

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 Section6.0

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)
 $= -13$ dBm.

7.7.6 Test Results

EUT:	Mobile Phone	Model No.:	GQ3082
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			

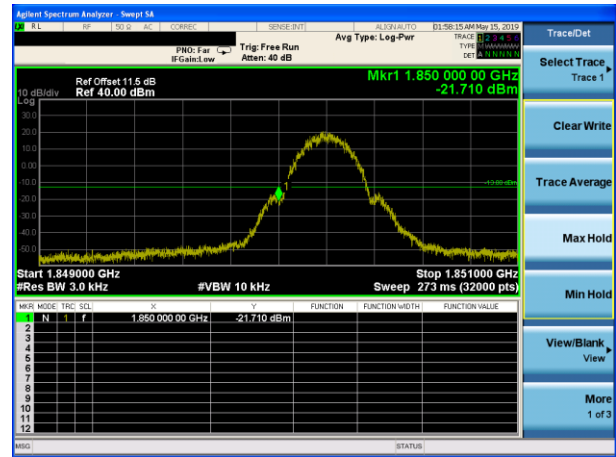
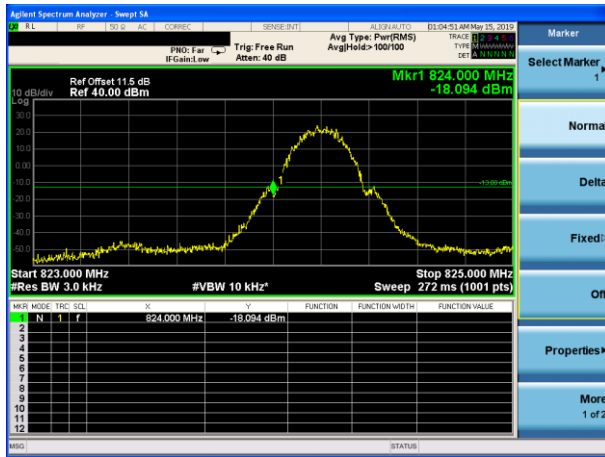
Test plot For

(GSM850)

(GSM1900)

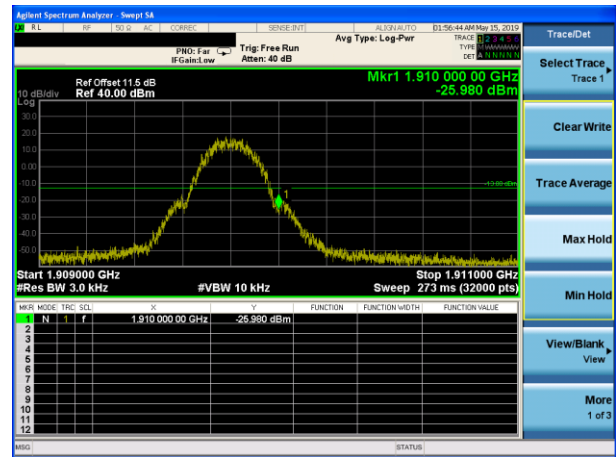
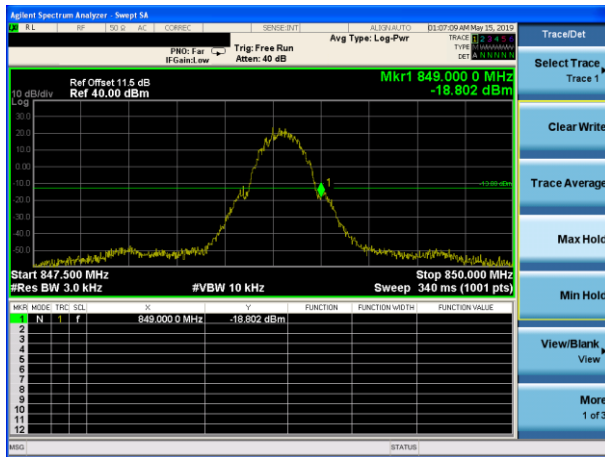
Conducted Band Edge plot on channel 128

Conducted Band Edge plot on channel 512



Conducted Band Edge plot on channel 251

Conducted Band Edge plot on channel 810



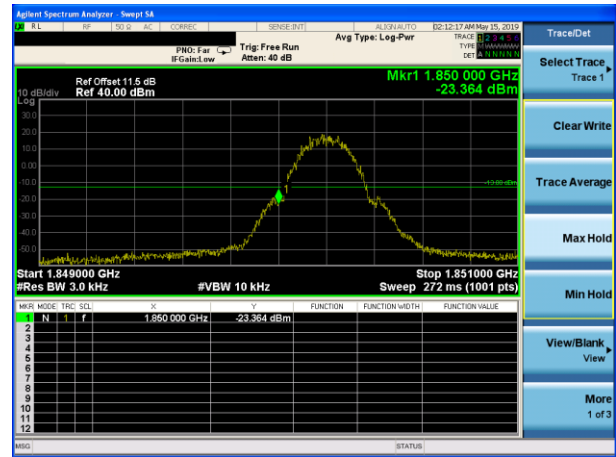
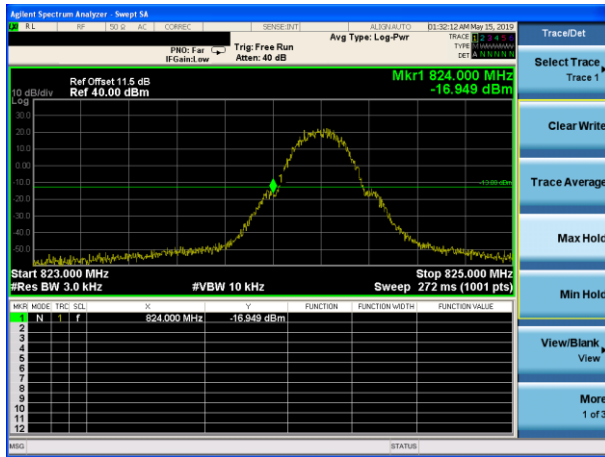
Test plot For

(GPRS850)

(GPRS1900)

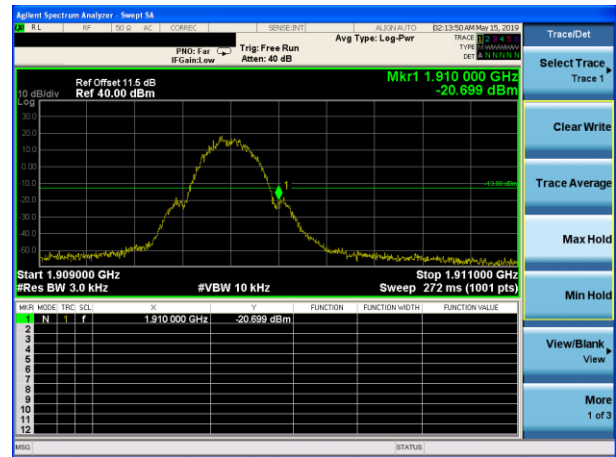
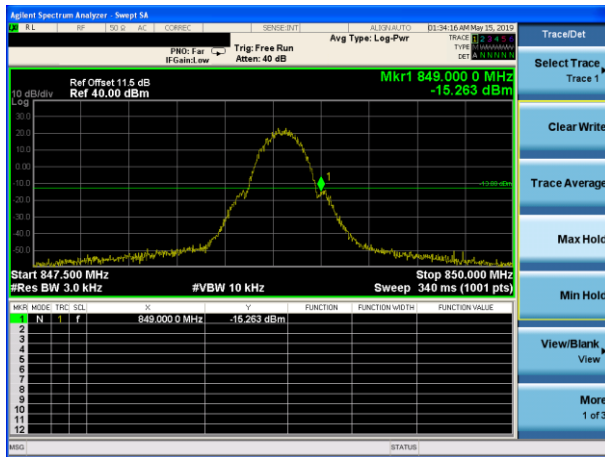
Conducted Band Edge plot on channel 128

Conducted Band Edge plot on channel 512



Conducted Band Edge plot on channel 251

Conducted Band Edge plot on channel 810



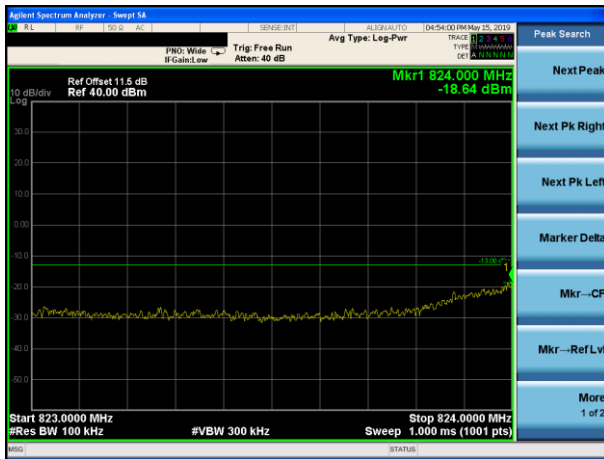
Test plot For

UMTS Band V

UMTS Band II

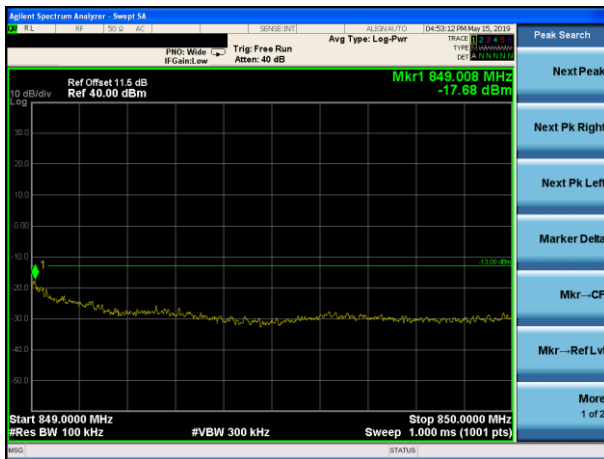
Conducted Band Edge plot on channel 4132

Conducted Band Edge plot on channel 9262



Conducted Band Edge plot on channel 4233

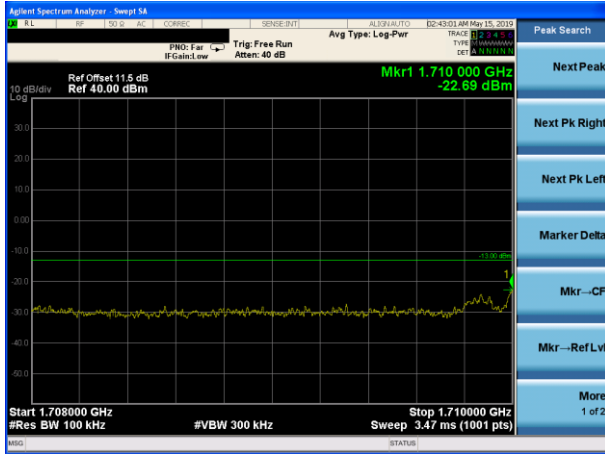
Conducted Band Edge plot on channel 9538



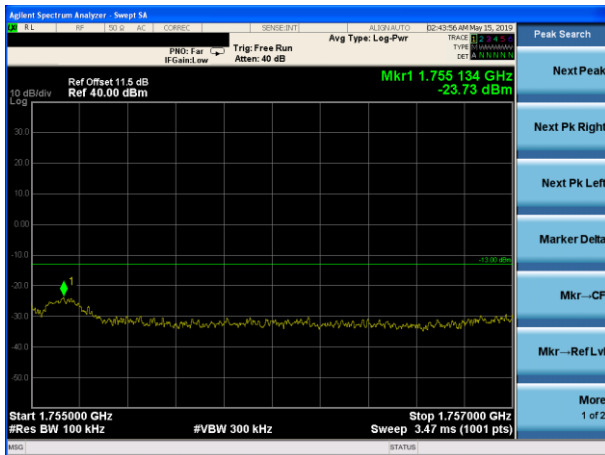
Test plot For

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:	Mobile Phone	Model No.:	GQ3082
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	GSM850
<p>Conducted Emission Transmitting Mode CH 128 30MHz – 5GHz</p>	<p>Conducted Emission Transmitting Mode CH 190 30MHz – 5GHz</p>
<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 3.28576 GHz -25.34 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 5.000 GHz Sweep 8.53 ms (32000 pts)</p>	<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 2.52176 GHz -24.61 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 5.000 GHz Sweep 8.53 ms (32000 pts)</p>
<p>Conducted Emission Transmitting Mode CH 128 5GHz – 10GHz</p>	<p>Conducted Emission Transmitting Mode CH 190 5GHz – 10GHz</p>
<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 9.62264 GHz -25.47 dBm Start 5.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 8.53 ms (32000 pts)</p>	<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 7.55008 GHz -26.37 dBm Start 5.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 8.53 ms (32000 pts)</p>

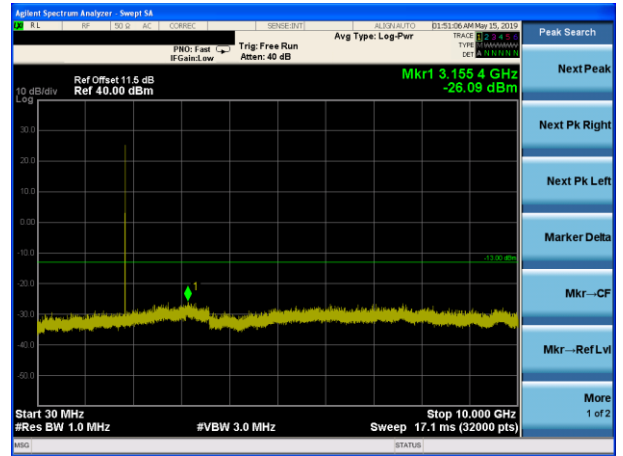
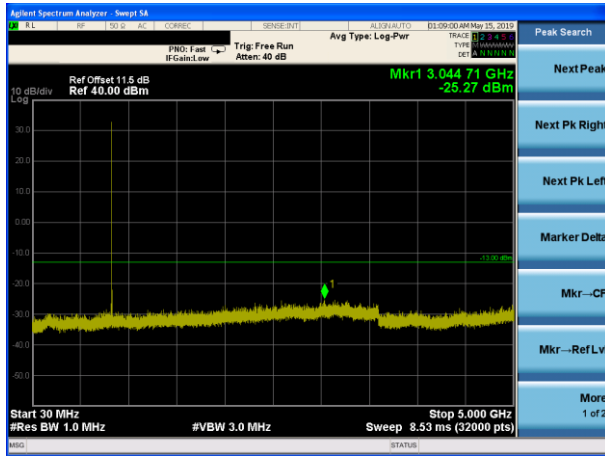
Test Plot

GSM850

GSM1900

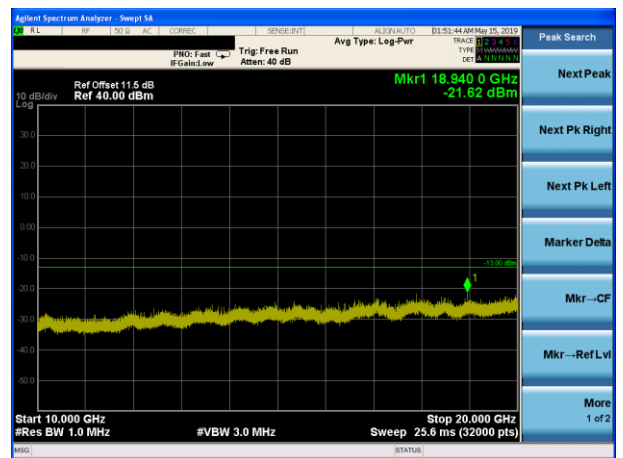
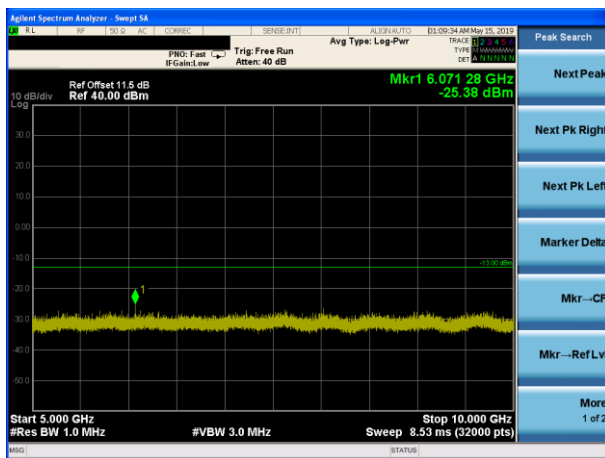
Conducted Emission Transmitting Mode CH 251
30MHz – 5GHz

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	GSM1900
<p>Conducted Emission Transmitting Mode CH 661 30MHz – 10GHz</p>	<p>Conducted Emission Transmitting Mode CH 810 30MHz – 10GHz</p>
<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 3.010 8 GHz -26.16 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 17.1 ms (32000 pts)</p>	<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 3.185 0 GHz -25.51 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 17.1 ms (32000 pts)</p>
<p>Conducted Emission Transmitting Mode CH 661 10GHz – 20GHz</p>	<p>Conducted Emission Transmitting Mode CH 810 10GHz – 20GHz</p>
<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 19.856 9 GHz -21.55 dBm Start 10.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 20.000 GHz Sweep 25.6 ms (32000 pts)</p>	<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 19.921 6 GHz -21.85 dBm Start 10.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 20.000 GHz Sweep 25.6 ms (32000 pts)</p>

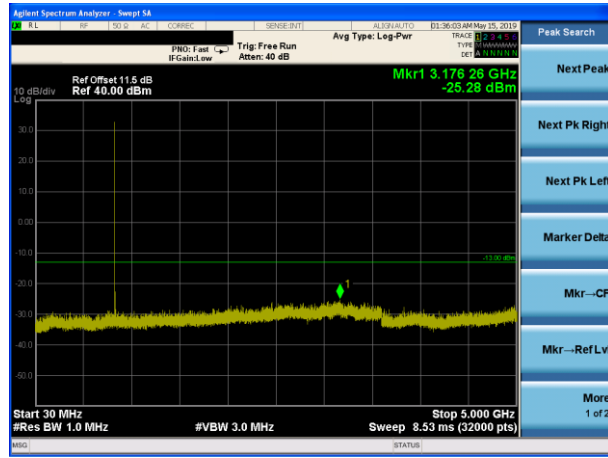
Test Plot

GPRS850	GPRS850
<p>Conducted Emission Transmitting Mode CH 128 30MHz – 5GHz</p>	<p>Conducted Emission Transmitting Mode CH 190 30MHz – 5GHz</p>
<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 3.160 89 GHz -24.66 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 5.000 GHz Sweep 8.53 ms (32000 pts)</p>	<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 3.293 37 GHz -25.32 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 5.000 GHz Sweep 8.53 ms (32000 pts)</p>
<p>Conducted Emission Transmitting Mode CH 128 5GHz – 10GHz</p>	<p>Conducted Emission Transmitting Mode CH 190 5GHz – 10GHz</p>
<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 7.133 66 GHz -26.88 dBm Start 5.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 8.53 ms (32000 pts)</p>	<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 7.648 21 GHz -26.81 dBm Start 5.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 8.53 ms (32000 pts)</p>

Test Plot

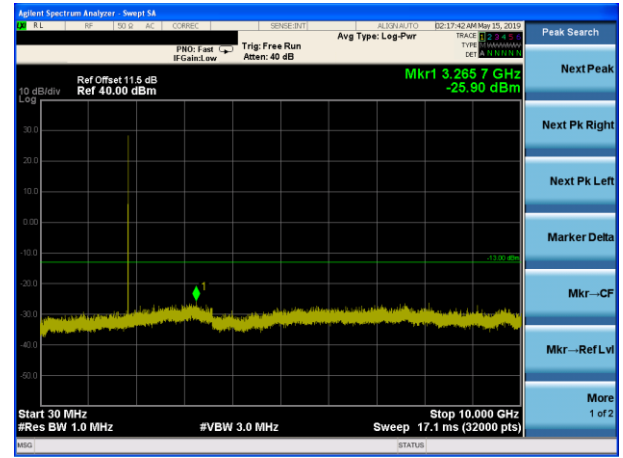
GPRS850

Conducted Emission Transmitting Mode CH 251
30MHz – 5GHz

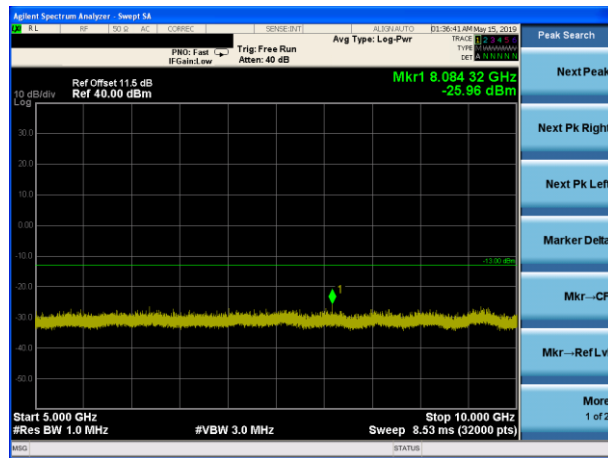


GPRS1900

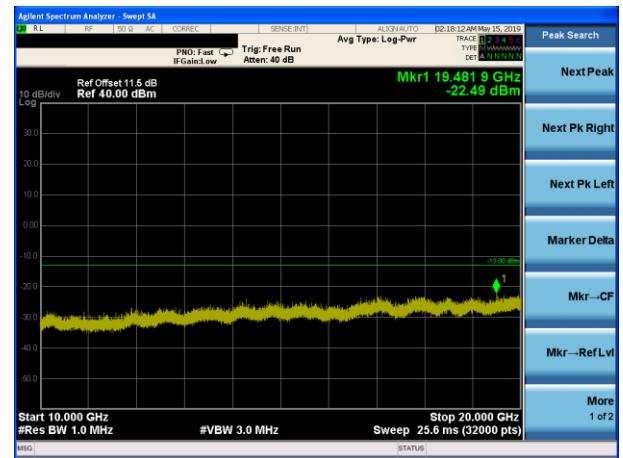
Conducted Emission Transmitting Mode CH 512
30MHz – 10GHz



Conducted Emission Transmitting Mode CH 251
5GHz – 10GHz



Conducted Emission Transmitting Mode CH 512
10GHz – 20GHz



Test Plot

GPRS1900	GPRS1900
<p>Conducted Emission Transmitting Mode CH 661 30MHz – 10GHz</p>	<p>Conducted Emission Transmitting Mode CH 810 30MHz – 10GHz</p>
<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 7.121 4 GHz -26.54 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 17.1 ms (32000 pts)</p>	<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 2.771 2 GHz -26.06 dBm Start 30 MHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 10.000 GHz Sweep 17.1 ms (32000 pts)</p>
<p>Conducted Emission Transmitting Mode CH 661 10GHz – 20GHz</p>	<p>Conducted Emission Transmitting Mode CH 810 10GHz – 20GHz</p>
<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 19.489 0 GHz -22.77 dBm Start 10.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 20.000 GHz Sweep 25.6 ms (32000 pts)</p>	<p>Agilent Spectrum Analyzer - Sweep 54 Ref Offset 11.5 dB Ref 40.00 dBm Mkr1 19.967 5 GHz -22.13 dBm Start 10.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 20.000 GHz Sweep 25.6 ms (32000 pts)</p>

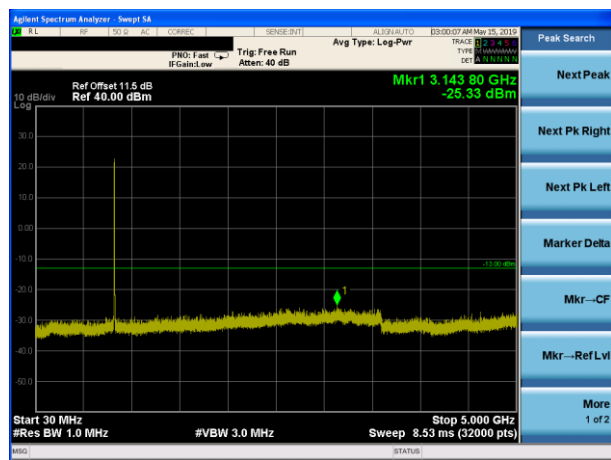
Test Plot

UMTS band V	UMTS band V
<p>Conducted Emission Transmitting Mode CH 4132 30MHz – 5GHz</p>	<p>Conducted Emission Transmitting Mode CH 4183 30MHz – 5GHz</p>
<p>Conducted Emission Transmitting Mode CH 4132 5GHz – 10GHz</p>	<p>Conducted Emission Transmitting Mode CH 4183 5GHz – 10GHz</p>

Test Plot

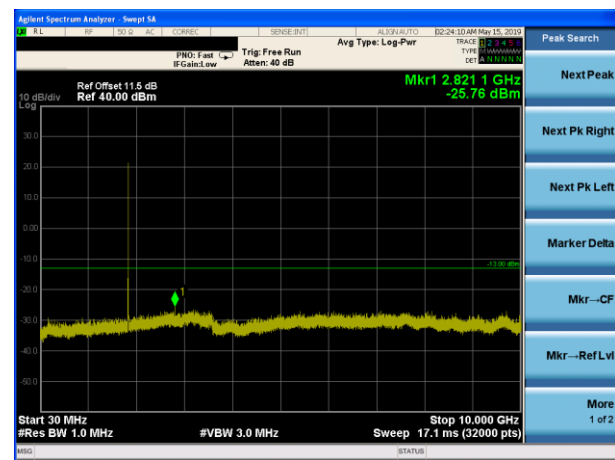
UMTS band V

Conducted Emission Transmitting Mode CH
4233 30MHz – 5GHz

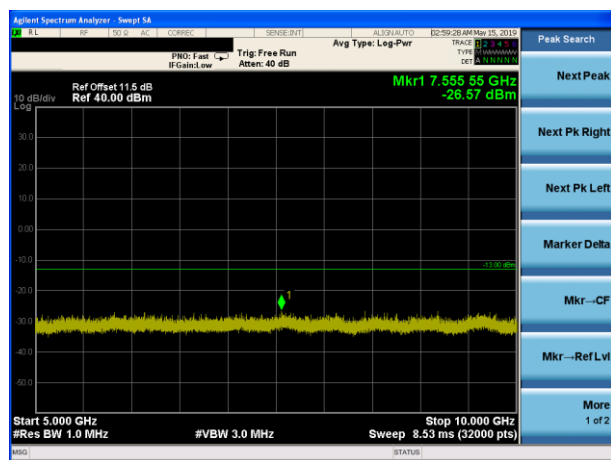


UMTS band II

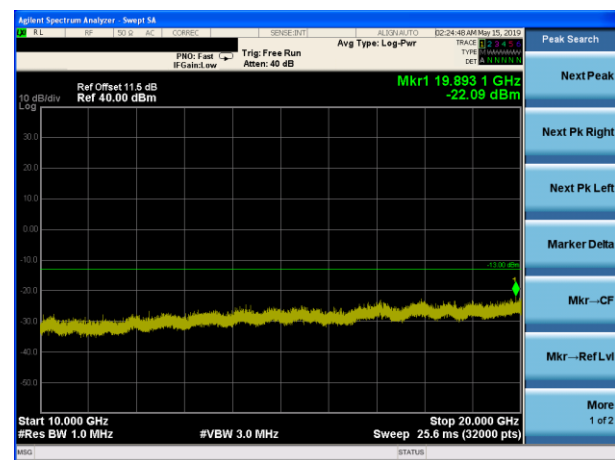
Conducted Emission Transmitting Mode CH 9262
30MHz – 10GHz



Conducted Emission Transmitting Mode CH
4233 5GHz – 10GHz



Conducted Emission Transmitting Mode CH 9262
10GHz – 20GHz



Test Plot

UMTS band II	UMTS band II
<p>Conducted Emission Transmitting Mode CH 9400 30MHz – 10GHz</p>	<p>Conducted Emission Transmitting Mode CH 9538 30MHz – 10GHz</p>
<p>Conducted Emission Transmitting Mode CH 9400 10GHz – 20GHz</p>	<p>Conducted Emission Transmitting Mode CH 9538 10GHz – 20GHz</p>

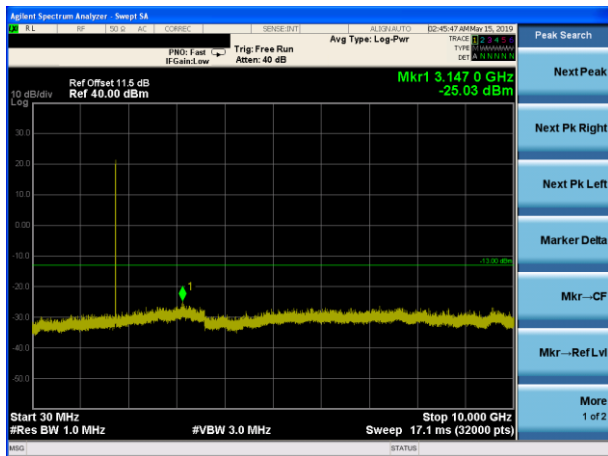
Test Plot

UMTS band IV	UMTS band IV
<p>Conducted Emission Transmitting Mode CH 1312 30MHz – 10GHz</p>	<p>Conducted Emission Transmitting Mode CH 1412 30MHz – 10GHz</p>
<p>Conducted Emission Transmitting Mode CH 1312 10GHz – 20GHz</p>	<p>Conducted Emission Transmitting Mode CH 1412 10GHz – 20GHz</p>

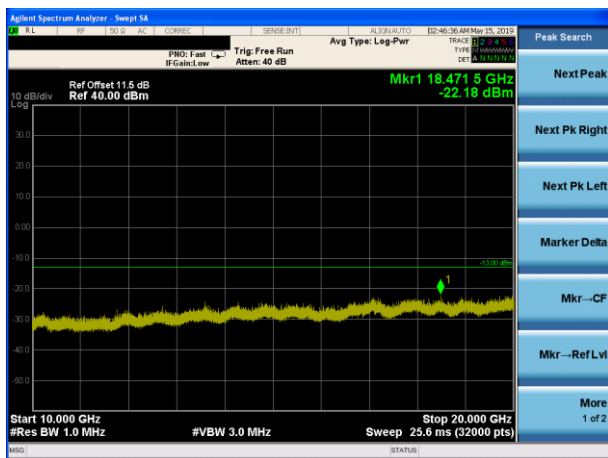
Test Plot

UMTS band IV

Conducted Emission Transmitting Mode CH
1513 30MHz – 10GHz



Conducted Emission Transmitting Mode CH
1513 10GHz – 20GHz



END OF REPORT