

# FCC REPORT (WCDMA)

**Applicant:** PAX Technology Limited

**Address of Applicant:** Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong

**Equipment Under Test (EUT)**

Product Name: Integrated Smart Terminal

Model No.: E600Mini

Trade mark: PAX

**FCC ID:** V5PE600MINI

**Applicable standards:** FCC CFR Title 47 Part 2  
FCC CFR Title 47 Part 22 Subpart H  
FCC CFR Title 47 Part 24 Subpart E

**Date of sample receipt:** 03 Nov., 2021

**Date of Test:** 04 Nov., to 14 Dec., 2021

**Date of report issued:** 15 Dec., 2021

**Test Result:** PASS\*

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Bruce Zhang  
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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## 2. Version

Version No.	Date	Description
00	15 Dec., 2021	Original

**Tested by:** Mike.ou **Date:** 15 Dec., 2021  
**Test Engineer**

**Reviewed by:** Winner Zhang **Date:** 15 Dec., 2021  
**Project Engineer**

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## 4. Test Summary

Test Item	Section in CFR 47	Result
RF Exposure (SAR)	Part 1.1307 Part 2.1093	Pass (Please refer to SAR Report)
RF Output Power	Part 2.1046 Part 22.913 (a)(5) Part 24.232 (c)	Pass
Peak-to-Average Power Ratio	Part 24.232 (d)	Pass
Modulation Characteristics	Part 2.1047	Pass
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917(b) Part 24.238(b)	Pass
Out of band emission at antenna terminals	Part 2.1053 Part 22.917 (a) Part 24.238 (a)	Pass
Field strength of spurious radiation	Part 22.917 (a) Part 24.238 (a)	Pass
Frequency stability vs. temperature	Part 22.355 Part 24.235 Part 2.1055(a)(1)(b)	Pass
Frequency stability vs. voltage	Part 22.355 Part 24.235 Part 2.1055(d)(2)	Pass
<b>Remark:</b> 1. Pass: The EUT complies with the essential requirements in the standard. 2. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (Fundamental Frequency below 1GHz)/1.0dB (Fundamental Frequency above 1GHz) (provided by the customer).		
<b>Test Method:</b>	ANSI/TIA-603-E-2016 ANSI C63.26-2015	

## 5. General Information

### 5.1 Client Information

Applicant:	PAX Technology Limited
Address:	Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong
Manufacturer:	PAX Computer Technology (Shenzhen) Co., Ltd.
Address:	4/F, No.3 Building, Software Park, Second Central Science-Tech Road, High-Tech industrial Park, Shenzhen, Guangdong, P.R.C.

### 5.2 General Description of E.U.T.

Product Name:	Integrated Smart Terminal
Model No.:	E600Mini
Operation Frequency range:	WCDMA Band V: 826.4MHz-846.6MHz WCDMA Band II: 1852.4 MHz-1907.6 MHz
Modulation type:	<input checked="" type="checkbox"/> RMC(QPSK) <input checked="" type="checkbox"/> HSUPA(QPSK) <input checked="" type="checkbox"/> HSDPA(QPSK,16QAM)
Antenna type:	Internal Antenna
Antenna gain:	WCDMA Band V: -2.2 dBi(declare by Applicant) WCDMA Band II: 1.4 dBi(declare by Applicant)
Power supply:	Rechargeable Li-ion Battery DC3.8V, 6100mAh
AC adapter:	Model: TPD-71A120150UU01 Input: AC100-240V, 50/60Hz, 0.6A Output: DC 3.6-6.0V, 3.0A, 18.0W DC 6.0-9.0V, 2.0A, 18.0W DC 9.0-12.0V, 1.5A, 18.0W
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

#### Operation Frequency List:

WCDMA Band V		WCDMA Band II	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
4132	826.40	9262	1852.40
4133	826.60	9263	1852.60
....	....	....	....
4182	836.40	9399	1879.80
4183	836.60	9400	1880.00
4184	836.80	9401	1880.20
...	...	...	...
4232	846.40	9537	1907.40
4233	846.60	9538	1907.60

Regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

WCDMA Band V			WCDMA Band II		
Channel	Frequency(MHz)		Channel	Frequency(MHz)	
Lowest	4132	826.40	Lowest	9262	1852.40
Middle	4183	836.60	Middle	9400	1880.00
Highest	4233	846.60	Highest	9538	1907.60

### 5.3 Test environment and mode

Operating Environment:	
Temperature:	Normal: 15°C ~ 35°C, Extreme: -30°C ~ +50°C
Humidity:	20 % ~ 75 % RH
Atmospheric Pressure:	1008 mbar
Voltage:	Nominal: 3.80 Vdc, Extreme: Low 3.50 Vdc, High 4.35 Vdc
Test mode:	
RMC mode	Keep the EUT communication with simulated station in RMC mode
HSDPA	Keep the EUT communication with simulated station in HSDPA mode
HSUPA	Keep the EUT communication with simulated station in HSUPA mode
Remark: The EUT has been tested under continuous transmitting mode. Channel Low, Mid and High for each type band with rated data rate were chosen for full testing. The field strength of spurious radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for these modes. Just the worst case position (H mode) shown in report.	

### 5.4 Description of Test Auxiliary Equipment

Test Equipment	Manufacturer	Model No.	Serial No.
Simulated Station	Anritsu	MT8820C	6201026545

### 5.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%)
Radiated Emission (9kHz ~ 30MHz electric field) for 3m SAC	3.13 dB
Radiated Emission (9kHz ~ 30MHz magnetic field) for 3m SAC	3.13 dB
Radiated Emission (30MHz ~ 1GHz) for 3m SAC	4.45 dB
Radiated Emission (1GHz ~ 18GHz) for 3m SAC	5.34 dB
Radiated Emission (18GHz ~ 40GHz) for 3m SAC	5.34 dB

### 5.6 Additions to, deviations, or exclusions from the method

No
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### 5.7 Laboratory Facility

<p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none"> <li>● <b>FCC - Designation No.: CN1211</b> JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.</li> <li>● <b>ISED – CAB identifier.: CN0021</b> The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.</li> <li>● <b>CNAS - Registration No.: CNAS L15527</b> JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.</li> <li>● <b>A2LA - Registration No.: 4346.01</b> This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <a href="https://portal.a2la.org/scopepdf/4346-01.pdf">https://portal.a2la.org/scopepdf/4346-01.pdf</a></li> </ul>
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## 5.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.  
 Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.  
 Tel: +86-755-23118282, Fax: +86-755-23116366  
 Email: info-JYTee@lets.com, Website: <http://www.ccis-cb.com>

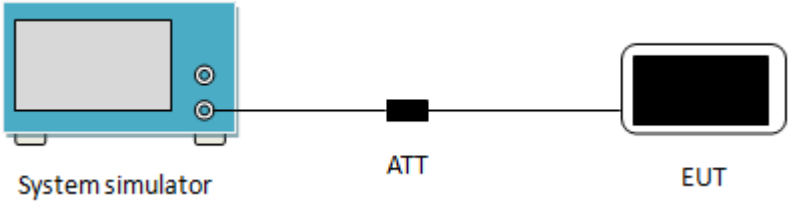
## 5.9 Test Instruments list

Radiated Emission:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	ETS	RFD-100	Q1984	04-14-2021	04-13-2024
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-044	03-07-2021	03-06-2022
BiConiLog Antenna	SCHWARZBECK	VULB9163	9163-1246	03-07-2021	03-06-2022
Biconical Antenna	SCHWARZBECK	VUBA 9117	9117#359	06-17-2021	06-17-2022
Horn Antenna	SCHWARZBECK	BBHA9120D	912D-916	03-07-2021	03-06-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1067	04-02-2021	04-01-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1068	04-02-2021	04-01-2022
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-03-2021	03-02-2022
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-03-2021	03-02-2022
Spectrum analyzer	Keysight	N9010B	MY60240202	10-27-2021	10-26-2022
Simulated Station	Anritsu	MT8820C	6201026545	03-03-2021	03-02-2022
Low Pre-amplifier	SCHWARZBECK	BBV9743B	00305	03-07-2021	03-06-2022
High Pre-amplifier	SKET	LNPA_0118G-50	MF280208233	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-NN-8M	JYT3M-1	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-18G-NN-8M	JYT3M-2	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-BB-5M	JYT3M-3	03-07-2021	03-06-2022
Cable	Bost	JYT3M-40G-SS-8M	JYT3M-4	04-02-2021	04-01-2022
EMI Test Software	Tonscend	TS+	Version:3.0.0.1		

Conducted method:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
Spectrum Analyzer	Keysight	N9020B	MY57431500	07-02-2021	07-01-2022
Simulated Station	Rohde & Schwarz	CMW500	108209	07-02-2021	07-01-2022
RF Control Unit	Tonscend	JS0806-1	N/A	N/A	N/A
Band Reject Filter Group	Tonscend	JS0806-F	21A8060360	N/A	N/A
Test Software	Tonscend	TS+	Version: 2.6.9.0526		

## 6. Test results

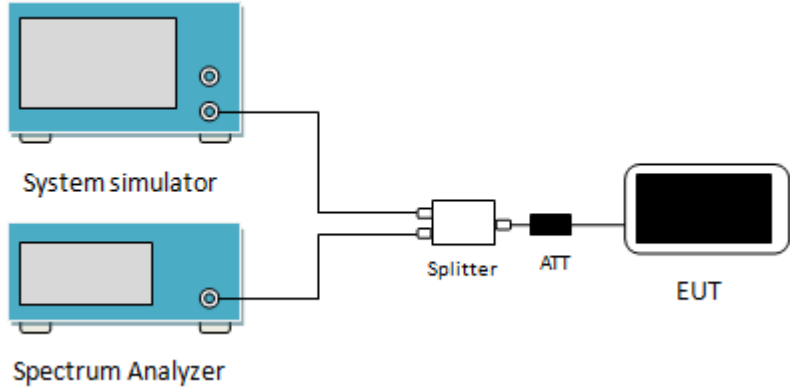
### 6.1 Conducted Output Power, ERP and EIRP

Test Requirement:	FCC part 22.913(a)(5), FCC part 24.232(c)
Limit:	WCDMA Band V: 7W, WCDMA Band II: 2W
Test setup:	 <p>The diagram shows a blue 'System simulator' box on the left, connected by a line to a black 'ATT' (attenuator) block in the center, which is then connected to a black 'EUT' (Equipment Under Test) box on the right.</p>
Test Procedure:	The transmitter output was connected to a calibrated attenuator, the other end of which was connected to the simulated station. Transmitter output power was read off in dBm.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

**Measurement Data:** See to Appendix A.

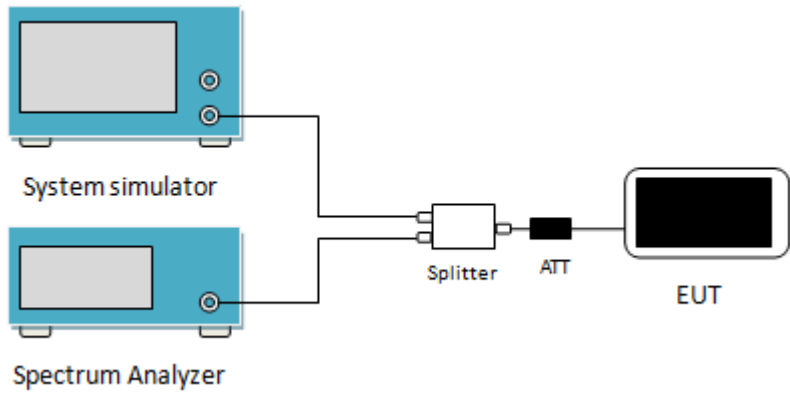


## 6.2 Peak-to-Average Power Ratio

Test Requirement:	FCC part 24.232(d)
Limit:	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.
Test setup:	 <p>The diagram shows a test setup for measuring Peak-to-Average Power Ratio (PAR). It consists of a System simulator and a Spectrum Analyzer connected to a Splitter. The Splitter is connected to an ATT (Attenuator) and an EUT (Equipment Under Test).</p>
Test Procedure:	<ol style="list-style-type: none"> <li>1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.</li> <li>2 Set the CCDF option in spectrum analyzer, <math>RBW \geq OBW</math>,</li> <li>3 Set the EUT working in highest power level, measured and recorded the 0.1% as PAPR level.</li> <li>4 Repeat step 1~3 at other frequency and modulations.</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

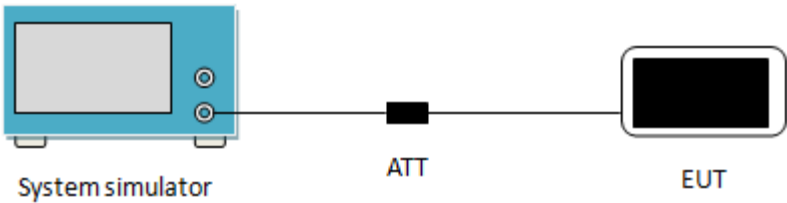
**Measurement Data:** See to Appendix B.

### 6.3 Occupy Bandwidth

Test Requirement:	FCC part 22.917(b), FCC part 24.238(b)
Test setup:	 <p>The diagram illustrates the test setup for measuring occupied bandwidth. It shows a 'System simulator' and a 'Spectrum Analyzer' connected to a 'Splitter'. The 'Splitter' is connected to an 'ATT' (Attenuator), which is then connected to the 'EUT' (Equipment Under Test).</p>
Test Procedure:	<ol style="list-style-type: none"> <li>1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer</li> <li>2. RBW was set to about 1% of emission BW, VBW= 3 times RBW.</li> <li>3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

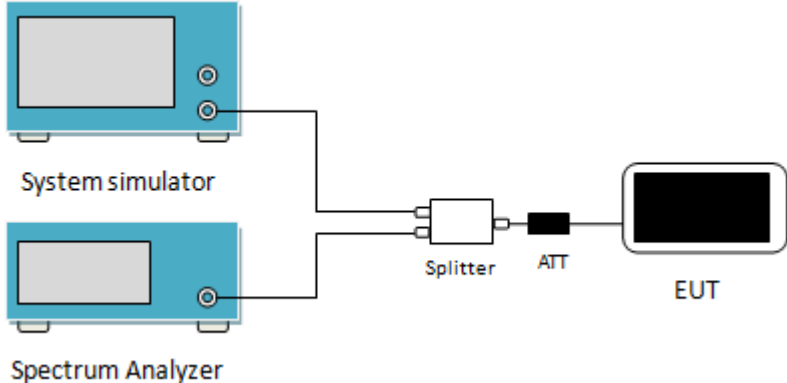
**Measurement Data:** See to Appendix C.

### 6.4 Modulation Characteristic

Test Requirement:	FCC part 2.1047
Test setup:	 <p>The diagram shows a test setup. On the left is a blue 'System simulator' with a screen and two ports. A line connects it to a black 'ATT' (Attenuator) block. Another line connects the 'ATT' to a black 'EUT' (Equipment Under Test) device.</p>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

**Measurement Data:** See to Appendix G.

### 6.5 Out of band emission at antenna terminals

Test Requirement:	FCC part 22.917(a), FCC part 24.238(a)
Limit:	-13dBm
Test setup:	 <p>The diagram illustrates the test setup. On the left, there are two blue rectangular units: the top one is labeled 'System simulator' and the bottom one is labeled 'Spectrum Analyzer'. Both have a screen and two circular ports on the right side. A single line from the top port of the System simulator and a single line from the top port of the Spectrum Analyzer merge into a single line that enters a white rectangular 'Splitter'. From the right side of the Splitter, a line goes to a black rectangular 'ATT' (attenuator). From the right side of the ATT, a line goes to a black rectangular 'EUT' (Equipment Under Test).</p>
Test Procedure:	<ol style="list-style-type: none"> <li>1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.</li> <li>2 For the out of band: For GSM850&amp;WCDMA850 set the RBW=100 kHz, VBW=300 kHz and for PCS1900 &amp; WCDMA1900 set the RBW=1MHz, VBW=3MHz when below 1 GHz, RBW =1 MHz, VBW=3 MHz when above 1 GHz, Start=30MHz, Stop= 10th harmonic.</li> <li>3 Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

**Measurement Data:** See to Appendix D and E.

### 6.6 Field strength of spurious radiation measurement

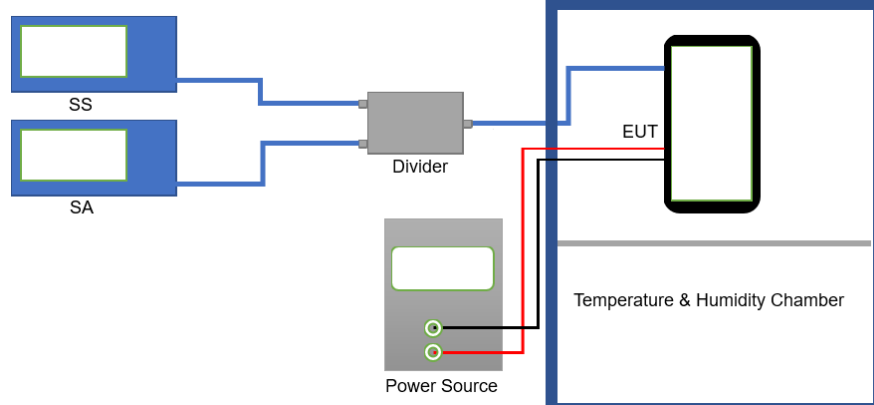
Test Requirement:	FCC part 22.917(a), FCC part 24.238(a)
Limit:	-13dBm
Test setup:	<p>Below 1GHz</p> <p>Above 1GHz</p>
Test Procedure:	<ol style="list-style-type: none"> <li>1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground at a 3 meter camber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.</li> <li>2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.</li> <li>3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.</li> <li>4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.  <math display="block">ERP / EIRP = S.G. \text{ output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}</math> </li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details.
Test results:	Passed

**Measurement Data (worst case):**

<b>WCDMA BAND V 12.2k RMC</b>						
<b>Lowest channel</b>						
Frequency (MHz)	Spurious Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
1652.80	-27.12	-9.89	-37.01	-13.00	24.01	Vertical
2479.20	-34.71	-5.57	-40.28	-13.00	27.28	Vertical
3305.60	-29.58	-2.09	-31.67	-13.00	18.67	Vertical
1652.80	-25.32	-9.89	-35.21	-13.00	22.21	Horizontal
2479.20	-32.87	-5.57	-38.44	-13.00	25.44	Horizontal
3305.60	-32.33	-2.09	-34.42	-13.00	21.42	Horizontal
<b>Middle channel</b>						
Frequency (MHz)	Spurious Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
1673.20	-27.33	-9.88	-37.21	-13.00	24.21	Vertical
2509.80	-35.21	-5.29	-40.50	-13.00	27.50	Vertical
3346.40	-29.50	-2.05	-31.55	-13.00	18.55	Vertical
1673.20	-25.57	-9.88	-35.45	-13.00	22.45	Horizontal
2509.80	-32.49	-5.29	-37.78	-13.00	24.78	Horizontal
3346.40	-32.39	-2.05	-34.44	-13.00	21.44	Horizontal
<b>Highest channel</b>						
Frequency (MHz)	Spurious Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
1697.60	-26.71	-9.87	-36.58	-13.00	23.58	Vertical
2546.40	-35.11	-5.13	-40.24	-13.00	27.24	Vertical
3395.20	-29.52	-1.97	-31.49	-13.00	18.49	Vertical
1697.60	-24.98	-9.87	-34.85	-13.00	21.85	Horizontal
2546.40	-32.77	-5.13	-37.90	-13.00	24.90	Horizontal
3395.20	-32.49	-1.97	-34.46	-13.00	21.46	Horizontal
<b>Remark:</b>						
1. The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.						

<b>WCDMA Band II 12.2k RMC</b>						
<b>Lowest channel</b>						
Frequency (MHz)	Spurious Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
3704.80	-37.87	-1.28	-39.15	-13.00	26.15	Vertical
5557.20	-42.17	5.27	-36.90	-13.00	23.90	Vertical
3704.80	-38.59	-1.28	-39.87	-13.00	26.87	Horizontal
5557.20	-45.35	5.27	-40.08	-13.00	27.08	Horizontal
<b>Middle channel</b>						
Frequency (MHz)	Spurious Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
3760.00	-37.89	-1.03	-38.92	-13.00	25.92	Vertical
5640.00	-42.47	6.06	-36.41	-13.00	23.41	Vertical
3760.00	-38.71	-1.03	-39.74	-13.00	26.74	Horizontal
5640.00	-45.08	6.06	-39.02	-13.00	26.02	Horizontal
<b>Highest channel</b>						
Frequency (MHz)	Spurious Emission level (dBm)	Factor (dB)	Level at antenna terminals (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
3815.20	-37.52	-0.83	-38.35	-13.00	25.35	Vertical
5722.80	-42.25	6.72	-35.53	-13.00	22.53	Vertical
3815.20	-38.33	-0.83	-39.16	-13.00	26.16	Horizontal
5722.80	-44.90	6.72	-38.18	-13.00	25.18	Horizontal
<i>Remark:</i>						
1. The emission levels of below 1 GHz are lower than the limit 20dB and not show in test report.						

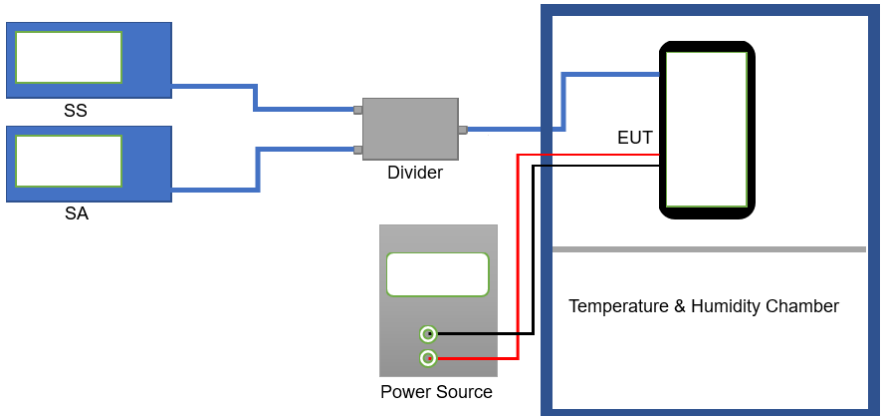
### 6.7 Frequency stability V.S. Temperature measurement

Test Requirement:	FCC Part 22.355, FCC Part 24.235, FCC Part 2.1055(a)(1)(b)
Limit:	±2.5 ppm for WCDMA 850 Within authorized band for WCDMA 1900
Test setup:	
Test procedure:	<ol style="list-style-type: none"> <li>1. The equipment under test was connected to an external DC power supply and input rated voltage.</li> <li>2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.</li> <li>3. The EUT was placed inside the temperature chamber.</li> <li>4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency.</li> <li>5. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.</li> <li>6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Measurement Data:	Refer to Appendix F - WCDMA

**Measurement Data:** See to Appendix F.



### 6.8 Frequency stability V.S. Voltage measurement

Test Requirement:	FCC Part 22.355, FCC Part 24.235, FCC Part 2.1055(d)(2)
Limit:	±2.5 ppm for WCDMA 850 Within authorized band for WCDMA 1900
Test setup:	
Test procedure:	<ol style="list-style-type: none"> <li>1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage.</li> <li>2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.</li> <li>3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.</li> </ol>
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Measurement Data:	Refer to Appendix F - WCDMA

**Measurement Data:** See to Appendix F.

## Appendix A: Effective (Isotropic) Radiated Power Output Data

RMC mode						
Band	Type	Channel	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
Band2	Voice	9262	25.14	26.54	33	PASS
Band2	TestMode	9262	25.23	26.63	33	PASS
Band2	Voice	9400	25.06	26.46	33	PASS
Band2	TestMode	9400	25.14	26.54	33	PASS
Band2	Voice	9538	24.73	26.13	33	PASS
Band2	TestMode	9538	24.81	26.21	33	PASS
Band5	Voice	4132	24.39	20.04	38.5	PASS
Band5	TestMode	4132	24.38	20.03	38.5	PASS
Band5	Voice	4183	24.21	19.86	38.5	PASS
Band5	TestMode	4183	24.21	19.86	38.5	PASS
Band5	Voice	4233	24.25	19.90	38.5	PASS
Band5	TestMode	4233	24.28	19.93	38.5	PASS
HSDPA mode						
Band	Channel	SubTest	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
Band2	9262	1	21.22	22.62	33	PASS
Band2	9262	2	20.80	22.20	33	PASS
Band2	9262	3	20.59	21.99	33	PASS
Band2	9262	4	20.62	22.02	33	PASS
Band2	9400	1	21.42	22.82	33	PASS
Band2	9400	2	21.01	22.41	33	PASS
Band2	9400	3	20.78	22.18	33	PASS
Band2	9400	4	20.89	22.29	33	PASS
Band2	9538	1	21.53	22.93	33	PASS
Band2	9538	2	21.23	22.63	33	PASS
Band2	9538	3	20.85	22.25	33	PASS
Band2	9538	4	21.09	22.49	33	PASS
Band5	4132	1	22.99	18.64	38.5	PASS
Band5	4132	2	22.65	18.3	38.5	PASS
Band5	4132	3	22.26	17.91	38.5	PASS
Band5	4132	4	22.26	17.91	38.5	PASS
Band5	4183	1	22.79	18.44	38.5	PASS
Band5	4183	2	22.64	18.29	38.5	PASS
Band5	4183	3	22.25	17.9	38.5	PASS
Band5	4183	4	22.27	17.92	38.5	PASS
Band5	4233	1	22.70	18.35	38.5	PASS
Band5	4233	2	22.76	18.41	38.5	PASS
Band5	4233	3	22.36	18.01	38.5	PASS
Band5	4233	4	22.39	18.04	38.5	PASS

HSUPA mode						
Band	Channel	SubTest	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
Band2	9262	1	18.92	20.32	33	PASS
Band2	9262	2	19.25	20.65	33	PASS
Band2	9262	3	18.83	20.23	33	PASS
Band2	9262	4	19.08	20.48	33	PASS
Band2	9262	5	21.23	22.63	33	PASS
Band2	9400	1	19.33	20.73	33	PASS
Band2	9400	2	19.71	21.11	33	PASS
Band2	9400	3	19.75	21.15	33	PASS
Band2	9400	4	19.46	20.86	33	PASS
Band2	9400	5	21.37	22.77	33	PASS
Band2	9538	1	19.54	20.94	33	PASS
Band2	9538	2	19.74	21.14	33	PASS
Band2	9538	3	19.76	21.16	33	PASS
Band2	9538	4	19.68	21.08	33	PASS
Band2	9538	5	21.43	22.83	33	PASS
Band5	4132	1	21.48	17.13	38.5	PASS
Band5	4132	2	21.57	17.22	38.5	PASS
Band5	4132	3	21.08	16.73	38.5	PASS
Band5	4132	4	21.11	16.76	38.5	PASS
Band5	4132	5	22.81	18.46	38.5	PASS
Band5	4183	1	21.52	17.17	38.5	PASS
Band5	4183	2	21.74	17.39	38.5	PASS
Band5	4183	3	21.80	17.45	38.5	PASS
Band5	4183	4	21.83	17.48	38.5	PASS
Band5	4183	5	22.84	18.49	38.5	PASS
Band5	4233	1	21.98	17.63	38.5	PASS
Band5	4233	2	22.12	17.77	38.5	PASS
Band5	4233	3	22.06	17.71	38.5	PASS
Band5	4233	4	22.10	17.75	38.5	PASS
Band5	4233	5	22.95	18.6	38.5	PASS

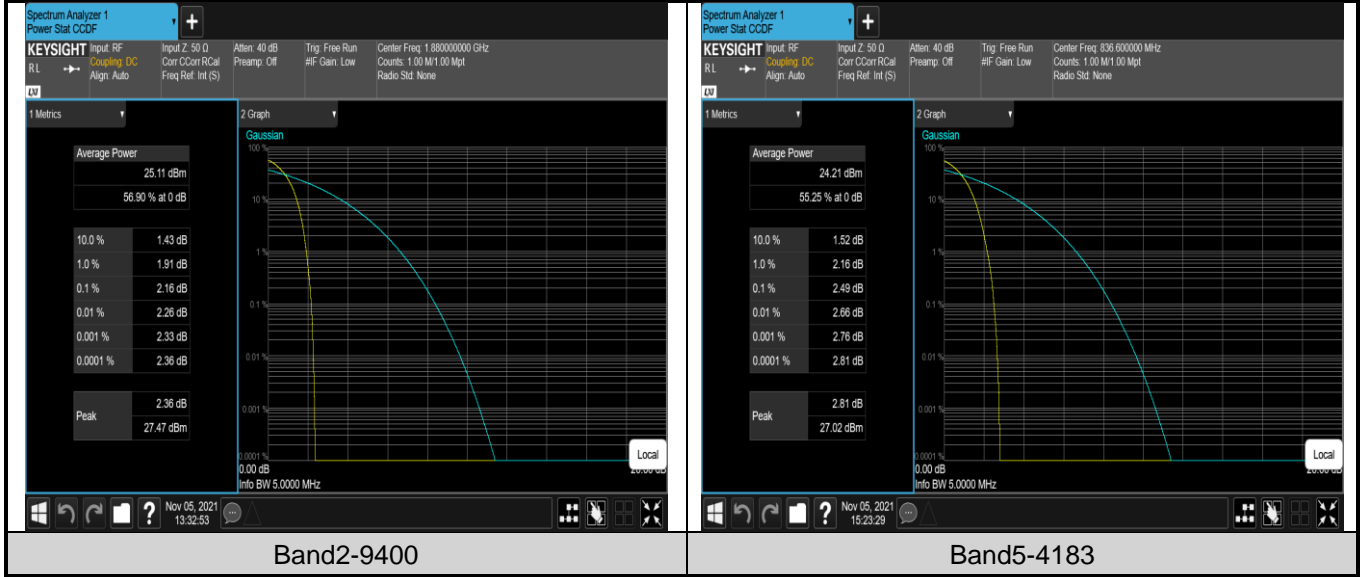
Remark:  $EIRP (dBm) = \text{Conducted power (dBm)} + \text{Antenna Gain (dBi)}$ . (For Band2)  
 $ERP (dBm) = EIRP (dBm) - 2.15 (dB)$ . (For Band5)

## Appendix B: Peak-to-Average Ratio

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dB)	Verdict
Band2	9400	2.16	13	PASS
Band5	4183	2.49	13	PASS

Remark: All channel had been tested, but only the worst case data displayed in this report.

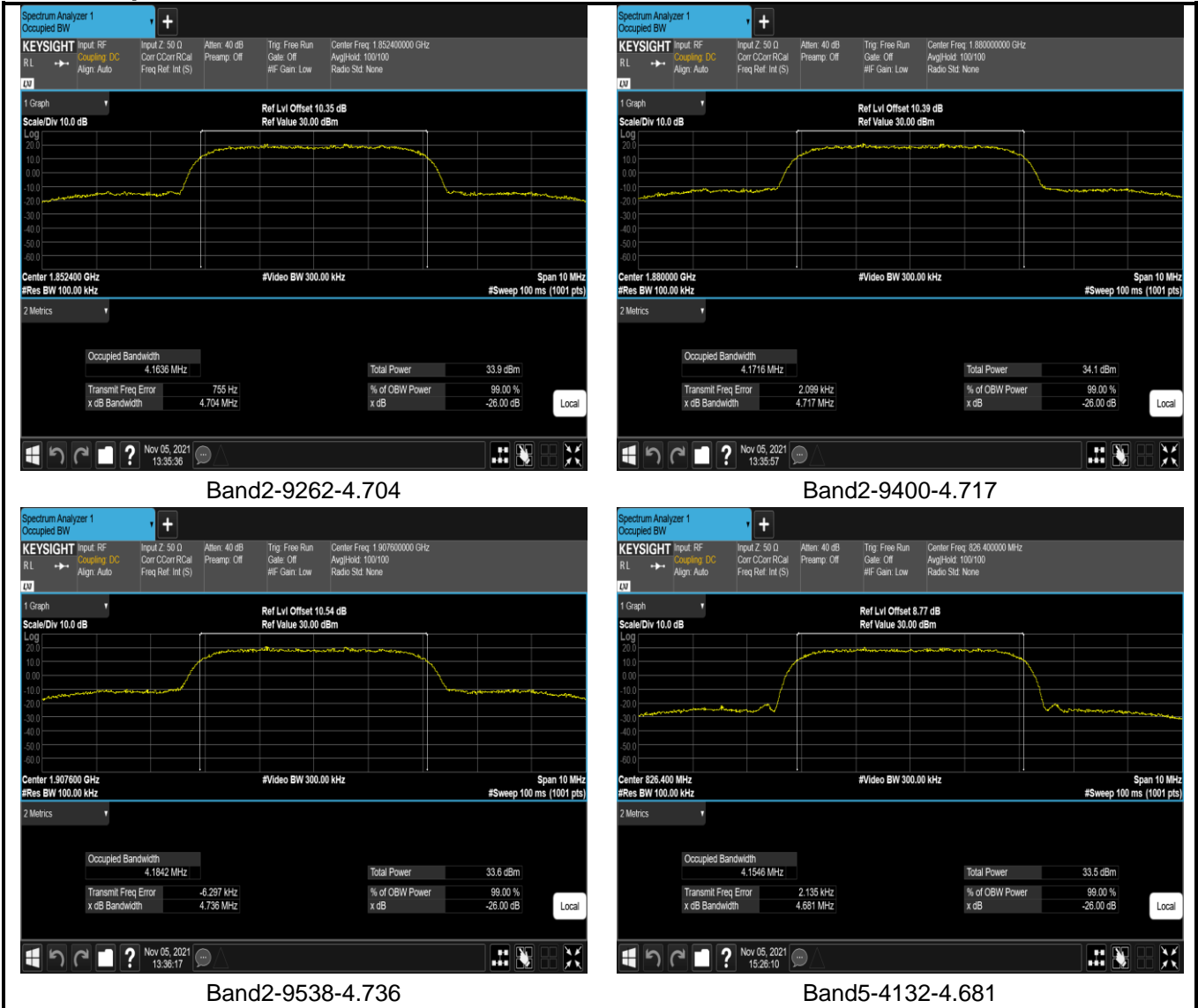
### Test Graphs:

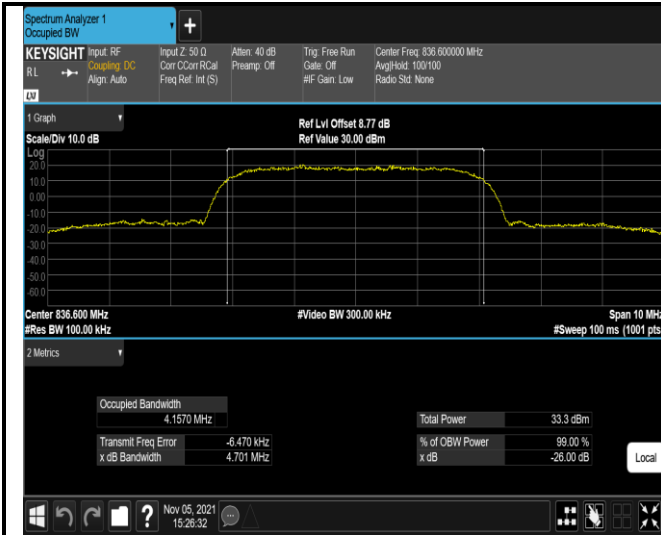


## Appendix C: 26dB Bandwidth and Occupied Bandwidth

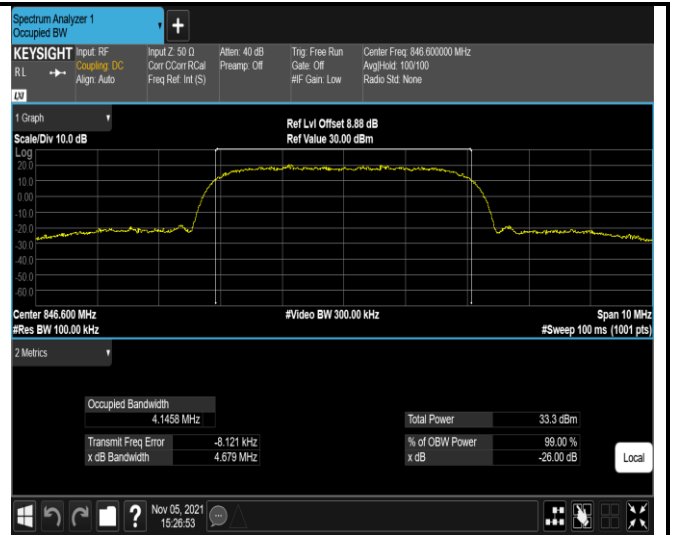
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(kHz)	Verdict
Band2	9262	4.1636	4.704	---	PASS
Band2	9400	4.1716	4.717	---	PASS
Band2	9538	4.1842	4.736	---	PASS
Band5	4132	4.1546	4.681	---	PASS
Band5	4183	4.1570	4.701	---	PASS
Band5	4233	4.1458	4.679	---	PASS

### Test Graphs:





Band5-4183-4.701

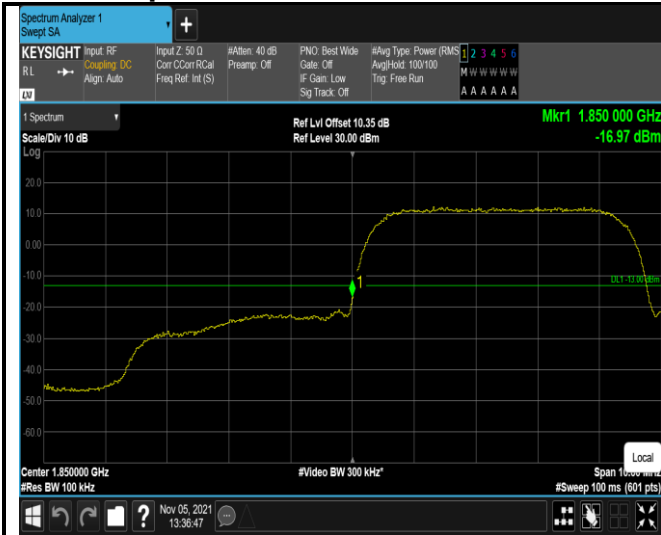


Band5-4233-4.679

## Appendix D: Band Edge

Band	Channel	Frequency (MHz)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	1850.00	-16.97	-13	PASS
Band2	9538	1910.00	-14.32	-13	PASS
Band5	4132	824.00	-20.95	-13	PASS
Band5	4233	849.00	-19.22	-13	PASS

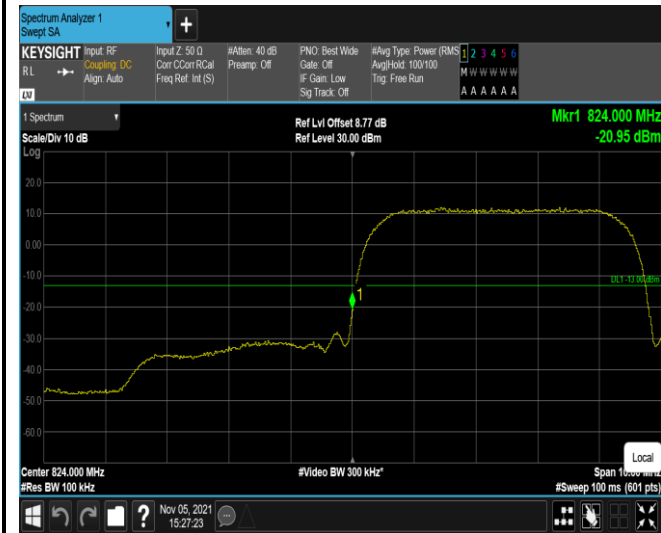
### Test Graphs:



Band2-9262



Band2-9538



Band5-4132



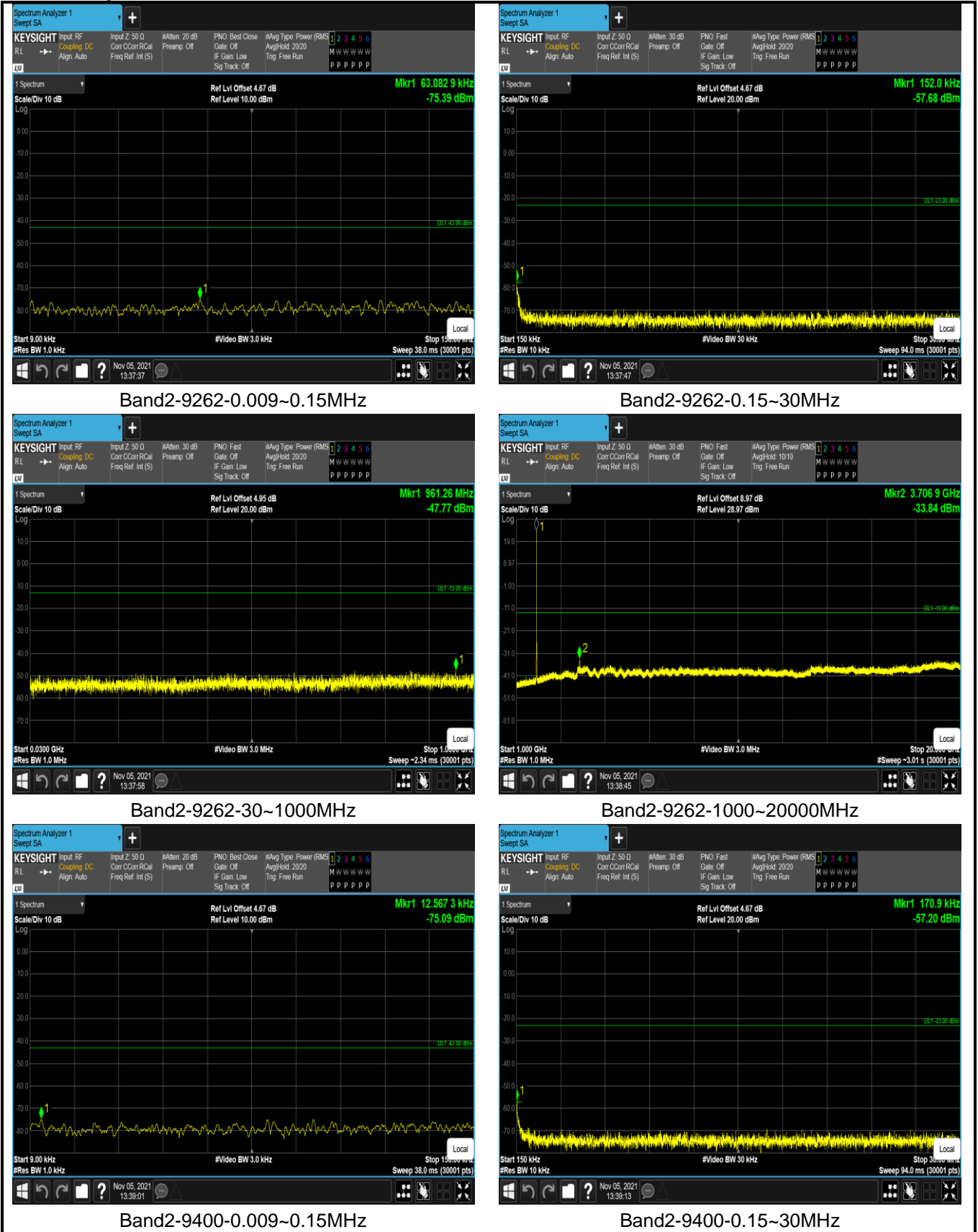
Band5-4233

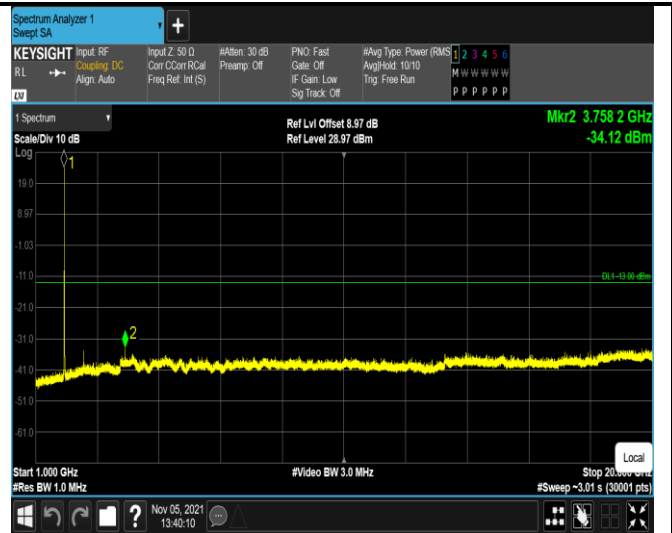
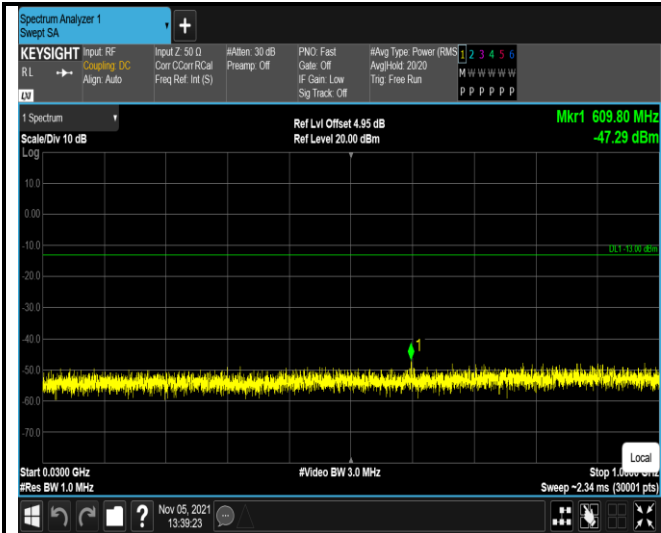
## Appendix E: Conducted Spurious Emission

Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	0.009~0.15MHz	0.06	-75.39	-43	PASS
Band2	9262	0.15~30MHz	0.15	-57.68	-23	PASS
Band2	9262	30~1000MHz	961.26	-47.77	-13	PASS
Band2	9262	1000~20000MHz	3706.87	-33.84	-13	PASS
Band2	9400	0.009~0.15MHz	0.01	-75.1	-43	PASS
Band2	9400	0.15~30MHz	0.17	-57.2	-23	PASS
Band2	9400	30~1000MHz	609.8	-47.29	-13	PASS
Band2	9400	1000~20000MHz	3758.17	-34.12	-13	PASS
Band2	9538	0.009~0.15MHz	0.14	-75.58	-43	PASS
Band2	9538	0.15~30MHz	0.15	-58.2	-23	PASS
Band2	9538	30~1000MHz	990.91	-47.56	-13	PASS
Band2	9538	1000~20000MHz	3813.9	-33.82	-13	PASS
Band5	4132	0.009~0.15MHz	0.01	-72.45	-33	PASS
Band5	4132	0.15~30MHz	0.15	-57.4	-13	PASS
Band5	4132	30~1000MHz	995.05	-57.74	-13	PASS
Band5	4132	1000~10000MHz	4914.7	-36.04	-13	PASS
Band5	4183	0.009~0.15MHz	0.01	-71.99	-33	PASS
Band5	4183	0.15~30MHz	0.16	-57.19	-13	PASS
Band5	4183	30~1000MHz	970.9	-57.56	-13	PASS
Band5	4183	1000~10000MHz	3958	-35.74	-13	PASS
Band5	4233	0.009~0.15MHz	0.01	-72.73	-33	PASS
Band5	4233	0.15~30MHz	0.15	-56.65	-13	PASS
Band5	4233	30~1000MHz	728.76	-57.53	-13	PASS
Band5	4233	1000~10000MHz	4981.3	-35.85	-13	PASS



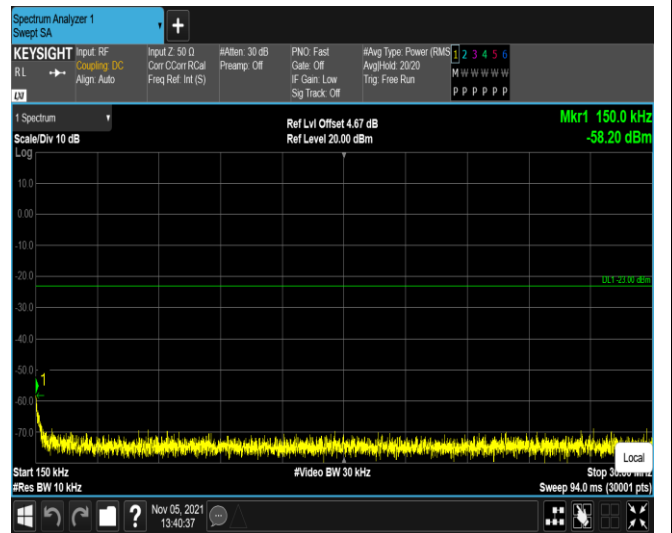
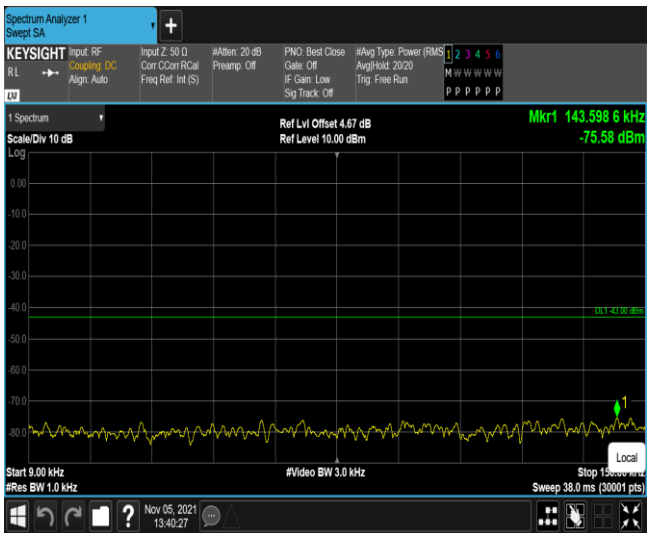
Test Graphs:





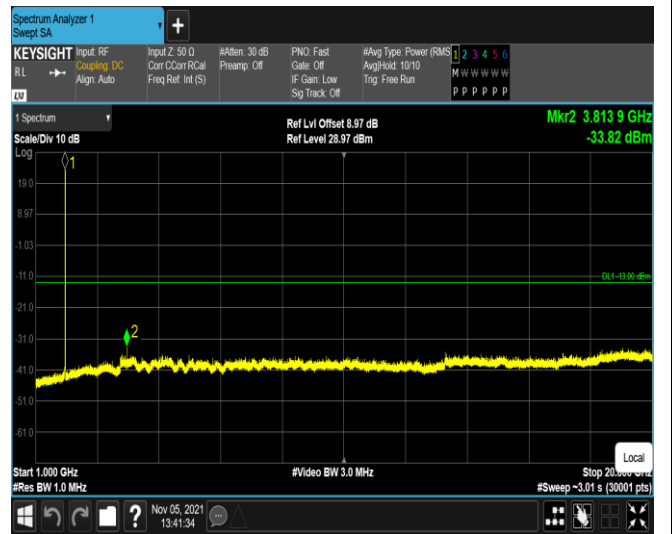
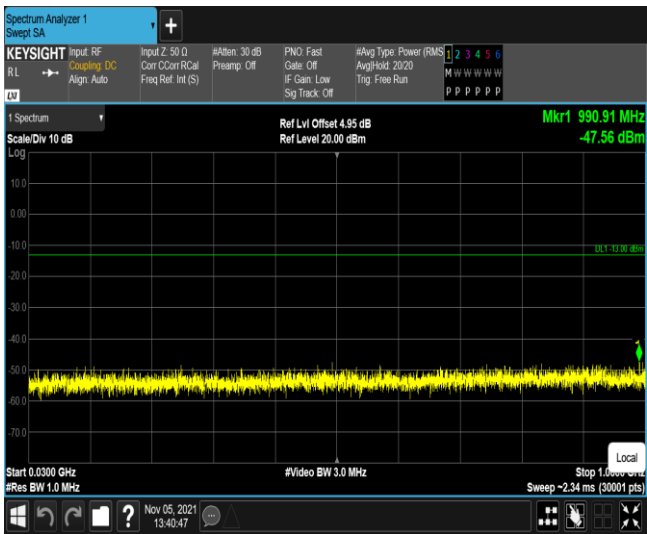
Band2-9400-30~1000MHz

Band2-9400-1000~20000MHz



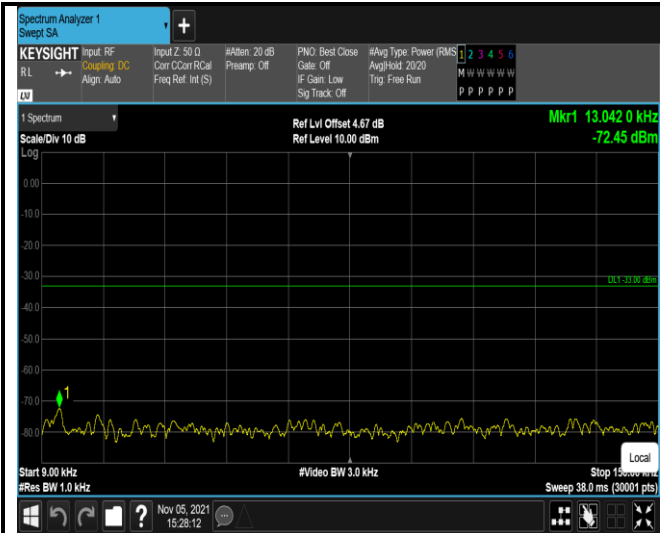
Band2-9538-0.009~0.15MHz

Band2-9538-0.15~30MHz

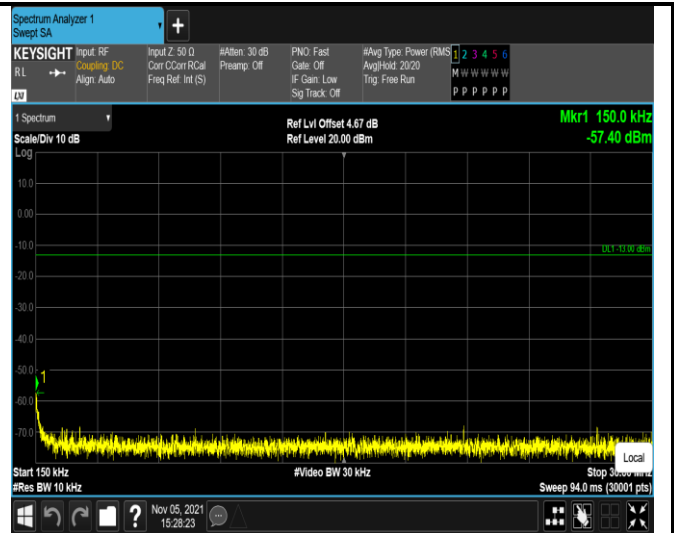


Band2-9538-30~1000MHz

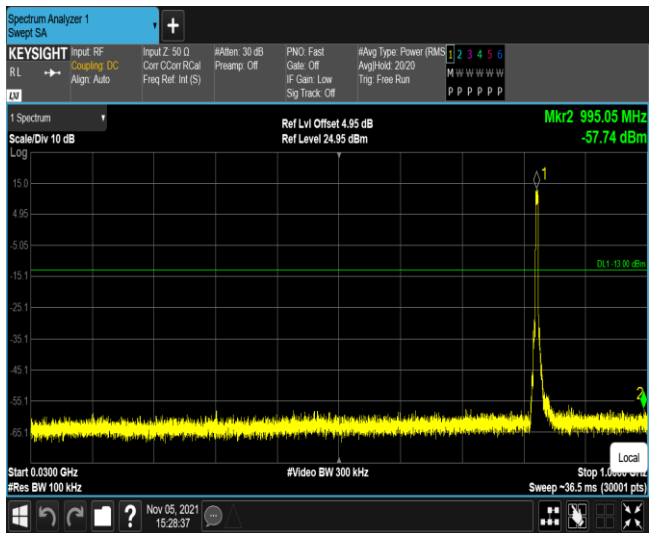
Band2-9538-1000~20000MHz



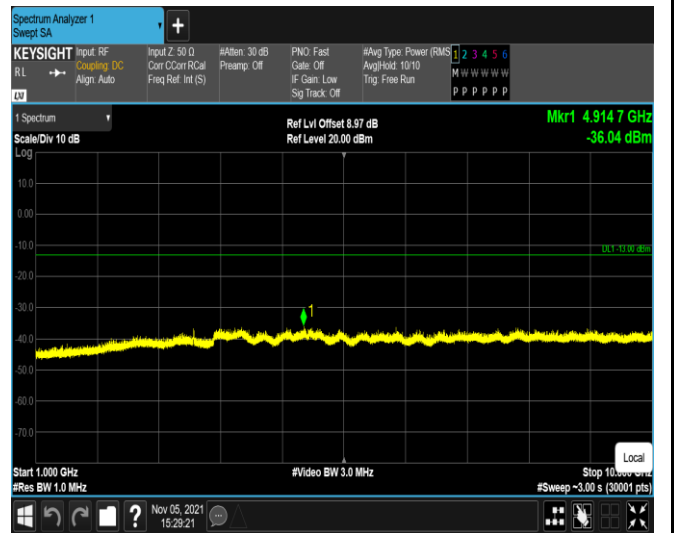
Band5-4132-0.009~0.15MHz



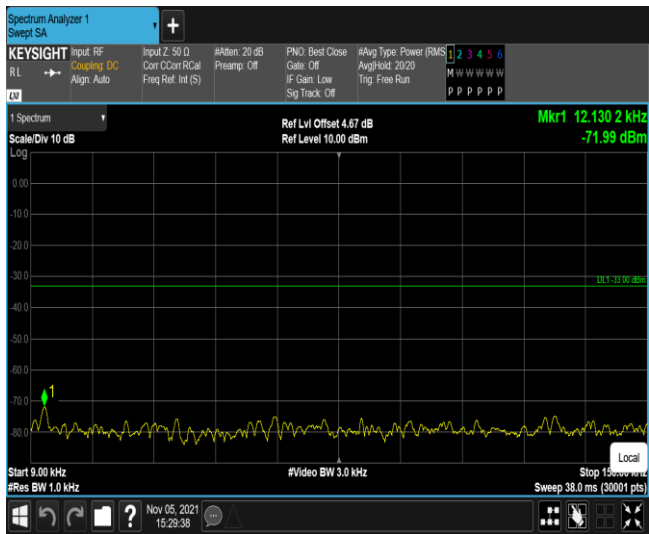
Band5-4132-0.15~30MHz



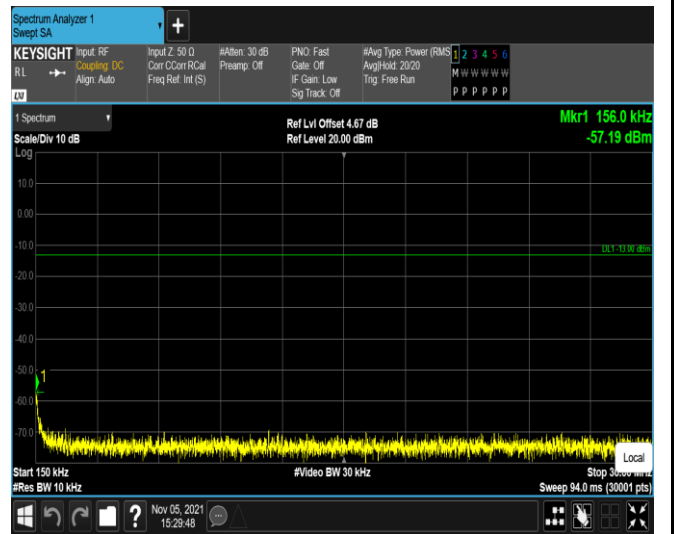
Band5-4132-30~1000MHz



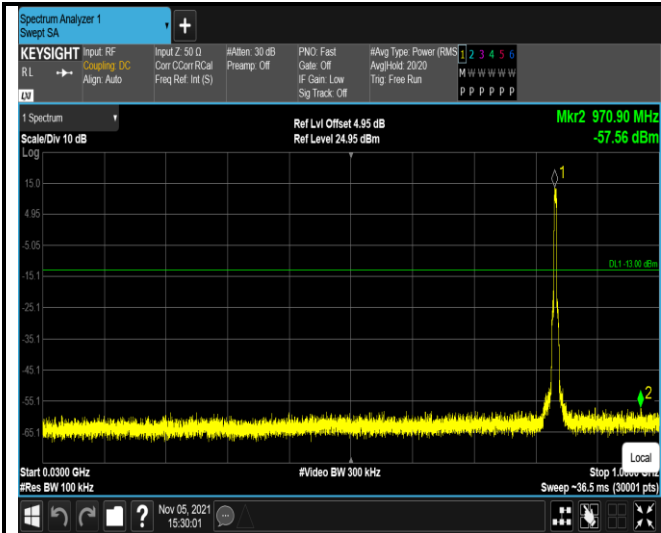
Band5-4132-1000~10000MHz



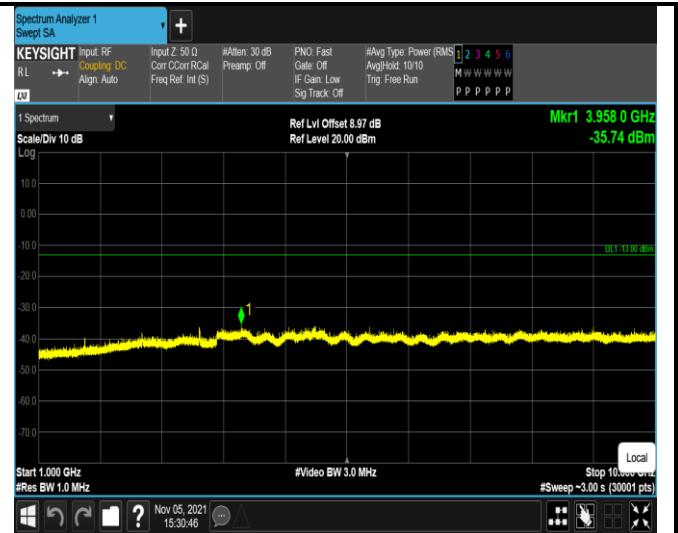
Band5-4183-0.009~0.15MHz



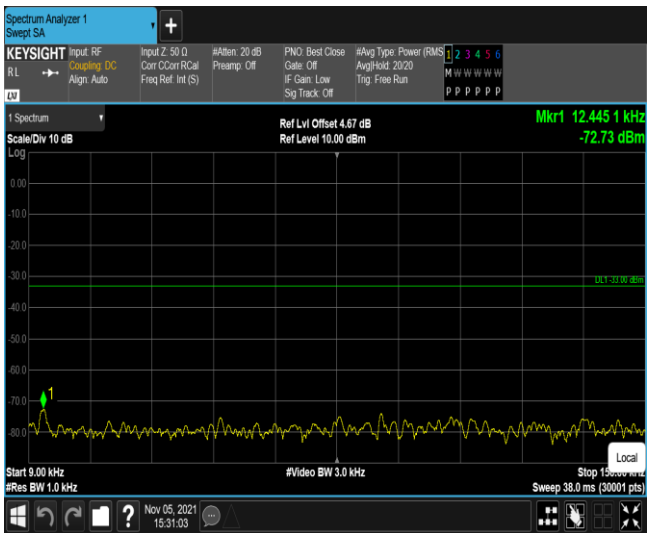
Band5-4183-0.15~30MHz



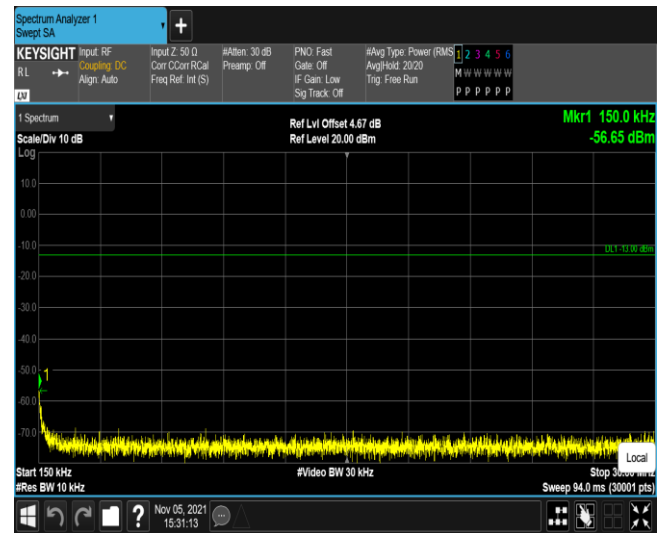
Band5-4183-30~1000MHz



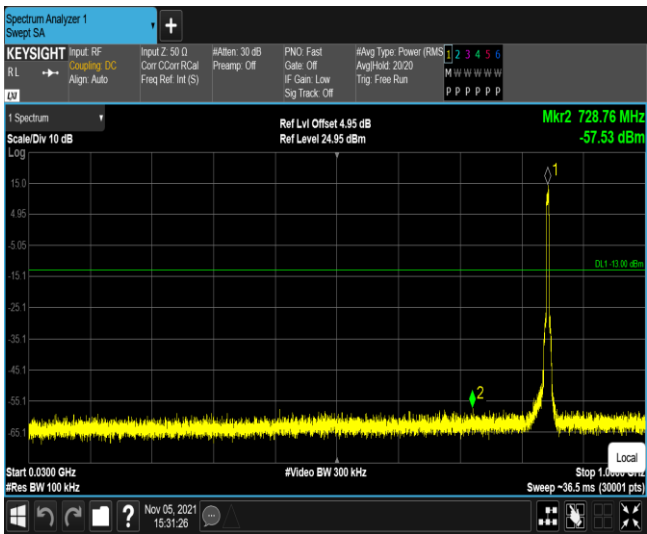
Band5-4183-1000~10000MHz



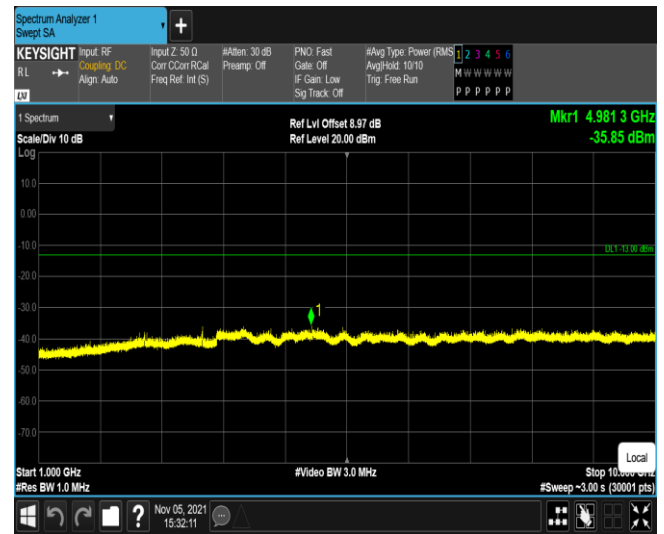
Band5-4233-0.009~0.15MHz



Band5-4233-0.15~30MHz



Band5-4233-30~1000MHz



Band5-4233-1000~10000MHz

## Appendix F: Frequency Stability

Reference Frequency: WCDMA BAND II 12.2k RMC Middle Frequency=9400 channel=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	-7.09	-0.003771	Within authorized band for BAND II	Pass
	-20	-6.21	-0.003303		
	-10	2.97	0.001580		
	0	4.48	0.002383		
	10	4.17	0.002218		
	20	3.17	0.001686		
	30	2.84	0.001511		
	40	2.70	0.001436		
	50	-10.24	-0.005447		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-7.07	-0.003761	Within authorized band for BAND II	Pass
	3.80	-7.25	-0.003856		
	4.35	-7.30	-0.003883		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

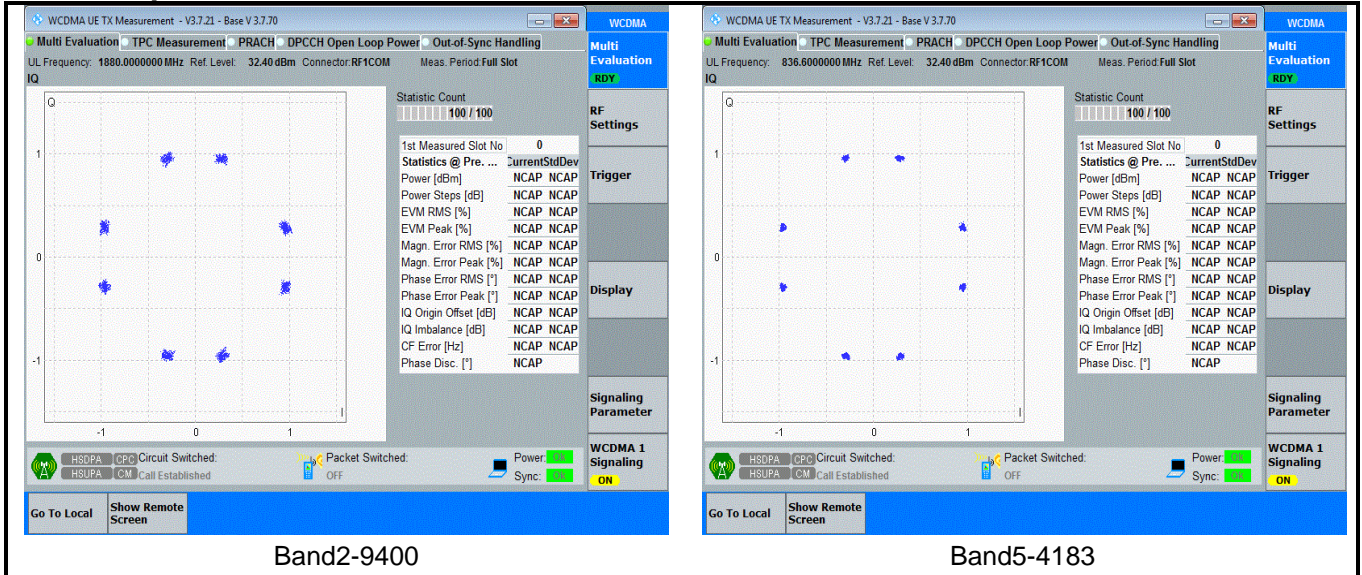
Reference Frequency: WCDMA BAND V 12.2k RMC Middle channel=4183 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	-1.27	-0.001518	±2.5	Pass
	-20	1.97	0.002355		
	-10	-0.24	-0.000287		
	0	0.66	0.000789		
	10	-0.37	-0.000442		
	20	1.30	0.001554		
	30	-0.50	-0.000598		
	40	0.85	0.001016		
	50	0.68	0.000813		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	0.36	0.000430	±2.5	Pass
	3.80	-1.02	-0.001219		
	4.35	0.36	0.000430		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

## Appendix G: Modulation Characteristics

Band	Channel	Result	Verdict
Band2	9400	PASS	PASS
Band5	4183	PASS	PASS

Remark: All channel had been tested, but only the worst case data displayed in this report.

### Test Graphs:



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