

**7.7 CONDUCTED BAND EDGE**

**7.7.1 Applicable Standard**

According to FCC Part 2.1051 and FCC Part 22.917(a) and 24.238(a) and FCC KDB 971168 D01 Section 6.0

**7.7.2 Conformance Limit**

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.

**7.7.3 Measuring Instruments**

The Measuring equipment is listed in the section 6.3 of this test report.

**7.7.4 Test Setup**

Please refer to Section 6.1 of this test report.

**7.7.5 Test Procedure**

The testing follows FCC KDB 971168 v03 Section 6.0.  
 The EUT was connected to Spectrum Analyzer and Base Station via power divider.  
 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.  
 The path loss was compensated to the results for each measurement.  
 The band edges of low and high channels for the highest RF powers were measured.  
 The RF fundamental frequency should be excluded against the limit line in the operating frequency band.  
 The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)  
 $= P(W) - [43 + 10\log(P)]$  (dB)  
 $= [30 + 10\log(P)]$  (dBm) -  $[43 + 10\log(P)]$  (dB)  
 $= -13\text{dBm}$ .

**7.7.6 Test Results**

EUT:	Smartphone	Model No.:	SMARTPHONE 3.4
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	GSM/GPRS 850/ GSM/GPRS 1900/ UMTS band II/ UMTS band V/ UMTS band IV	Test By:	Cheng Jiawen
Results: PASS			

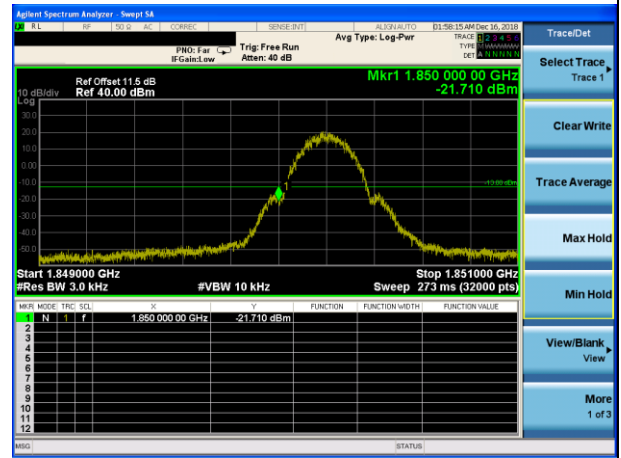
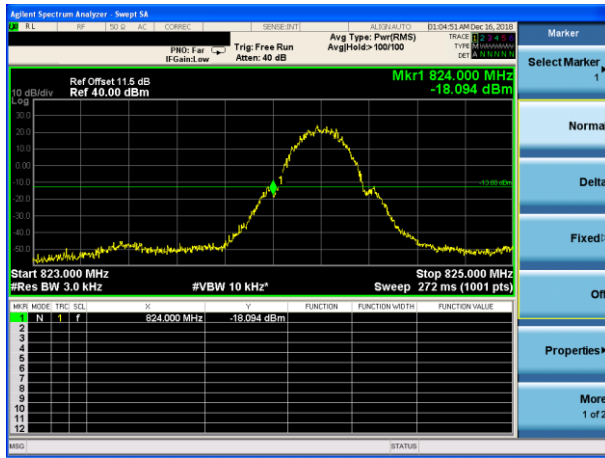
Test plot For

(GSM850)

(GSM1900)

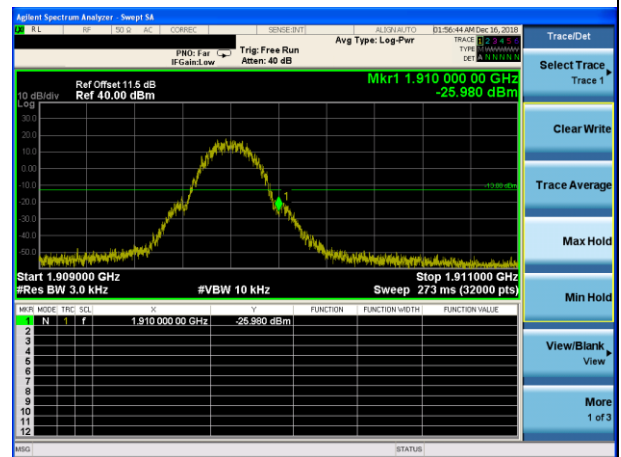
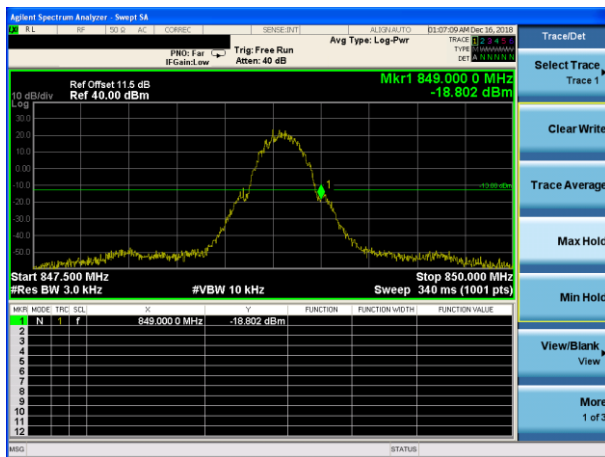
Conducted Band Edge plot on channel 128

Conducted Band Edge plot on channel 512



Conducted Band Edge plot on channel 251

Conducted Band Edge plot on channel 810



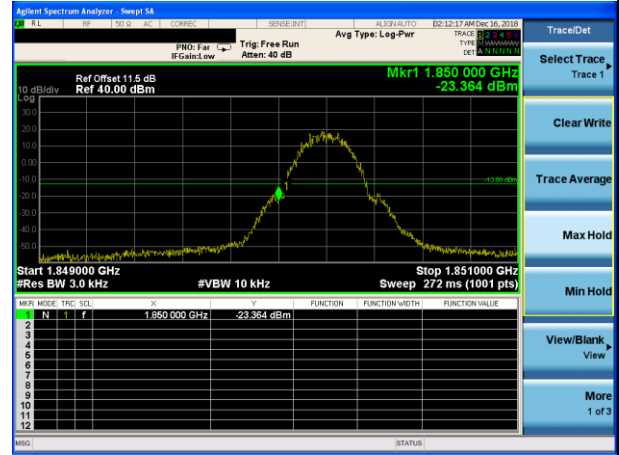
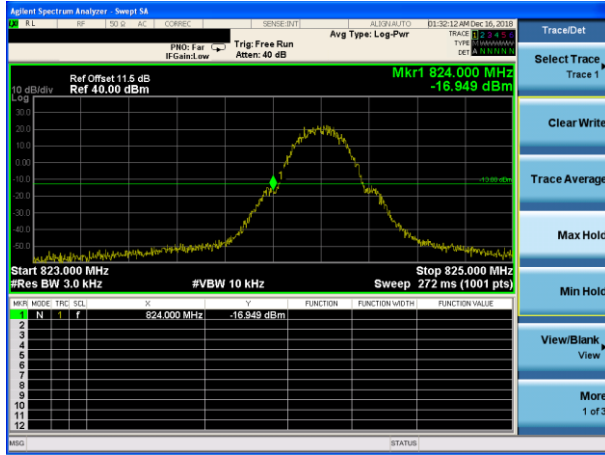
Test plot For

(GPRS850)

(GPRS1900)

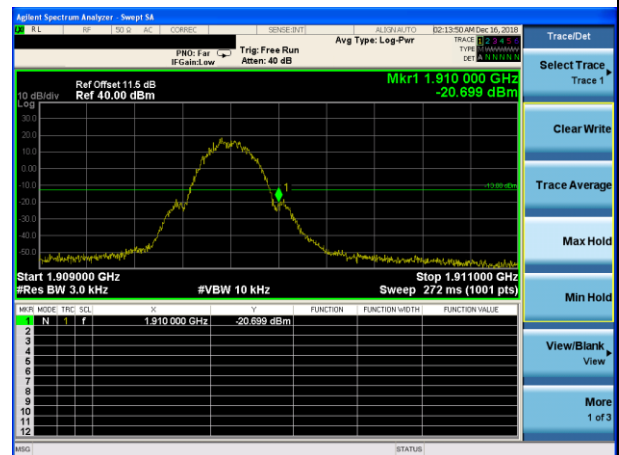
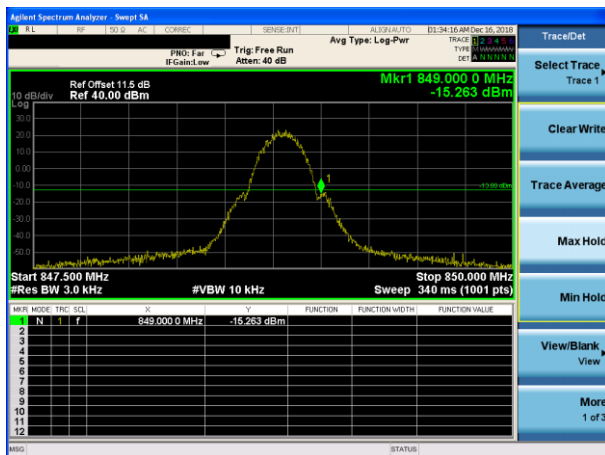
Conducted Band Edge plot on channel 128

Conducted Band Edge plot on channel 512



Conducted Band Edge plot on channel 251

Conducted Band Edge plot on channel 810



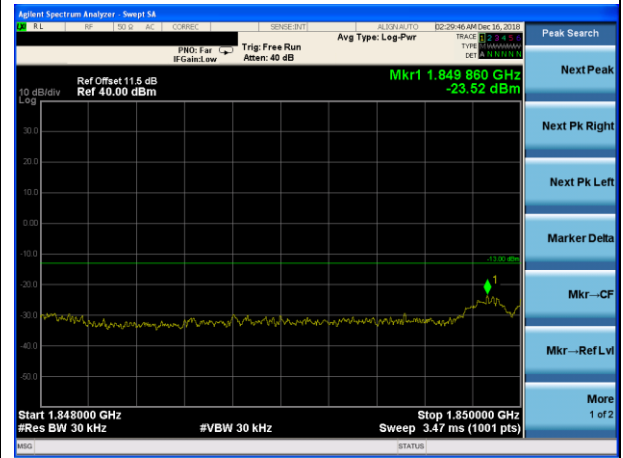
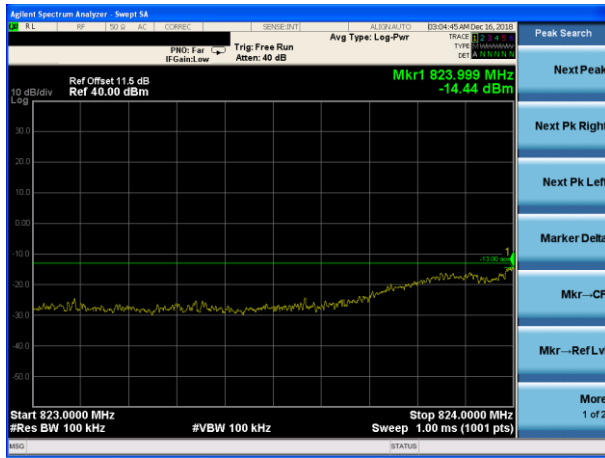
Test plot For

UMTS Band V

UMTS Band II

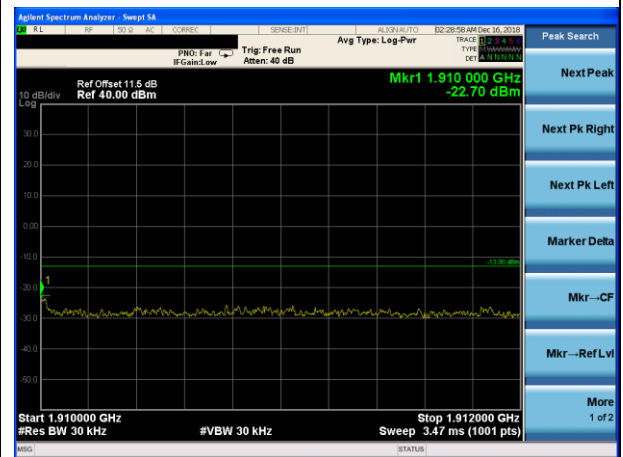
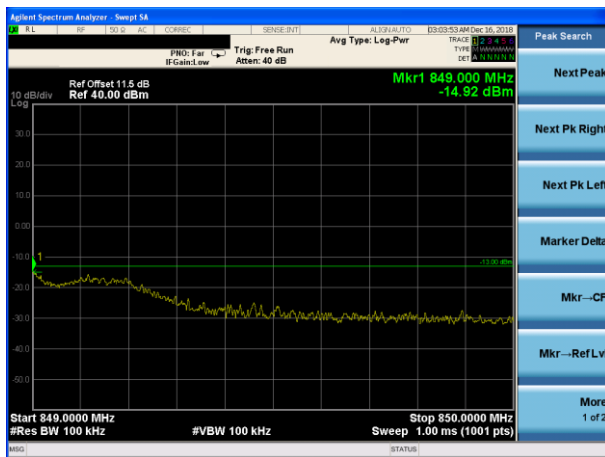
Conducted Band Edge plot on channel 4132

Conducted Band Edge plot on channel 9262



Conducted Band Edge plot on channel 4233

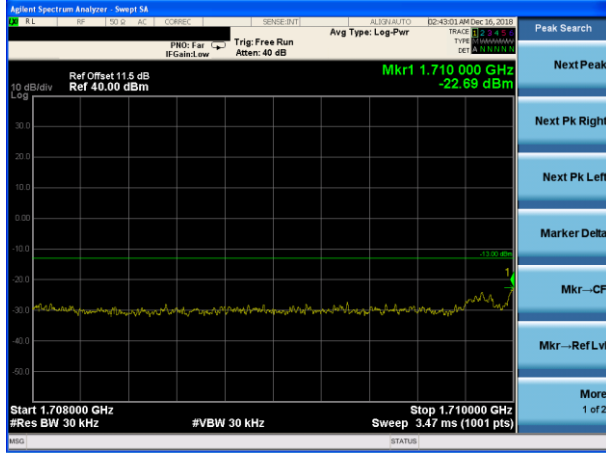
Conducted Band Edge plot on channel 9538



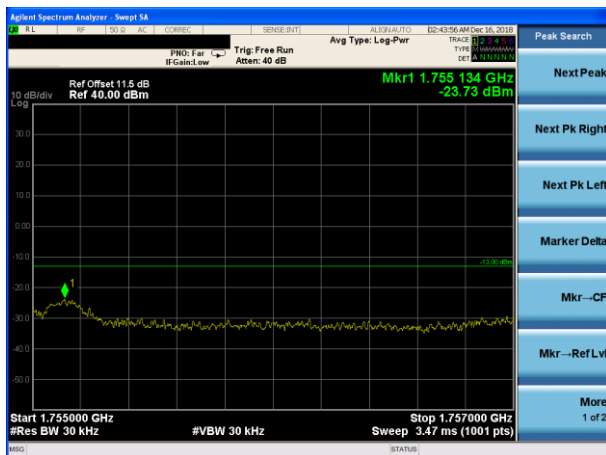
Test plot For

UMTS Band IV

Conducted Band Edge plot on channel 1312



Conducted Band Edge plot on channel 1513



**7.8 CONDUCTED SPURIOUS EMISSION AT ANTENNA TERMINAL**

**7.8.1 Applicable Standard**

According to FCC Part 2.1051 and FCC Part 22.917(a) and Part 24.238(a) and FCC KDB 971168 D01 Section 6.0

**7.8.2 Conformance Limit**

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.

**7.8.3 Measuring Instruments**

The Measuring equipment is listed in the section 6.3 of this test report.

**7.8.4 Test Setup**

Please refer to Section 6.1 of this test report.

**7.8.5 Test Procedure**

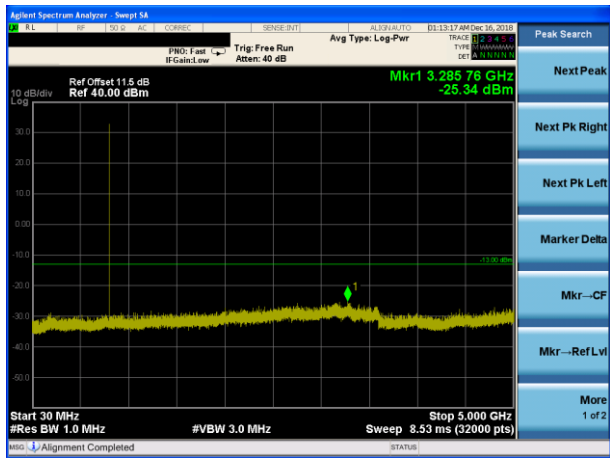
The testing follows FCC KDB 971168 v03 Section 6.0.  
The EUT was connected to Spectrum Analyzer and Base Station via power divider.  
The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.  
The path loss was compensated to the results for each measurement.  
The middle channel for the highest RF power within the transmitting frequency was measured.  
The conducted spurious emission for the whole frequency range was taken.  
The RF fundamental frequency should be excluded against the limit line in the operating frequency band.  
The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)  
 $= P(W) - [43 + 10\log(P)]$  (dB)  
 $= [30 + 10\log(P)]$  (dBm) -  $[43 + 10\log(P)]$  (dB)  
 $= -13\text{dBm}$ .

**7.8.6 Test Results**

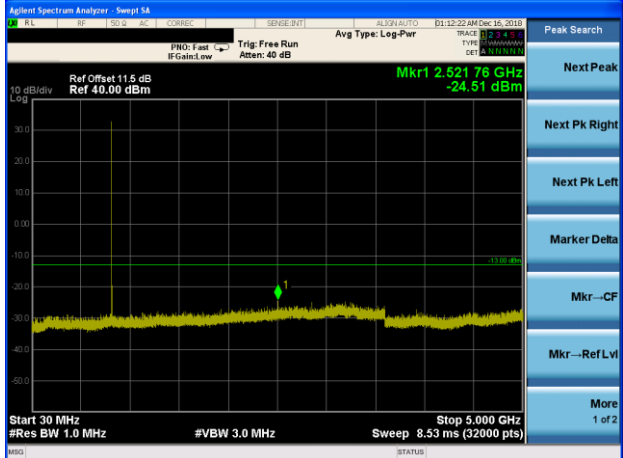
EUT:	Smartphone	Model No.:	SMARTPHONE 3.4
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	GSM/GPRS 850/ GSM/GPRS 1900/ UMTS band II/ UMTS band V/ UMTS Band IV	Test By:	Cheng Jiawen
Results: PASS			

Test Plot

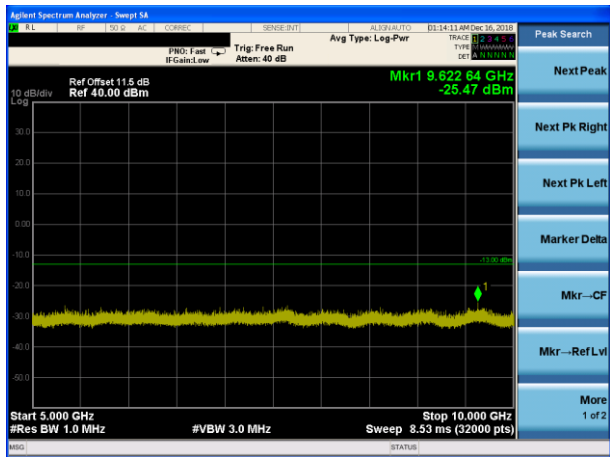
GSM850  
Conducted Emission Transmitting Mode CH 128  
30MHz – 5GHz



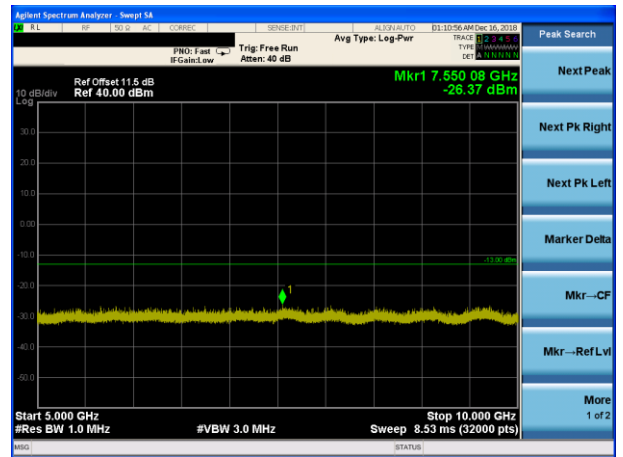
GSM850  
Conducted Emission Transmitting Mode CH 190  
30MHz – 5GHz



Conducted Emission Transmitting Mode CH 128  
5GHz – 10GHz



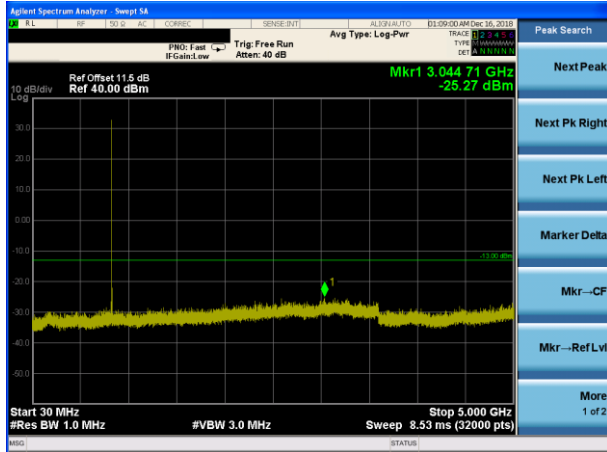
Conducted Emission Transmitting Mode CH 190  
5GHz – 10GHz



Test Plot

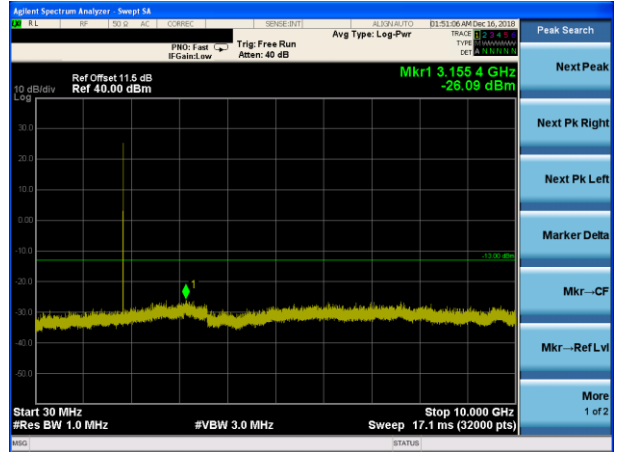
GSM850

Conducted Emission Transmitting Mode CH 251  
30MHz – 5GHz



GSM1900

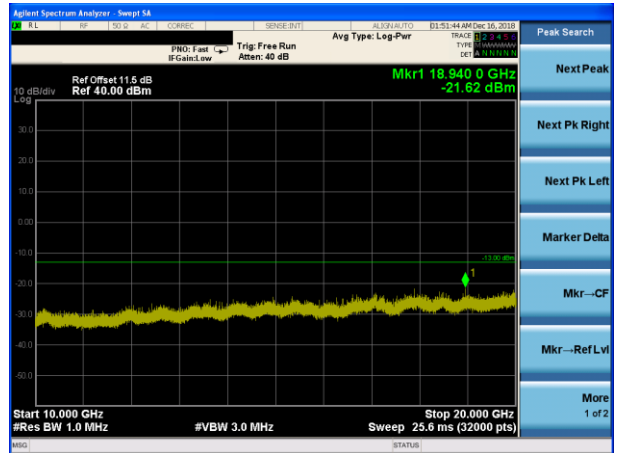
Conducted Emission Transmitting Mode CH 512  
30MHz – 10GHz



Conducted Emission Transmitting Mode CH 251  
5GHz – 10GHz



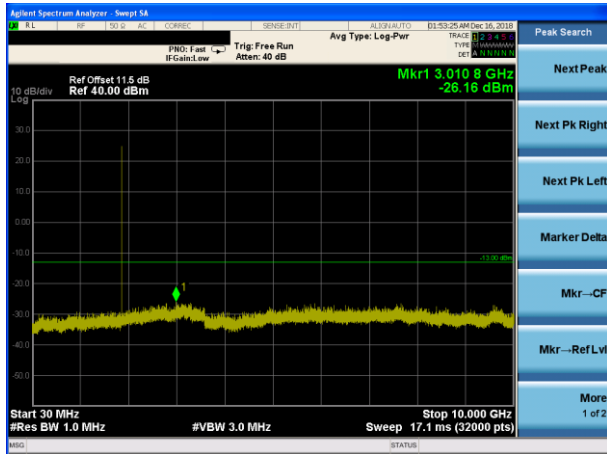
Conducted Emission Transmitting Mode CH 512  
10GHz – 20GHz



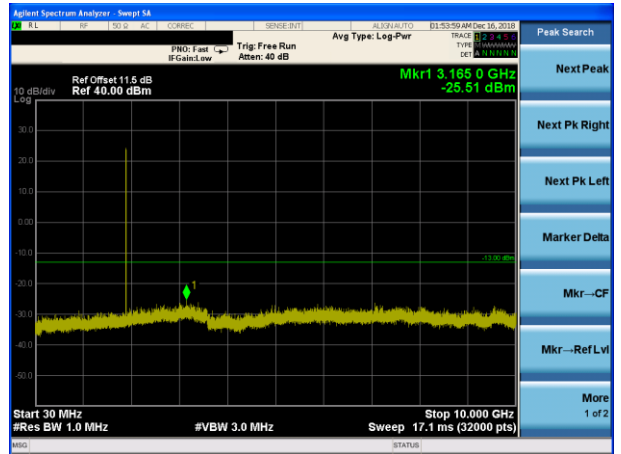


Test Plot

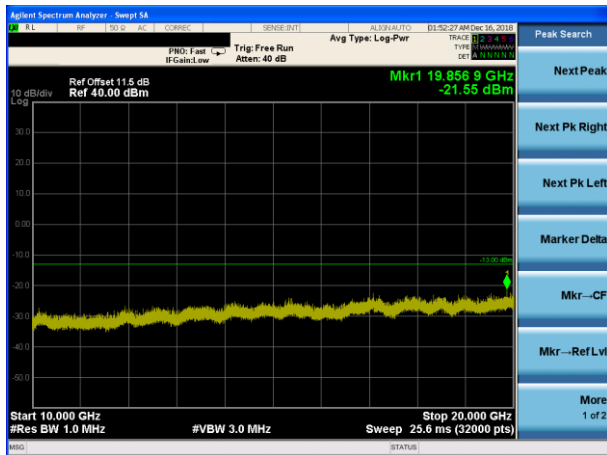
GSM1900  
Conducted Emission Transmitting Mode CH 661  
30MHz – 10GHz



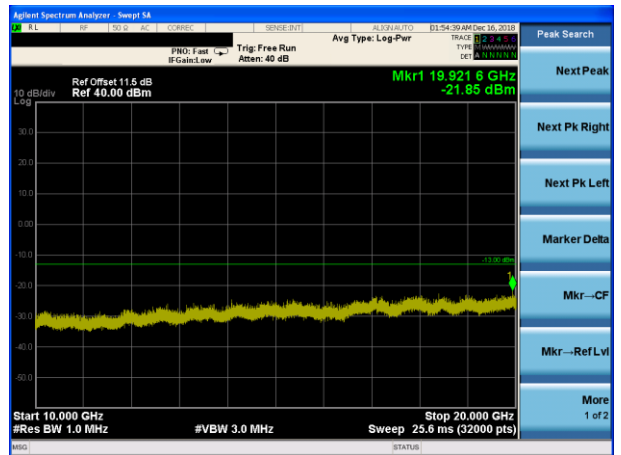
GSM1900  
Conducted Emission Transmitting Mode CH 810  
30MHz – 10GHz



Conducted Emission Transmitting Mode CH 661  
10GHz – 20GHz

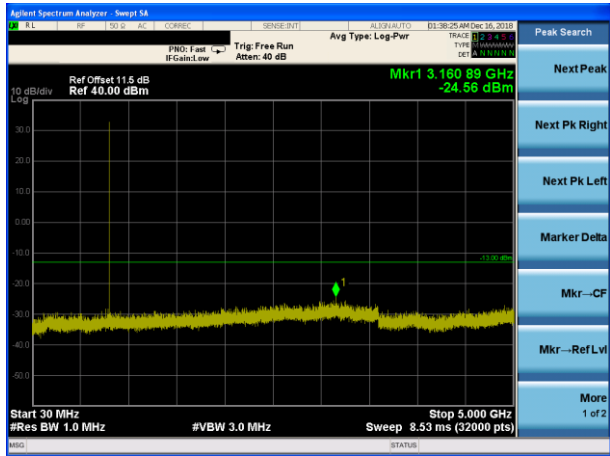


Conducted Emission Transmitting Mode CH 810  
10GHz – 20GHz

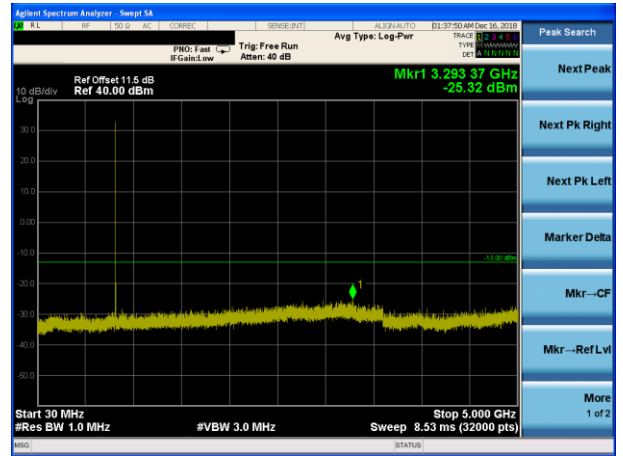


Test Plot

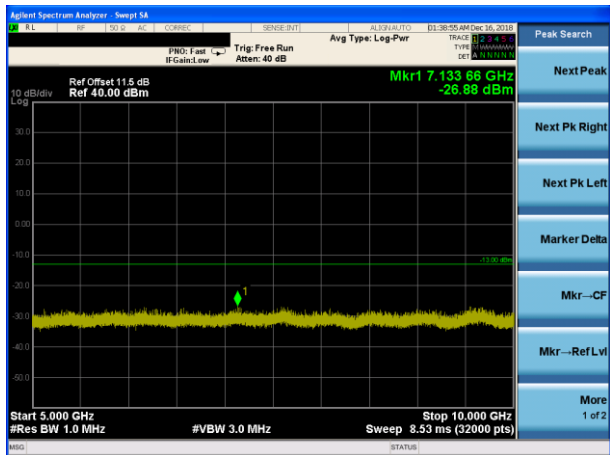
GPRS850  
Conducted Emission Transmitting Mode CH 128  
30MHz – 5GHz



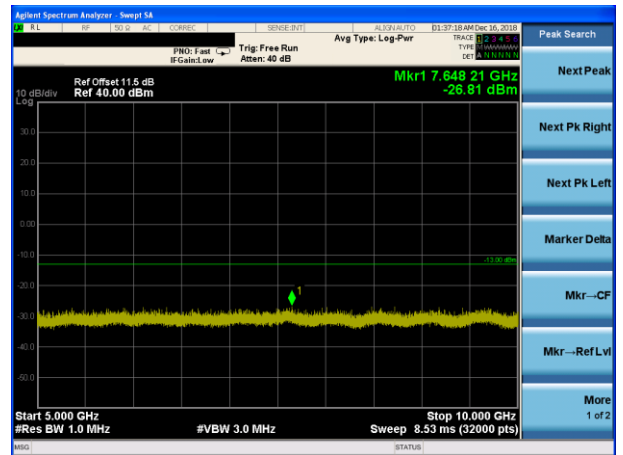
GPRS850  
Conducted Emission Transmitting Mode CH 190  
30MHz – 5GHz



Conducted Emission Transmitting Mode CH 128  
5GHz – 10GHz



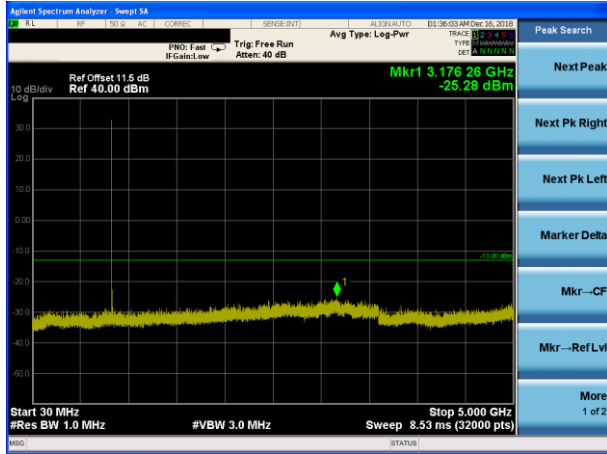
Conducted Emission Transmitting Mode CH 190  
5GHz – 10GHz



Test Plot

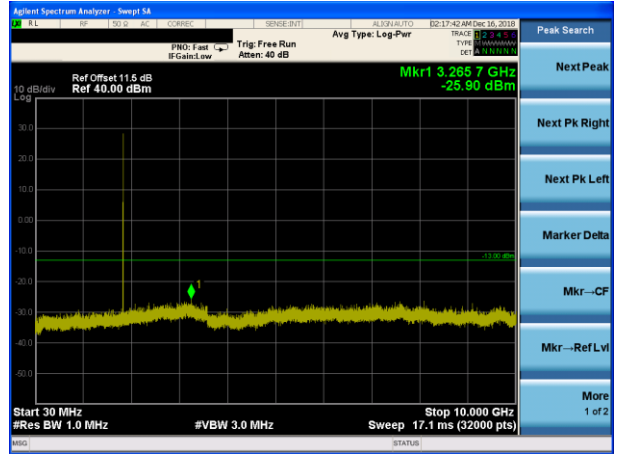
GPRS850

Conducted Emission Transmitting Mode CH 251  
30MHz – 5GHz

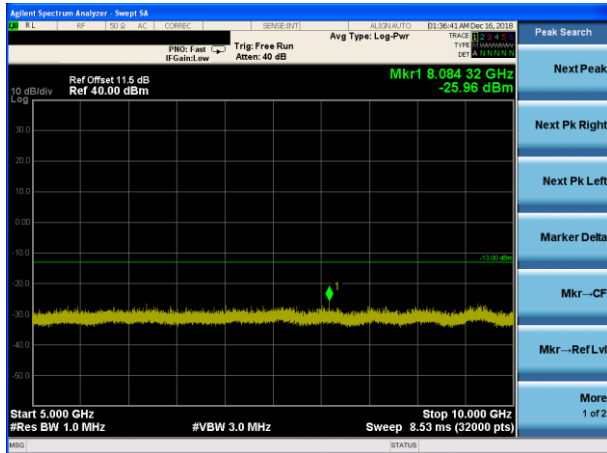


GPRS1900

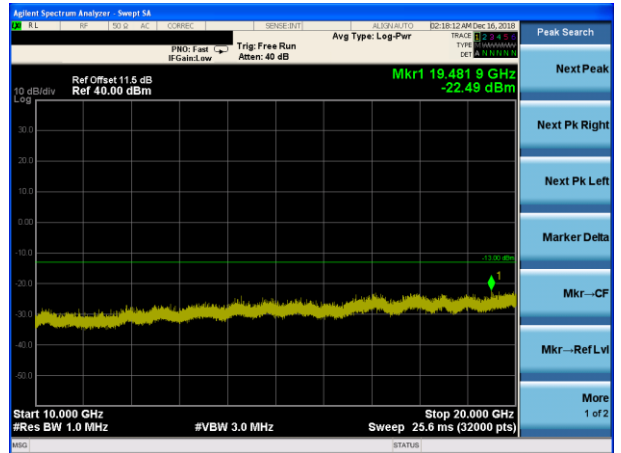
Conducted Emission Transmitting Mode CH 512  
30MHz – 10GHz



Conducted Emission Transmitting Mode CH 251  
5GHz – 10GHz

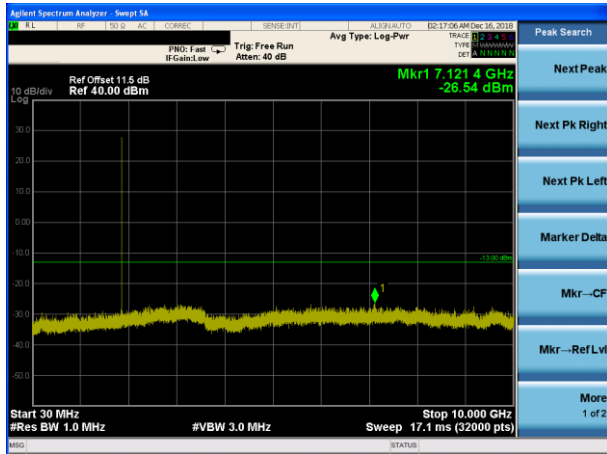


Conducted Emission Transmitting Mode CH 512  
10GHz – 20GHz

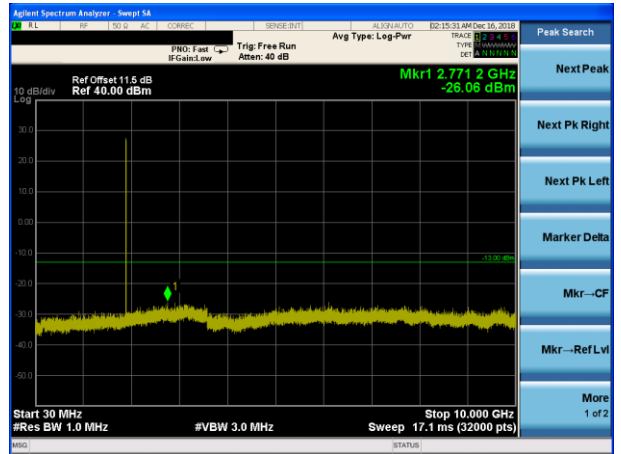


Test Plot

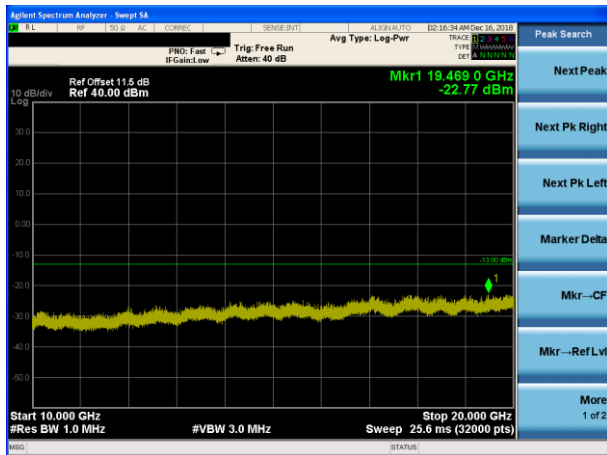
GPRS1900  
Conducted Emission Transmitting Mode CH 661  
30MHz – 10GHz



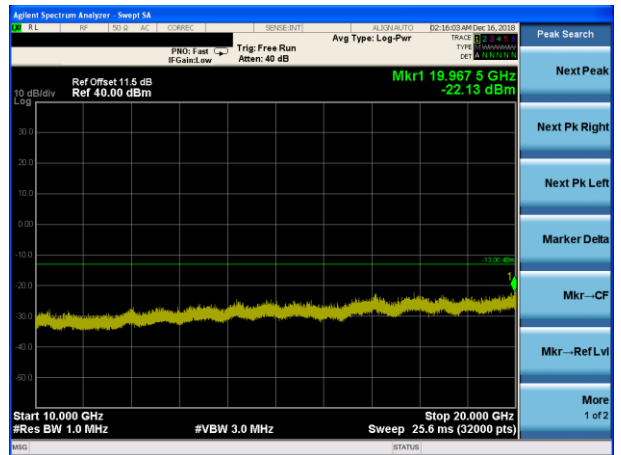
GPRS1900  
Conducted Emission Transmitting Mode CH 810  
30MHz – 10GHz



Conducted Emission Transmitting Mode CH 661  
10GHz – 20GHz

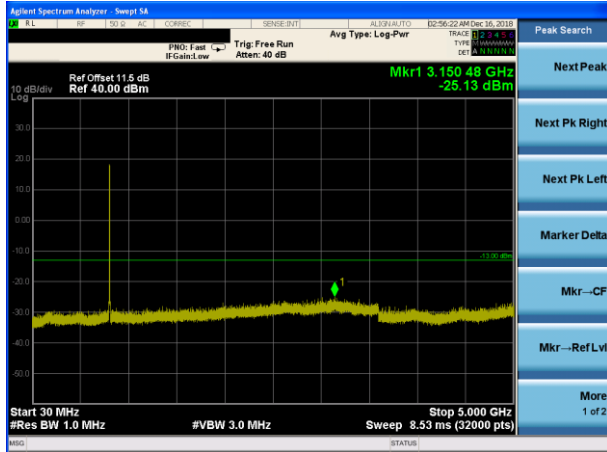


Conducted Emission Transmitting Mode CH 810  
10GHz – 20GHz

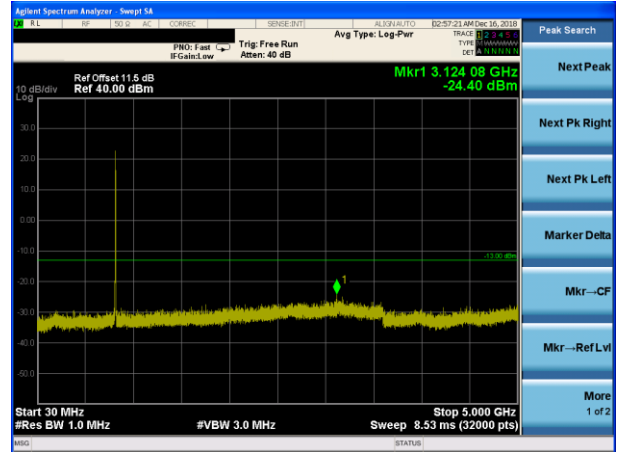


Test Plot

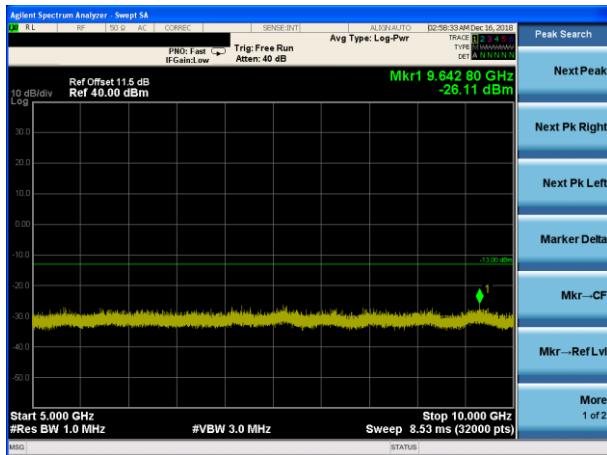
UMTS band V  
Conducted Emission Transmitting Mode CH  
4132 30MHz – 5GHz



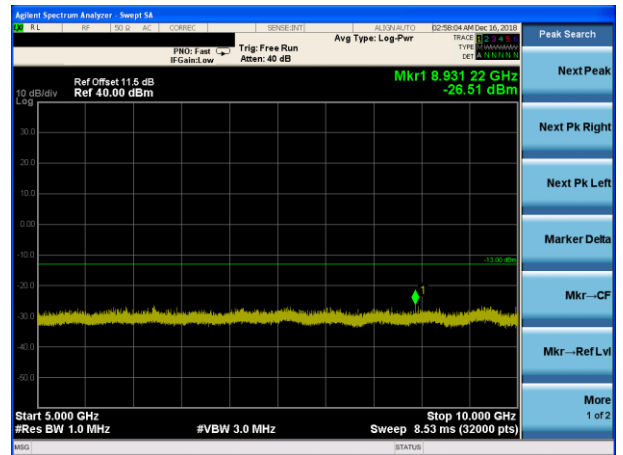
UMTS band V  
Conducted Emission Transmitting Mode CH 4183  
30MHz – 5GHz



Conducted Emission Transmitting Mode CH  
4132 5GHz – 10GHz



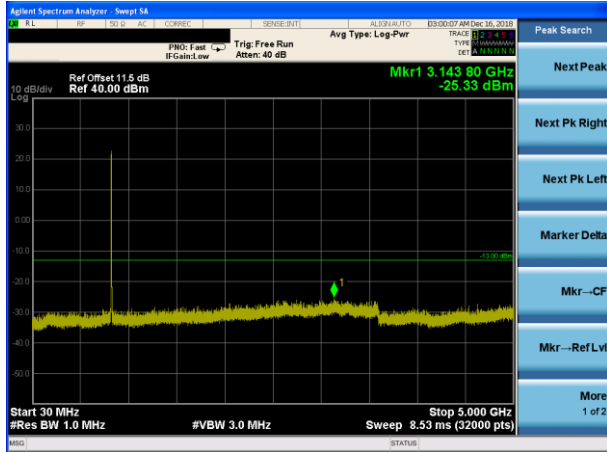
Conducted Emission Transmitting Mode CH 4183  
5GHz – 10GHz



Test Plot

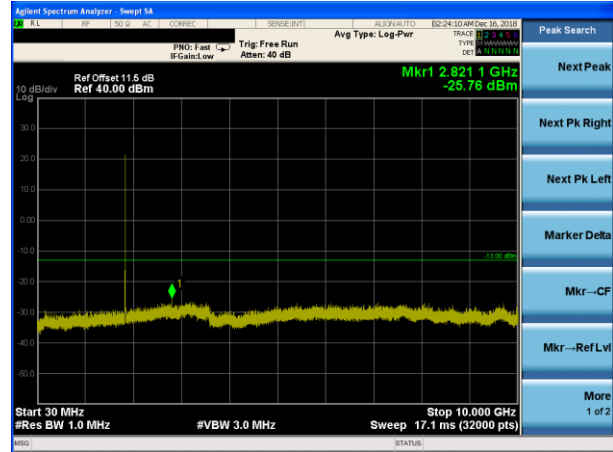
UMTS band V

Conducted Emission Transmitting Mode CH  
4233 30MHz – 5GHz

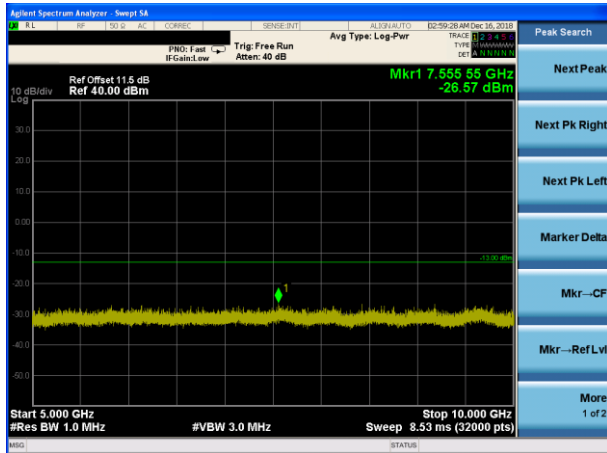


UMTS band II

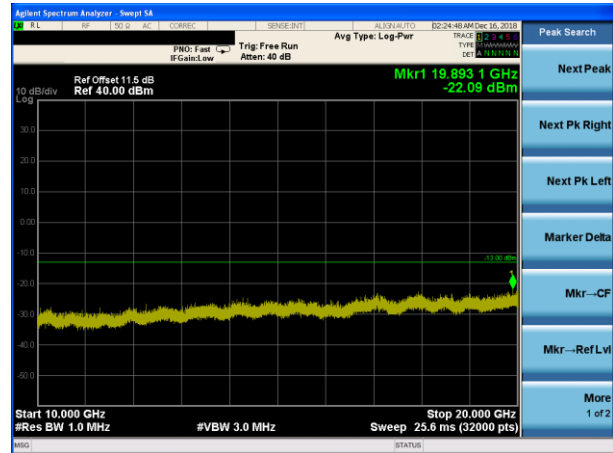
Conducted Emission Transmitting Mode CH 9262  
30MHz – 10GHz



Conducted Emission Transmitting Mode CH  
4233 5GHz – 10GHz

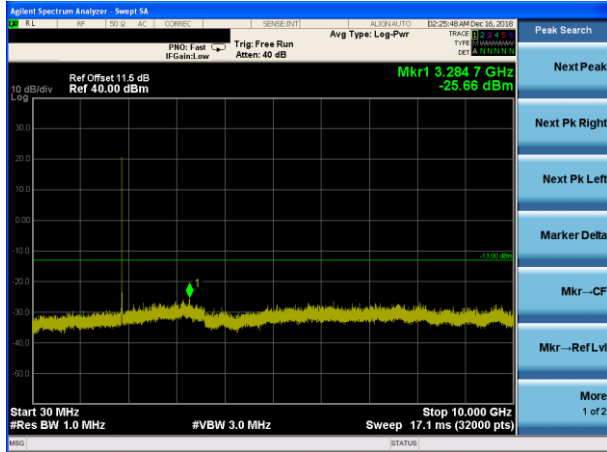


Conducted Emission Transmitting Mode CH 9262  
10GHz – 20GHz

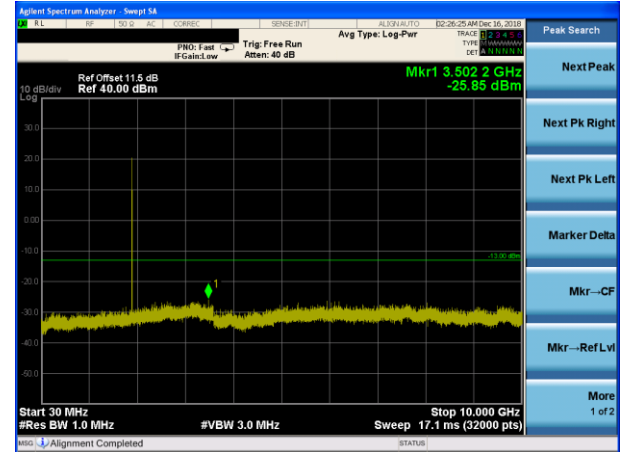


Test Plot

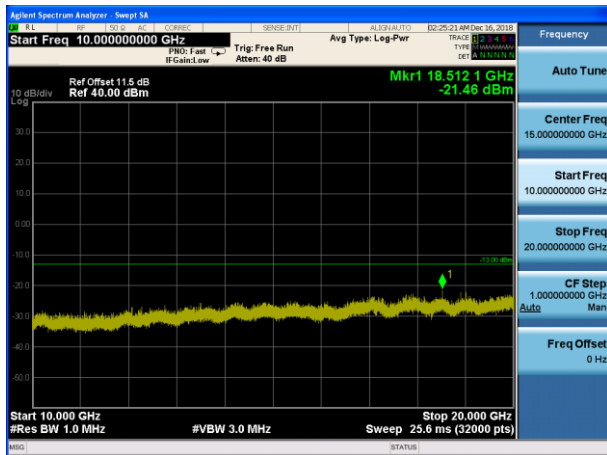
UMTS band II  
Conducted Emission Transmitting Mode CH  
9400 30MHz – 10GHz



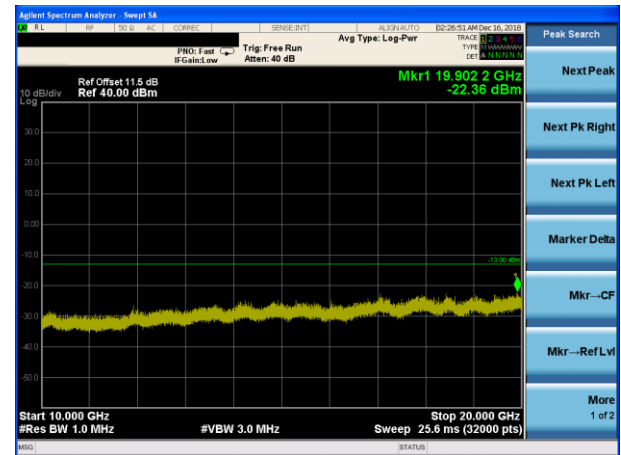
UMTS band II  
Conducted Emission Transmitting Mode CH 9538  
30MHz – 10GHz



Conducted Emission Transmitting Mode CH  
9400 10GHz – 20GHz



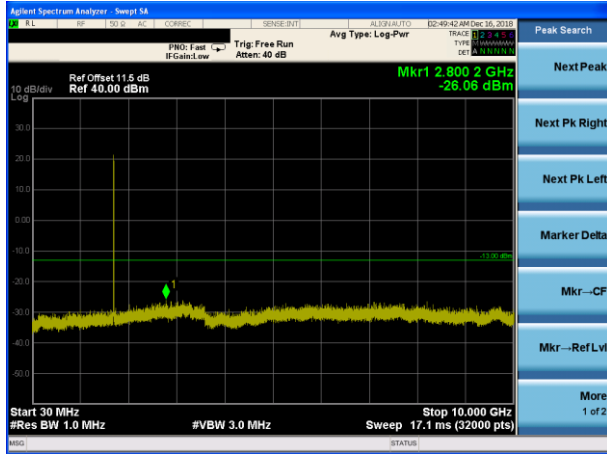
Conducted Emission Transmitting Mode CH 9538  
10GHz – 20GHz



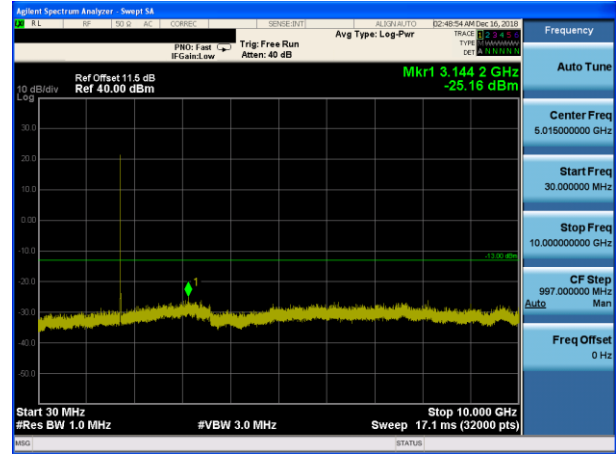


Test Plot

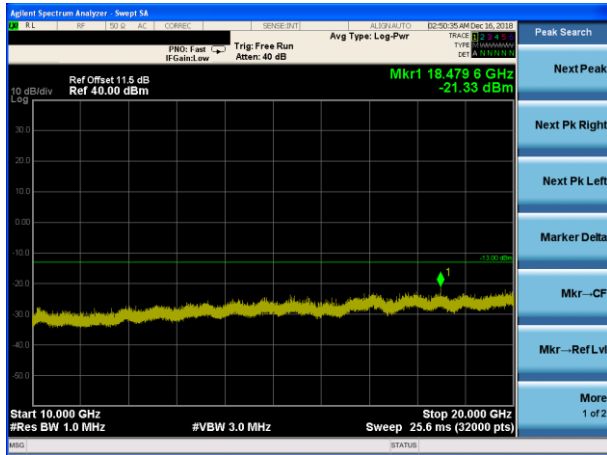
UMTS band IV  
Conducted Emission Transmitting Mode CH  
1312 30MHz – 10GHz



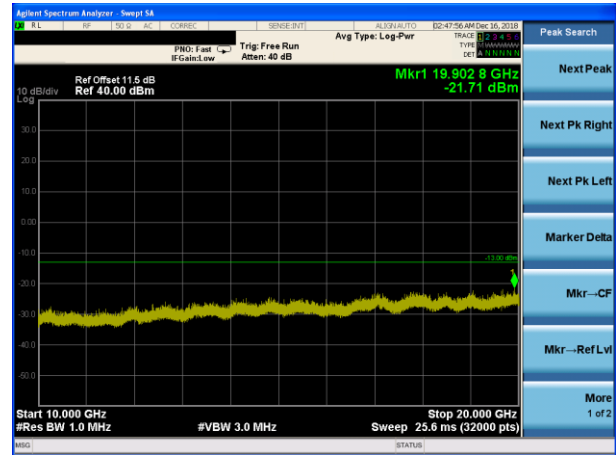
UMTS band IV  
Conducted Emission Transmitting Mode CH 1412  
30MHz – 10GHz



Conducted Emission Transmitting Mode CH  
1312 10GHz – 20GHz



Conducted Emission Transmitting Mode CH 1412  
10GHz – 20GHz

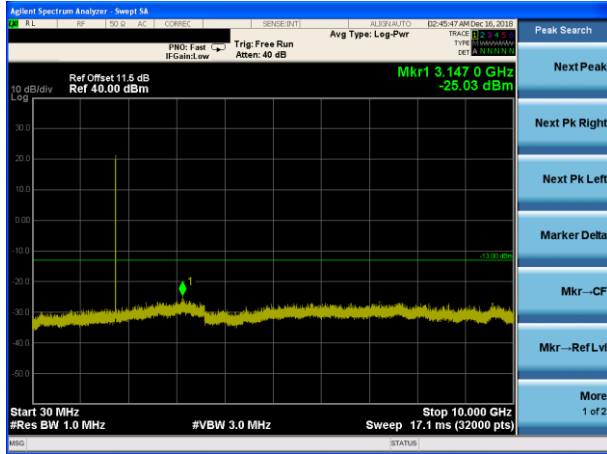




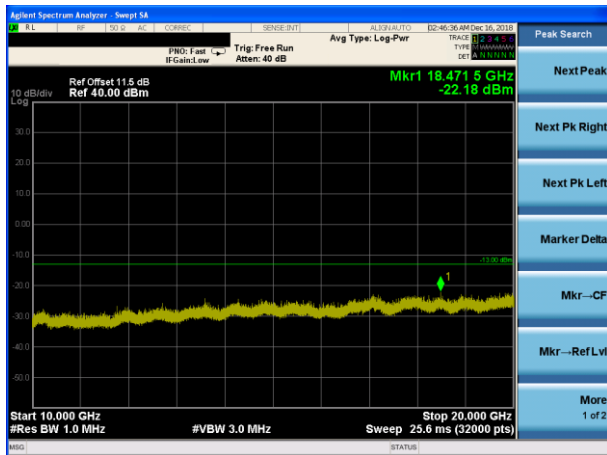
Test Plot

UMTS band IV

Conducted Emission Transmitting Mode CH  
1513 30MHz – 10GHz



Conducted Emission Transmitting Mode CH  
1513 10GHz – 20GHz



END OF REPORT