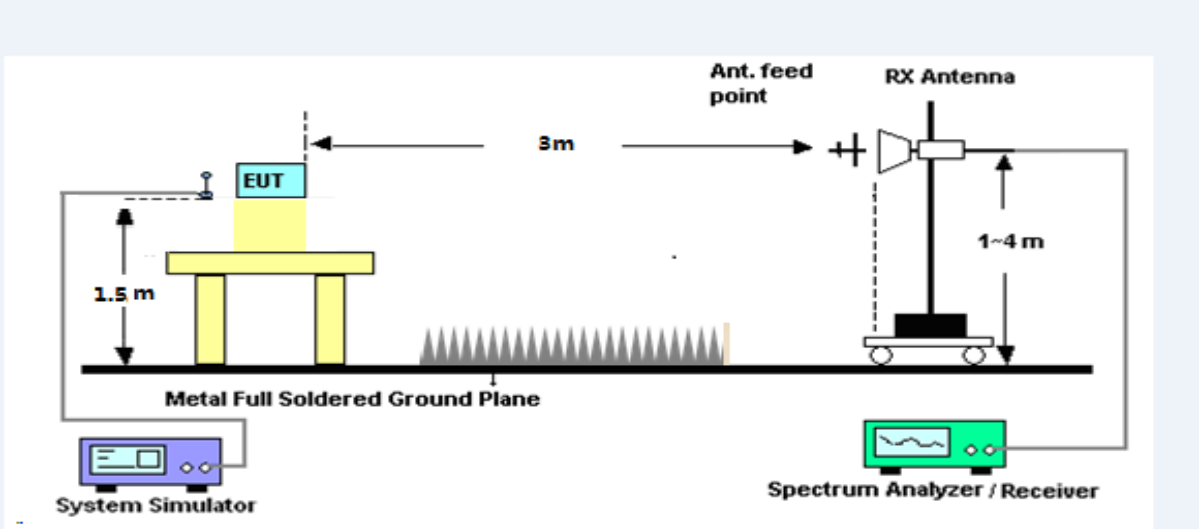
PMea=S.G Level+ Ant-Cable loss; Margin=PMea-Limit.

TEST SETUP

For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



TEST RESULT

Note: Test data See Appendix 8.

APPENDIX A.TESTRESULT

A1. CONDUCTED OUTPUT POWER

GSM 850:

GSM 850		
Mode	Frequency (MHz)	AVG Power(dBm)
GSM (GMSK,1-Slot)	824.2	31.32
	836.6	31.41
	848.8	31.53
GPRS (GMSK,1-Slot)	824.2	31.32
	836.6	31.34
	848.8	31.47
GPRS (GMSK,2-Slot)	824.2	30.84
	836.6	30.93
	848.8	31.04
GPRS (GMSK,3-Slot)	824.2	30.42
	836.6	30.48
	848.8	30.57
GPRS (GMSK,4-Slot)	824.2	29.98
	836.6	30.01
	848.8	30.11
EGPRS (8PSK,1-Slot)	824.2	28.13
	836.6	28.27
	848.8	27.56
EGPRS (8PSK,2-Slot)	824.2	27.41
	836.6	27.54
	848.8	26.77
EGPRS (8PSK,3-Slot)	824.2	26.67
	836.6	26.83
	848.8	26.00
EGPRS (8PSK,4-Slot)	824.2	25.88
	836.6	26.06
	848.8	25.25

PCS 1900:

PCS 1900		
Mode	Frequency (MHz)	AVG Power(dBm)
GSM (GMSK,1-Slot)	1850.2	28.50
	1880.0	28.31
	1909.8	28.33
GPRS (GMSK,1-Slot)	1850.2	28.47
	1880.0	28.33
	1909.8	28.34
GPRS (GMSK,2-Slot)	1850.2	28.02
	1880.0	27.92
	1909.8	27.86
GPRS (GMSK,3-Slot)	1850.2	27.54
	1880.0	27.42
	1909.8	27.36
GPRS (GMSK,4-Slot)	1850.2	27.08
	1880.0	26.92
	1909.8	26.92
EGPRS (8PSK,1-Slot)	1850.2	25.21
	1880.0	25.74
	1909.8	25.54
EGPRS (8PSK,2-Slot)	1850.2	24.43
	1880.0	25.02
	1909.8	24.83
EGPRS (8PSK,3-Slot)	1850.2	23.71
	1880.0	24.32
	1909.8	24.10
EGPRS (8PSK,4-Slot)	1850.2	22.99
	1880.0	23.61
	1909.8	23.32

UMTS BAND V

UMTS BAND V		
Mode	Frequency(MHz)	AVG Power
WCDMA 850 RMC	826.4	21.61
	836.6	21.83
	846.6	21.96
HSDPA Subtest 1	826.4	22.09
	836.6	21.95
	846.6	22.20
HSDPA Subtest 2	826.4	21.63
	836.6	21.53
	846.6	21.74
HSDPA Subtest 3	826.4	21.26
	836.6	21.06
	846.6	21.36
HSDPA Subtest 4	826.4	20.94
	836.6	20.64
	846.6	21.03
HSUPA Subtest 1	826.4	22.46
	836.6	22.51
	846.6	22.52
HSUPA Subtest 2	826.4	21.57
	836.6	21.58
	846.6	21.60
HSUPA Subtest 3	826.4	21.43
	836.6	21.08
	846.6	21.19
HSUPA Subtest 4	826.4	21.00
	836.6	20.63
	846.6	20.85
HSUPA Subtest 5	826.4	19.60
	836.6	19.19
	846.6	19.38

UMTS BAND II

UMTS BAND II		
Mode	Frequency(MHz)	AVG Power
WCDMA 1900 RMC	1852.4	21.93
	1880	21.80
	1907.6	22.02
HSDPA Subtest 1	1852.4	21.20
	1880	21.43
	1907.6	21.46
HSDPA Subtest 2	1852.4	20.70
	1880	21.02
	1907.6	21.06
HSDPA Subtest 3	1852.4	20.21
	1880	20.56
	1907.6	20.63
HSDPA Subtest 4	1852.4	19.84
	1880	20.24
	1907.6	20.32
HSUPA Subtest 1	1852.4	21.54
	1880	21.84
	1907.6	21.82
HSUPA Subtest 2	1852.4	20.65
	1880	20.89
	1907.6	20.88
HSUPA Subtest 3	1852.4	20.55
	1880	20.39
	1907.6	20.52
HSUPA Subtest 4	1852.4	20.07
	1880	19.95
	1907.6	20.17
HSUPA Subtest 5	1852.4	18.59
	1880	18.49
	1907.6	18.75

UMTS BAND IV

UMTS BAND IV		
Mode	Frequency(MHz)	AVG Power
WCDMA 1700 RMC	1712.6	22.37
	1740	22.31
	1752.4	22.25
HSDPA Subtest 1	1712.6	23.02
	1740	22.80
	1752.4	22.85
HSDPA Subtest 2	1712.6	22.54
	1740	22.34
	1752.4	22.36
HSDPA Subtest 3	1712.6	22.21
	1740	21.91
	1752.4	22.02
HSDPA Subtest 4	1712.6	21.83
	1740	21.51
	1752.4	21.61
HSUPA Subtest 1	1712.6	23.51
	1740	23.08
	1752.4	23.09
HSUPA Subtest 2	1712.6	22.71
	1740	22.18
	1752.4	22.11
HSUPA Subtest 3	1712.6	22.54
	1740	21.71
	1752.4	21.81
HSUPA Subtest 4	1712.6	22.13
	1740	21.22
	1752.4	21.45
HSUPA Subtest 5	1712.6	20.65
	1740	19.76
	1752.4	20.04

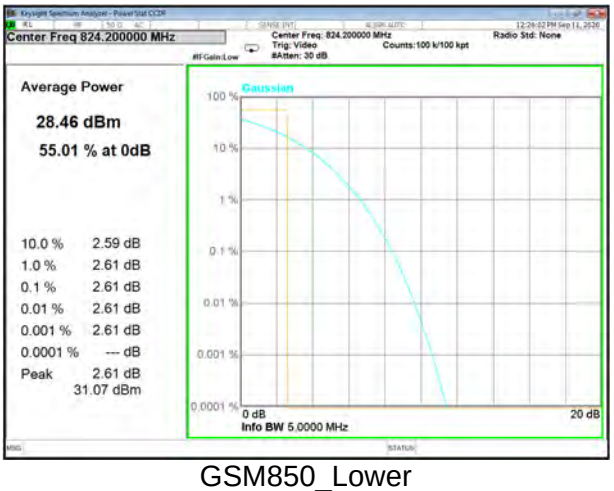
A2. PEAK-TO-AVERAGE RADIO

GSM 850		
Mode	Frequency (MHz)	PAR
GSM 850	824.2	2.61
	836.6	2.61
	848.8	2.61
GPRS 850	824.2	2.61
	836.6	2.61
	848.8	2.61
EGPRS 850	824.2	5.20
	836.6	5.02
	848.8	5.06
PCS 1900		
Mode	Frequency (MHz)	PAR
PCS1900	1850.2	2.73
	1880	2.73
	1909.8	2.74
GPRS1900	1850.2	2.72
	1880	2.74
	1909.8	2.74
EGPRS1900	1850.2	5.86
	1880	5.55
	1909.8	5.93

UMTS Band II		
Mode	Frequency (MHz)	PAR
WCDMA 1900 RMC	1852.4	2.86
	1880	2.98
	1907.6	2.88
HSDPA 1900	1852.4	3.17
	1880	3.12
	1907.6	3.17
HSUPA 1900	1852.4	3.16
	1880	3.02
	1907.6	3.00

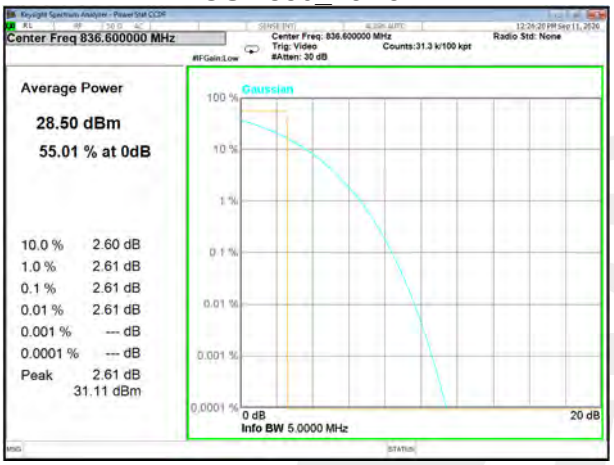
UMTS Band V		
Mode	Frequency (MHz)	PAR
WCDMA 850 RMC	826.4	2.91
	836.6	2.96
	846.6	2.98
HSDPA 850	826.4	3.19
	836.6	3.11
	846.6	3.27
HSUPA 850	826.4	2.97
	836.6	3.16
	846.6	3.23

UMTS Band IV		
Mode	Frequency (MHz)	PAR
WCDMA 1700 RMC	1712.6	2.89
	1740	2.82
	1752.4	2.76
HSDPA 1700	1712.6	3.00
	1740	2.89
	1752.4	3.03
HSUPA 1700	1712.6	2.99
	1740	3.08
	1752.4	2.89



GSM850_Lower

GPRS850_Lower



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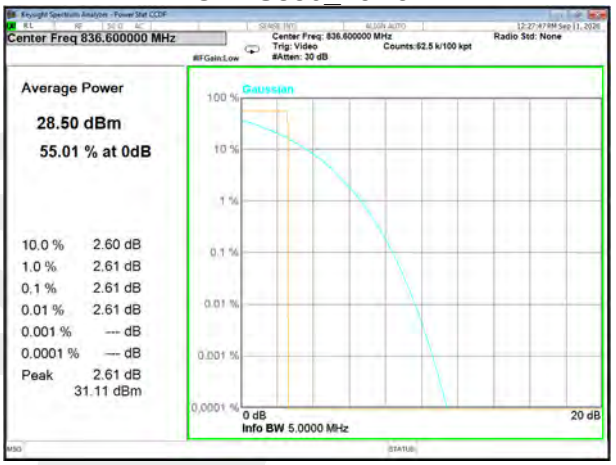
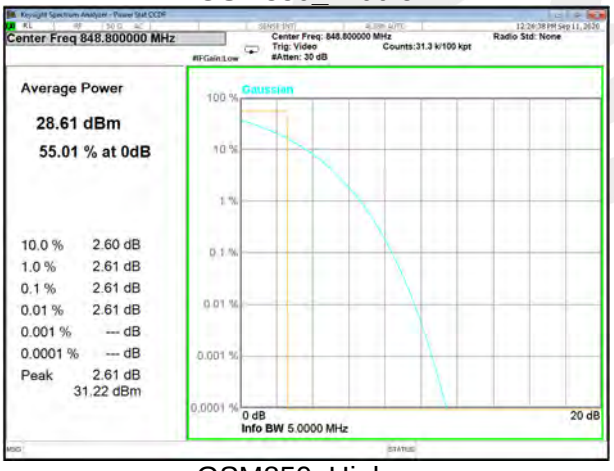


GPRS850_Middle



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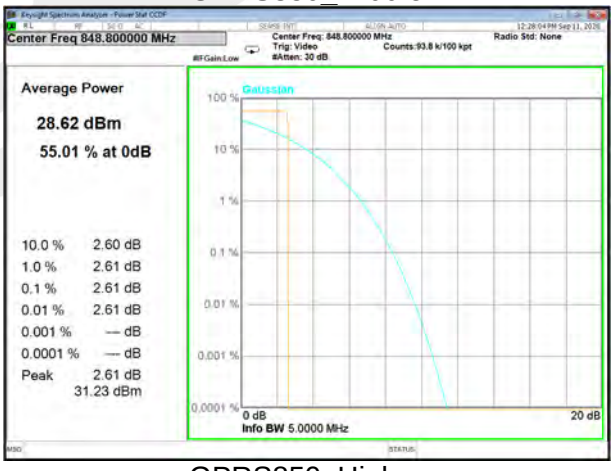

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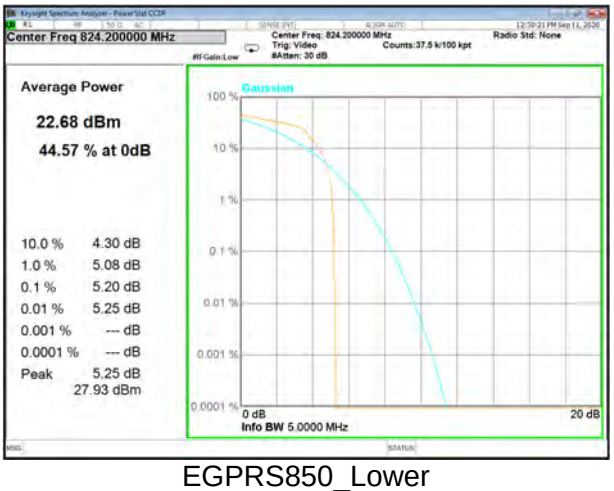

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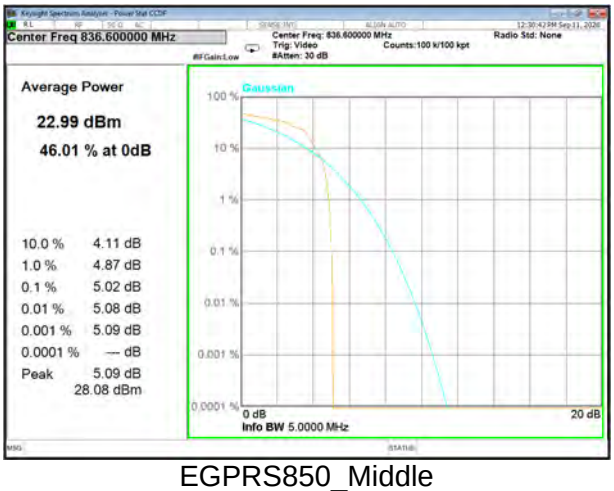

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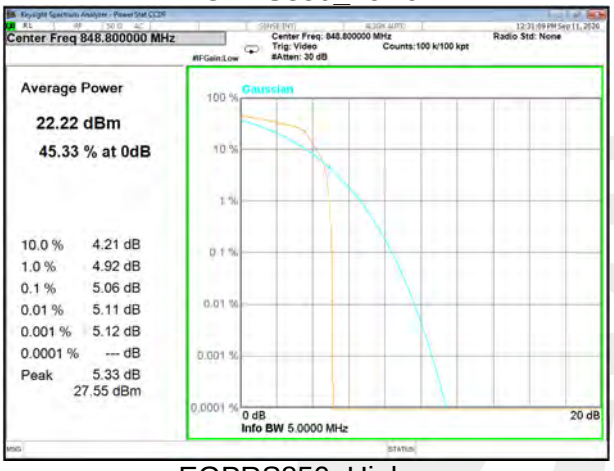
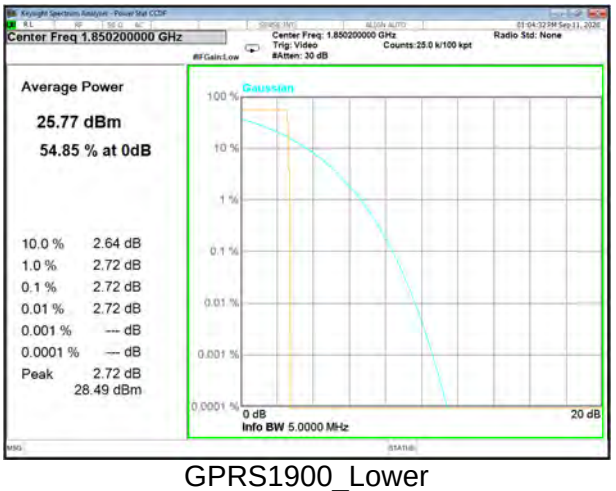


EGPRS850_Higher

GSM1900_Lower



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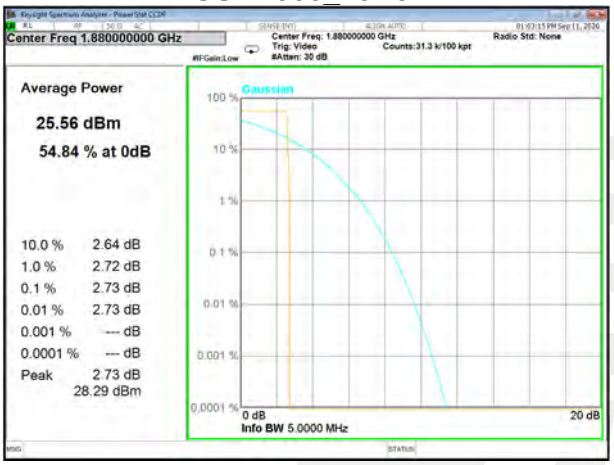

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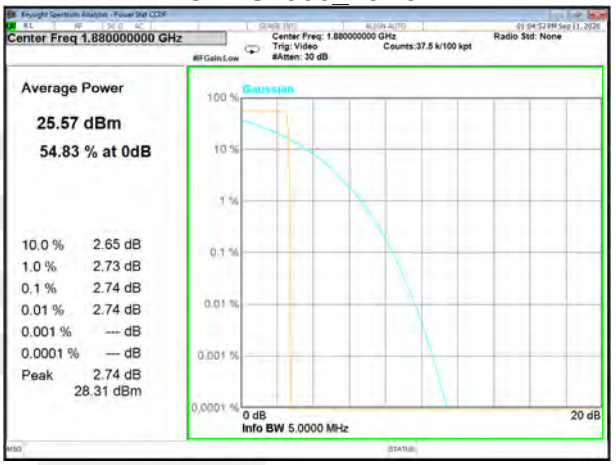

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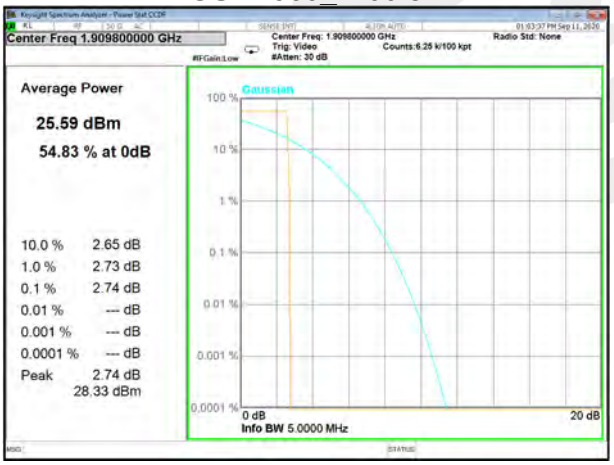

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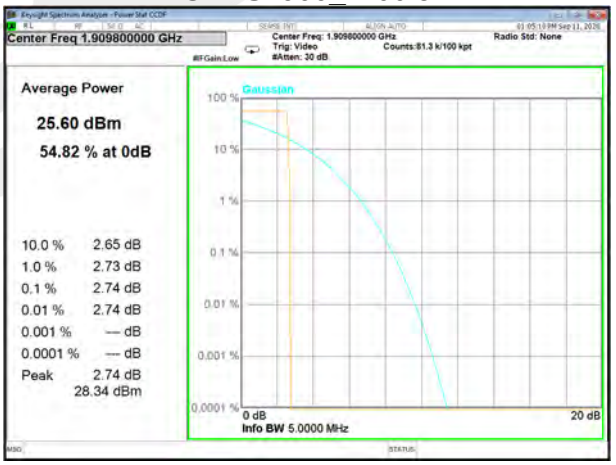

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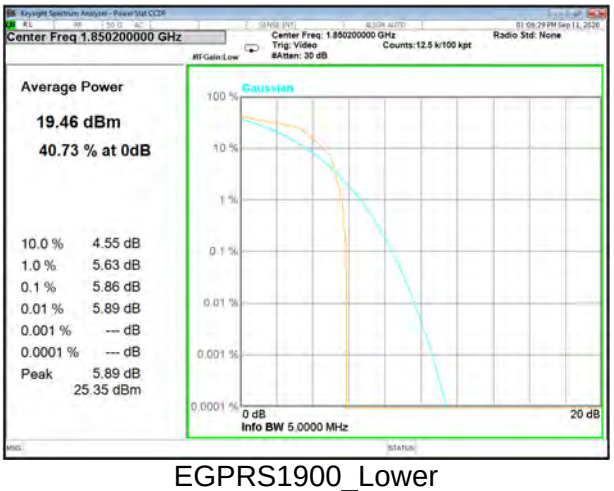

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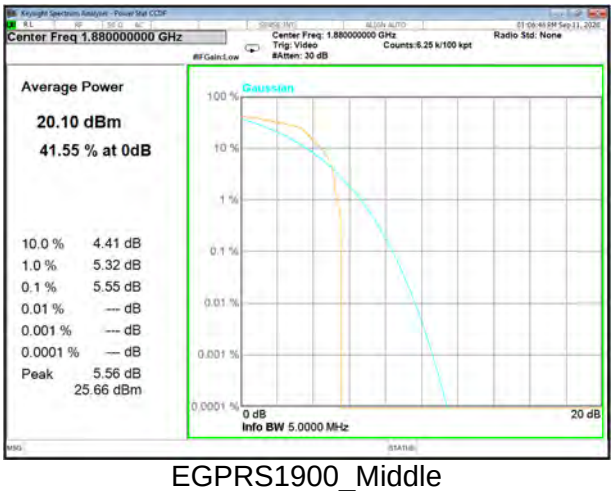

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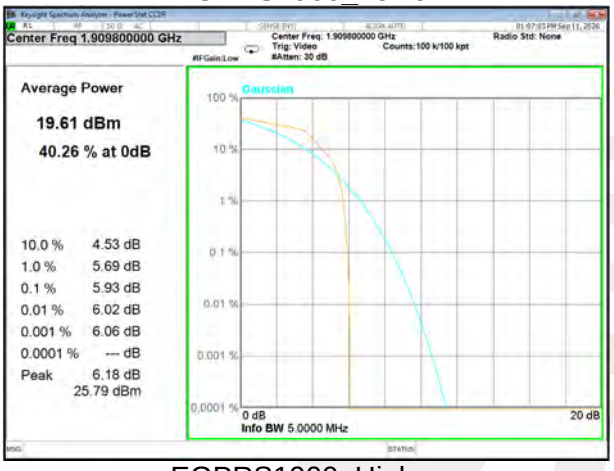

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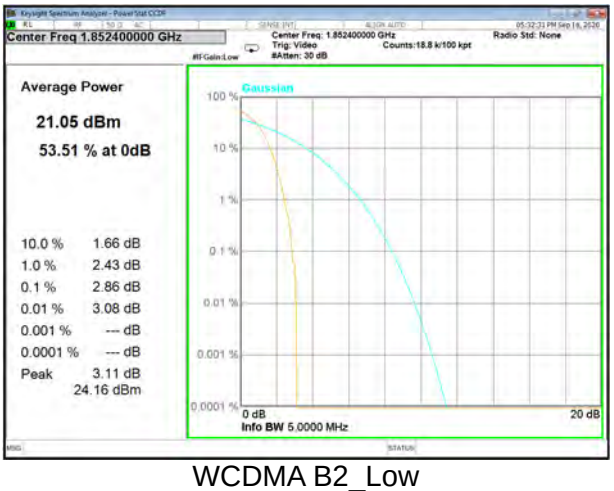
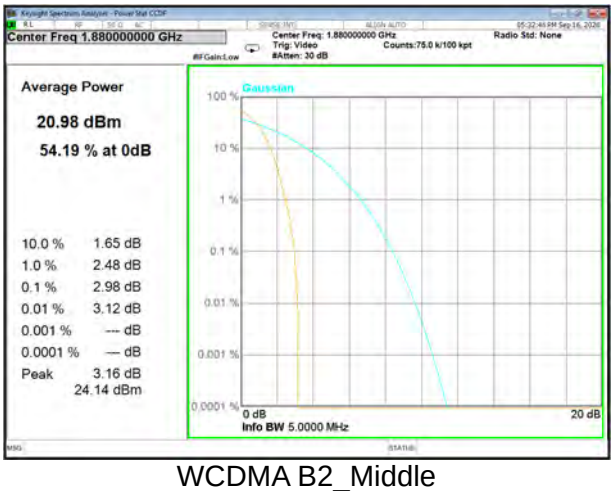


WCDMA B2_Low



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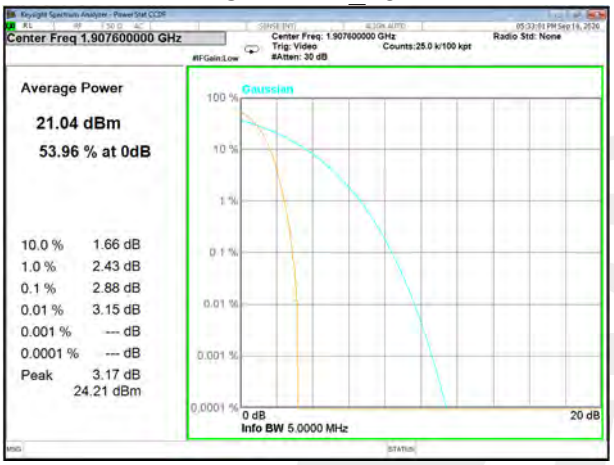
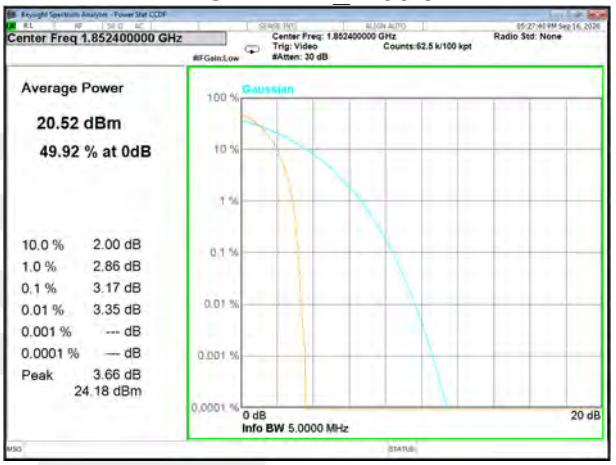
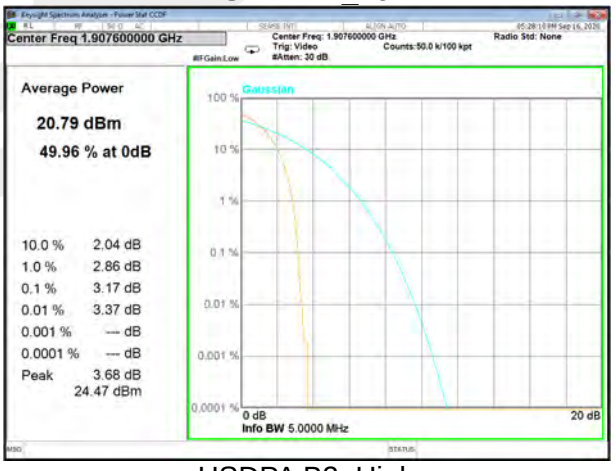


WCDMA B2_High

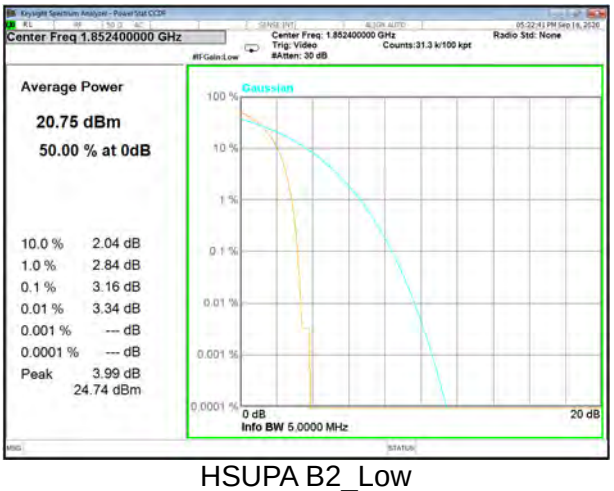


HSDPA B2_Low

HSDPA B2_Middle



HSDPA B2_High



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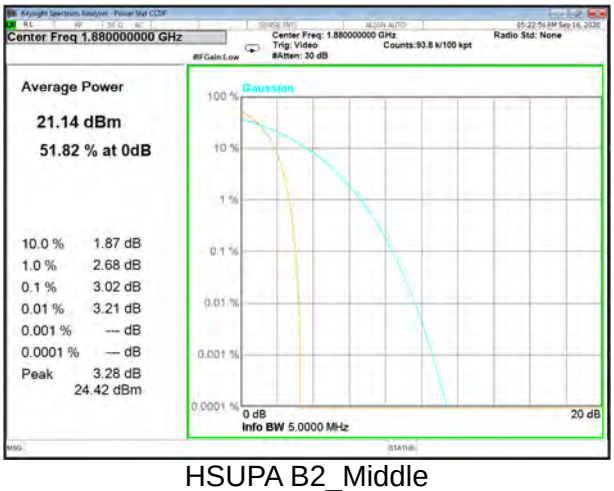
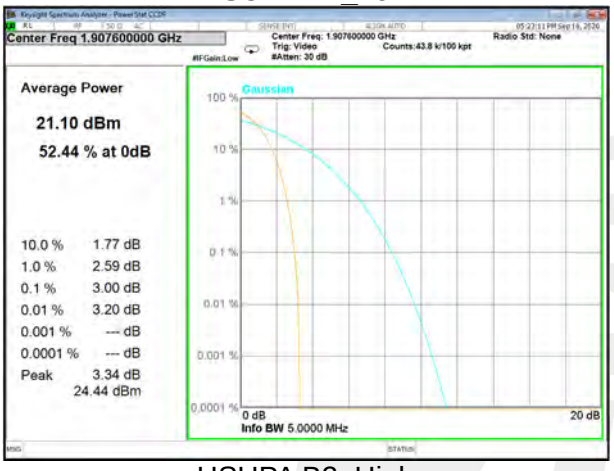


HSUPA B2_Middle



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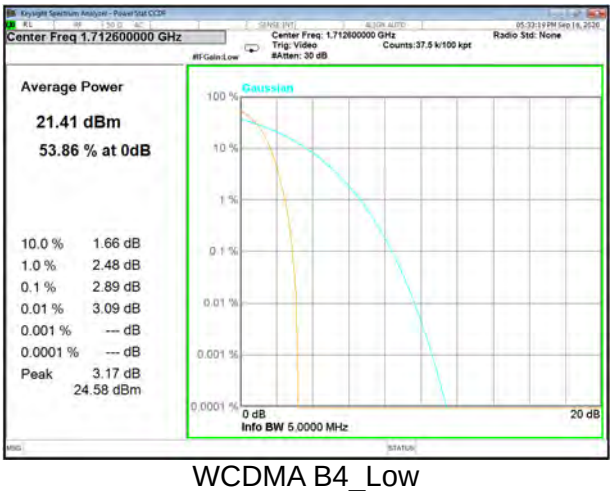

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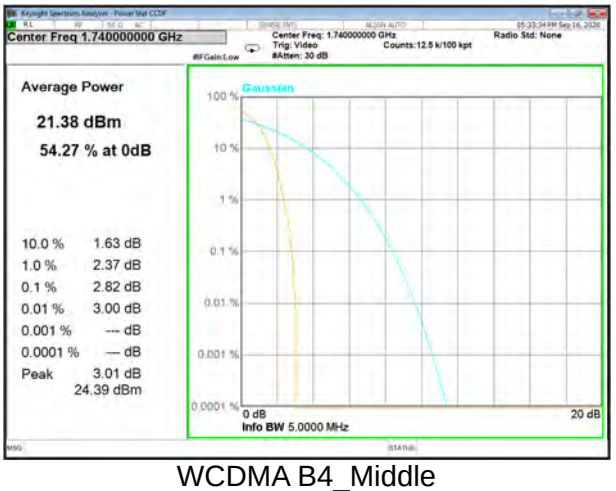
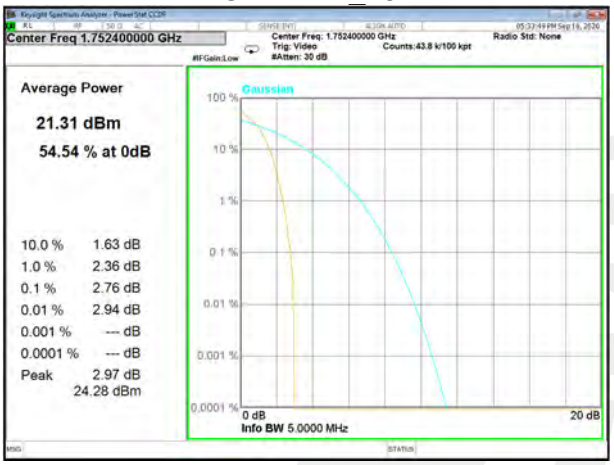


WCDMA B4_Middle



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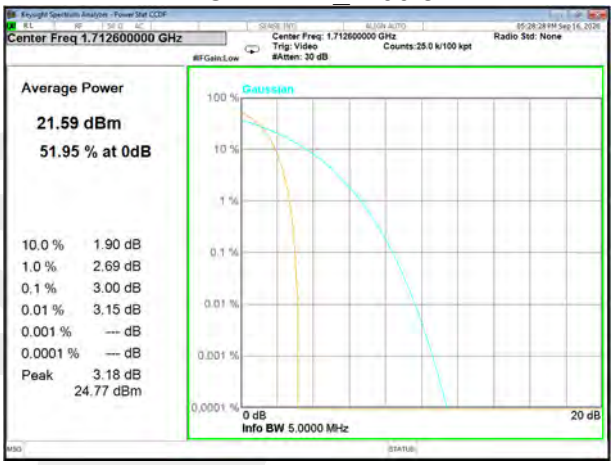
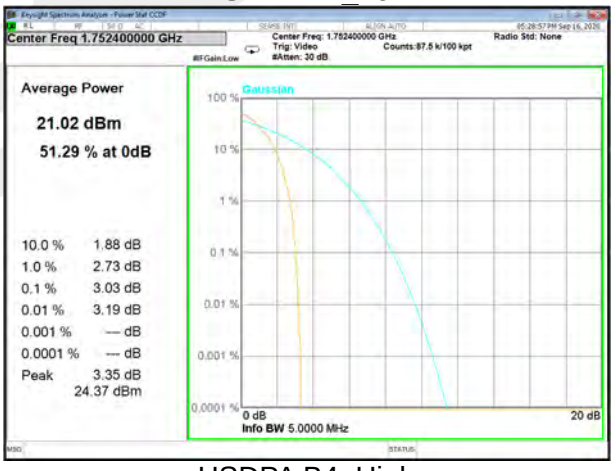
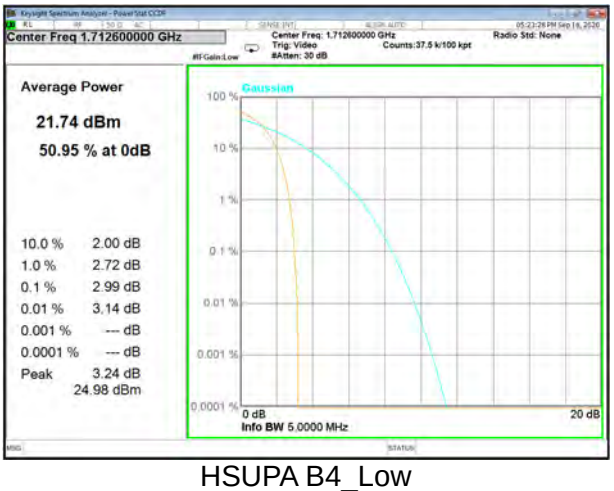


HSDPA B4_Low

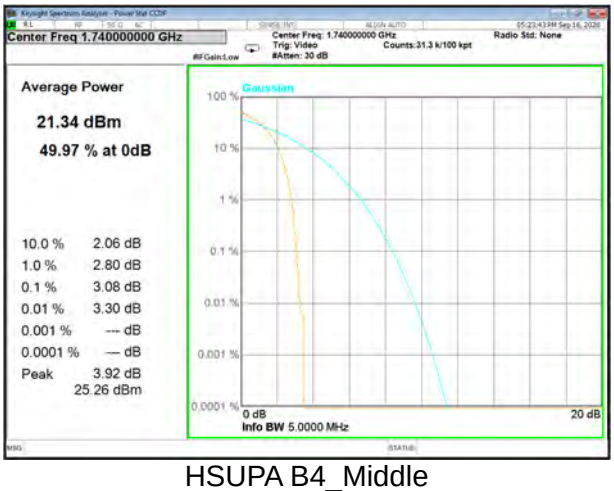
HSDPA B4_Middle



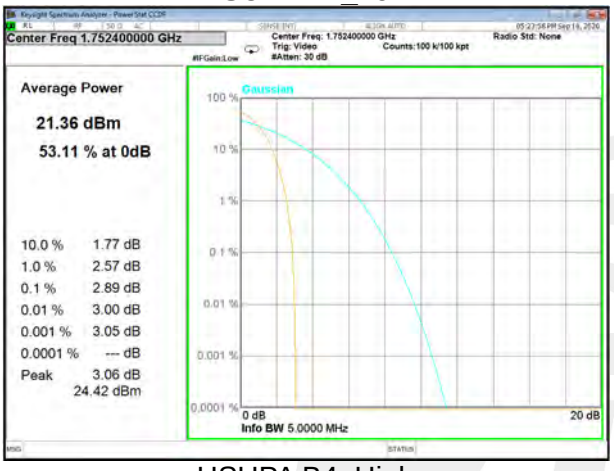
HSDPA B4_High



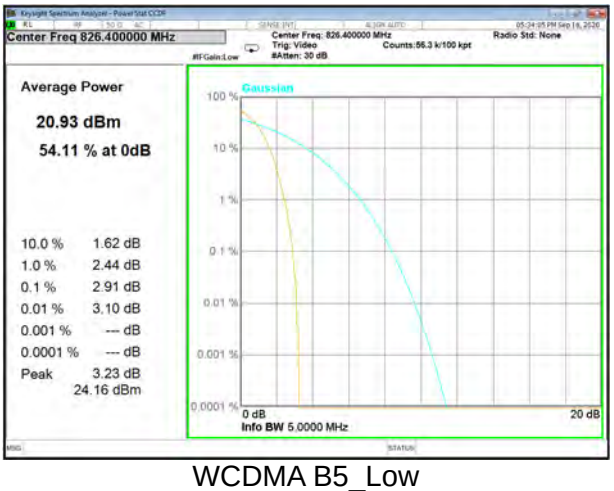
HSUPA B4_Low



HSUPA B4_Middle

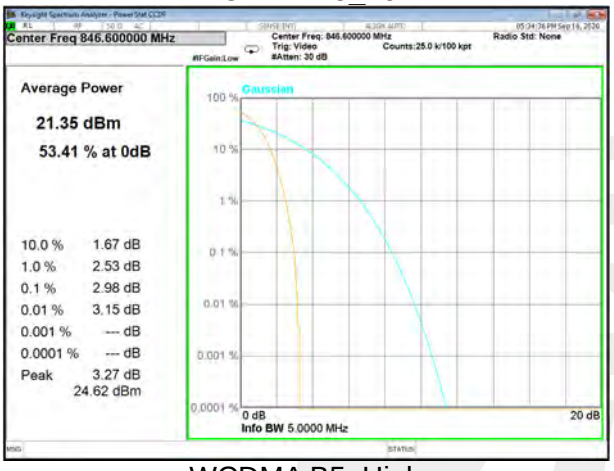


HSUPA B4_High



WCDMA B5_Low

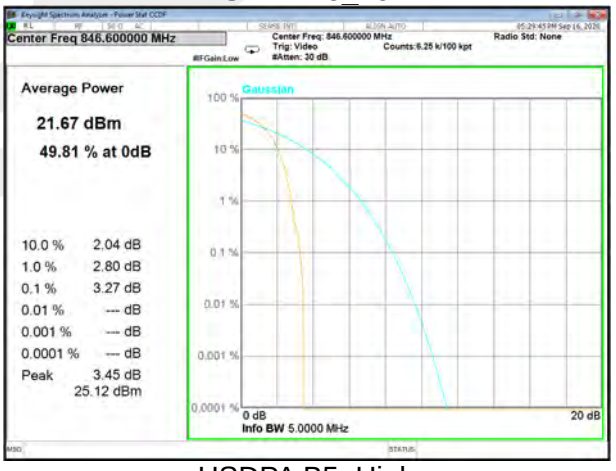
WCDMA B5_Middle



WCDMA B5_High

HSDPA B5_Low

HSDPA B5_Middle



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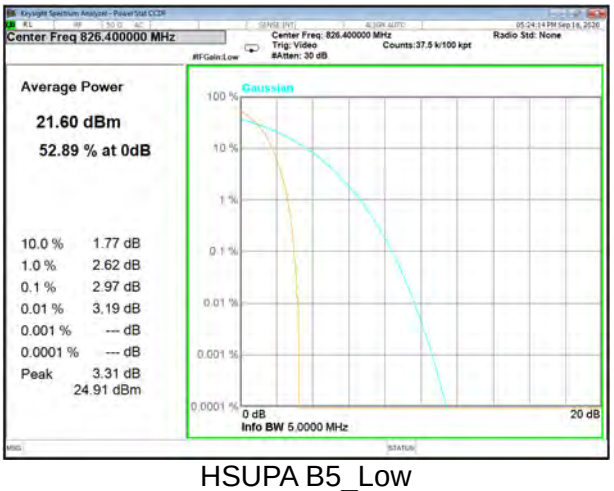
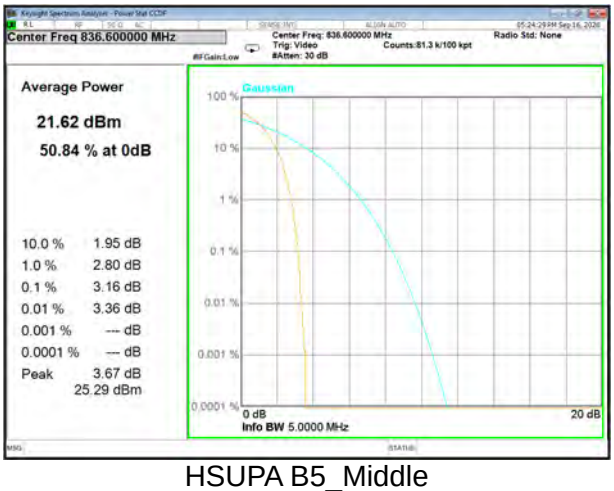
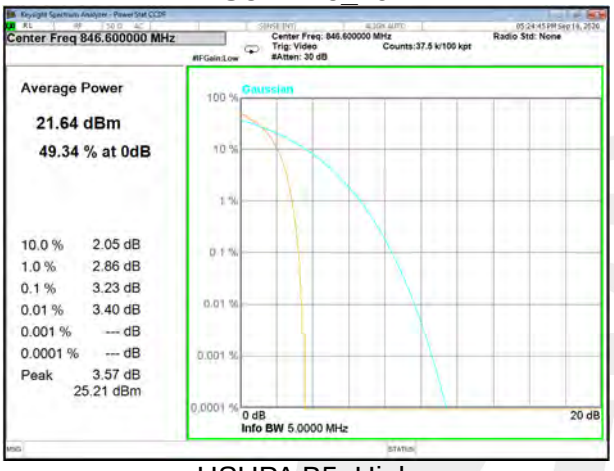


HSUPA B5_Low



HSUPA B5_Middle



HSUPA B5_High

A3. TRANSMITTER RADIATED POWER (EIRP/ERP)
Note: Test is divided into three directions, X/Y/Z. X pattern for the worst.

Radiated Power (ERP) for GSM 850 MHZ								
Mode	Frequency	Result						Conclusion
		S G.Level (dBm)	Cable loss	Gain(dBi)	correction factor(dB)	PMeas E.R.P(dBm)	Polarization Of Max. ERP	
GSM850	824.2	24.96	0.44	6.5	2.15	28.87	Horizontal	Pass
	824.2	26.85	0.44	6.5	2.15	30.76	Vertical	Pass
	836.6	24.93	0.45	6.5	2.15	28.83	Horizontal	Pass
	836.6	26.73	0.45	6.5	2.15	30.63	Vertical	Pass
	848.8	24.94	0.46	6.5	2.15	28.83	Horizontal	Pass
	848.8	26.85	0.46	6.5	2.15	30.74	Vertical	Pass
GPRS850	824.2	24.46	0.44	6.5	2.15	28.37	Horizontal	Pass
	824.2	26.65	0.44	6.5	2.15	30.56	Vertical	Pass
	836.6	24.48	0.45	6.5	2.15	28.38	Horizontal	Pass
	836.6	26.91	0.45	6.5	2.15	30.81	Vertical	Pass
	848.8	24.47	0.46	6.5	2.15	28.36	Horizontal	Pass
	848.8	26.84	0.46	6.5	2.15	30.73	Vertical	Pass
EGPRS850	824.2	21.30	0.44	6.5	2.15	25.21	Horizontal	Pass
	824.2	23.58	0.44	6.5	2.15	27.49	Vertical	Pass
	836.6	21.80	0.45	6.5	2.15	25.70	Horizontal	Pass
	836.6	23.82	0.45	6.5	2.15	27.72	Vertical	Pass
	848.8	20.91	0.46	6.5	2.15	24.80	Horizontal	Pass
	848.8	22.96	0.46	6.5	2.15	26.85	Vertical	Pass
Limit	ERP<7W=38.45dBm							

Radiated Power (EIRP) for PCS 1900 MHZ							
Mode	Frequency	Result					Conclusion
		S G.Level (dBm)	Cable loss	Gain (dBi)	PMeas E.I.R.P.(dBm)	Polarization Of Max. EIRP	
PCS1900	1850.2	18.19	2.41	10.35	26.13	Horizontal	Pass
	1850.2	19.93	2.41	10.35	27.87	Vertical	Pass
	1880	17.7	2.42	10.35	25.63	Horizontal	Pass
	1880	19.61	2.42	10.35	27.54	Vertical	Pass
	1909.8	17.81	2.43	10.35	25.73	Horizontal	Pass
	1909.8	19.61	2.43	10.35	27.53	Vertical	Pass
GPRS1900	1850.2	17.27	2.41	10.35	25.21	Horizontal	Pass
	1850.2	19.45	2.41	10.35	27.39	Vertical	Pass
	1880	17.06	2.42	10.35	24.99	Horizontal	Pass
	1880	19.43	2.42	10.35	27.36	Vertical	Pass
	1909.8	17.03	2.43	10.35	24.95	Horizontal	Pass
	1909.8	19.41	2.43	10.35	27.33	Vertical	Pass
EGPRS1900	1850.2	14.5	2.41	10.35	22.44	Horizontal	Pass
	1850.2	16.71	2.41	10.35	24.65	Vertical	Pass
	1880	15.04	2.42	10.35	22.97	Horizontal	Pass
	1880	17.31	2.42	10.35	25.24	Vertical	Pass
	1909.8	14.6	2.43	10.35	22.52	Horizontal	Pass
	1909.8	16.99	2.43	10.35	24.91	Vertical	Pass
Limit	EIRP<2W=33dBm						

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. EIRP	
WCDMA	1852.4	11.62	2.41	10.35	19.56	Horizontal	Pass
	1852.4	13.36	2.41	10.35	21.30	Vertical	Pass
	1880	11.42	2.42	10.35	19.35	Horizontal	Pass
	1880	13.32	2.42	10.35	21.25	Vertical	Pass
	1907.4	11.71	2.43	10.35	19.63	Horizontal	Pass
	1907.4	13.54	2.43	10.35	21.46	Vertical	Pass
HSUPA	1852.4	10.97	2.41	10.35	18.91	Horizontal	Pass
	1852.4	12.68	2.41	10.35	20.62	Vertical	Pass
	1880	10.76	2.42	10.35	18.69	Horizontal	Pass
	1880	12.66	2.42	10.35	20.59	Vertical	Pass
	1907.4	10.95	2.43	10.35	18.87	Horizontal	Pass
	1907.4	12.91	2.43	10.35	20.83	Vertical	Pass
HSDPA	1852.4	10.93	2.41	10.35	18.87	Horizontal	Pass
	1852.4	12.76	2.41	10.35	20.70	Vertical	Pass
	1880	11.24	2.42	10.35	19.17	Horizontal	Pass
	1880	13.24	2.42	10.35	21.17	Vertical	Pass
	1907.4	11.36	2.43	10.35	19.28	Horizontal	Pass
	1907.4	13.12	2.43	10.35	21.04	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	15.37	0.44	6.5	2.15	19.28	Horizontal	Pass
	826.4	17.16	0.44	6.5	2.15	21.07	Vertical	Pass
	836.6	15.38	0.45	6.5	2.15	19.28	Horizontal	Pass
	836.6	17.28	0.45	6.5	2.15	21.18	Vertical	Pass
	846.4	15.69	0.46	6.5	2.15	19.58	Horizontal	Pass
	846.4	17.54	0.46	6.5	2.15	21.43	Vertical	Pass
HSUPA	826.4	15.71	0.44	6.5	2.15	19.62	Horizontal	Pass
	826.4	17.43	0.44	6.5	2.15	21.34	Vertical	Pass
	836.6	15.65	0.45	6.5	2.15	19.55	Horizontal	Pass
	836.6	17.35	0.45	6.5	2.15	21.25	Vertical	Pass
	846.4	15.83	0.46	6.5	2.15	19.72	Horizontal	Pass
	846.4	17.69	0.46	6.5	2.15	21.58	Vertical	Pass
HSDPA	826.4	16.04	0.44	6.5	2.15	19.95	Horizontal	Pass
	826.4	17.78	0.44	6.5	2.15	21.69	Vertical	Pass
	836.6	16.15	0.45	6.5	2.15	20.05	Horizontal	Pass
	836.6	18.09	0.45	6.5	2.15	21.99	Vertical	Pass
	846.4	15.99	0.46	6.5	2.15	19.88	Horizontal	Pass
	846.4	17.85	0.46	6.5	2.15	21.74	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. EIRP	
WCDMA	1712.6	11.87	2.07	10.13	19.93	Horizontal	Pass
	1712.6	13.7	2.07	10.13	21.76	Vertical	Pass
	1740	11.39	2.08	10.13	19.44	Horizontal	Pass
	1740	13.39	2.08	10.13	21.44	Vertical	Pass
	1752.4	11.68	2.09	10.13	19.72	Horizontal	Pass
	1752.4	13.53	2.09	10.13	21.57	Vertical	Pass
HSUPA	1712.6	12.45	2.07	10.13	20.51	Horizontal	Pass
	1712.6	14.45	2.07	10.13	22.51	Vertical	Pass
	1740	12.35	2.08	10.13	20.40	Horizontal	Pass
	1740	14.11	2.08	10.13	22.16	Vertical	Pass
	1752.4	12.13	2.09	10.13	20.17	Horizontal	Pass
	1752.4	13.97	2.09	10.13	22.01	Vertical	Pass
HSDPA	1712.6	12.8	2.07	10.13	20.86	Horizontal	Pass
	1712.6	14.68	2.07	10.13	22.74	Vertical	Pass
	1740	12.25	2.08	10.13	20.30	Horizontal	Pass
	1740	14.22	2.08	10.13	22.27	Vertical	Pass
	1752.4	12.76	2.09	10.13	20.80	Horizontal	Pass
	1752.4	14.52	2.09	10.13	22.56	Vertical	Pass
Limit	EIRP<3W=34.78dBm						

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

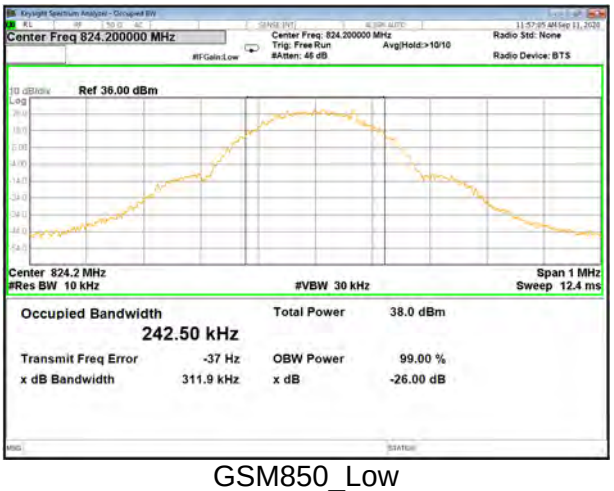
GSM Bandwidth [KHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
GSM850	242.5	311.9	245.83	316.6	239.36	315.8
GPRS850	242.9	307.4	239.81	311.6	243.72	309.5
EGPRS850	246.56	315.3	252.48	333.3	250.93	316.4

GSM Bandwidth [KHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
GSM1900	244.3	319.3	241.69	313.3	246.77	316
GPRS1900	240.62	316.7	241.8	311.5	245.11	314.3
EGPRS1900	240.37	307.9	241.08	301.2	238.38	307.5

WCDMA Bandwidth [MHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
WCDMA II	4.148	4.635	4.146	4.639	4.131	4.637
HSDPA II	4.149	4.638	4.148	4.643	4.149	4.632
HSUPA II	4.151	4.64	4.156	4.647	4.146	4.636

WCDMA Bandwidth [MHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
WCDMA V	4.151	4.646	4.15	4.637	4.154	4.645
HSDPA V	4.148	4.653	4.1448	4.649	4.149	4.65
HSUPA V	4.148	4.643	4.15	4.65	4.15	4.64

WCDMA Bandwidth [MHz]						
Mode	Lowest		Middle		Highest	
	99% BW	26dB BW	99% BW	26dB BW	99% BW	26dB BW
WCDMA IV	4.142	4.651	4.152	4.646	4.149	4.64
HSDPA IV	4.145	4.639	4.153	4.643	4.141	4.647
HSUPA IV	4.1528	4.641	4.1551	4.646	4.144	4.657



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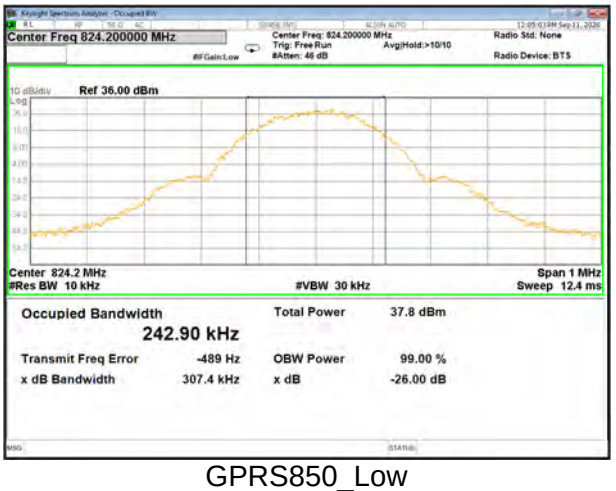

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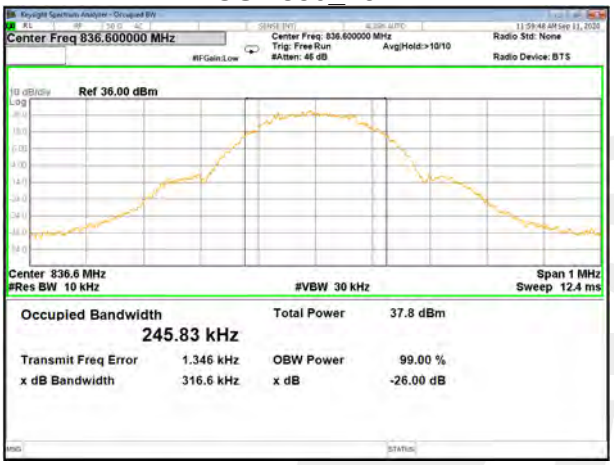

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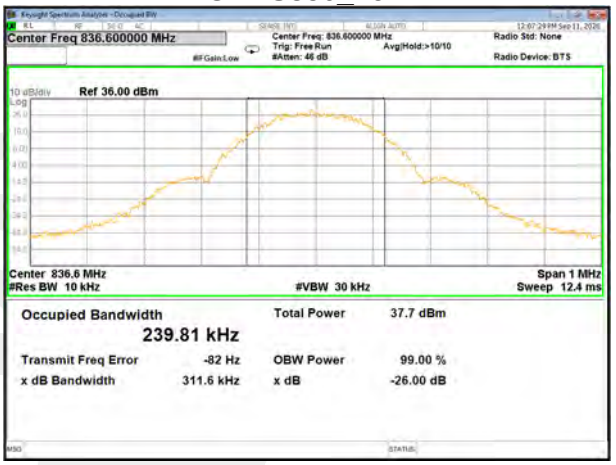

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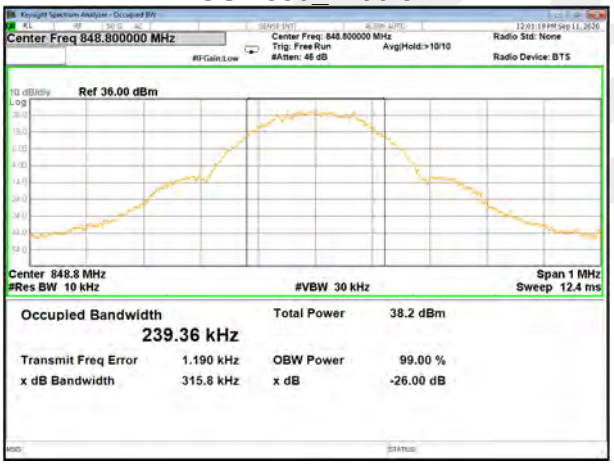

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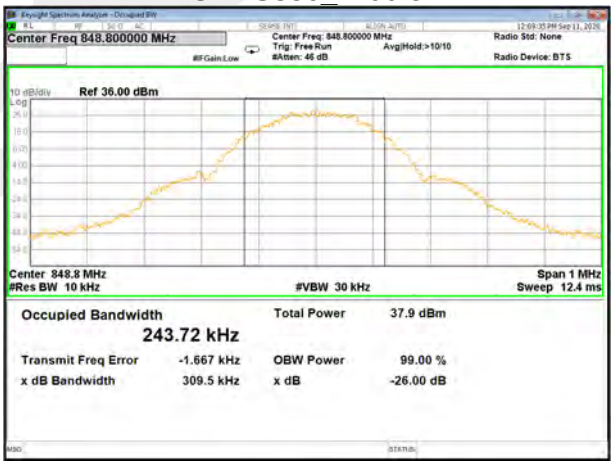

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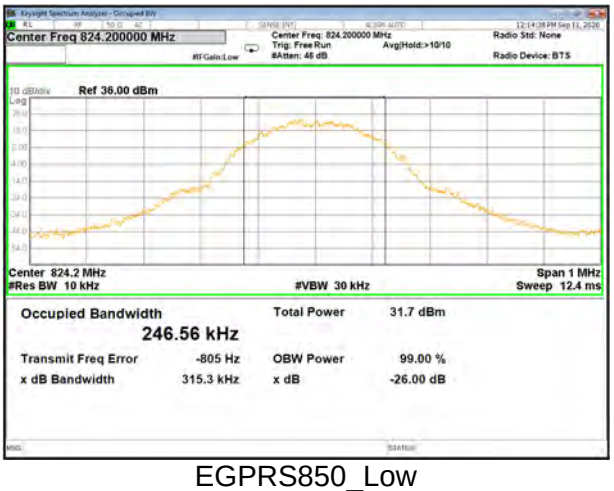

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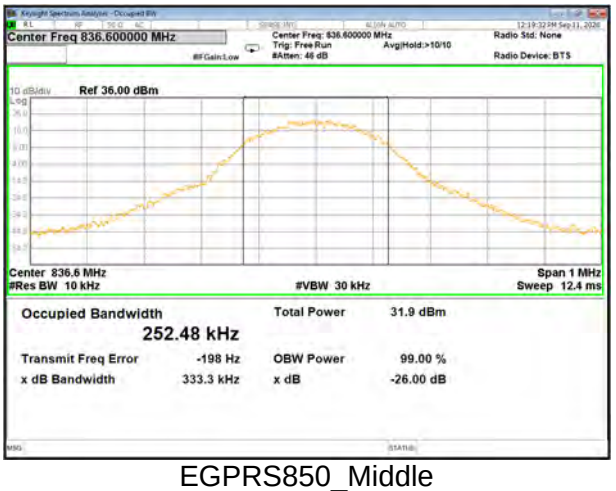

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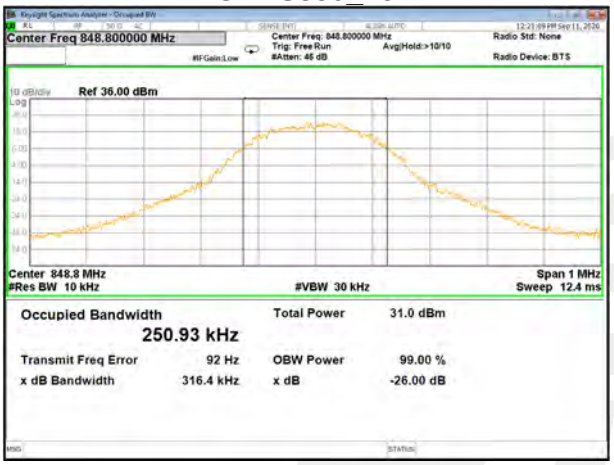

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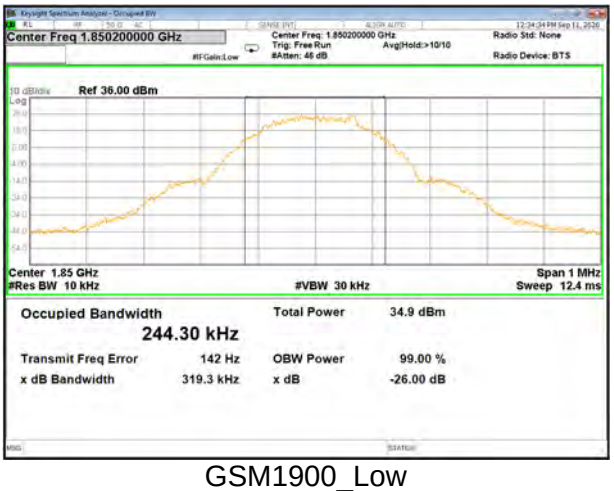

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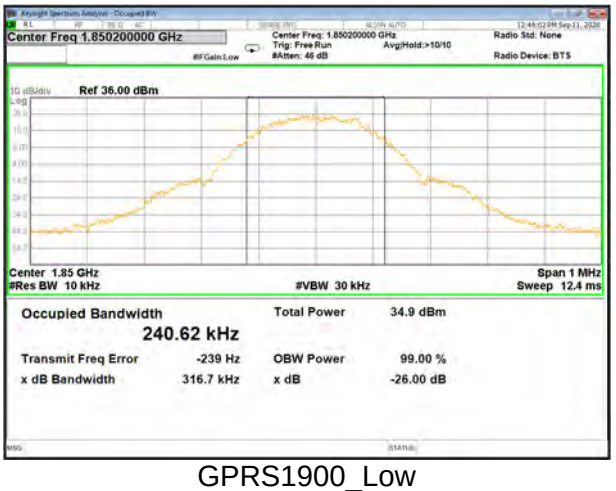

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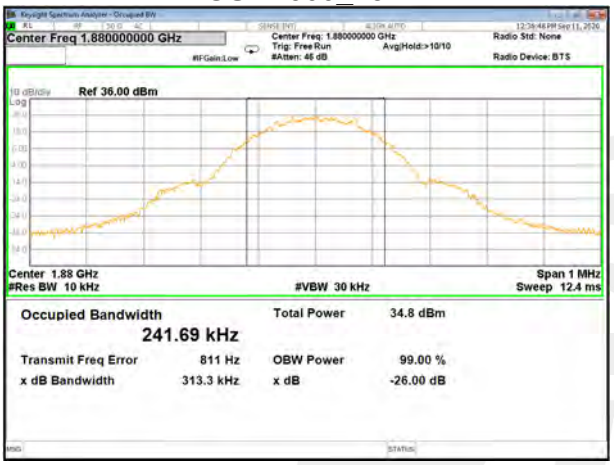

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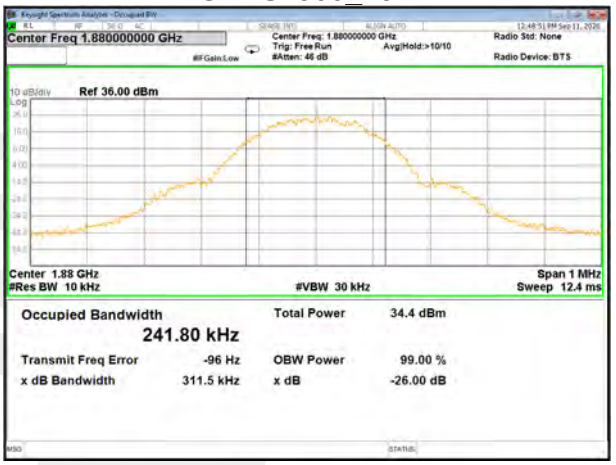

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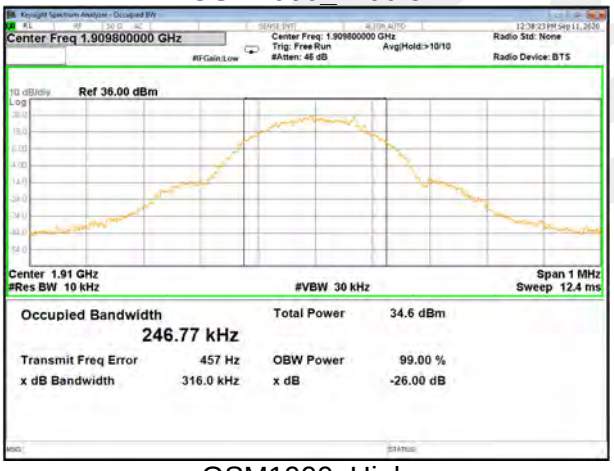

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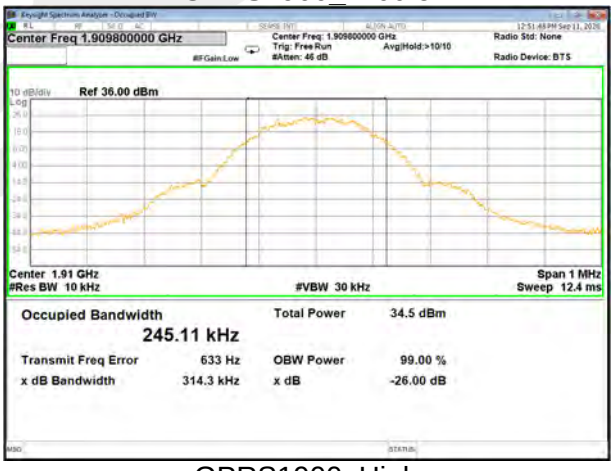

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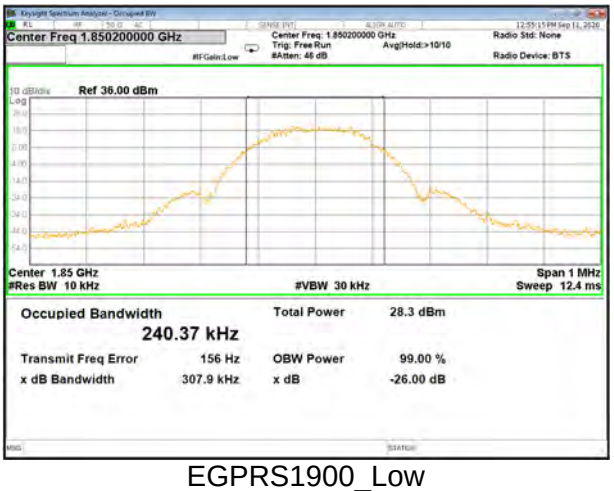

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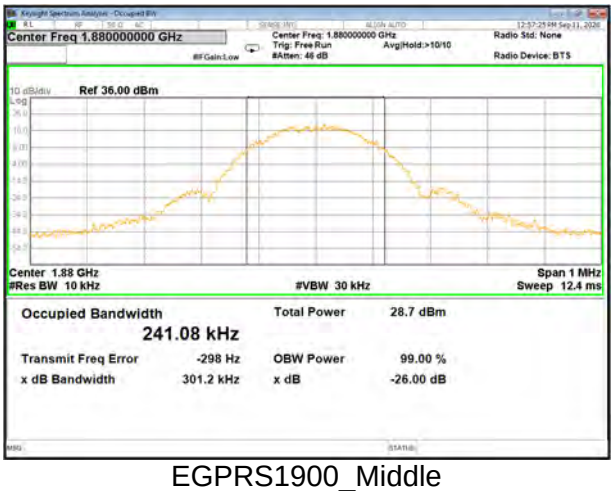

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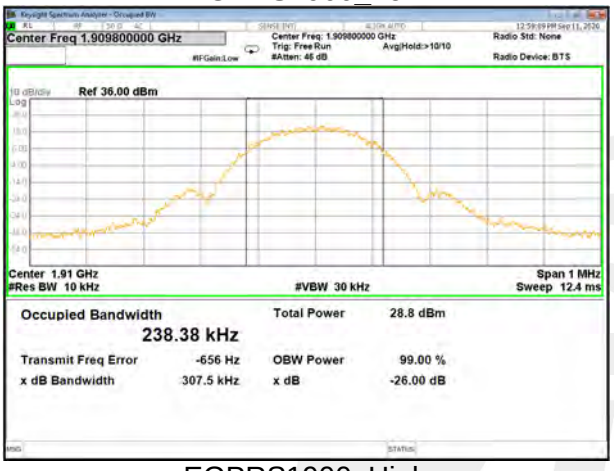

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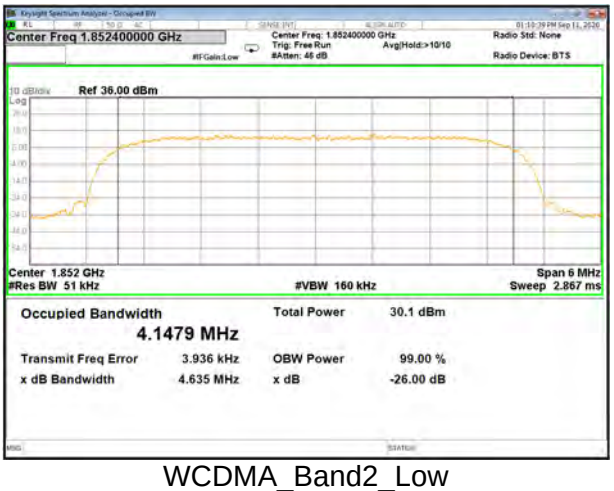
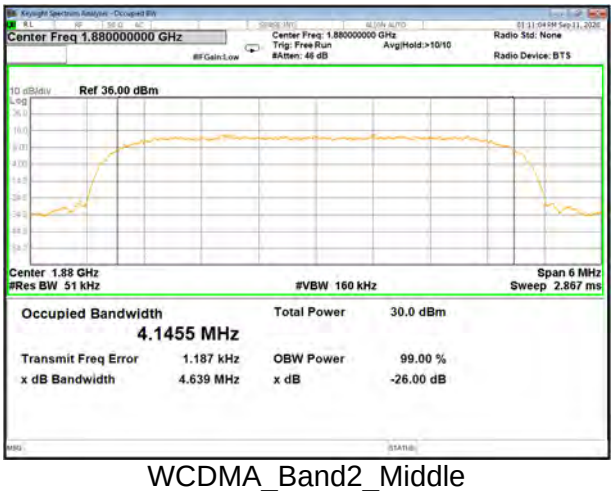


WCDMA_Band2_Low



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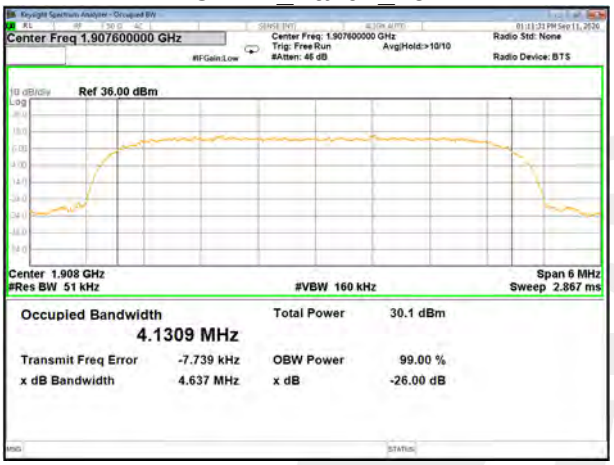
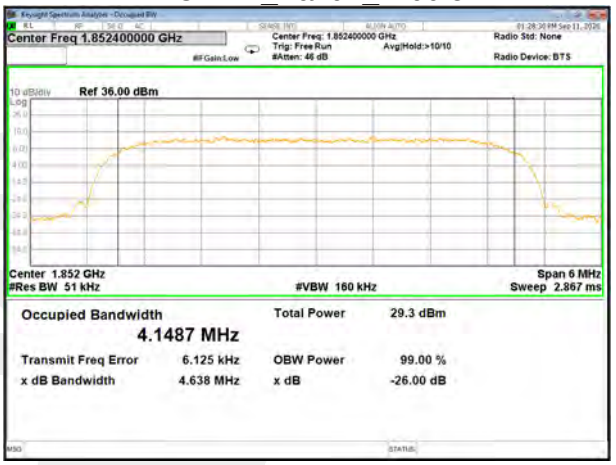
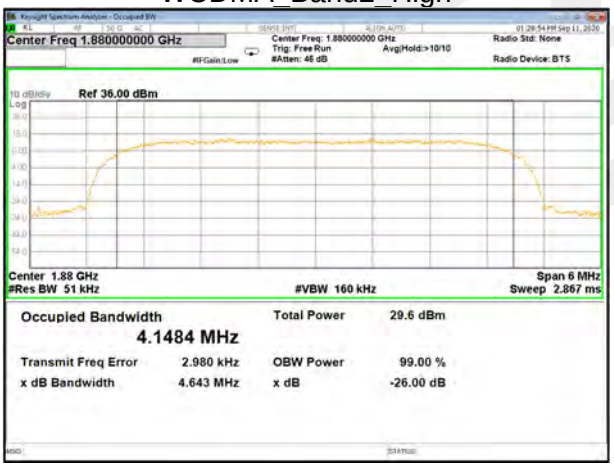


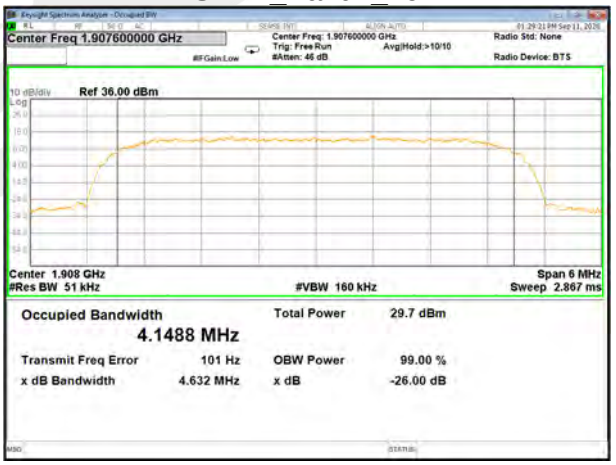
WCDMA_Band2_High



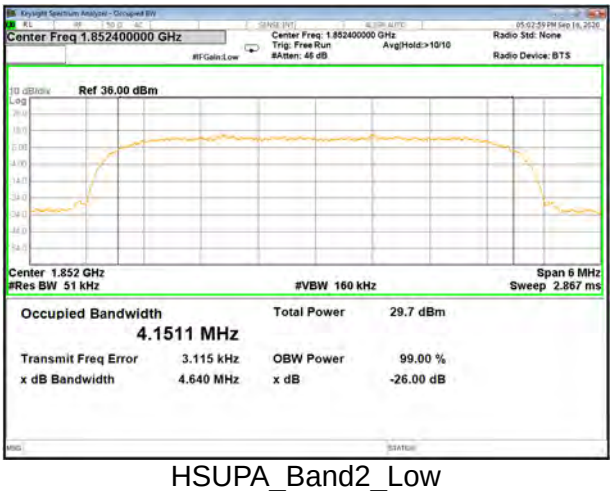
HSDPA_Band2_Low



HSDPA_Band2_Middle



HSDPA_Band2_High



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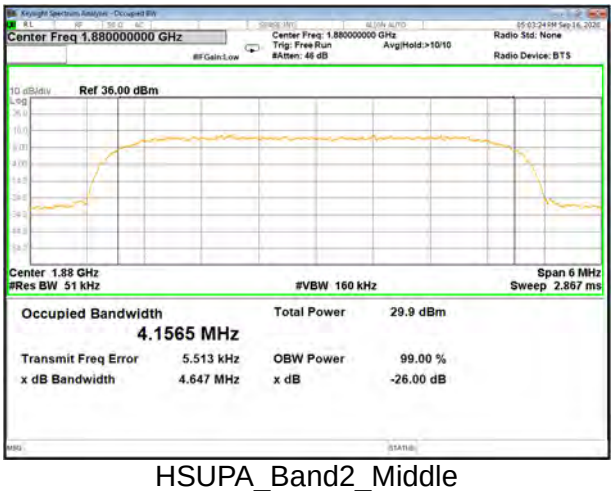
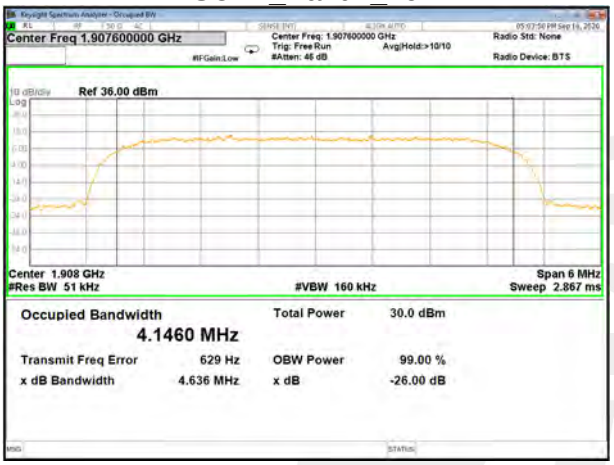


HSUPA_Band2_Middle



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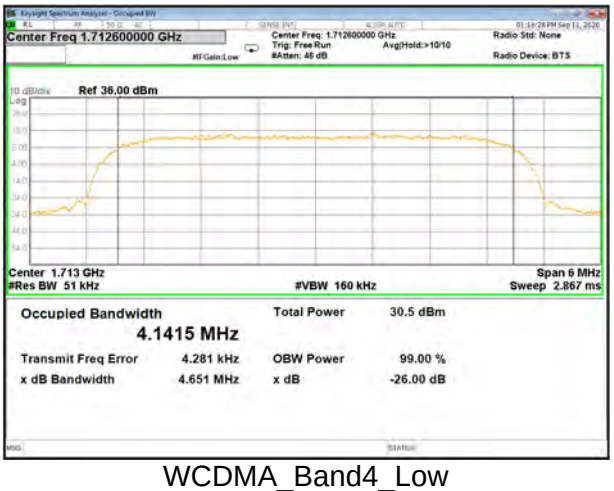

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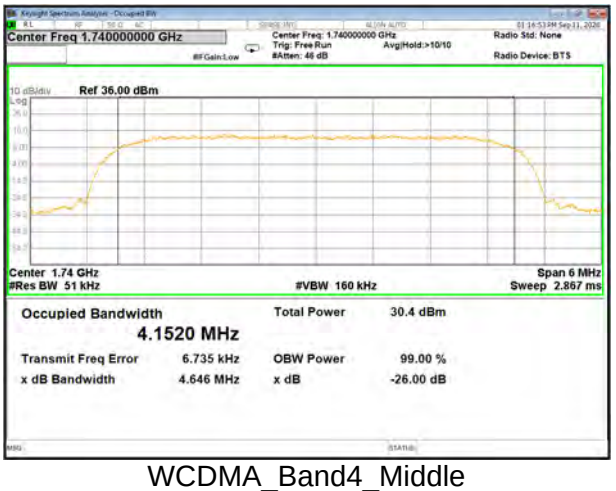

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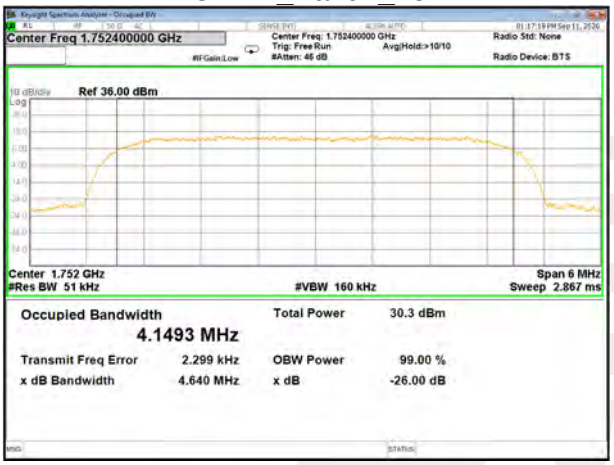

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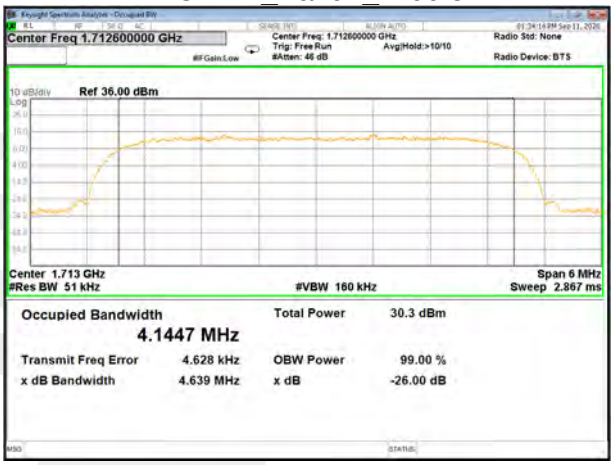

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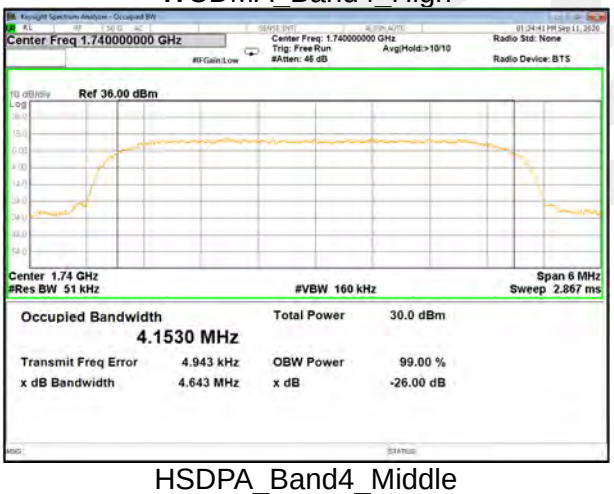

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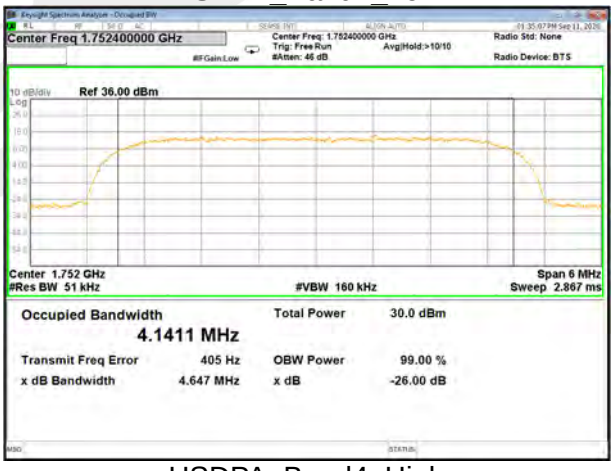

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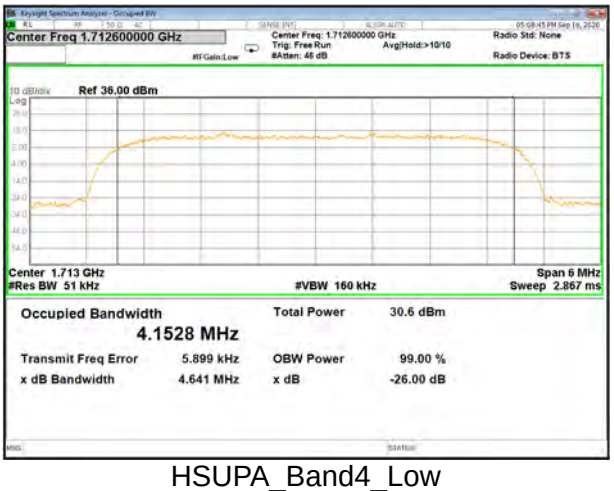

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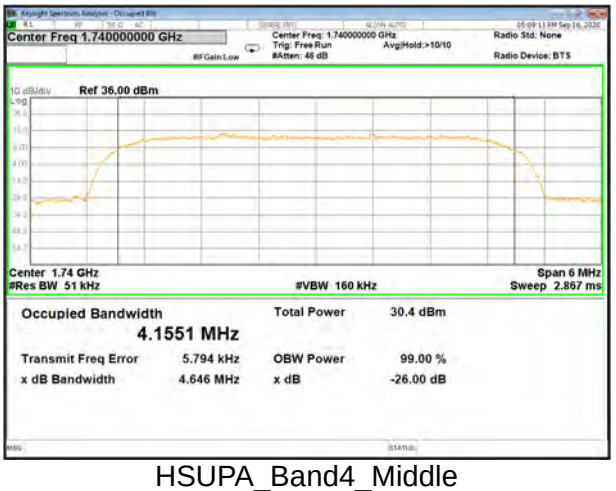

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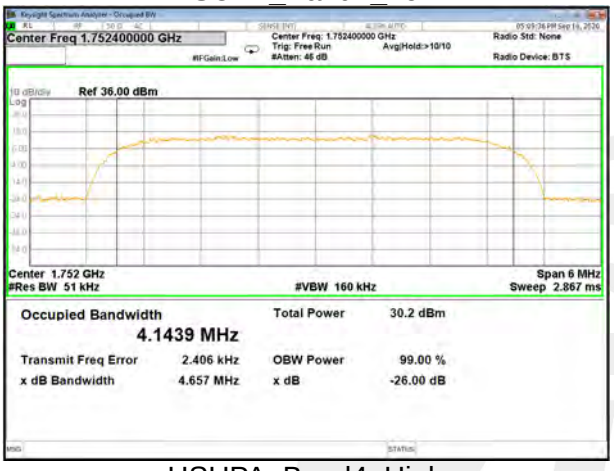

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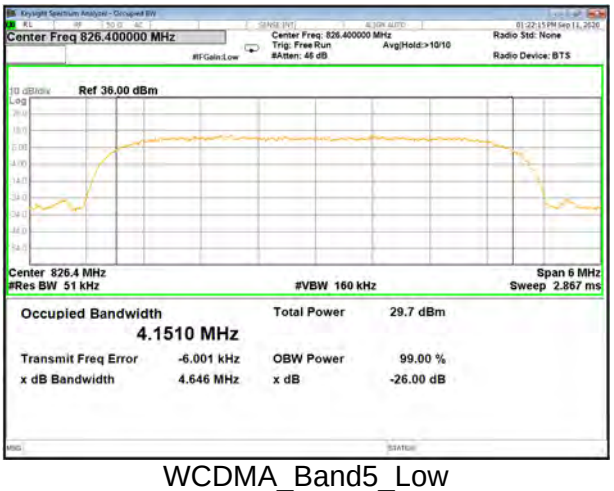
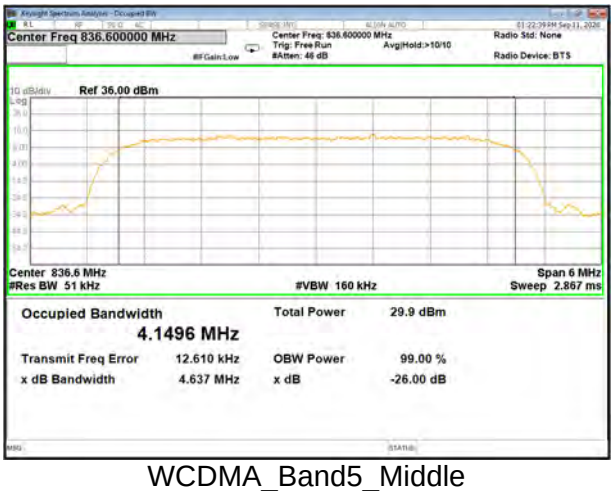


WCDMA_Band5_Low



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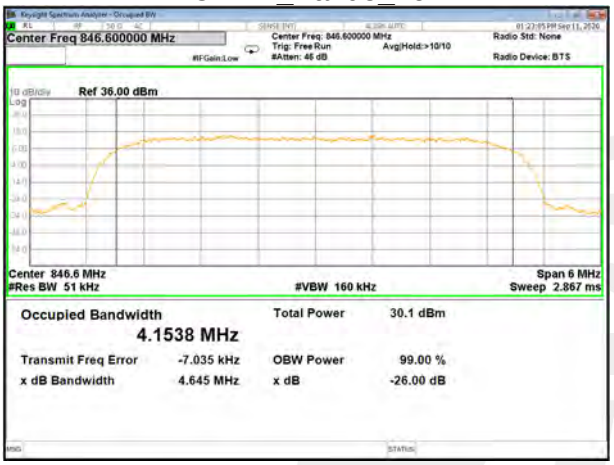

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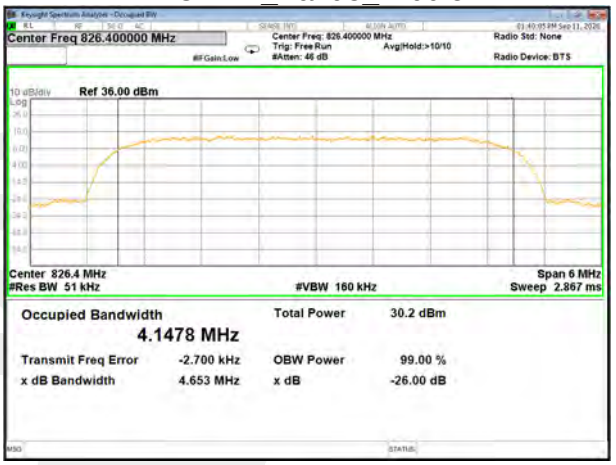
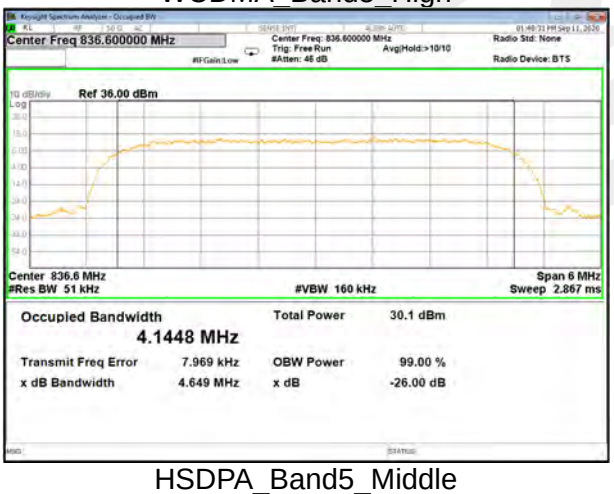
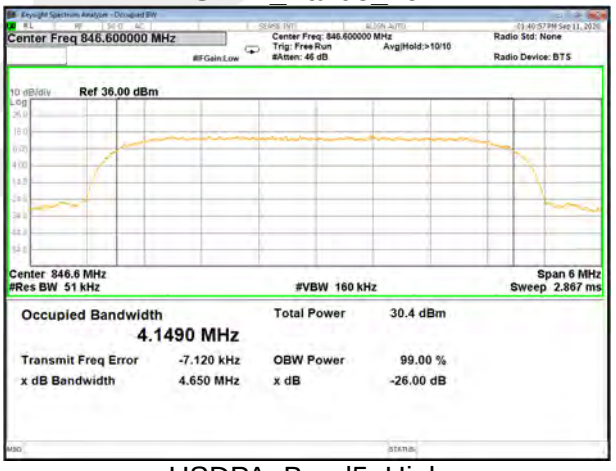


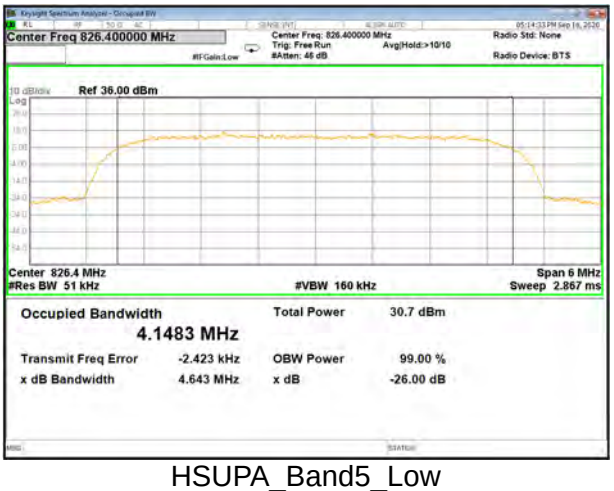
HSDPA_Band5_Low



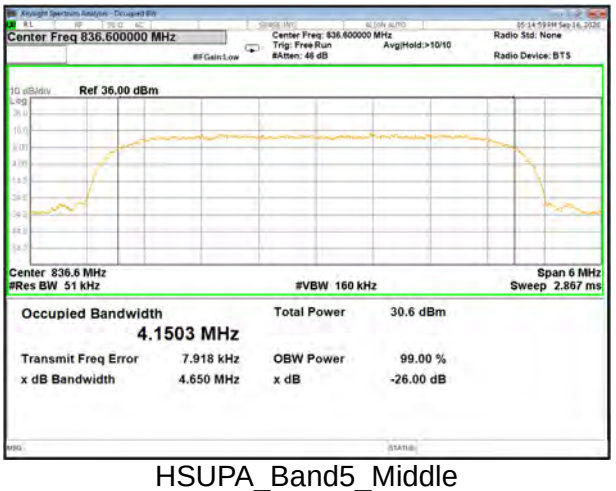
HSDPA_Band5_Middle



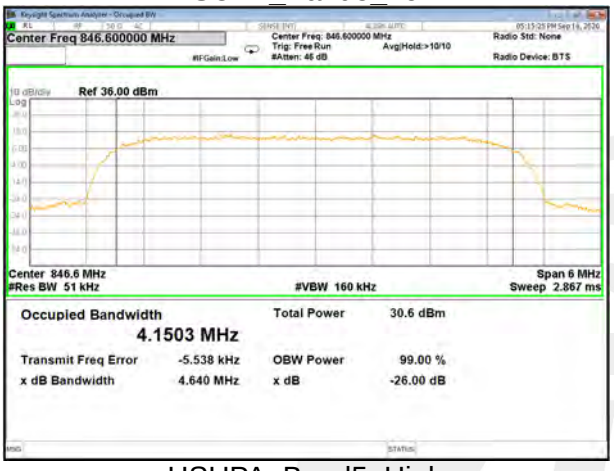
HSDPA_Band5_High



HSUPA_Band5_Low



HSUPA_Band5_Middle



HSUPA_Band5_High

A5. FREQUENCY STABILITY

Normal Voltage = 3.85V; Battery End Point (BEP) = 3.4V; Maximum Voltage =4.4V

GSM 850 /836.6MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	22.82	0.027	2.5ppm	PASS
40		20.36	0.024		
30		22.68	0.027		
20		29.55	0.035		
10		18.12	0.022		
0		13.10	0.016		
-10		21.54	0.026		
-20		23.09	0.028		
-30		26.37	0.032		
20	Maximum Voltage	12.95	0.015		
20	BEP	26.13	0.031		

GPRS 850 /836.6MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	30.43	0.036	2.5ppm	PASS
40		30.01	0.036		
30		33.57	0.040		
20		24.59	0.029		
10		33.88	0.040		
0		13.69	0.016		
-10		33.13	0.040		
-20		24.28	0.029		
-30		19.73	0.024		
20	Maximum Voltage	22.40	0.027		
20	BEP	27.88	0.033		

EGPRS 850 /836.6MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	17.52	0.021	2.5ppm	PASS
40		14.45	0.017		
30		31.23	0.037		
20		20.72	0.025		
10		31.91	0.038		
0		33.66	0.040		
-10		30.20	0.036		
-20		14.88	0.018		
-30		14.97	0.018		
20	Maximum Voltage	32.57	0.039		
20	BEP	25.01	0.030		

GSM 1900 / 1880MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	28.28	0.015	Within Authorized Band	PASS
40		19.48	0.010		
30		15.52	0.008		
20		27.66	0.015		
10		35.56	0.019		
0		25.85	0.014		
-10		22.99	0.012		
-20		25.99	0.014		
-30		33.36	0.018		
20	Maximum Voltage	19.10	0.010		
20	BEP	19.25	0.010		

GPRS 1900 / 1880MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	33.79	0.018	Within Authorized Band	PASS
40		34.40	0.018		
30		11.95	0.006		
20		25.83	0.014		
10		13.38	0.007		
0		15.97	0.008		
-10		24.58	0.013		
-20		14.25	0.008		
-30		15.96	0.008		
20	Maximum Voltage	16.92	0.009		
20	BEP	32.42	0.017		

EGPRS 1900 / 1880MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	32.49	0.017	Within Authorized Band	PASS
40		15.08	0.008		
30		11.81	0.006		
20		24.64	0.013		
10		26.25	0.014		
0		13.97	0.007		
-10		18.34	0.010		
-20		35.50	0.019		
-30		26.19	0.014		
20	Maximum Voltage	24.55	0.013		
20	BEP	13.87	0.007		

UMTS Band II /1880MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	16.52	0.009	Within Authorized Band	PASS
40		18.02	0.010		
30		15.59	0.008		
20		18.84	0.010		
10		28.13	0.015		
0		25.46	0.014		
-10		33.80	0.018		
-20		36.22	0.019		
-30		18.91	0.010		
20	Maximum Voltage	33.53	0.018		
20	BEP	27.30	0.015		

HSDPA Band II /1880MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	26.49	0.014	Within Authorized Band	PASS
40		12.30	0.007		
30		18.82	0.010		
20		15.95	0.008		
10		21.01	0.011		
0		25.28	0.013		
-10		33.29	0.018		
-20		19.00	0.010		
-30		11.92	0.006		
20	Maximum Voltage	15.71	0.008		
20	BEP	32.19	0.017		

HSUPA Band II /1880MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	32.82	0.017	Within Authorized Band	PASS
40		32.85	0.017		
30		26.37	0.014		
20		27.85	0.015		
10		28.91	0.015		
0		12.84	0.007		
-10		30.62	0.016		
-20		13.10	0.007		
-30		28.17	0.015		
20	Maximum Voltage	22.83	0.012		
20	BEP	22.31	0.012		

UMTS Band V / 836.6MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	34.19	0.041	2.5ppm	PASS
40		22.30	0.027		
30		33.90	0.041		
20		30.19	0.036		
10		16.60	0.020		
0		33.57	0.040		
-10		34.31	0.041		
-20		15.77	0.019		
-30		32.49	0.039		
20	Maximum Voltage	34.32	0.041		
20	BEP	26.15	0.031		

HSDPA Band V / 836.6MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev.	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	25.66	0.031	2.5ppm	PASS
40		35.70	0.043		
30		22.74	0.027		
20		29.28	0.035		
10		18.68	0.022		
0		11.63	0.014		
-10		20.54	0.025		
-20		19.38	0.023		
-30		33.22	0.040		
20	Maximum Voltage	13.91	0.017		
20	BEP	24.30	0.029		

HSUPA Band V / 836.6MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	23.55	0.028	2.5ppm	PASS
40		13.13	0.016		
30		27.29	0.033		
20		14.00	0.017		
10		20.95	0.025		
0		32.68	0.039		
-10		24.41	0.029		
-20		12.23	0.015		
-30		14.33	0.017		
20	Maximum Voltage	26.27	0.031		
20	BEP	15.26	0.018		

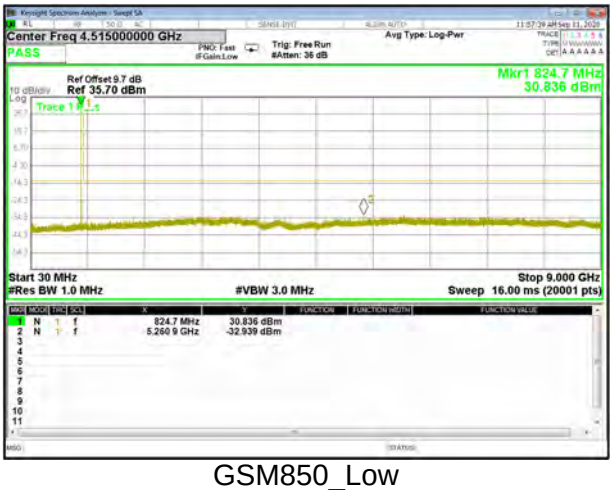
UMTS Band IV /1740MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	18.71	0.010	Within Authorized Band	PASS
40		21.36	0.011		
30		14.21	0.008		
20		26.05	0.014		
10		13.11	0.007		
0		30.66	0.016		
-10		11.63	0.006		
-20		25.10	0.013		
-30		15.23	0.008		
20	Maximum Voltage	30.49	0.016		
20	BEP	35.92	0.019		

HSDPA Band IV /1740MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	14.96	0.008	Within Authorized Band	PASS
40		16.53	0.009		
30		21.44	0.011		
20		32.07	0.017		
10		12.24	0.007		
0		17.18	0.009		
-10		15.08	0.008		
-20		20.07	0.011		
-30		26.20	0.014		
20	Maximum Voltage	31.73	0.017		
20	BEP	11.88	0.006		

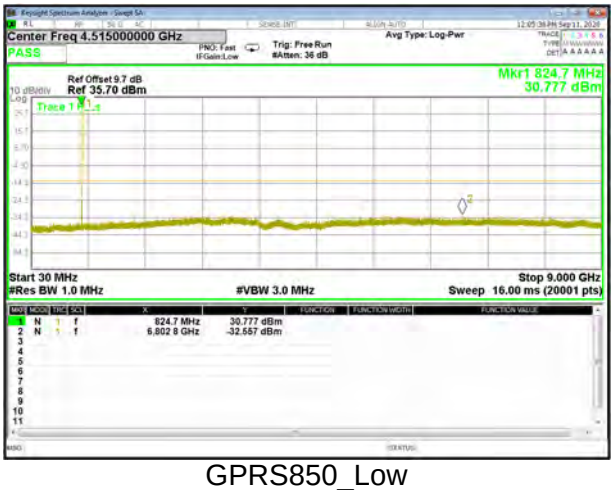
HSUPA Band IV /1740MHz					
Temperature (°C)	Voltage (Volt)	Freq. Dev. (Hz)	Freq. Dev. (ppm)	Limit	Result
50	Normal Voltage	12.44	0.007	Within Authorized Band	PASS
40		14.86	0.008		
30		33.40	0.018		
20		21.06	0.011		
10		32.48	0.017		
0		29.48	0.016		
-10		13.41	0.007		
-20		16.95	0.009		
-30		19.49	0.010		
20	Maximum Voltage	28.15	0.015		
20	BEP	12.24	0.007		

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

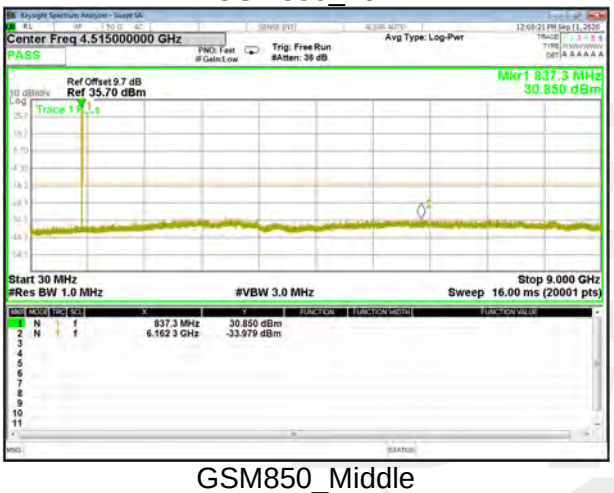
A6. SPURIOUS EMISSIONS AT ANTENNA TERMINALS



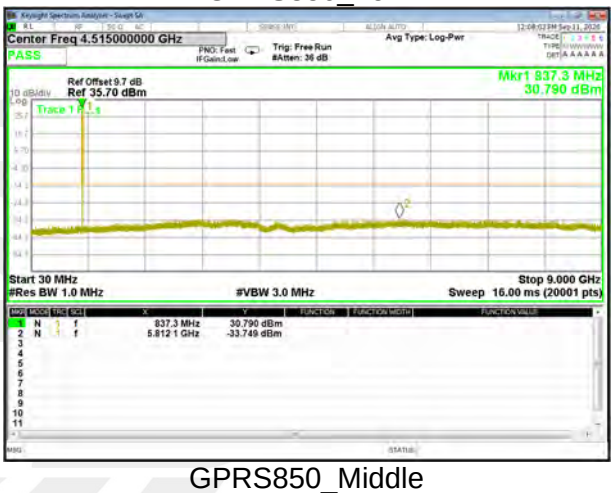
GSM850_Low



GPRS850_Low



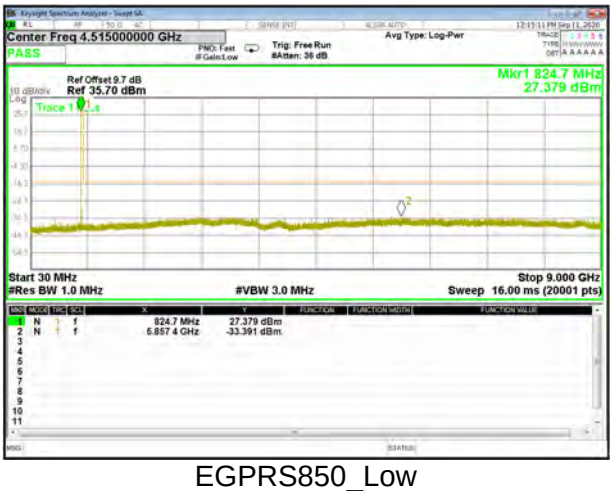
GSM850_Middle



GPRS850_Middle

GSM850_High

GPRS850_High



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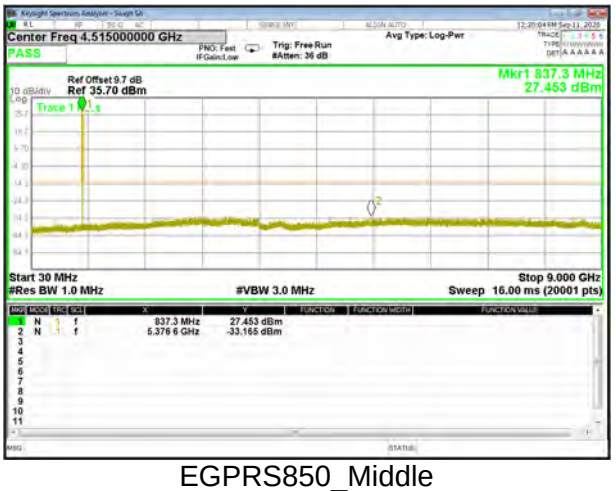
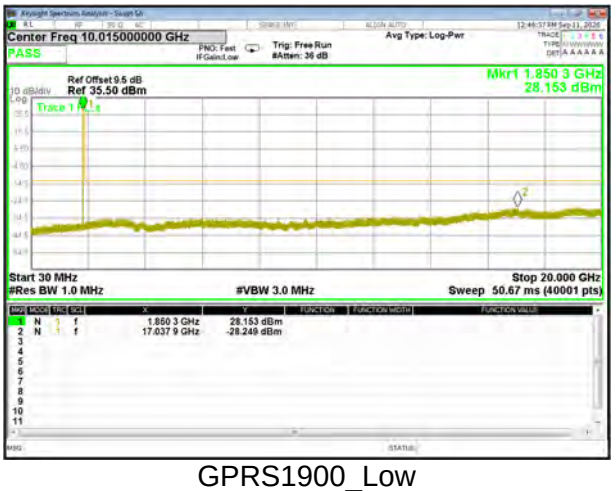


EGPRS850_Middle

EGPRS850_High

GSM1900_Low



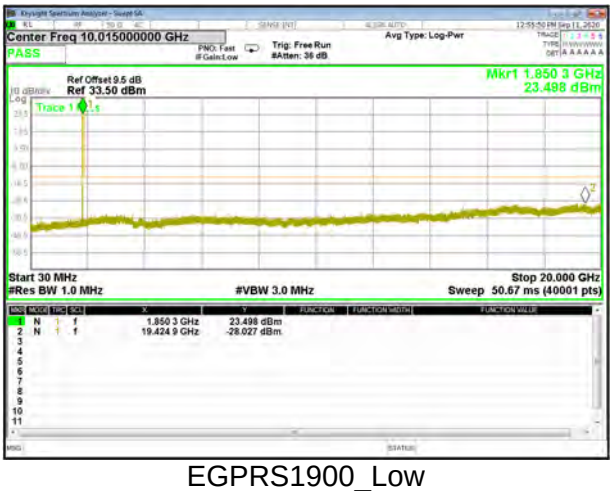
GPRS1900_Low

GSM1900_Middle

GPRS1900_Middle

GSM1900_High

GPRS1900_High



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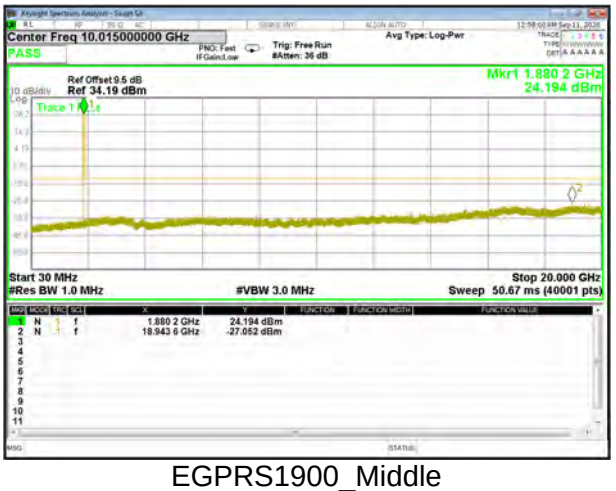
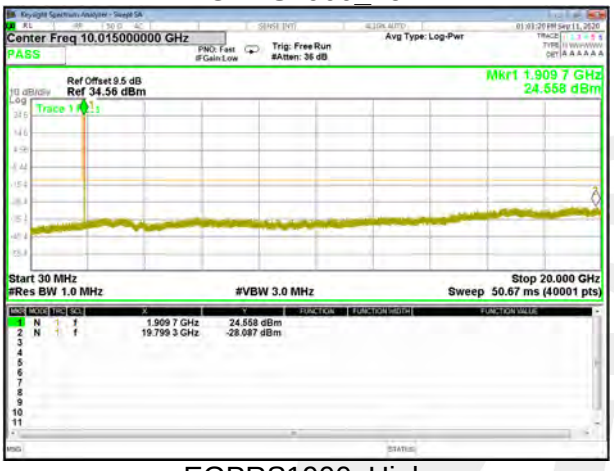
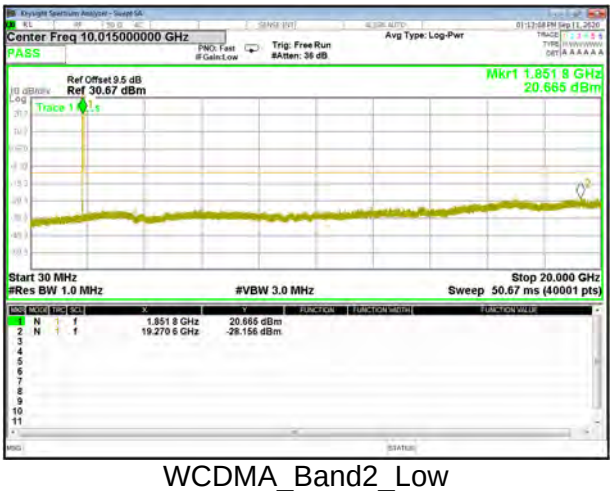


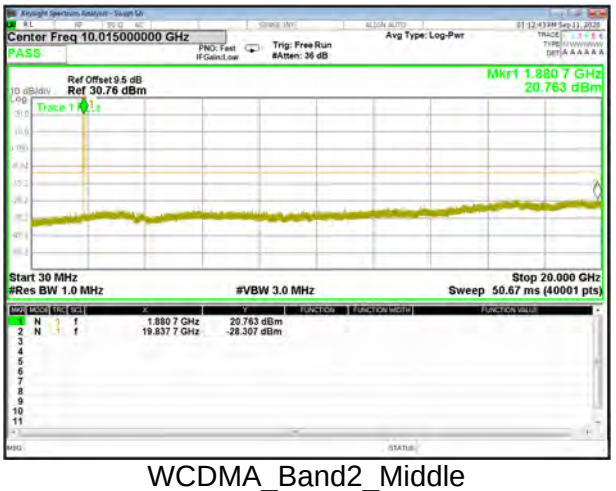
EGPRS1900_Middle



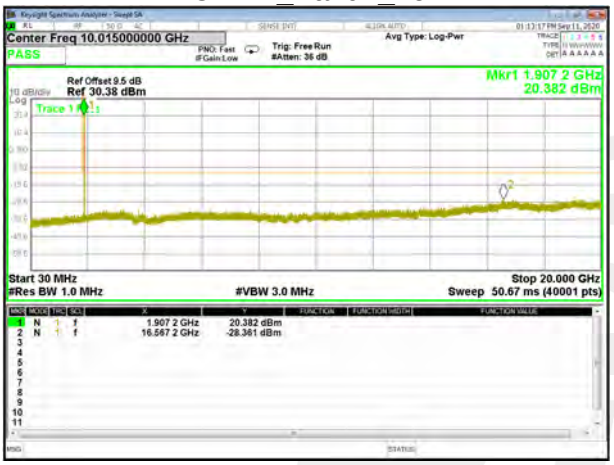
EGPRS1900_High



WCDMA_Band2_Low

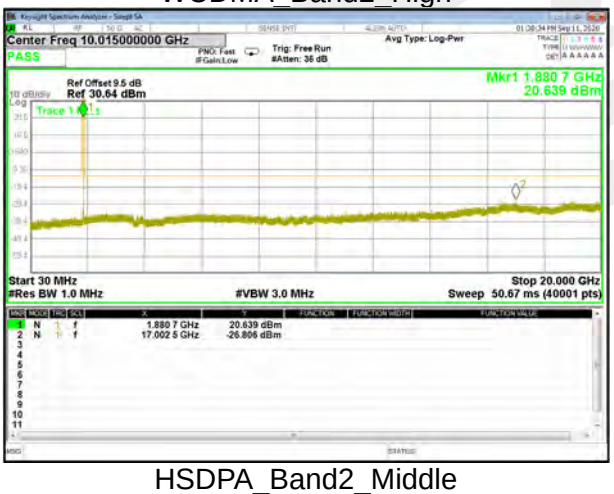


WCDMA_Band2_Middle



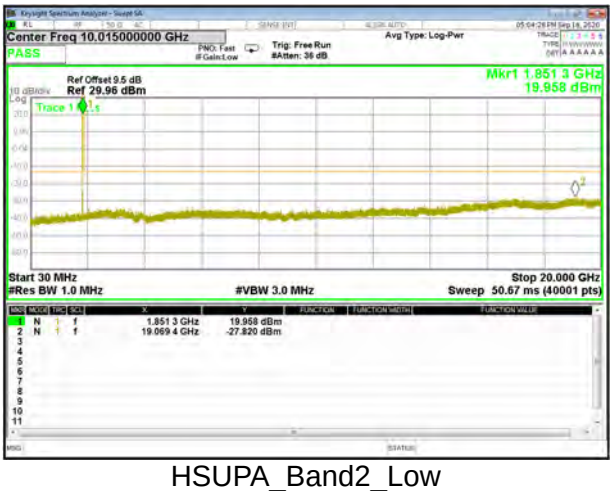
WCDMA_Band2_High

HSDPA_Band2_Low

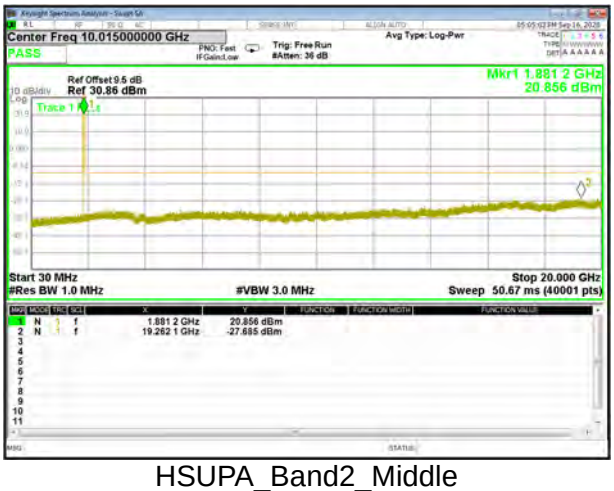


HSDPA_Band2_Middle

HSDPA_Band2_High

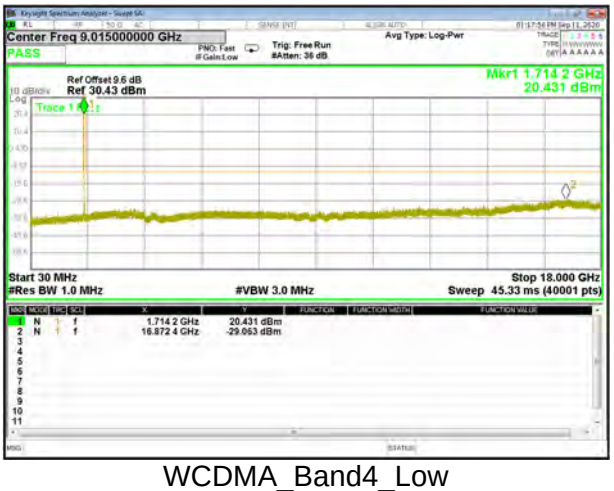


HSUPA_Band2_Low

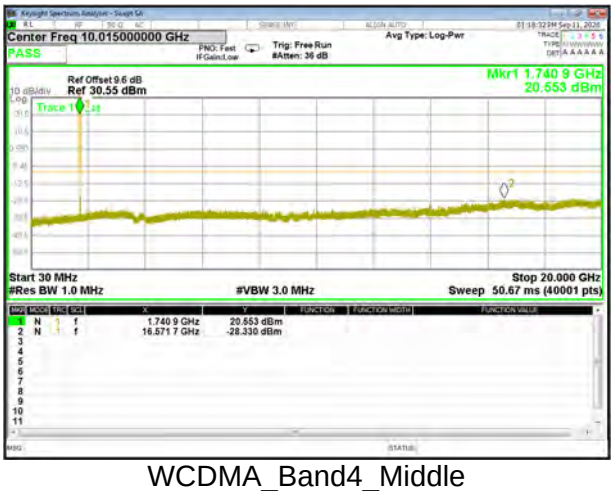


HSUPA_Band2_Middle

HSUPA_Band2_High

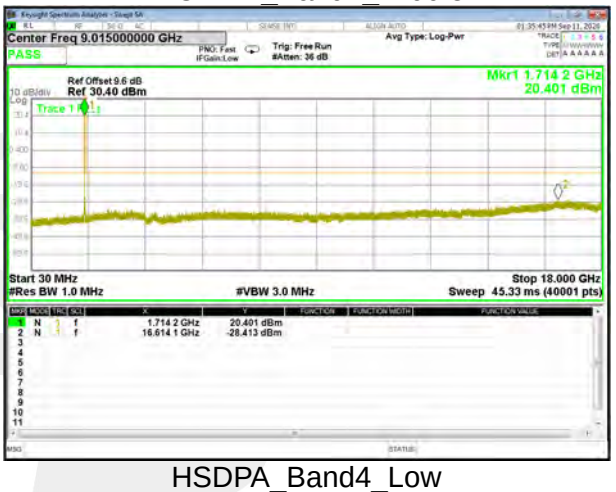


WCDMA_Band4_Low

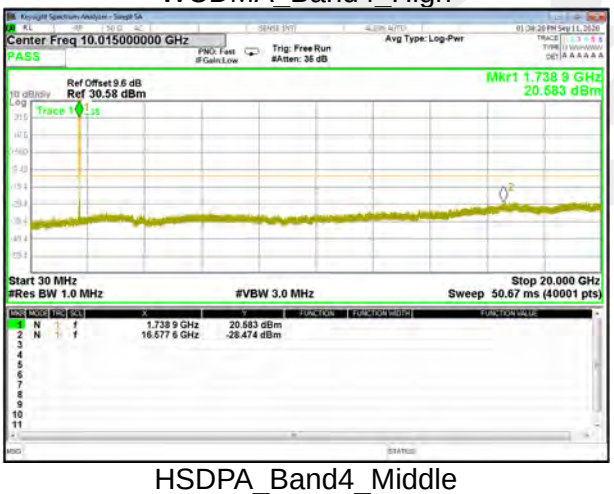


WCDMA_Band4_Middle

WCDMA_Band4_High

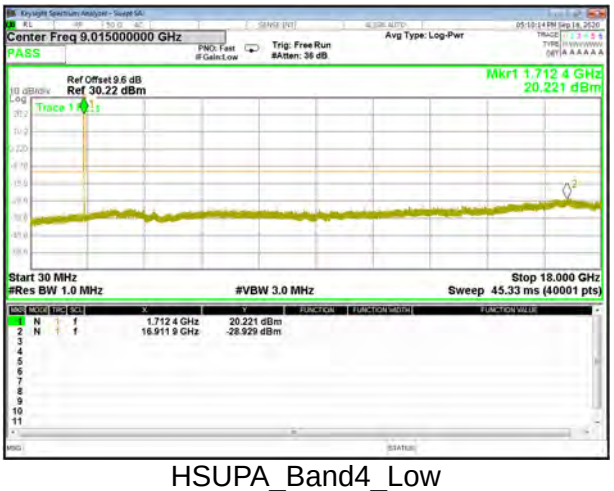


HSDPA_Band4_Low

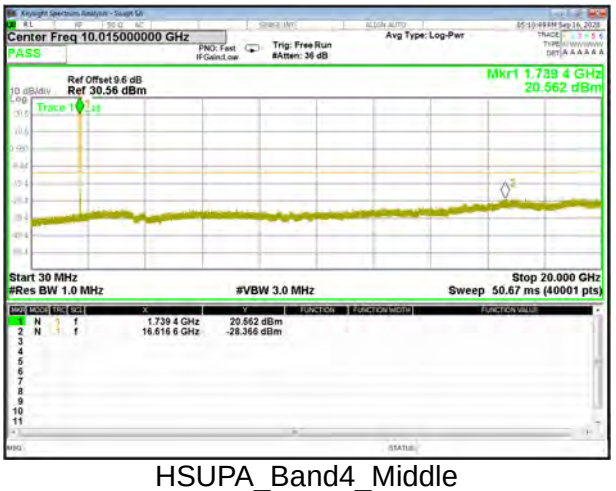


HSDPA_Band4_Middle

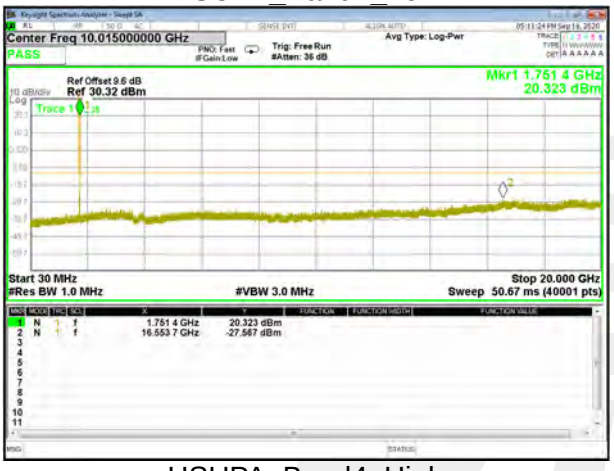
HSDPA_Band4_High



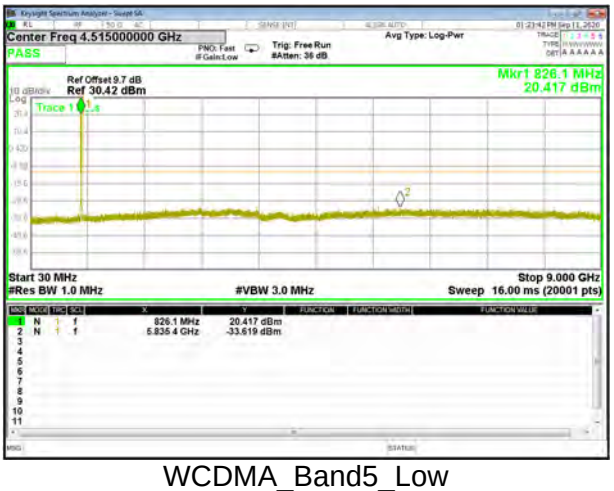
HSUPA_Band4_Low



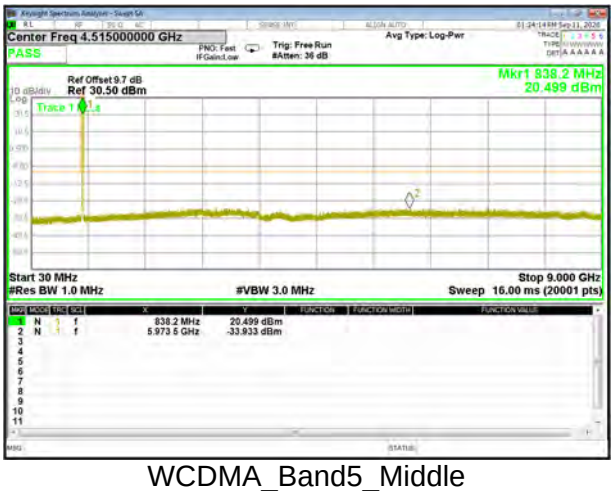
HSUPA_Band4_Middle



HSUPA_Band4_High



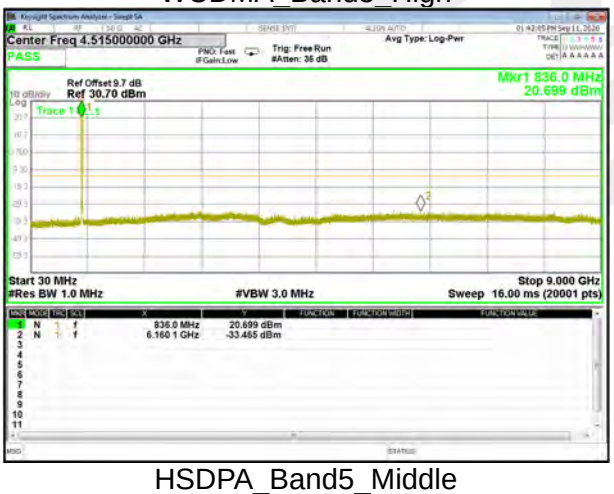
WCDMA_Band5_Low



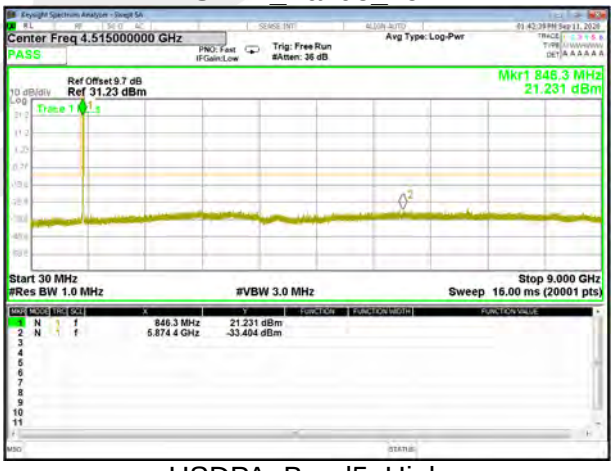
WCDMA_Band5_Middle

WCDMA_Band5_High

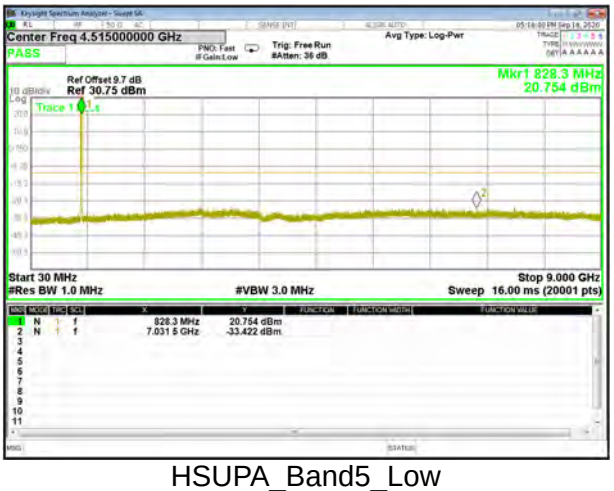
HSDPA_Band5_Low



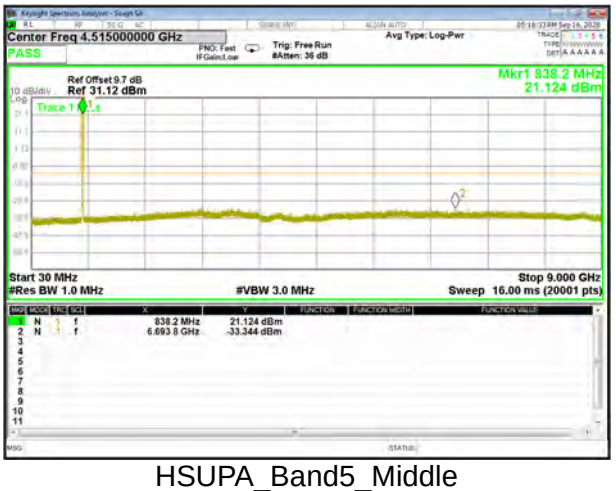
HSDPA_Band5_Middle



HSDPA_Band5_High



HSUPA_Band5_Low



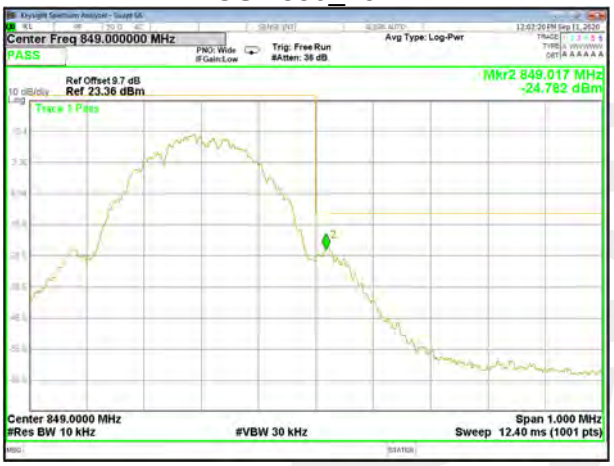
HSUPA_Band5_Middle

HSUPA_Band5_High

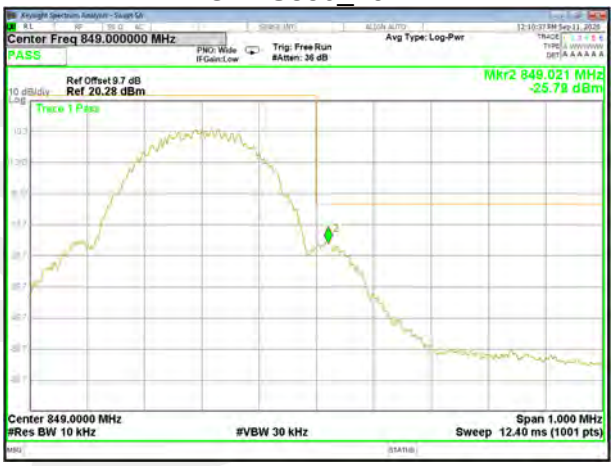
A7. BAND EDGE

GSM850_Low

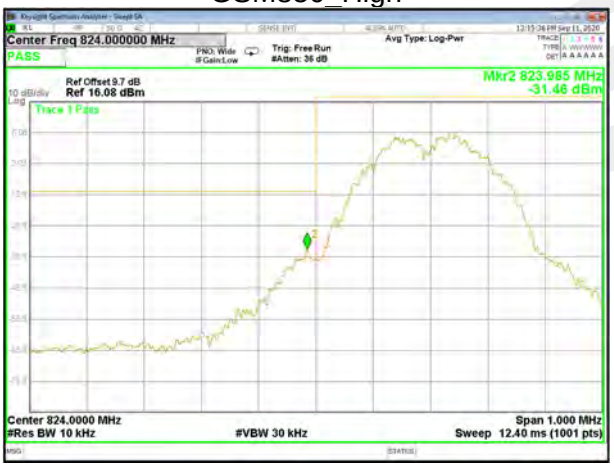
GPRS850_Low



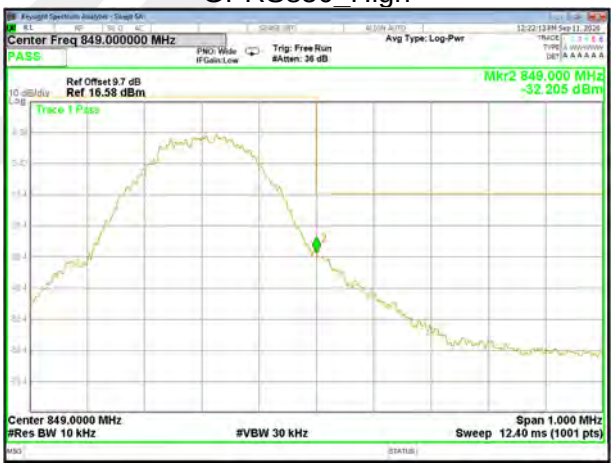
GSM850_High



GPRS850_High



EGPRS850_Low



EGPRS850_High

GSM1900_Low

GPRS1900_Low

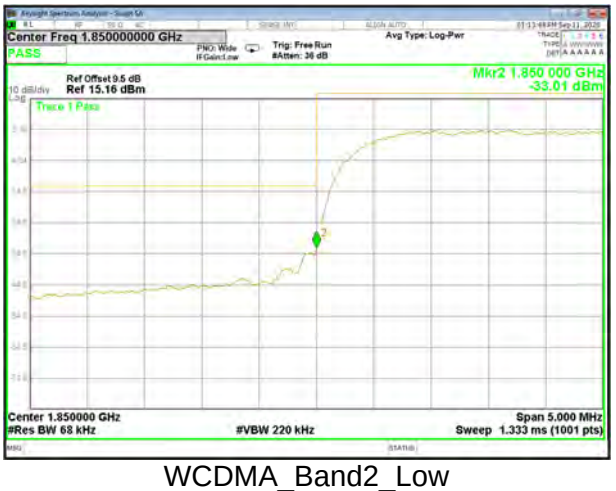
GSM1900_High

GPRS1900_High

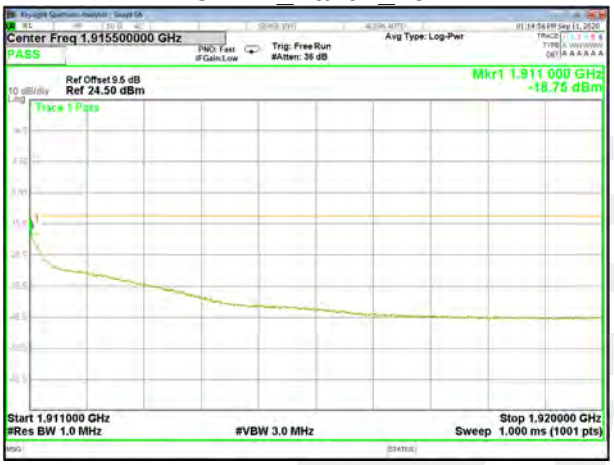
EGPRS1900_Low

EGPRS1900_High

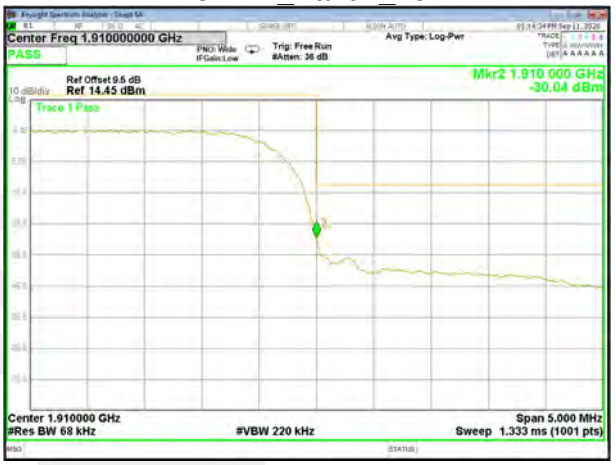
WCDMA_Band2_Low



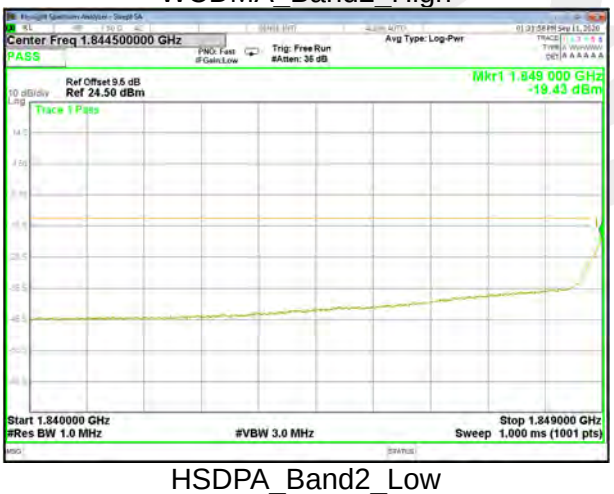
WCDMA_Band2_Low



WCDMA_Band2_High



WCDMA_Band2_High

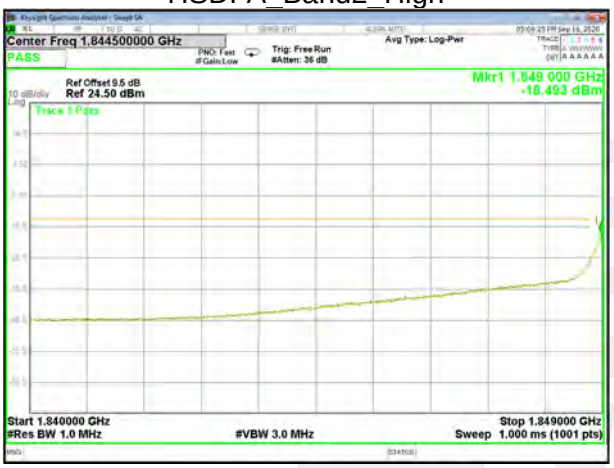


HSDPA_Band2_Low

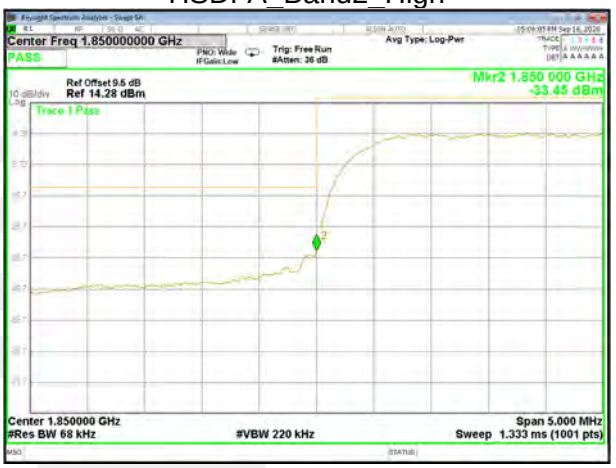
HSDPA_Band2_Low

HSDPA_Band2_High

HSDPA_Band2_High



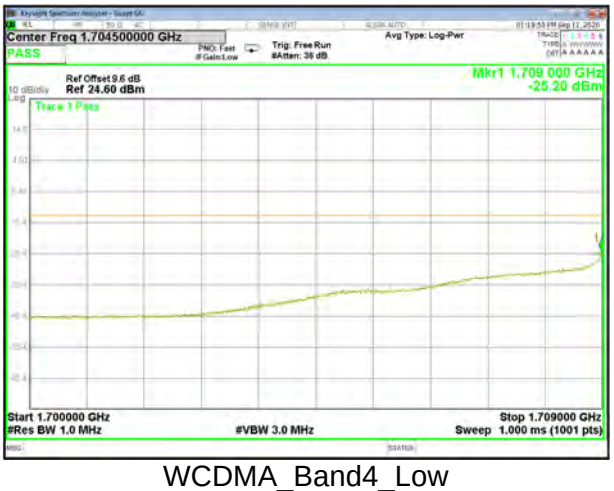
HSUPA_Band2_Low



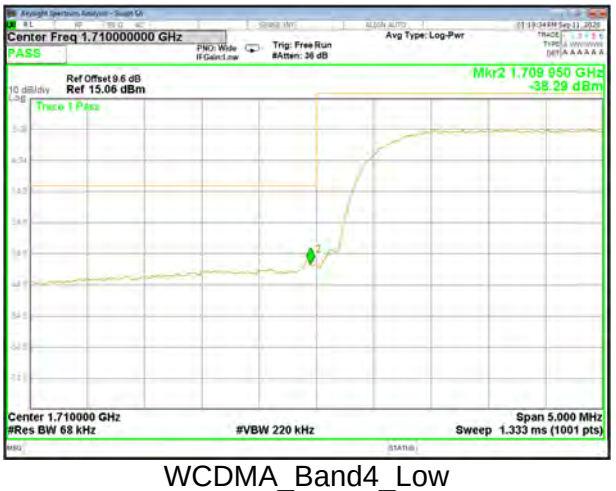
HSUPA_Band2_Low

HSUPA_Band2_High

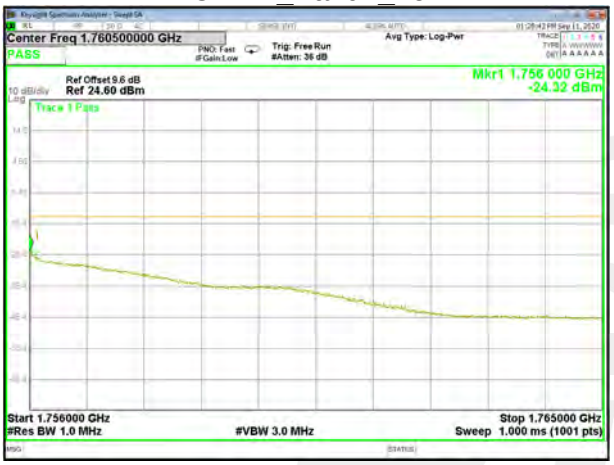
HSUPA_Band2_High



WCDMA_Band4_Low

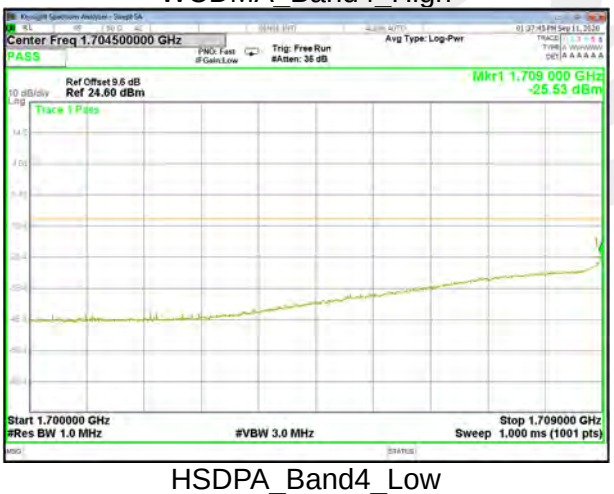


WCDMA_Band4_Low



WCDMA_Band4_High

WCDMA_Band4_High

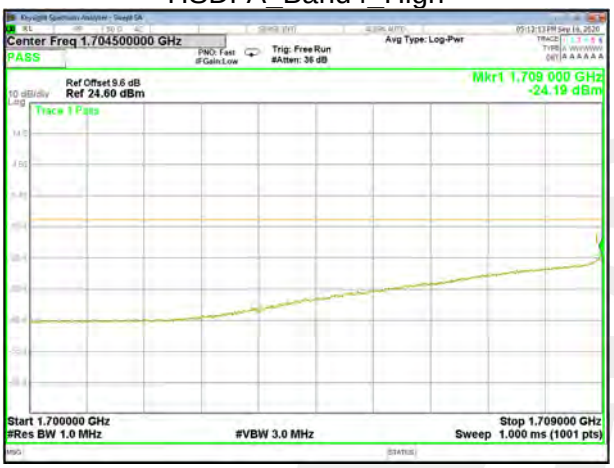


HSDPA_Band4_Low

HSDPA_Band4_Low

HSDPA_Band4_High

HSDPA_Band4_High



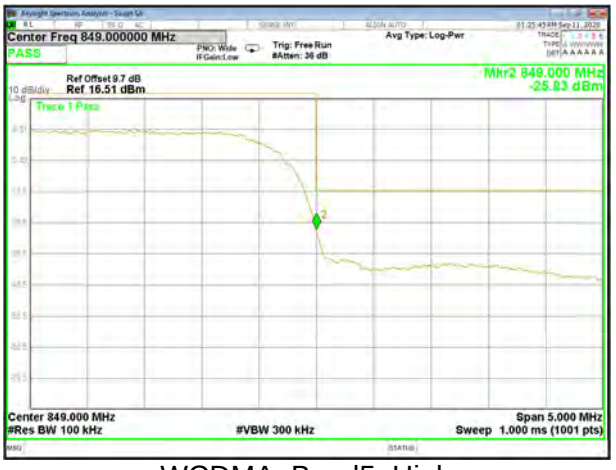
HSUPA_Band4_Low

HSUPA_Band4_Low

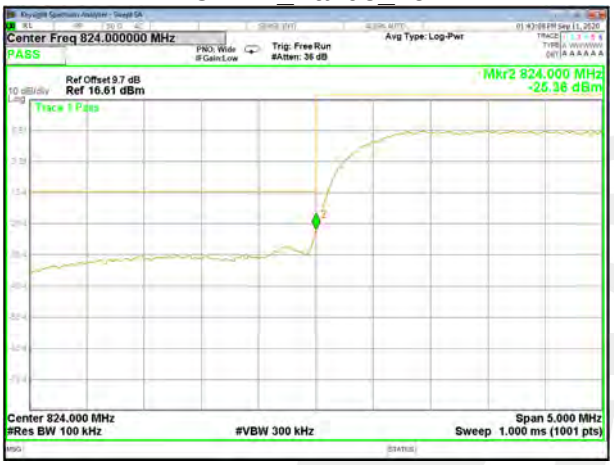
HSUPA_Band4_High

HSUPA_Band4_High

WCDMA_Band5_Low

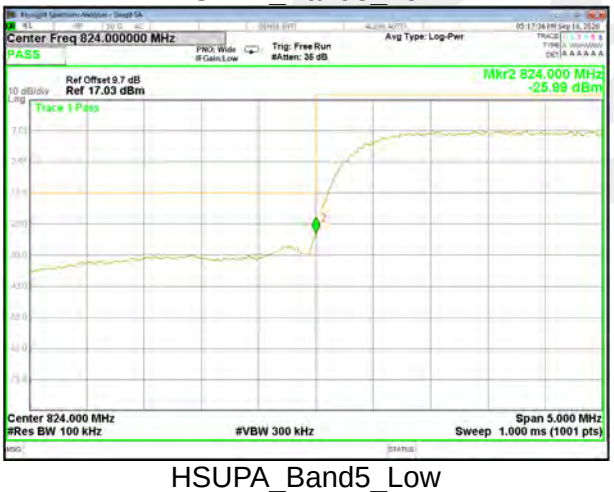


WCDMA_Band5_High

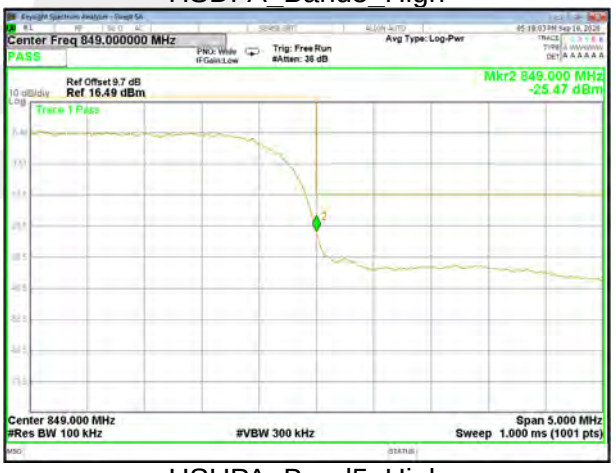


HSDPA_Band5_Low

HSDPA_Band5_High



HSUPA_Band5_Low



HSUPA_Band5_High

A8. FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

Note: (1) Spurious emissions which are attenuated by more than 20dB below the permissible value for frequeny below 1000MHz.

(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.

GSM 850: (30-9000)MHz							
The Worst Test Results Channel 128/824.2 MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1648.30	-41.12	9.40	4.75	-36.47	-13.00	-23.47	H
2472.54	-39.53	10.60	8.39	-37.32	-13.00	-24.32	H
3296.45	-31.66	12.00	11.79	-31.45	-13.00	-18.45	H
1648.44	-43.24	9.40	4.75	-38.59	-13.00	-25.59	V
2472.26	-44.79	10.60	8.39	-42.58	-13.00	-29.58	V
3296.54	-42.87	12.00	11.79	-42.66	-13.00	-29.66	V
The Worst Test Results Channel 190/836.6 MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1673.03	-41.48	9.50	4.76	-36.74	-13.00	-23.74	H
2509.77	-40.50	10.70	8.40	-38.20	-13.00	-25.20	H
3346.36	-31.79	12.20	11.80	-31.39	-13.00	-18.39	H
1673.11	-43.83	9.40	4.75	-39.18	-13.00	-26.18	V
2509.86	-45.25	10.60	8.39	-43.04	-13.00	-30.04	V
3346.30	-43.77	12.20	11.82	-43.39	-13.00	-30.39	V
The Worst Test Results Channel 251/848.8 MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1697.38	-41.08	9.60	4.77	-36.25	-13.00	-23.25	H
2546.18	-40.26	10.80	8.50	-37.96	-13.00	-24.96	H
3395.15	-30.97	12.50	11.90	-30.37	-13.00	-17.37	H
1697.29	-43.23	9.60	4.77	-38.40	-13.00	-25.40	V
2546.24	-44.93	10.80	8.50	-42.63	-13.00	-29.63	V
3395.04	-43.25	12.50	11.90	-42.65	-13.00	-29.65	V

GPRS 850: (30-9000)MHz							
The Worst Test Results Channel 128/824.2 MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1648.21	-41.54	9.40	4.75	-36.89	-13.00	-23.89	H
2472.38	-39.56	10.60	8.39	-37.35	-13.00	-24.35	H
3296.80	-30.93	12.00	11.79	-30.72	-13.00	-17.72	H
1648.46	-43.23	9.40	4.75	-38.58	-13.00	-25.58	V
2472.59	-44.29	10.60	8.39	-42.08	-13.00	-29.08	V
3296.84	-43.06	12.00	11.79	-42.85	-13.00	-29.85	V
The Worst Test Results Channel 190/836.6 MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1673.01	-40.31	9.50	4.76	-35.57	-13.00	-22.57	H
2509.52	-39.87	10.70	8.40	-37.57	-13.00	-24.57	H
3346.44	-31.89	12.20	11.80	-31.49	-13.00	-18.49	H
1673.06	-44.42	9.40	4.75	-39.77	-13.00	-26.77	V
2509.89	-44.10	10.60	8.39	-41.89	-13.00	-28.89	V
3346.33	-43.89	12.20	11.82	-43.51	-13.00	-30.51	V
The Worst Test Results Channel 251/848.8 MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1697.52	-41.49	9.60	4.77	-36.66	-13.00	-23.66	H
2546.44	-39.28	10.80	8.50	-36.98	-13.00	-23.98	H
3395.17	-31.73	12.50	11.90	-31.13	-13.00	-18.13	H
1697.33	-43.36	9.60	4.77	-38.53	-13.00	-25.53	V
2546.54	-44.57	10.80	8.50	-42.27	-13.00	-29.27	V
3394.85	-42.89	12.50	11.90	-42.29	-13.00	-29.29	V

EGPRS 850: (30-9000)MHz							
The Worst Test Results Channel 128/824.2 MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1648.23	-40.31	9.40	4.75	-35.66	-13.00	-22.66	H
2472.41	-39.67	10.60	8.39	-37.46	-13.00	-24.46	H
3296.49	-31.83	12.00	11.79	-31.62	-13.00	-18.62	H
1648.15	-43.32	9.40	4.75	-38.67	-13.00	-25.67	V
2472.22	-45.05	10.60	8.39	-42.84	-13.00	-29.84	V
3296.48	-42.77	12.00	11.79	-42.56	-13.00	-29.56	V
The Worst Test Results Channel 190/836.6 MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1672.90	-41.35	9.50	4.76	-36.61	-13.00	-23.61	H
2509.84	-39.34	10.70	8.40	-37.04	-13.00	-24.04	H
3346.40	-31.42	12.20	11.80	-31.02	-13.00	-18.02	H
1673.17	-44.05	9.40	4.75	-39.40	-13.00	-26.40	V
2509.56	-44.99	10.60	8.39	-42.78	-13.00	-29.78	V
3346.33	-43.88	12.20	11.82	-43.50	-13.00	-30.50	V
The Worst Test Results Channel 251/848.8 MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
1697.32	-40.37	9.60	4.77	-35.54	-13.00	-22.54	H
2546.24	-39.79	10.80	8.50	-37.49	-13.00	-24.49	H
3395.22	-32.32	12.50	11.90	-31.72	-13.00	-18.72	H
1697.50	-43.62	9.60	4.77	-38.79	-13.00	-25.79	V
2546.26	-44.08	10.80	8.50	-41.78	-13.00	-28.78	V
3395.18	-43.65	12.50	11.90	-43.05	-13.00	-30.05	V

DCS 1900: (30-20000)MHz							
The Worst Test Results for Channel 512/1850.2MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3700.44	-34.15	12.60	12.93	-34.48	-13.00	-21.48	H
5550.66	-35.18	13.10	17.11	-39.19	-13.00	-26.19	H
7400.81	-32.27	11.50	22.20	-42.97	-13.00	-29.97	H
3700.09	-35.05	12.60	12.93	-35.38	-13.00	-22.38	V
5550.21	-34.00	13.10	17.11	-38.01	-13.00	-25.01	V
7400.93	-31.80	11.50	22.20	-42.50	-13.00	-29.50	V
The Worst Test Results for Channel 661/1880.0MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3760.13	-34.73	12.60	12.93	-35.06	-13.00	-22.06	H
5640.14	-35.38	13.10	17.11	-39.39	-13.00	-26.39	H
7520.17	-33.24	11.50	22.20	-43.94	-13.00	-30.94	H
3760.07	-35.00	12.60	12.93	-35.33	-13.00	-22.33	V
5640.03	-34.62	13.10	17.11	-38.63	-13.00	-25.63	V
7520.14	-31.78	11.50	22.20	-42.48	-13.00	-29.48	V
The Worst Test Results for Channel 810/1909.8MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3819.28	-33.72	12.60	12.93	-34.05	-13.00	-21.05	H
5729.28	-34.21	13.10	17.11	-38.22	-13.00	-25.22	H
7639.22	-33.21	11.50	22.20	-43.91	-13.00	-30.91	H
3819.31	-34.76	12.60	12.93	-35.09	-13.00	-22.09	V
5729.45	-34.59	13.10	17.11	-38.60	-13.00	-25.60	V
7639.11	-32.04	11.50	22.20	-42.74	-13.00	-29.74	V

GPRS1900: (30-20000)MHz							
The Worst Test Results for Channel 512/1850.2MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3700.01	-33.49	12.60	12.93	-33.82	-13.00	-20.82	H
5550.19	-35.38	13.10	17.11	-39.39	-13.00	-26.39	H
7400.94	-33.28	11.50	22.20	-43.98	-13.00	-30.98	H
3700.43	-34.71	12.60	12.93	-35.04	-13.00	-22.04	V
5550.44	-34.63	13.10	17.11	-38.64	-13.00	-25.64	V
7400.97	-32.87	11.50	22.20	-43.57	-13.00	-30.57	V
The Worst Test Results for Channel 661/1880.0MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3760.22	-34.43	12.60	12.93	-34.76	-13.00	-21.76	H
5640.28	-34.16	13.10	17.11	-38.17	-13.00	-25.17	H
7520.02	-32.27	11.50	22.20	-42.97	-13.00	-29.97	H
3760.33	-35.96	12.60	12.93	-36.29	-13.00	-23.29	V
5639.99	-34.37	13.10	17.11	-38.38	-13.00	-25.38	V
7519.99	-32.20	11.50	22.20	-42.90	-13.00	-29.90	V
The Worst Test Results for Channel 810/1909.8MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3819.26	-34.72	12.60	12.93	-35.05	-13.00	-22.05	H
5729.46	-35.45	13.10	17.11	-39.46	-13.00	-26.46	H
7639.05	-33.28	11.50	22.20	-43.98	-13.00	-30.98	H
3819.48	-35.57	12.60	12.93	-35.90	-13.00	-22.90	V
5729.13	-34.77	13.10	17.11	-38.78	-13.00	-25.78	V
7639.26	-31.73	11.50	22.20	-42.43	-13.00	-29.43	V

EGPRS 1900: (30-20000)MHz							
The Worst Test Results for Channel 512/1850.2MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3700.29	-34.11	12.60	12.93	-34.44	-13.00	-21.44	H
5550.28	-34.13	13.10	17.11	-38.14	-13.00	-25.14	H
7400.79	-32.23	11.50	22.20	-42.93	-13.00	-29.93	H
3700.21	-35.96	12.60	12.93	-36.29	-13.00	-23.29	V
5550.58	-35.01	13.10	17.11	-39.02	-13.00	-26.02	V
7400.85	-32.74	11.50	22.20	-43.44	-13.00	-30.44	V
The Worst Test Results for Channel 661/1880.0MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3759.97	-33.82	12.60	12.93	-34.15	-13.00	-21.15	H
5640.12	-34.87	13.10	17.11	-38.88	-13.00	-25.88	H
7519.86	-32.70	11.50	22.20	-43.40	-13.00	-30.40	H
3760.04	-35.39	12.60	12.93	-35.72	-13.00	-22.72	V
5640.12	-34.63	13.10	17.11	-38.64	-13.00	-25.64	V
7520.26	-32.83	11.50	22.20	-43.53	-13.00	-30.53	V
The Worst Test Results for Channel 810/1909.8MHz							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit （dBm）	Margin (dBm)	Polarity
3819.63	-33.86	12.60	12.93	-34.19	-13.00	-21.19	H
5729.25	-34.26	13.10	17.11	-38.27	-13.00	-25.27	H
7639.27	-32.76	11.50	22.20	-43.46	-13.00	-30.46	H
3819.36	-35.40	12.60	12.93	-35.73	-13.00	-22.73	V
5729.37	-34.84	13.10	17.11	-38.85	-13.00	-25.85	V
7639.09	-32.55	11.50	22.20	-43.25	-13.00	-30.25	V

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
1652.43	-41.19	9.40	4.75	-36.54	-13.00	-23.54	H
2479.70	-40.63	10.60	8.39	-38.42	-13.00	-25.42	H
3305.45	-31.10	12.00	11.79	-30.89	-13.00	-17.89	H
1652.06	-43.93	9.40	4.75	-39.28	-13.00	-26.28	V
2479.50	-45.02	10.60	8.39	-42.81	-13.00	-29.81	V
3305.64	-42.96	12.00	11.79	-42.75	-13.00	-29.75	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
1673.07	-41.45	9.40	4.75	-36.80	-13.00	-23.80	H
2509.60	-40.21	10.60	8.39	-38.00	-13.00	-25.00	H
3346.18	-31.61	12.00	11.79	-31.40	-13.00	-18.40	H
1672.92	-43.63	9.40	4.75	-38.98	-13.00	-25.98	V
2509.60	-44.96	10.60	8.39	-42.75	-13.00	-29.75	V
3346.00	-43.41	12.00	11.79	-43.20	-13.00	-30.20	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
1693.50	-40.19	9.40	4.75	-35.54	-13.00	-22.54	H
2539.31	-40.37	10.60	8.39	-38.16	-13.00	-25.16	H
3386.17	-31.01	12.00	11.79	-30.80	-13.00	-17.80	H
1693.47	-43.95	9.40	4.75	-39.30	-13.00	-26.30	V
2539.13	-45.37	10.60	8.39	-43.16	-13.00	-30.16	V
3386.17	-43.34	12.00	11.79	-43.13	-13.00	-30.13	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
1652.36	-41.23	9.40	4.75	-36.58	-13.00	-23.58	H
2479.45	-40.15	10.60	8.39	-37.94	-13.00	-24.94	H
3305.84	-30.90	12.00	11.79	-30.69	-13.00	-17.69	H
1652.08	-43.92	9.40	4.75	-39.27	-13.00	-26.27	V
2479.34	-44.87	10.60	8.39	-42.66	-13.00	-29.66	V
3305.83	-43.13	12.00	11.79	-42.92	-13.00	-29.92	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
1673.12	-41.33	9.40	4.75	-36.68	-13.00	-23.68	H
2509.52	-40.18	10.60	8.39	-37.97	-13.00	-24.97	H
3346.15	-31.13	12.00	11.79	-30.92	-13.00	-17.92	H
1673.27	-43.84	9.40	4.75	-39.19	-13.00	-26.19	V
2509.43	-44.57	10.60	8.39	-42.36	-13.00	-29.36	V
3346.18	-43.28	12.00	11.79	-43.07	-13.00	-30.07	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
1693.60	-41.52	9.40	4.75	-36.87	-13.00	-23.87	H
2539.18	-39.59	10.60	8.39	-37.38	-13.00	-24.38	H
3386.09	-32.07	12.00	11.79	-31.86	-13.00	-18.86	H
1693.52	-43.38	9.40	4.75	-38.73	-13.00	-25.73	V
2539.29	-45.21	10.60	8.39	-43.00	-13.00	-30.00	V
3386.02	-42.94	12.00	11.79	-42.73	-13.00	-29.73	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
1652.15	-40.99	9.40	4.75	-36.34	-13.00	-23.34	H
2479.55	-40.52	10.60	8.39	-38.31	-13.00	-25.31	H
3305.68	-31.50	12.00	11.79	-31.29	-13.00	-18.29	H
1652.35	-44.08	9.40	4.75	-39.43	-13.00	-26.43	V
2479.55	-44.44	10.60	8.39	-42.23	-13.00	-29.23	V
3305.55	-43.46	12.00	11.79	-43.25	-13.00	-30.25	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
1673.19	-40.52	9.40	4.75	-35.87	-13.00	-22.87	H
2509.59	-40.33	10.60	8.39	-38.12	-13.00	-25.12	H
3346.35	-32.28	12.00	11.79	-32.07	-13.00	-19.07	H
1673.24	-44.36	9.40	4.75	-39.71	-13.00	-26.71	V
2509.75	-44.11	10.60	8.39	-41.90	-13.00	-28.90	V
3345.99	-43.56	12.00	11.79	-43.35	-13.00	-30.35	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
1693.57	-41.62	9.40	4.75	-36.97	-13.00	-23.97	H
2539.52	-39.81	10.60	8.39	-37.60	-13.00	-24.60	H
3386.23	-31.32	12.00	11.79	-31.11	-13.00	-18.11	H
1693.61	-43.24	9.40	4.75	-38.59	-13.00	-25.59	V
2539.19	-45.11	10.60	8.39	-42.90	-13.00	-29.90	V
3386.08	-43.06	12.00	11.79	-42.85	-13.00	-29.85	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
3704.15	-33.91	12.60	12.93	-34.24	-13.00	-21.24	H
5557.29	-34.58	13.10	17.11	-38.59	-13.00	-25.59	H
7409.85	-32.57	11.50	22.20	-43.27	-13.00	-30.27	H
3704.47	-34.76	12.60	12.93	-35.09	-13.00	-22.09	V
5557.40	-35.09	13.10	17.11	-39.10	-13.00	-26.10	V
7409.49	-31.86	11.50	22.20	-42.56	-13.00	-29.56	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
3760.19	-34.59	12.60	12.93	-34.92	-13.00	-21.92	H
5640.14	-34.95	13.10	17.11	-38.96	-13.00	-25.96	H
7520.23	-33.53	11.50	22.20	-44.23	-13.00	-31.23	H
3760.13	-34.68	12.60	12.93	-35.01	-13.00	-22.01	V
5639.88	-35.01	13.10	17.11	-39.02	-13.00	-26.02	V
7520.12	-32.63	11.50	22.20	-43.33	-13.00	-30.33	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
3815.52	-34.39	12.60	12.93	-34.72	-13.00	-21.72	H
5722.13	-35.40	13.10	17.11	-39.41	-13.00	-26.41	H
7630.29	-32.31	11.50	22.20	-43.01	-13.00	-30.01	H
3815.58	-35.87	12.60	12.93	-36.20	-13.00	-23.20	V
5722.23	-34.24	13.10	17.11	-38.25	-13.00	-25.25	V
7629.91	-32.29	11.50	22.20	-42.99	-13.00	-29.99	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
3704.08	-33.74	12.60	12.93	-34.07	-13.00	-21.07	H
5557.21	-34.05	13.10	17.11	-38.06	-13.00	-25.06	H
7409.51	-33.41	11.50	22.20	-44.11	-13.00	-31.11	H
3704.36	-35.84	12.60	12.93	-36.17	-13.00	-23.17	V
5557.35	-34.36	13.10	17.11	-38.37	-13.00	-25.37	V
7409.94	-32.26	11.50	22.20	-42.96	-13.00	-29.96	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
3760.26	-34.24	12.60	12.93	-34.57	-13.00	-21.57	H
5640.22	-34.37	13.10	17.11	-38.38	-13.00	-25.38	H
7519.97	-32.67	11.50	22.20	-43.37	-13.00	-30.37	H
3760.06	-34.83	12.60	12.93	-35.16	-13.00	-22.16	V
5640.05	-34.83	13.10	17.11	-38.84	-13.00	-25.84	V
7519.85	-32.33	11.50	22.20	-43.03	-13.00	-30.03	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
3815.35	-33.68	12.60	12.93	-34.01	-13.00	-21.01	H
5722.24	-35.17	13.10	17.11	-39.18	-13.00	-26.18	H
7630.20	-32.21	11.50	22.20	-42.91	-13.00	-29.91	H
3815.35	-34.96	12.60	12.93	-35.29	-13.00	-22.29	V
5722.01	-34.46	13.10	17.11	-38.47	-13.00	-25.47	V
7630.10	-33.04	11.50	22.20	-43.74	-13.00	-30.74	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
3704.27	-34.39	12.60	12.93	-34.72	-13.00	-21.72	H
5557.60	-35.10	13.10	17.11	-39.11	-13.00	-26.11	H
7409.96	-33.63	11.50	22.20	-44.33	-13.00	-31.33	H
3704.13	-35.53	12.60	12.93	-35.86	-13.00	-22.86	V
5557.25	-33.99	13.10	17.11	-38.00	-13.00	-25.00	V
7409.84	-32.27	11.50	22.20	-42.97	-13.00	-29.97	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
3759.97	-34.36	12.60	12.93	-34.69	-13.00	-21.69	H
5640.10	-34.56	13.10	17.11	-38.57	-13.00	-25.57	H
7520.15	-33.52	11.50	22.20	-44.22	-13.00	-31.22	H
3759.89	-34.91	12.60	12.93	-35.24	-13.00	-22.24	V
5639.95	-35.06	13.10	17.11	-39.07	-13.00	-26.07	V
7519.87	-32.16	11.50	22.20	-42.86	-13.00	-29.86	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
3815.42	-33.61	12.60	12.93	-33.94	-13.00	-20.94	H
5722.42	-35.15	13.10	17.11	-39.16	-13.00	-26.16	H
7630.27	-33.36	11.50	22.20	-44.06	-13.00	-31.06	H
3815.51	-34.96	12.60	12.93	-35.29	-13.00	-22.29	V
5722.23	-34.88	13.10	17.11	-38.89	-13.00	-25.89	V
7630.03	-32.79	11.50	22.20	-43.49	-13.00	-30.49	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
3424.75	-33.72	12.90	12.05	-32.87	-13.00	-19.87	H
5137.44	-35.04	12.80	16.27	-38.51	-13.00	-25.51	H
6849.97	-32.55	12.30	20.13	-40.38	-13.00	-27.38	H
3424.94	-35.00	12.90	12.05	-34.15	-13.00	-21.15	V
5137.70	-34.70	12.80	16.27	-38.17	-13.00	-25.17	V
6850.06	-32.64	12.30	20.13	-40.47	-13.00	-27.47	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
3479.90	-34.56	12.90	12.05	-33.71	-13.00	-20.71	H
5219.79	-34.13	12.80	16.27	-37.60	-13.00	-24.60	H
6959.96	-32.34	12.30	20.13	-40.17	-13.00	-27.17	H
3479.84	-35.65	12.90	12.05	-34.80	-13.00	-21.80	V
5219.72	-34.82	12.80	16.27	-38.29	-13.00	-25.29	V
6959.82	-31.82	12.30	20.13	-39.65	-13.00	-26.65	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
3504.60	-34.44	12.90	12.05	-33.59	-13.00	-20.59	H
5256.76	-35.02	12.80	16.27	-38.49	-13.00	-25.49	H
7009.33	-33.57	12.30	20.13	-41.40	-13.00	-28.40	H
3504.46	-35.51	12.90	12.05	-34.66	-13.00	-21.66	V
5256.94	-33.88	12.80	16.27	-37.35	-13.00	-24.35	V
7009.34	-32.03	12.30	20.13	-39.86	-13.00	-26.86	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
3424.99	-34.65	12.90	12.05	-33.80	-13.00	-20.80	H
5137.72	-35.21	12.80	16.27	-38.68	-13.00	-25.68	H
6849.95	-32.88	12.30	20.13	-40.71	-13.00	-27.71	H
3424.94	-35.68	12.90	12.05	-34.83	-13.00	-21.83	V
5137.70	-34.52	12.80	16.27	-37.99	-13.00	-24.99	V
6850.08	-32.21	12.30	20.13	-40.04	-13.00	-27.04	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
3479.56	-33.96	12.90	12.05	-33.11	-13.00	-20.11	H
5219.57	-35.33	12.80	16.27	-38.80	-13.00	-25.80	H
6959.68	-32.51	12.30	20.13	-40.34	-13.00	-27.34	H
3479.73	-35.93	12.90	12.05	-35.08	-13.00	-22.08	V
5219.89	-34.73	12.80	16.27	-38.20	-13.00	-25.20	V
6959.92	-31.74	12.30	20.13	-39.57	-13.00	-26.57	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
3504.76	-34.75	12.90	12.05	-33.90	-13.00	-20.90	H
5256.94	-35.38	12.80	16.27	-38.85	-13.00	-25.85	H
7009.35	-32.99	12.30	20.13	-40.82	-13.00	-27.82	H
3504.65	-35.00	12.90	12.05	-34.15	-13.00	-21.15	V
5256.88	-35.14	12.80	16.27	-38.61	-13.00	-25.61	V
7009.49	-32.68	12.30	20.13	-40.51	-13.00	-27.51	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
3425.02	-34.55	12.90	12.05	-33.70	-13.00	-20.70	H
5137.64	-34.18	12.80	16.27	-37.65	-13.00	-24.65	H
6850.01	-32.43	12.30	20.13	-40.26	-13.00	-27.26	H
3424.79	-35.80	12.90	12.05	-34.95	-13.00	-21.95	V
5137.67	-33.90	12.80	16.27	-37.37	-13.00	-24.37	V
6850.15	-32.43	12.30	20.13	-40.26	-13.00	-27.26	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
3479.67	-33.76	12.90	12.05	-32.91	-13.00	-19.91	H
5219.51	-35.21	12.80	16.27	-38.68	-13.00	-25.68	H
6959.77	-33.48	12.30	20.13	-41.31	-13.00	-28.31	H
3479.72	-35.70	12.90	12.05	-34.85	-13.00	-21.85	V
5219.59	-33.77	12.80	16.27	-37.24	-13.00	-24.24	V
6959.53	-32.77	12.30	20.13	-40.60	-13.00	-27.60	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
3504.45	-34.76	12.90	12.05	-33.91	-13.00	-20.91	H
5257.10	-35.40	12.80	16.27	-38.87	-13.00	-25.87	H
7009.48	-32.24	12.30	20.13	-40.07	-13.00	-27.07	H
3504.77	-35.40	12.90	12.05	-34.55	-13.00	-21.55	V
5256.81	-34.67	12.80	16.27	-38.14	-13.00	-25.14	V
7009.55	-32.58	12.30	20.13	-40.41	-13.00	-27.41	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※※※※※