



TEST REPORT

Product Name: 4G LTE UFO WiFi Mobile Hotspot
FCC ID: 2BHVO-MF201
Trademark: TALKSIM
Model Number: MF201
Prepared For: Shenzhen Tanding Technology Co., Ltd.
Address: Room 2728, Pengrunda Commercial Plaza, No.3368 Houhai Bin Road, Haizhu Community, Yuehai Street, Nanshan District, Shenzhen, Guangdong, CN(China)
Manufacturer: Shenzhen Tanding Technology Co., Ltd.
Address: Room 2728, Pengrunda Commercial Plaza, No.3368 Houhai Bin Road, Haizhu Community, Yuehai Street, Nanshan District, Shenzhen, Guangdong, CN(China)
Prepared By: Shenzhen CTB Testing Technology Co., Ltd.
Address: 1&2/F., Building A, No.26, Xinhe Road, Xinqiao, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China
Sample Received Date: Jul. 07, 2025
Sample tested Date: Jul. 07, 2025 to Jul. 23, 2025
Issue Date: Jul. 23, 2025
Report No.: CTB25070704901RF02
Test Standards: FCC Part 22H & 24E
Test Results: PASS
Remark: This is GSM radio test report.

Compiled by:

Reviewed by:

Approved by:

Zhou kui

Arron Liu

Bin Mei

Zhou KuiArron LiuBin Mei / Director

Note: If there is any objection to the inspection results in this report, please submit a written report to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client. "*" indicates the testing items were fulfilled by subcontracted lab. "#" indicates the items are not in CNAS accreditation scope.

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(Note: N/A means not applicable)

1. VERSION

Report No.	Issue Date	Description	Approved
CTB25070704901RF02	Jul. 23, 2025	Original	Valid

2. TEST SUMMARY

The Product has been tested according to the following specifications:

FCC Rules	Description of Test Item	Result
§1.1307, §2.1091	RF Exposure	Compliant
§22.913 (a), §24.232 (c)	RF Output Power	Compliant
§24.51	Peak-to-average Ratio(PAR) of Transmitter	Compliant
§22.917 (b), §24.238 (b)	Emission Bandwidth	Compliant
§22.917 (a), §24.238 (a)	Spurious Emissions at Antenna Terminal	Compliant
§22.917 (a), §24.238 (a)	Spurious Radiation Emissions	Compliant
§22.917 (a), §24.238 (a)	Out of Band Emissions	Compliant
§22.355, §24.235	Frequency Stability	Compliant

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Item	Uncertainty
Occupancy bandwidth	54.3kHz
Conducted output power Above 1G	0.9dB
Conducted output power below 1G	0.9dB
Power Spectral Density , Conduction	0.9dB
Conduction spurious emissions	2.0dB
Out of band emission	2.0dB
3m camber Radiated spurious emission(30MHz-1GHz)	4.6dB
3m chamber Radiated spurious emission(1GHz-18GHz)	5.1dB
3m chamber Radiated spurious emission(18GHz-40GHz)	3.4dB
Receiver Reference Sensitivity level	1.9dB
humidity uncertainty	5.5%
Temperature uncertainty	0.63°C
frequency	1×10 ⁻⁷

4. PRODUCT INFORMATION AND TEST SETUP

4.1 Product Information

Model(s):	MF201
Model Description:	N/A
Hardware Version:	V1.0
Software Version:	V1.0
Operation Frequency:	WCDMA Band 2: 1850~1910MHz WCDMA Band 5: 824~849MHz
Max. RF output power:	WCDMA Band 2: 21.32dBm WCDMA Band 5: 21.48dBm
Type of Modulation:	GMSK, BPSK
Antenna installation:	Internal antenna
Antenna Gain:	WCDMA Band 2: 1.67dBi WCDMA Band 5: -3.43dBi
Ratings:	DC 5V charging from adapter or DC 5V by notebook DC 3.7V by battery

4.2 Test Setup Configuration

See test photographs attached in EUT TEST SETUP PHOTOGRAPHS for the actual connections between Product and support equipment.

4.3 Support Equipment

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1.	Adapter	JIYIN	JY-05100C	/	AE
2.	Laptop	DELL	Vostro 5490	N/A	AE

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Channel List

Testing Configure			
Support Band	Support Standard	Channel Frequency	Channel Number
WCDMA Band 2	WCDMA/HSDPA/HSUPA	1852.4 MHz	9262
		1880.0 MHz	9400
		1907.6 MHz	9538
WCDMA Band 5	WCDMA/HSDPA/HSUPA	826.4 MHz	4132
		836.6 MHz	4183
		846.6 MHz	4233
Note: the transmitter has been tested on the communications mode of GSM, GPRS, EDGE, WCDMA, HSDPA. HSUPA compliance test and record the worst case.			

4.5 Test Mode

Test Mode List		
Test Mode	Description	Remark
TM1	WCDMA Band 2	Low, Middle, High Channels
TM2	HSDPA Band 2	Low, Middle, High Channels
TM3	HSUPA Band 2	Low, Middle, High Channels
TM4	WCDMA Band 5	Low, Middle, High Channels
TM5	HSDPA Band 5	Low, Middle, High Channels
TM6	HSUPA Band 5	Low, Middle, High Channels

4.6 Test Environment

Humidity(%):	54
Atmospheric Pressure(kPa):	101
Normal Voltage(DC):	3.7V
Normal Temperature(°C)	23
Low Temperature(°C)	0
High Temperature(°C)	40

5. TEST FACILITY AND TEST INSTRUMENT USED

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at 1&2F., Building A, No. 26, Xinhe Road, Xinqiao, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

FCC Test Firm Registration Number: CN1276

5.2 Test Instrument Used

No.	Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Calibrated Date	Calibrated until
1	Spectrum Analyzer	Agilent	N9020A	MY52090073	A.14.16	2025/5/23	2026/5/22
2	Power Sensor	Agilent	U2021XA	MY56120032	/	2025/5/23	2026/5/22
3	Power Sensor	Agilent	U2021XA	MY56120034	/	2025/5/23	2026/5/22
4	Communication test set	R&S	CMW500	108058	V3.5.80	2025/5/23	2026/5/22
5	Spectrum Analyzer	KEYSIGHT	N9020A	MY51289897	A.14.16	2025/5/23	2026/5/22
6	Signal Generator	Agilent	N5181A	MY50140365	A.01.60	2025/5/22	2026/5/21
7	Vector signal generator	Agilent	N5182A	MY47420195	A.01.87	2025/5/22	2026/5/21
8	Communication test set	Agilent	E5515C	MY50102567	B.19.07 (E1962B)	2025/5/22	2026/5/21
9	2.4 GHz Filter	Shenxiang	MSF2400-2483.5MS-1154	20181015001	/	2025/6/18	2026/6/17
10	5 GHz Filter	Shenxiang	MSF5150-5850 MS-1155	20181015001	/	2025/6/18	2026/6/17
11	Filter	Xingbo	XBLBQ-DZA120	190821-1-1	/	2025/5/24	2026/5/23
12	BT&WI-FI Automatic test software	Microwave	MTS8310	Ver. 2.0.0.0	/	/	/
13	Rohde & Schwarz SFU Broadcast Test System	R&S	SFU	101017	/	2024/10/31	2025/10/30
14	Temperature humidity chamber	Hongjing	TH-80CH	DG-15174	/	2025/5/22	2026/5/21
15	234G Automatic test software	Microwave	MTS8200	Ver. 2.0.0.0	/	/	/
16	966 chamber	C.R.T.	966	/	/	2024/6/23	2027/6/22
17	Receiver	R&S	ESPI	100362	RF_ATTEN_7 (104489/003)	2025/5/23	2026/5/22
18	Amplifier	HP	8447E	2945A02747	/	2025/5/23	2026/5/22

19	Amplifier	Agilent	8449B	3008A01838	/	2025/6/2	2026/6/1
20	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	00869	/	2025/6/29	2026/6/28
21	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA9120D	01911	/	2025/6/1	2026/5/31
22	EMI test software	Fala	EZ-EMC	FA-03A2 RE	/	/	/
23	Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-224	/	2025/6/2	2026/6/1
24	loop antenna	ZHINAN	ZN30900A	GTS534	/	/	/
25	40G Horn antenna	A/H/System	SAS-574	588	/	2025/6/2	2026/6/1
26	Amplifier	AEROFLEX	Aeroflex	097	/	2025/6/2	2026/6/1
27	Power Metter	KEYSIGHT	N1912AP	N/A	A.05.00	2025/6/2	2026/6/1

6. RF OUTPUT POWER

6.1 Standard Applicable

According to §22.913(a)(2), The ERP of mobile and portable stations transmitters and auxiliary test transmitters must not exceed 7 Watts.

According to §24.232 (c), Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

6.2 Test Procedure

Conducted output power test method:



Radiated power test method:

- 1.The setup of EUT is according with per ANSI/TIA Standard 603D and ANSI C63.4-2014 measurement procedure.
- 2.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.
- 3.The frequency range up to tenth harmonic of the fundamental frequency was investigated.
- 4.Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

6.3 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	54%
ATM Pressure:	1010 mbar

6.4 Summary of Test Results/Plots

Max. Radiated Power

EIRP For WCDMA Mode Band 2

Frequency	Substitute SG	Height	Table	Polar	Cable loss	Antenna Gain	Result	FCC Part 24E Limit
MHz	dBm	Meter	Degree	H / V	dB	dB	dBm	dBm
Low Channel								
1852.4	20.66	1.5	0	H	1.9	1.67	20.43	33
1852.4	22.03	1.5	0	V	1.9	1.67	21.80	33
Middle Channel								
1880	21.00	1.5	0	H	1.9	1.67	20.77	33
1880	20.75	1.5	0	V	1.9	1.67	20.52	33
High Channel								
1907.6	21.42	1.5	0	H	1.9	1.67	21.19	33
1907.6	20.39	1.5	0	V	1.9	1.67	20.16	33

EIRP For HSDPA Mode Band 2

Frequency	Substitute SG	Height	Table	Polar	Cable loss	Antenna Gain	Result	FCC Part 24E Limit
MHz	dBm	Meter	Degree	H / V	dB	dB	dBm	dBm
Low Channel								
1852.4	21.69	1.5	0	H	1.9	1.67	21.46	33
1852.4	20.19	1.5	0	V	1.9	1.67	19.96	33
Middle Channel								
1880	20.46	1.5	0	H	1.9	1.67	20.23	33
1880	21.33	1.5	0	V	1.9	1.67	21.10	33
High Channel								
1907.6	21.35	1.5	0	H	1.9	1.67	21.12	33
1907.6	20.47	1.5	0	V	1.9	1.67	20.24	33

EIRP For HSUPA Mode Band 2

Frequency	Substitute SG	Height	Table	Polar	Cable loss	Antenna Gain	Result	FCC Part 24E Limit
MHz	dBm	Meter	Degree	H / V	dB	dB	dBm	dBm
Low Channel								
1852.4	21.23	1.5	0	H	1.9	1.67	21.00	33
1852.4	20.51	1.5	0	V	1.9	1.67	20.28	33
Middle Channel								
1880	20.72	1.5	0	H	1.9	1.67	20.49	33
1880	20.86	1.5	0	V	1.9	1.67	20.63	33
High Channel								
1907.6	21.19	1.5	0	H	1.9	1.67	20.96	33
1907.6	20.37	1.5	0	V	1.9	1.67	20.14	33

ERP For WCDMA Mode Band 5

Frequency	Substitute SG	Height	Table	Polar	Cable loss	Antenna Gain	Result	FCC Part 22H Limit
MHz	dBm	Meter	Degree	H / V	dB	dBd	dBm	dBm
Low Channel								
826.4	19.69	1.5	0	H	1.5	-3.43	14.76	38.45
826.4	19.68	1.5	0	V	1.5	-3.43	14.75	38.45
Middle Channel								
836.6	20.75	1.5	0	H	1.5	-3.43	15.82	38.45
836.6	21.25	1.5	0	V	1.5	-3.43	16.32	38.45
High Channel								
846.6	18.52	1.5	0	H	1.5	-3.43	13.59	38.45
846.6	18.46	1.5	0	V	1.5	-3.43	13.53	38.45

ERP For HSDPA Mode Band 5

Frequency	Substitute SG	Height	Table	Polar	Cable loss	Antenna Gain	Result	FCC Part 22H Limit
MHz	dBm	Meter	Degree	H / V	dB	dBd	dBm	dBm
Low Channel								
826.4	20.18	1.5	0	H	1.5	-3.43	15.25	38.45
826.4	20.55	1.5	0	V	1.5	-3.43	15.62	38.45
Middle Channel								
836.6	20.76	1.5	0	H	1.5	-3.43	15.83	38.45
836.6	20.90	1.5	0	V	1.5	-3.43	15.97	38.45
High Channel								
846.6	17.89	1.5	0	H	1.5	-3.43	12.96	38.45
846.6	18.65	1.5	0	V	1.5	-3.43	13.72	38.45

ERP For HSUPA Mode Band 5

Frequency	Substitute SG	Height	Table	Polar	Cable loss	Antenna Gain	Result	FCC Part 22H Limit
MHz	dBm	Meter	Degree	H / V	dB	dBd	dBm	dBm
Low Channel								
826.4	19.33	1.5	0	H	1.5	-3.43	14.40	38.45
826.4	19.68	1.5	0	V	1.5	-3.43	14.75	38.45
Middle Channel								
836.6	20.68	1.5	0	H	1.5	-3.43	15.75	38.45
836.6	20.94	1.5	0	V	1.5	-3.43	16.01	38.45
High Channel								
846.6	17.67	1.5	0	H	1.5	-3.43	12.74	38.45
846.6	17.57	1.5	0	V	1.5	-3.43	12.64	38.45

Note: Result = Substitute - Cable loss + Antenna Gain

Max. Conducted Output Power

For WCDMA Band 2

Test Mode	Channel	Frequency (MHz)	Average Power (dBm)	FCC Part 24.232 Limit (dBm)
WCDMA	Low Channel	1852.4	21.16	33.00
	Middle Channel	1880.0	21.13	33.00
	High Channel	1907.6	21.32	33.00
HSDPA	Low Channel	1852.4	21.09	33.00
	Middle Channel	1880.0	21.03	33.00
	High Channel	1907.6	21.16	33.00
HSUPA	Low Channel	1852.4	20.88	33.00
	Middle Channel	1880.0	20.83	33.00
	High Channel	1907.6	20.98	33.00

For WCDMA Band 5

Test Mode	Channel	Frequency (MHz)	Average Power (dBm)	FCC Part 22.913 Limit (dBm)
WCDMA	Low Channel	826.4	20.62	38.45
	Middle Channel	836.6	21.48	38.45
	High Channel	846.6	18.91	38.45
HSDPA	Low Channel	826.4	20.63	38.45
	Middle Channel	836.6	21.41	38.45
	High Channel	846.6	18.77	38.45
HSUPA	Low Channel	826.4	19.92	38.45
	Middle Channel	836.6	20.96	38.45
	High Channel	846.6	18.20	38.45

7. PEAK-TO-AVERAGE RATIO(PAR) OF TRANSMITTER

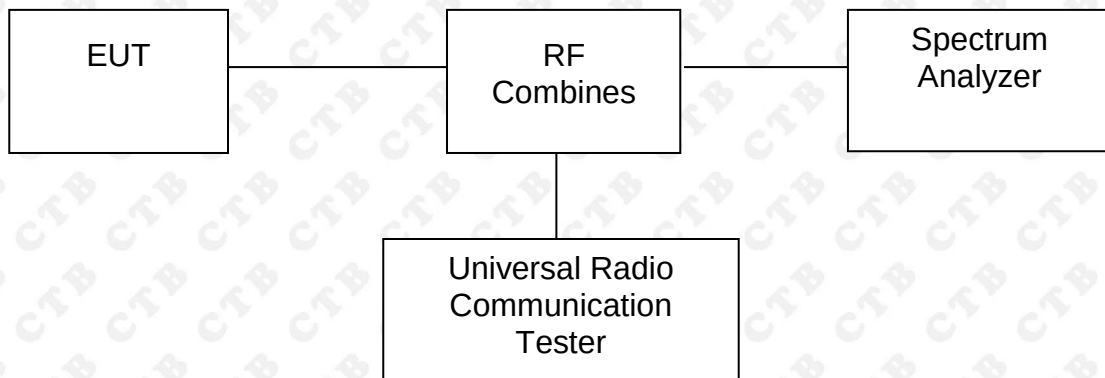
7.1 Standard Applicable

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.

7.2 Test Procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 30kHz and the peak-to-average ratio (PAR) of the transmission was recorded. Record the maximum PAPR level associated with a probability of 0.1%.

Test Configuration for the emission bandwidth testing:



7.3 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	54%
ATM Pressure:	1010 mbar

7.4 Summary of Test Results

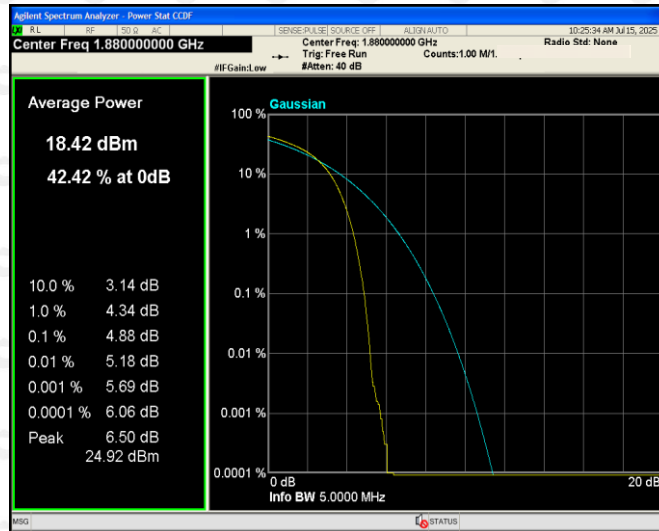
Only the worst case was selected to record
For WCDMA Band 2

Test Mode	Channel	Frequency (MHz)	PAR (dB)	Limit (dB)
WCDMA	9262	1852.4	3.02	13
HSDPA	9400	1852.4	4.88	13
HSUPA	9400	1852.4	4.27	13

For WCDMA Band 5

Test Mode	Channel	Frequency (MHz)	PAR (dB)	Limit (dB)
WCDMA	4182	836.4	2.65	13
HSDPA	4182	836.4	4.20	13
HSUPA	4182	836.4	3.91	13

WCDMA:



8. EMISSION BANDWIDTH

8.1 Standard Applicable

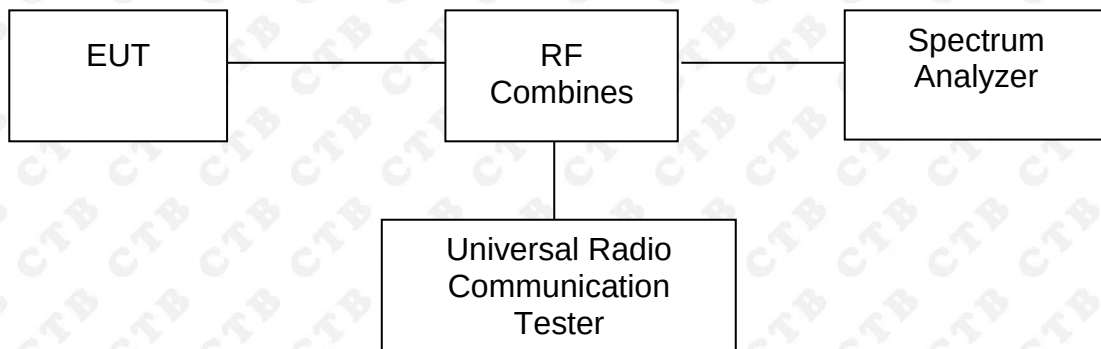
According to §22.917(b), The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

According to §24.238(b), The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

8.2 Test Procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 10kHz for GSM mode and 100kHz for WCDMA mode, VBW shall be at least 3 times the RBW, and the 26dB bandwidth was recorded.

Test Configuration for the emission bandwidth testing:



8.3 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	54%
ATM Pressure:	1010 mbar

8.4 Summary of Test Results/Plots

For Cellular Band

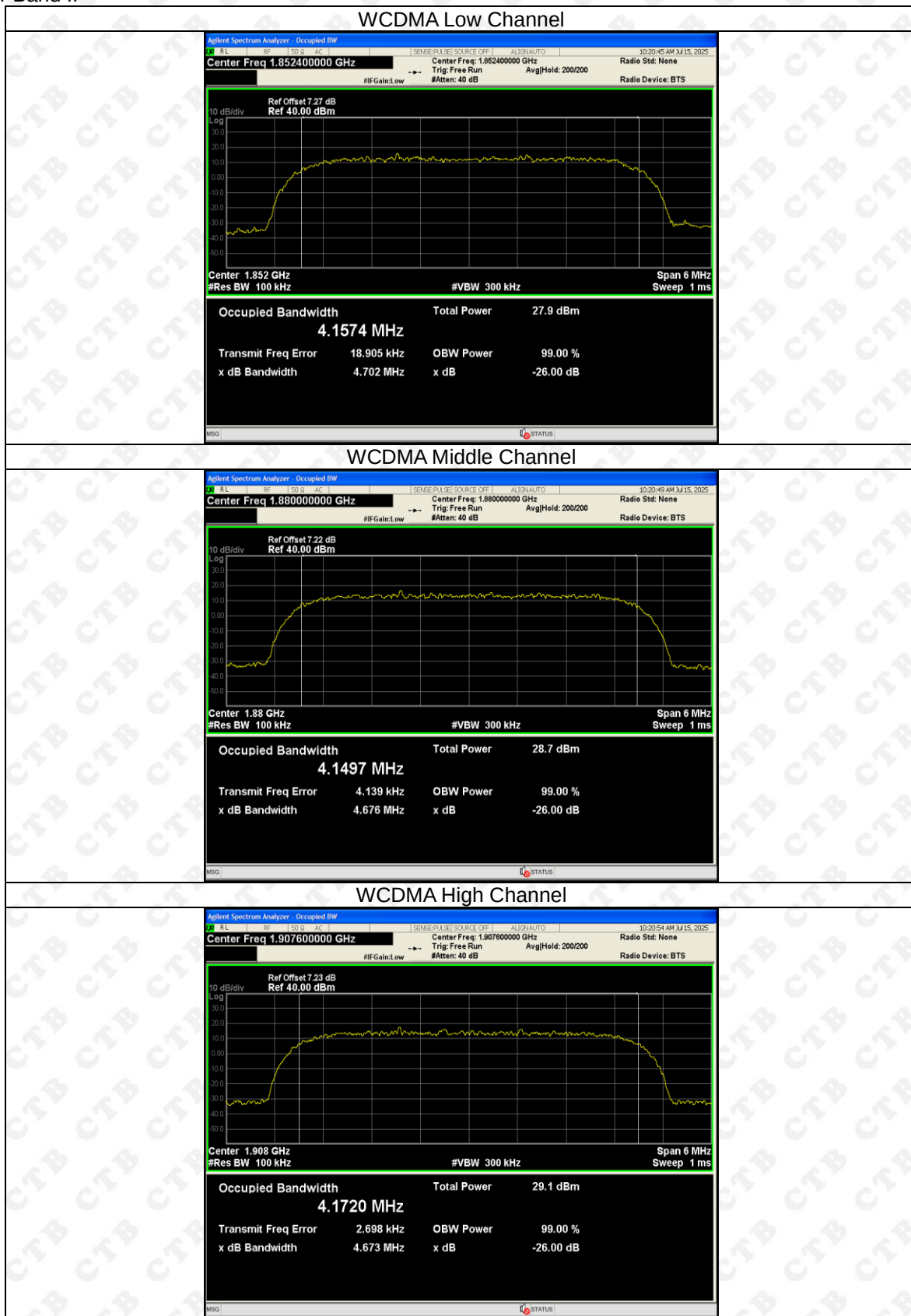
For Band 2

Test Mode	Channel	Frequency (MHz)	99% Emission Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
WCDMA	9262	1852.4	4157.389	4702.224
	9400	1880.0	4149.725	4676.475
	9538	1907.6	4171.951	4673.083
HSDPA	9262	1852.4	4157.366	4699.840
	9400	1880.0	4163.684	4691.563
	9538	1907.6	4182.474	4675.546
HSUPA	9262	1852.4	4181.489	4707.792
	9400	1880.0	4169.970	4718.231
	9538	1907.6	4170.894	4715.338

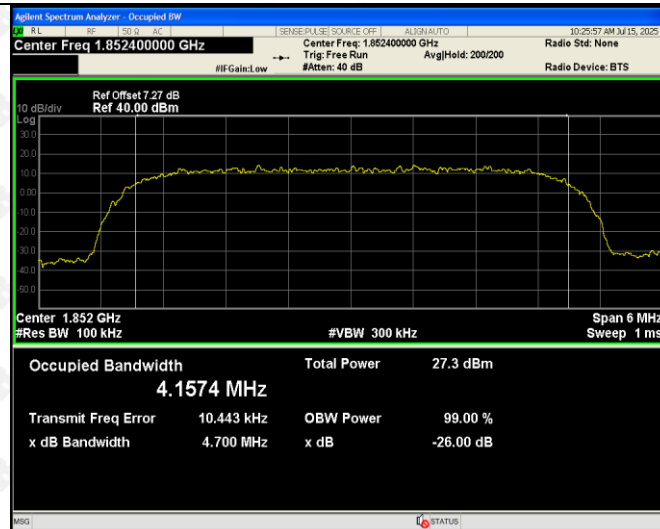
For Band 5

Test Mode	Channel	Frequency (MHz)	99% Emission Bandwidth (kHz)	26 dB Emission Bandwidth (kHz)
WCDMA	4132	826.4	4160.119	4703.476
	4183	836.6	4145.769	4733.642
	4233	846.6	4183.958	4697.807
HSDPA	4132	826.4	4163.782	4702.843
	4183	836.6	4164.013	4719.177
	4233	846.6	4162.963	4722.098
HSUPA	4132	826.4	4171.840	4697.475
	4183	836.6	4153.602	4672.990
	4233	846.6	4192.923	4708.823

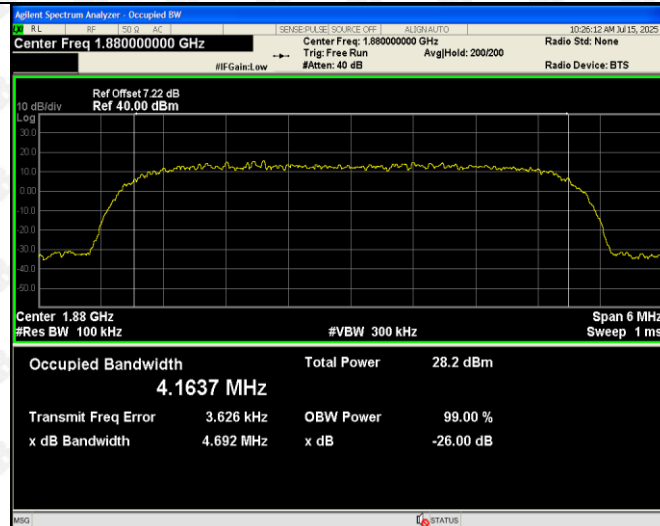
For Cellular Band
For Band II



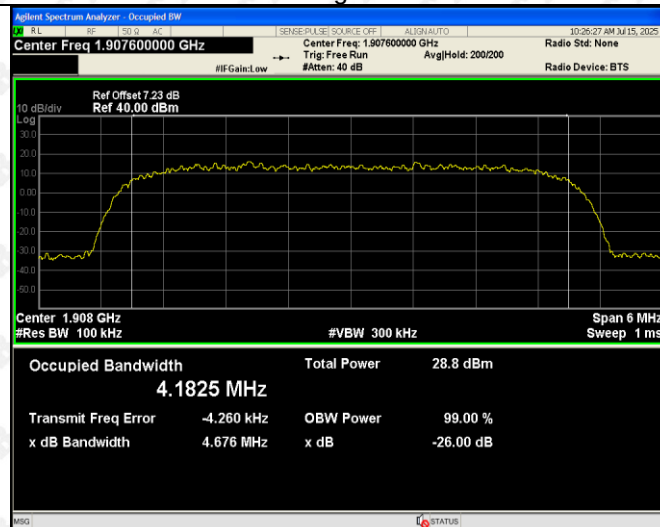
HSDPA Low Channel



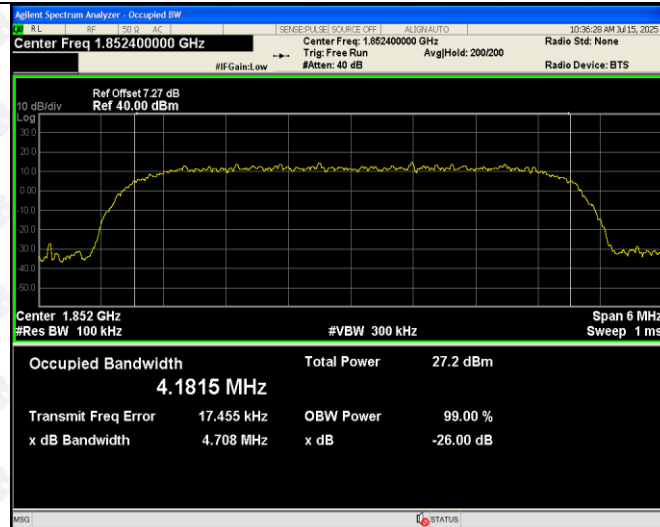
HSDPA Middle Channel



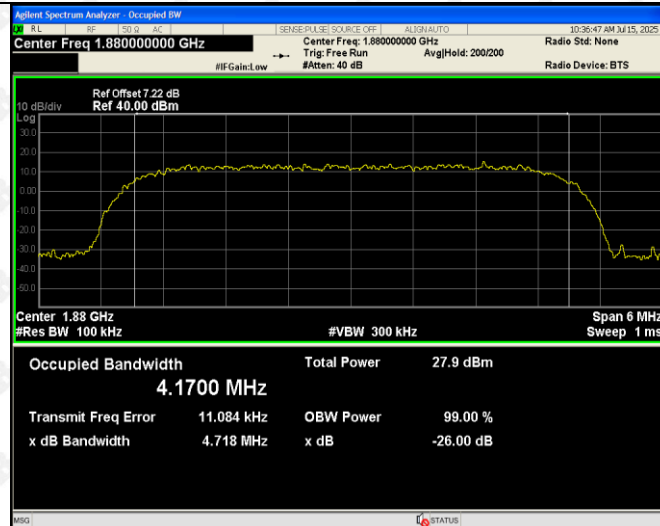
HSDPA High Channel



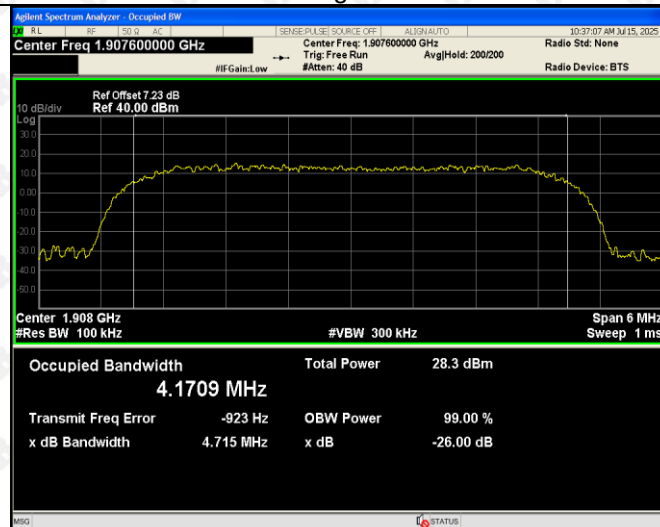
HSUPA Low Channel



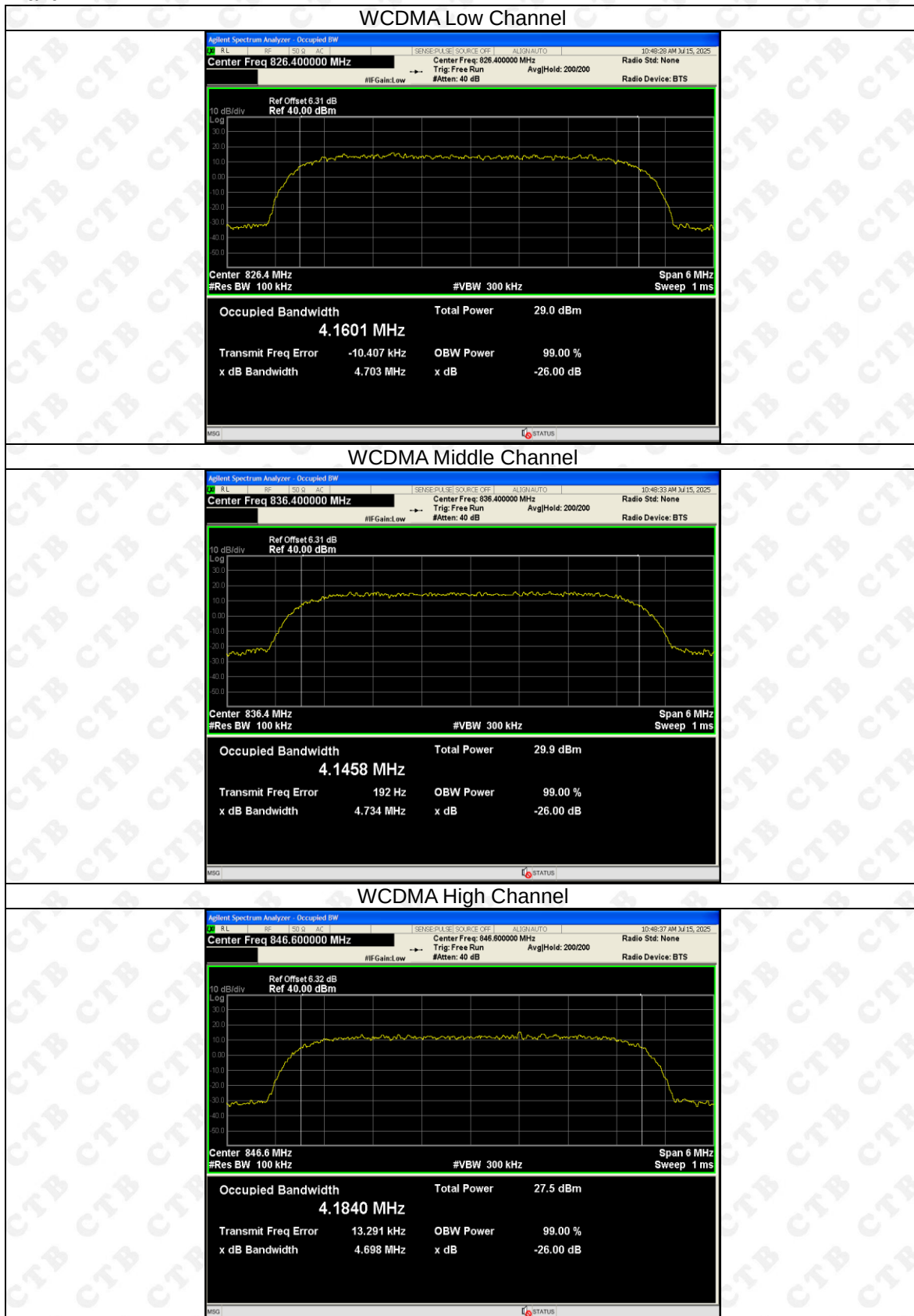
HSUPA Middle Channel



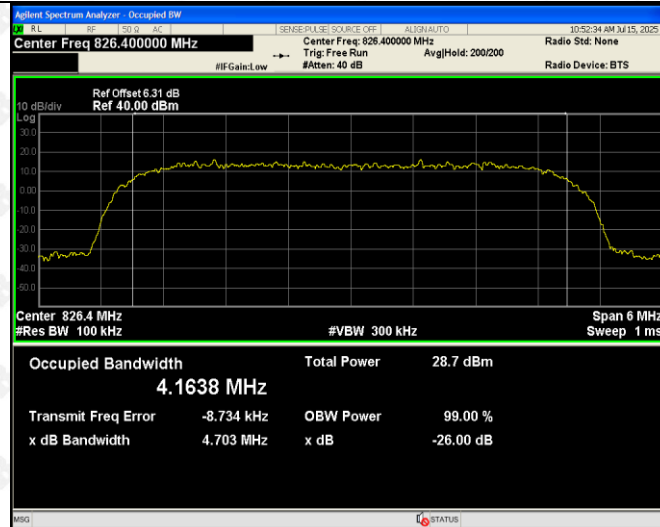
HSUPA High Channel



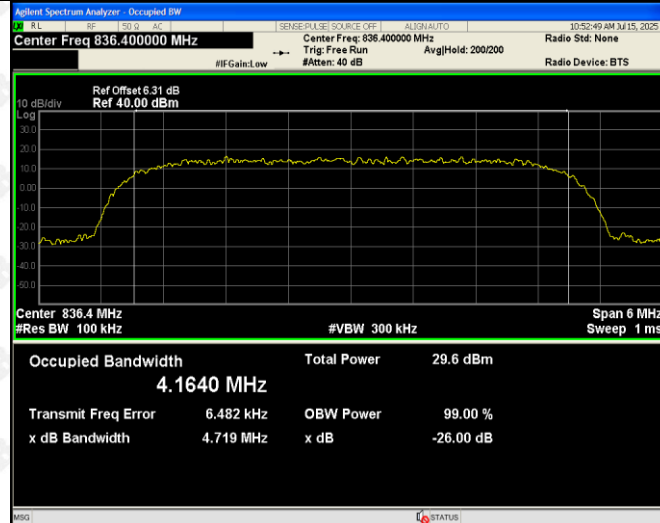
For Band V



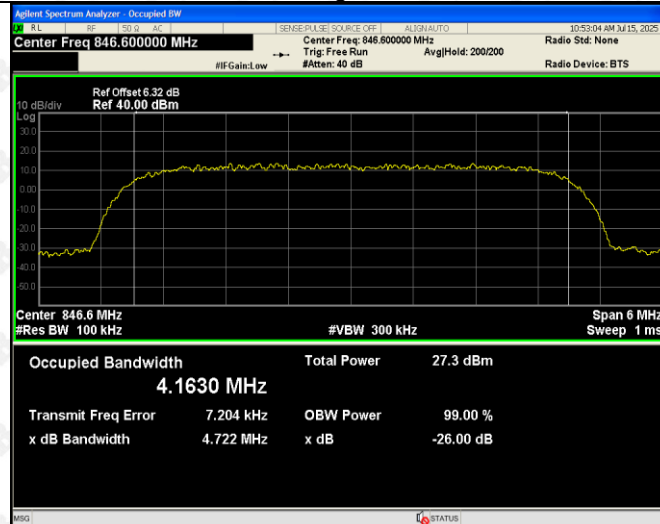
HSDPA Low Channel



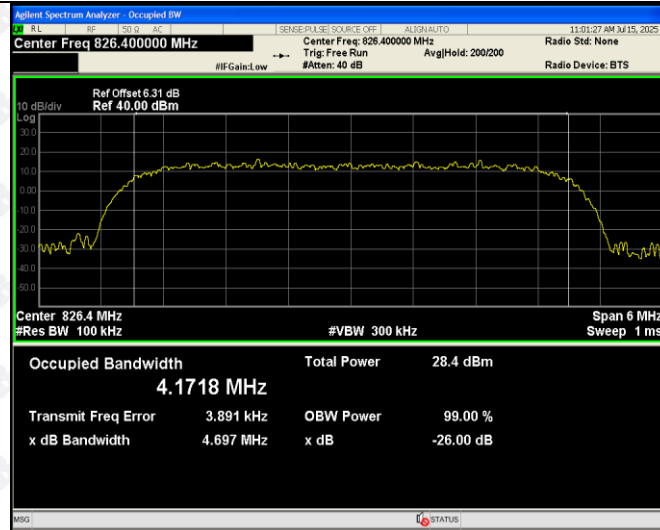
HSDPA Middle Channel



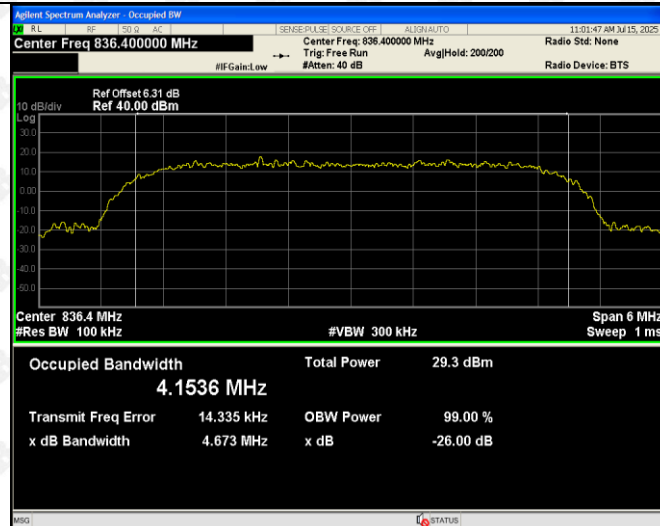
HSDPA High Channel



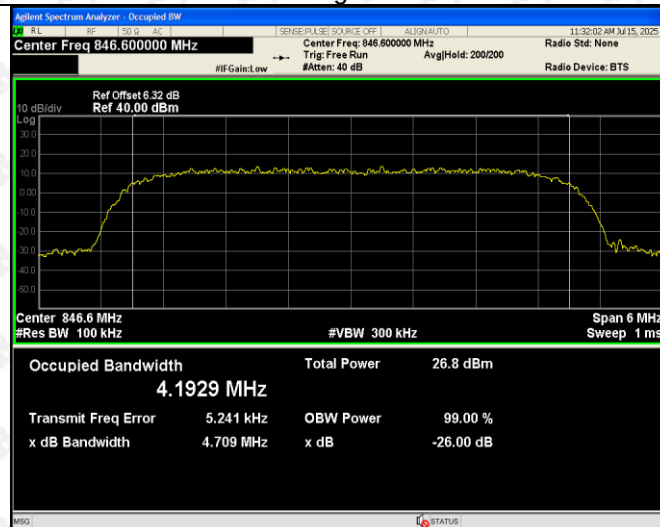
HSUPA Low Channel



HSUPA Middle Channel



HSUPA High Channel



9. OUT OF BAND EMISSIONS AT ANTENNA TERMINAL

9.1 Standard Applicable

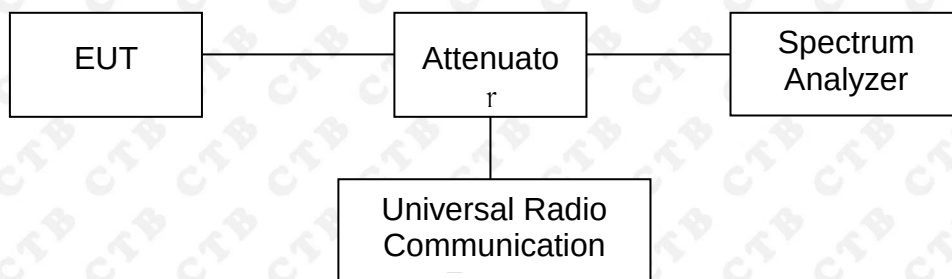
According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

9.2 Test Procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 100kHz and 1MHz for the scan frequency from 30MHz to 1GHz and the scan frequency from 1GHz to up to 10th harmonic.

Test Configuration for the out of band emissions testing:



9.3 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	54%
ATM Pressure:	1010 mbar

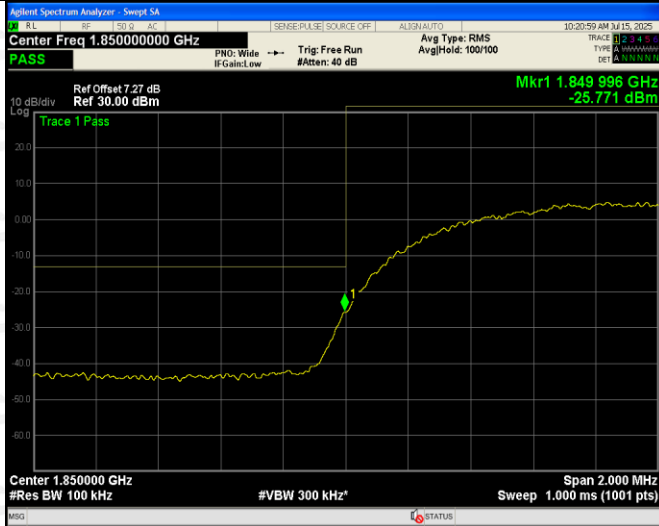
9.4 Summary of Test Results/Plots

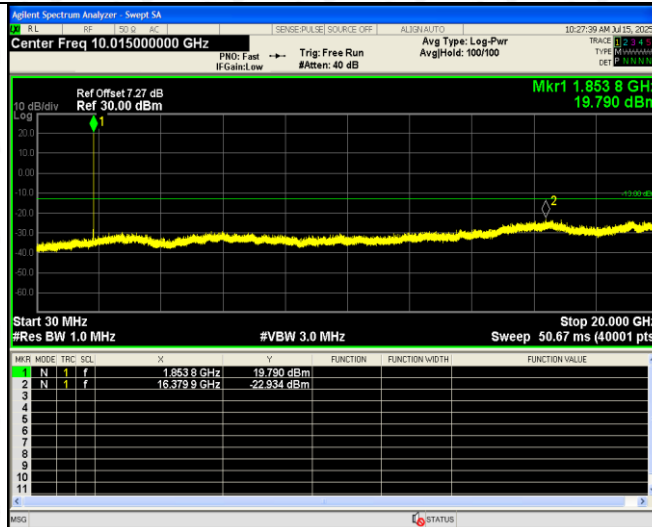
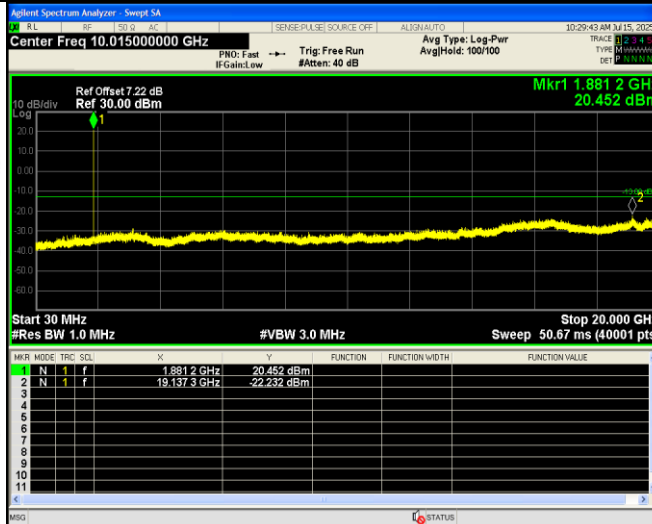
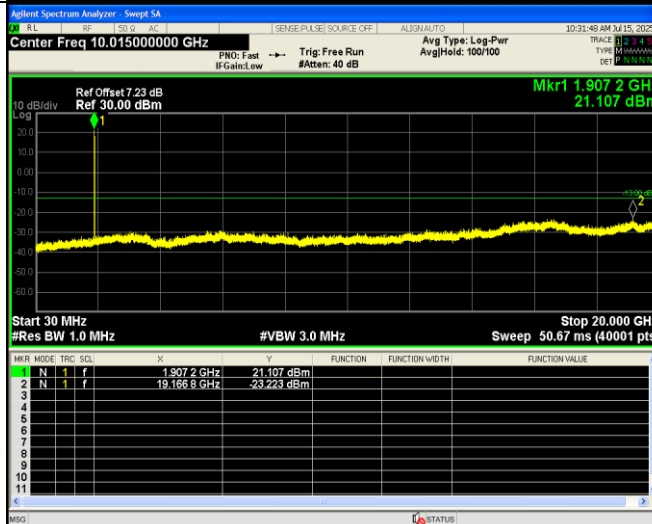
Please refer to the following test plots

For Cellular Band

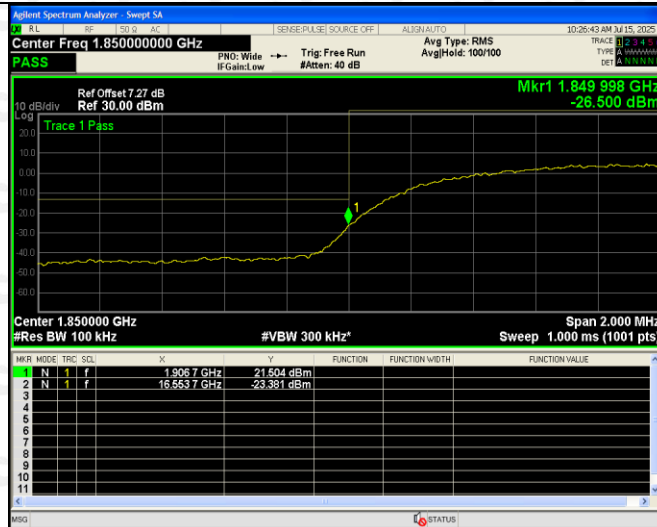
For Band II

WCDMA Low Channel	Agilent Spectrum Analyzer - Sweep SA Center Freq 10.01500000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 40 dB Avg Type: Log-Pwr AvgHld: 100/100 Ref Offset 7.27 dB Ref 30.00 dBm Mkr1 1.853 8 GHz 20.319 dBm Start 30 MHz Stop 20.000 GHz Res BW 1.0 MHz VBW 3.0 MHz Sweep 50.67 ms (40001 pts) <table><thead><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>1.853 8 GHz</td><td>20.319 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>19.162 8 GHz</td><td>-22.903 dBm</td><td></td><td></td><td></td></tr></tbody></table>	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	1.853 8 GHz	20.319 dBm				2	N	1	f	19.162 8 GHz	-22.903 dBm			
MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																				
1	N	1	f	1.853 8 GHz	20.319 dBm																							
2	N	1	f	19.162 8 GHz	-22.903 dBm																							
WCDMA Middle Channel	Agilent Spectrum Analyzer - Sweep SA Center Freq 10.01500000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 40 dB Avg Type: Log-Pwr AvgHld: 100/100 Ref Offset 7.22 dB Ref 30.00 dBm Mkr1 1.879 2 GHz 20.942 dBm Start 30 MHz Stop 20.000 GHz Res BW 1.0 MHz VBW 3.0 MHz Sweep 50.67 ms (40001 pts) <table><thead><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>1.879 2 GHz</td><td>20.942 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>19.171 7 GHz</td><td>-23.051 dBm</td><td></td><td></td><td></td></tr></tbody></table>	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	1.879 2 GHz	20.942 dBm				2	N	1	f	19.171 7 GHz	-23.051 dBm			
MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																				
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WCDMA High Channel	Agilent Spectrum Analyzer - Sweep SA Center Freq 10.01500000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 40 dB Avg Type: Log-Pwr AvgHld: 100/100 Ref Offset 7.23 dB Ref 30.00 dBm Mkr1 1.906 7 GHz 21.504 dBm Start 30 MHz Stop 20.000 GHz Res BW 1.0 MHz VBW 3.0 MHz Sweep 50.67 ms (40001 pts) <table><thead><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>1.906 7 GHz</td><td>21.504 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>16.553 7 GHz</td><td>-23.351 dBm</td><td></td><td></td><td></td></tr></tbody></table>	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	1.906 7 GHz	21.504 dBm				2	N	1	f	16.553 7 GHz	-23.351 dBm			
MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																				
1	N	1	f	1.906 7 GHz	21.504 dBm																							
2	N	1	f	16.553 7 GHz	-23.351 dBm																							

WCDMA Low Band Spurious Emission	 Agilent Spectrum Analyzer - Sweep SA Center Freq 1.85000000 GHz Ref Offset 7.27 dB Ref 30.00 dBm Mkr1 1.849 996 GHz -25.771 dBm Center 1.850000 GHz #Res BW 100 kHz #VBW 300 kHz* Span 2.000 MHz Sweep 1.000 ms (1001 pts)	
WCDMA High Band Spurious Emission	 Agilent Spectrum Analyzer - Sweep SA Center Freq 1.91000000 GHz Ref Offset 7.23 dB Ref 30.00 dBm Mkr1 1.910 002 GHz -23.797 dBm Center 1.910000 GHz #Res BW 100 kHz #VBW 300 kHz* Span 2.000 MHz Sweep 1.000 ms (1001 pts)	

HSDPA
Low
Channel

HSDPA
Middle
Channel

HSDPA
High
Channel


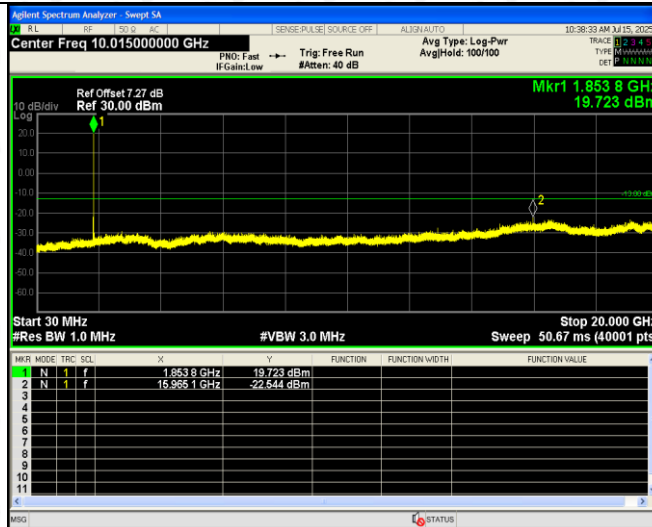
HSDPA
Low
Band
Spurious
Emission



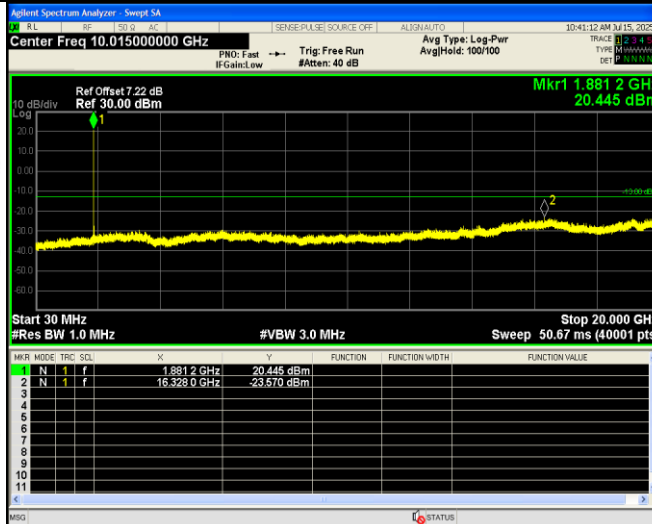
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Band
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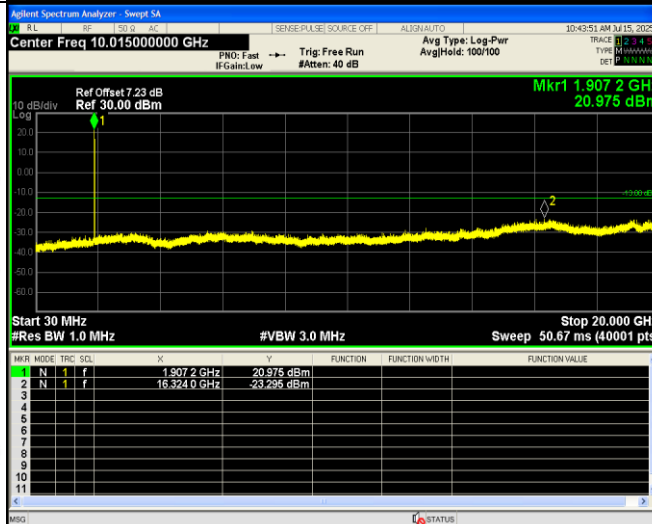
HSUPA
Low
Channel



HSUPA
Middle
Channel

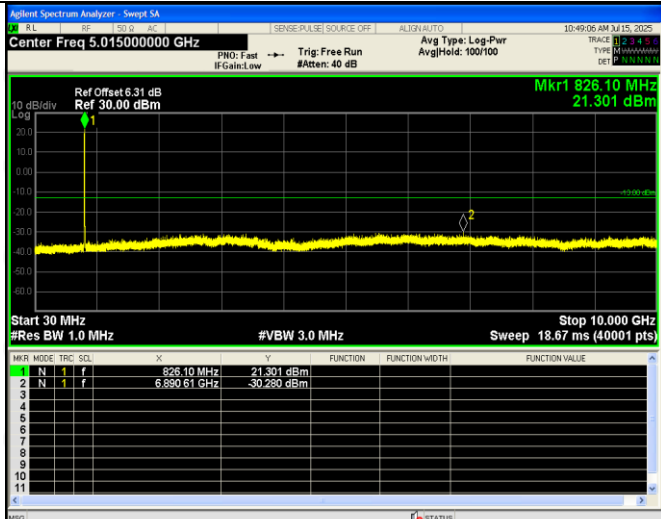
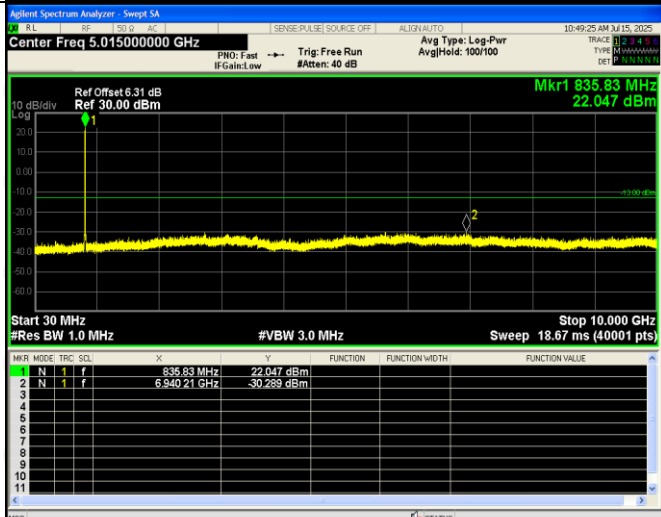
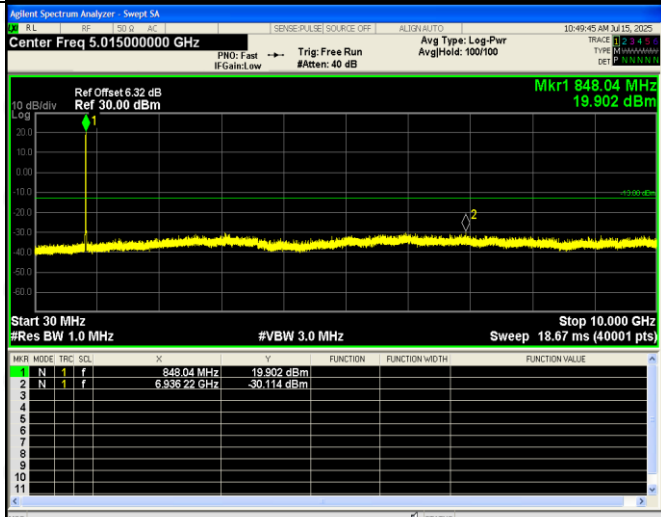


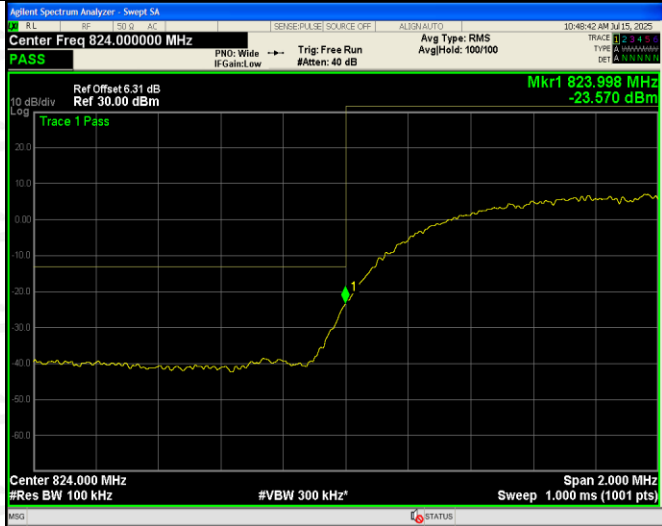
HSUPA
High
Channel



HSUPA Low Band Spurious Emission		
HSUPA High Band Spurious Emission		

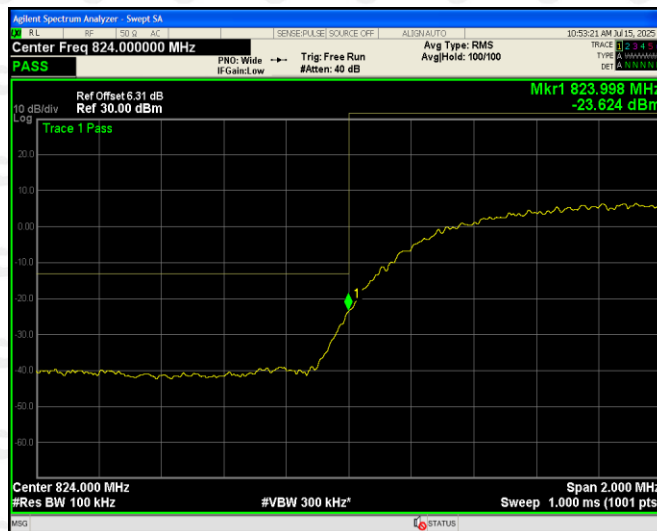
For Band V

WCDMA Low Channel	 Agilent Spectrum Analyzer - Sweep SA Center Freq 5.015000000 GHz Ref Offset 6.31 dB Ref 30.00 dBm Mkr1 826.10 MHz 21.301 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 18.67 ms (40001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRG</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>826.10 MHz</td><td>21.301 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>6.890 61 GHz</td><td>-30.280 dBm</td><td></td><td></td><td></td></tr></table>	MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	826.10 MHz	21.301 dBm				2	N	1	f	6.890 61 GHz	-30.280 dBm			
MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																				
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2	N	1	f	6.890 61 GHz	-30.280 dBm																							
WCDMA Middle Channel	 Agilent Spectrum Analyzer - Sweep SA Center Freq 5.015000000 GHz Ref Offset 6.31 dB Ref 30.00 dBm Mkr1 835.83 MHz 22.047 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 18.67 ms (40001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRG</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>835.83 MHz</td><td>22.047 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>6.940 21 GHz</td><td>-30.289 dBm</td><td></td><td></td><td></td></tr></table>	MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	835.83 MHz	22.047 dBm				2	N	1	f	6.940 21 GHz	-30.289 dBm			
MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																				
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WCDMA High Channel	 Agilent Spectrum Analyzer - Sweep SA Center Freq 5.015000000 GHz Ref Offset 6.32 dB Ref 30.00 dBm Mkr1 848.04 MHz 19.902 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 18.67 ms (40001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRG</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>848.04 MHz</td><td>19.902 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>6.936 22 GHz</td><td>-30.114 dBm</td><td></td><td></td><td></td></tr></table>	MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	848.04 MHz	19.902 dBm				2	N	1	f	6.936 22 GHz	-30.114 dBm			
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WCDMA Low Band Spurious Emission	
WCDMA High Band Spurious Emission	

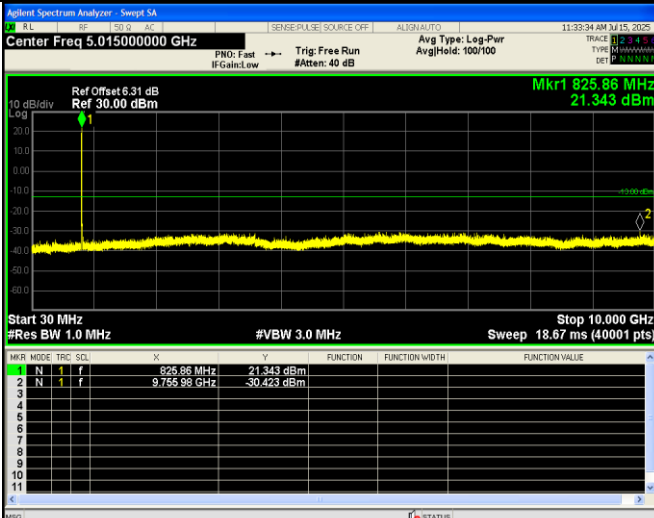
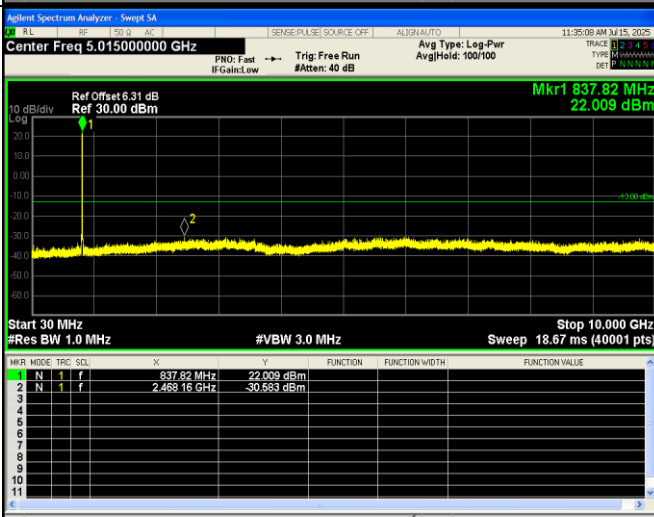
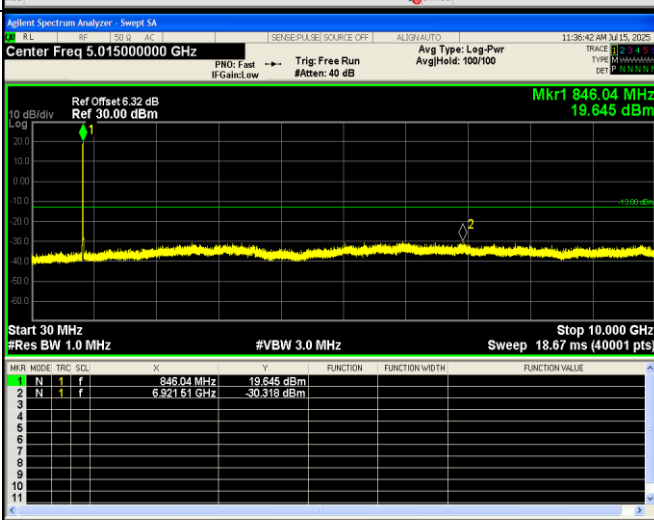
HSDPA Low Channel	Agilent Spectrum Analyzer - Sweep SA Center Freq 5.015000000 GHz Ref Offset 6.31 dB Ref 30.00 dBm Mkr1 825.86 MHz 21.328 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 18.67 ms (40001 pts) <table><tr><th>Marker</th><th>Mode</th><th>Trig</th><th>SQL</th><th>X</th><th>Y</th><th>Function</th><th>Function Width</th><th>Function Value</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>825.86 MHz</td><td>21.328 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>5.966.14 GHz</td><td>-29.638 dBm</td><td></td><td></td><td></td></tr></table>	Marker	Mode	Trig	SQL	X	Y	Function	Function Width	Function Value	1	N	1	f	825.86 MHz	21.328 dBm				2	N	1	f	5.966.14 GHz	-29.638 dBm			
Marker	Mode	Trig	SQL	X	Y	Function	Function Width	Function Value																				
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2	N	1	f	5.966.14 GHz	-29.638 dBm																							
HSDPA Middle Channel	Agilent Spectrum Analyzer - Sweep SA Center Freq 5.015000000 GHz Ref Offset 6.31 dB Ref 30.00 dBm Mkr1 838.07 MHz 22.052 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 18.67 ms (40001 pts) <table><tr><th>Marker</th><th>Mode</th><th>Trig</th><th>SQL</th><th>X</th><th>Y</th><th>Function</th><th>Function Width</th><th>Function Value</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>838.07 MHz</td><td>22.052 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>3.128.68 GHz</td><td>-29.548 dBm</td><td></td><td></td><td></td></tr></table>	Marker	Mode	Trig	SQL	X	Y	Function	Function Width	Function Value	1	N	1	f	838.07 MHz	22.052 dBm				2	N	1	f	3.128.68 GHz	-29.548 dBm			
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2	N	1	f	3.128.68 GHz	-29.548 dBm																							
HSDPA High Channel	Agilent Spectrum Analyzer - Sweep SA Center Freq 5.015000000 GHz Ref Offset 6.32 dB Ref 30.00 dBm Mkr1 848.29 MHz 19.636 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 18.67 ms (40001 pts) <table><tr><th>Marker</th><th>Mode</th><th>Trig</th><th>SQL</th><th>X</th><th>Y</th><th>Function</th><th>Function Width</th><th>Function Value</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>848.29 MHz</td><td>19.636 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>5.561.86 GHz</td><td>-30.316 dBm</td><td></td><td></td><td></td></tr></table>	Marker	Mode	Trig	SQL	X	Y	Function	Function Width	Function Value	1	N	1	f	848.29 MHz	19.636 dBm				2	N	1	f	5.561.86 GHz	-30.316 dBm			
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HSDPA
Low
Band
Spurious
Emission

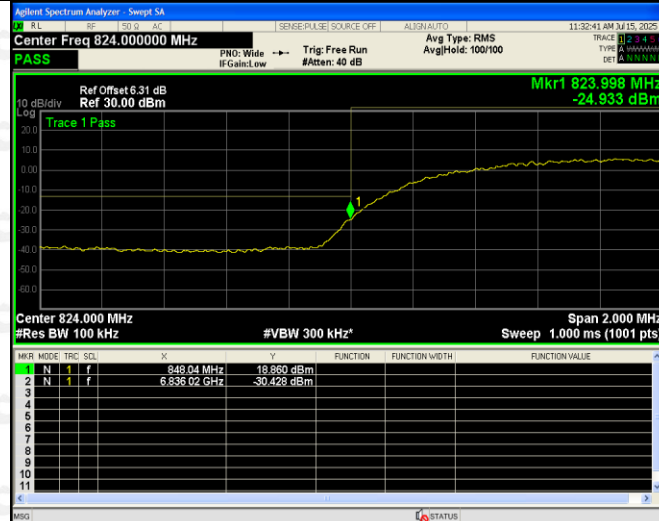


HSDPA
High
Band
Spurious
Emission



HSUPA Low Channel	 Agilent Spectrum Analyzer - Sweep SA Center Freq 5.015000000 GHz Ref Offset 6.31 dB Ref 30.00 dBm Mkr1 826.86 MHz 21.343 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10,000 GHz Sweep 18.67 ms (40001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRG</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>826.86 MHz</td><td>21.343 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>9.755 98 GHz</td><td>-30.423 dBm</td><td></td><td></td><td></td></tr></table>	MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	826.86 MHz	21.343 dBm				2	N	1	f	9.755 98 GHz	-30.423 dBm			
MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																				
1	N	1	f	826.86 MHz	21.343 dBm																							
2	N	1	f	9.755 98 GHz	-30.423 dBm																							
HSUPA Middle Channel	 Agilent Spectrum Analyzer - Sweep SA Center Freq 5.015000000 GHz Ref Offset 6.31 dB Ref 30.00 dBm Mkr1 837.82 MHz 22.009 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10,000 GHz Sweep 18.67 ms (40001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRG</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>837.82 MHz</td><td>22.009 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.468 16 GHz</td><td>-30.593 dBm</td><td></td><td></td><td></td></tr></table>	MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	837.82 MHz	22.009 dBm				2	N	1	f	2.468 16 GHz	-30.593 dBm			
MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																				
1	N	1	f	837.82 MHz	22.009 dBm																							
2	N	1	f	2.468 16 GHz	-30.593 dBm																							
HSUPA High Channel	 Agilent Spectrum Analyzer - Sweep SA Center Freq 5.015000000 GHz Ref Offset 6.32 dB Ref 30.00 dBm Mkr1 846.04 MHz 19.645 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10,000 GHz Sweep 18.67 ms (40001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRG</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>846.04 MHz</td><td>19.645 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>6.921 61 GHz</td><td>-30.318 dBm</td><td></td><td></td><td></td></tr></table>	MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	846.04 MHz	19.645 dBm				2	N	1	f	6.921 61 GHz	-30.318 dBm			
MNR	MODE	TRG	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																				
1	N	1	f	846.04 MHz	19.645 dBm																							
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HSUPA
Low
Band
Spurious
Emission



HSUPA
High
Band
Spurious
Emission



10. SPURIOUS RADIATED EMISSIONS

10.1 Standard Applicable

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

10.2 Test Procedure

- 1.The setup of EUT is according with per ANSI/TIA Standard 603D and ANSI C63.4-2014 measurement procedure.
- 2.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.
- 3.The frequency range up to tenth harmonic of the fundamental frequency was investigated.
- 4.Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious attenuation limit in dB = $43 + 10 \log_{10}(\text{power out in Watts})$

10.3 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	54%
ATM Pressure:	101 kPa
Test Voltage	DC 3.7V

10.4 Summary of Test Results/Plots

According to the data below, the FCC Part22.917 and 24.238 standards, and had the worst margin of:

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

All test modes are performed, but only the worst case is recorded in this report.

For Band 2 Mode

Frequency (MHz)	Reading (dBm)	Correct dB	Result (dBm)	Limit (dBm)	Margin (dB)	Polar H/V
Low Channel (1852.4MHz)						
38.08	-74.87	3.91	-70.96	-13	-57.96	H
1648.70	-50.43	10.56	-39.87	-13	-26.87	H
2478.37	-59.51	13.5	-46.01	-13	-33.01	H
40.41	-73.68	3.93	-69.75	-13	-56.75	V
1643.77	-54.31	10.41	-43.90	-13	-30.90	V
2471.35	-59.90	13.16	-46.74	-13	-33.74	V
Middle Channel (1880MHz)						
37.78	-69.22	4.02	-65.20	-13	-52.20	H
1667.67	-58.07	4.66	-53.41	-13	-40.41	H
2505.70	-45.76	8.34	-37.42	-13	-24.42	H
43.60	-56.64	4.17	-52.47	-13	-39.47	V
1669.69	-54.66	4.94	-49.72	-13	-36.72	V
2508.28	-63.75	8.19	-55.56	-13	-42.56	V
High Channel (1907.6MHz)						
45.94	-73.83	3.87	-69.96	-13	-56.96	H
1684.95	-60.10	4.89	-55.21	-13	-42.21	H
2533.21	-43.64	8.42	-35.22	-13	-22.22	H
44.46	-55.87	3.95	-51.92	-13	-38.92	V
1692.29	-61.54	4.99	-56.55	-13	-43.55	V
2534.33	-58.23	8.12	-50.11	-13	-37.11	V

For Band 5 Mode

Frequency (MHz)	Reading (dBm)	Correct dB	Result (dBm)	Limit (dBm)	Margin (dB)	Polar H/V
Low Channel (826.4MHz)						
38.93	-73.23	3.91	-69.32	-13	-56.32	H
1649.66	-55.50	10.56	-44.94	-13	-31.94	H
2471.99	-56.48	13.5	-42.98	-13	-29.98	H
41.52	-69.71	3.93	-65.78	-13	-52.78	V
1649.12	-57.56	10.41	-47.15	-13	-34.15	V
2469.35	-54.00	13.16	-40.84	-13	-27.84	V
Middle Channel (836.6MHz)						
43.25	-66.83	4.02	-62.81	-13	-49.81	H
1667.53	-56.50	4.66	-51.84	-13	-38.84	H
2502.16	-48.11	8.34	-39.77	-13	-26.77	H
43.65	-54.01	4.17	-49.84	-13	-36.84	V
1664.38	-57.18	4.94	-52.24	-13	-39.24	V
2505.29	-61.01	8.19	-52.82	-13	-39.82	V
High Channel (846.6MHz)						
40.72	-72.08	3.87	-68.21	-13	-55.21	H
1690.46	-62.81	4.89	-57.92	-13	-44.92	H
2537.36	-42.32	8.42	-33.90	-13	-20.90	H
39.38	-56.88	3.95	-52.93	-13	-39.93	V
1688.49	-58.24	4.99	-53.25	-13	-40.25	V
2539.51	-58.06	8.12	-49.94	-13	-36.94	V

Note: $\text{Result} = \text{Reading} + \text{Correct}$, $\text{Margin} = \text{Result} - \text{Limit}$

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listed in the table above are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

11. FREQUENCY STABILITY

11.1 Standard Applicable

According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below:

Frequency Tolerance for Cellular Band

Frequency range (MHz)	Base, fixed (ppm)	Mobile >3 watts (ppm)	Mobile ≤3 watts (ppm)
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929	5.0	N/A	N/A
929 to 960	1.5	N/A	N/A
2110 to 2220	10.0	N/A	N/A

According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

According to §27.54 The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

11.2 Test Procedure

According to §2.1055, the following test procedure was performed.

The Frequency Stability is measured directly with a Frequency Domain Analyzer. Frequency Deviation in ppm is calculated from the measured peak to peak value.

The Carrier Frequency Stability over Power Supply Voltage and over Temperature is measured with a Frequency Domain Analyzer in histogram mode

11.3 Environmental Conditions

Temperature:	23°C
Relative Humidity:	54%
ATM Pressure:	101kPa

11.4 Summary of Test Results/Plots

For WCDMA Band 2 Mode

Reference Frequency(Middle Channel): 1880 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	NV	-0.53	-0.00028
40	NV	0.13	0.00007
30	NV	0.18	0.00010
20	NV	0.88	0.00047
10	NV	0.98	0.00052
0	NV	0.84	0.00045
-10	NV	0.82	0.00043
-20	NV	1.14	0.00061
-30	NV	1.21	0.00064

For HSDPA Band 2 Mode

Reference Frequency(Middle Channel): 1880 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	NV	0.21	0.00011
40	NV	-0.11	-0.00006
30	NV	0.67	0.00035
20	NV	0.37	0.00020
10	NV	1.03	0.00055
0	NV	0.46	0.00025
-10	NV	1.89	0.00100
-20	NV	1.96	0.00104
-30	NV	2.47	0.00132

For HSUPA Band 2 Mode

Reference Frequency(Middle Channel): 1880 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	NV	5.27	0.00280
40	NV	5.03	0.00268
30	NV	4.96	0.00264
20	NV	5.46	0.00290
10	NV	6.09	0.00324
0	NV	6.07	0.00323
-10	NV	6.80	0.00362
-20	NV	6.49	0.00345
-30	NV	6.87	0.00365

For WCDMA Band 5 Mode

Reference Frequency(Middle Channel): 836.6 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	NV	0.21	0.00025
40	NV	-0.04	-0.00005
30	NV	0.05	0.00006
20	NV	0.42	0.00050
10	NV	1.05	0.00126
0	NV	1.31	0.00156
-10	NV	1.31	0.00157
-20	NV	1.11	0.00133
-30	NV	0.64	0.00077

For HSDPA Band 5 Mode

Reference Frequency(Middle Channel): 836.6 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	NV	-0.46	-0.00055
40	NV	0.39	0.00046
30	NV	0.17	0.00021
20	NV	0.38	0.00046
10	NV	0.61	0.00072
0	NV	0.58	0.00069
-10	NV	0.55	0.00066
-20	NV	1.88	0.00225
-30	NV	1.34	0.00160

For HSUPA Band 5 Mode

Reference Frequency(Middle Channel): 836.6 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		MCF (Hz)	Error (ppm)
50	NV	0.66	0.00079
40	NV	1.04	0.00124
30	NV	0.58	0.00069
20	NV	0.79	0.00094
10	NV	1.23	0.00147
0	NV	1.90	0.00227
-10	NV	1.69	0.00202
-20	NV	1.99	0.00238
-30	NV	2.83	0.00338

So, Frequency Stability Versus Input Voltage is:

Reference Frequency(Middle Channel): WCDMA 836.6MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	LV	1.33	0.00159
	NV	1.68	0.00201
	HV	1.54	0.00184
Reference Frequency(Middle Channel): WCDMA 1732.4MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	LV	0.94	0.00055
	NV	1.26	0.00073
	HV	0.96	0.00055
Reference Frequency(Middle Channel): WCDMA 1880 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	LV	2.01	0.00107
	NV	2.56	0.00306
	HV	2.93	0.00350

Reference Frequency(Middle Channel): HSDPA 836.6MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	LV	2.20	0.00262
	NV	2.28	0.00272
	HV	1.85	0.00221
Reference Frequency(Middle Channel): HSDPA 1732.4MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	LV	5.70	0.00329
	NV	6.17	0.00356
	HV	6.56	0.00379
Reference Frequency(Middle Channel): HSDPA 1880 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	LV	6.62	0.00352
	NV	6.73	0.00358
	HV	7.54	0.00401

Reference Frequency(Middle Channel): HSUPA 836.6MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	LV	2.58	0.00308
	NV	2.89	0.00346
	HV	3.11	0.00372
Reference Frequency(Middle Channel): HSUPA 1732.4MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	LV	5.35	0.00309
	NV	5.84	0.00337
	HV	6.77	0.00391
Reference Frequency(Middle Channel): HSUPA 1880 MHz, Limit: 2.5ppm			
Environment Temperature (°C)	Power Supplied (VDC)	Frequency Measure with Time Elapsed	
		Frequency (Hz)	Error (ppm)
20	LV	8.87	0.00472
	NV	9.51	0.00506
	HV	9.61	0.00511

12. EUT TEST PHOTO

Radiated Emission

Below 1G



Above 1G



***** END OF REPORT *****