

## 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.

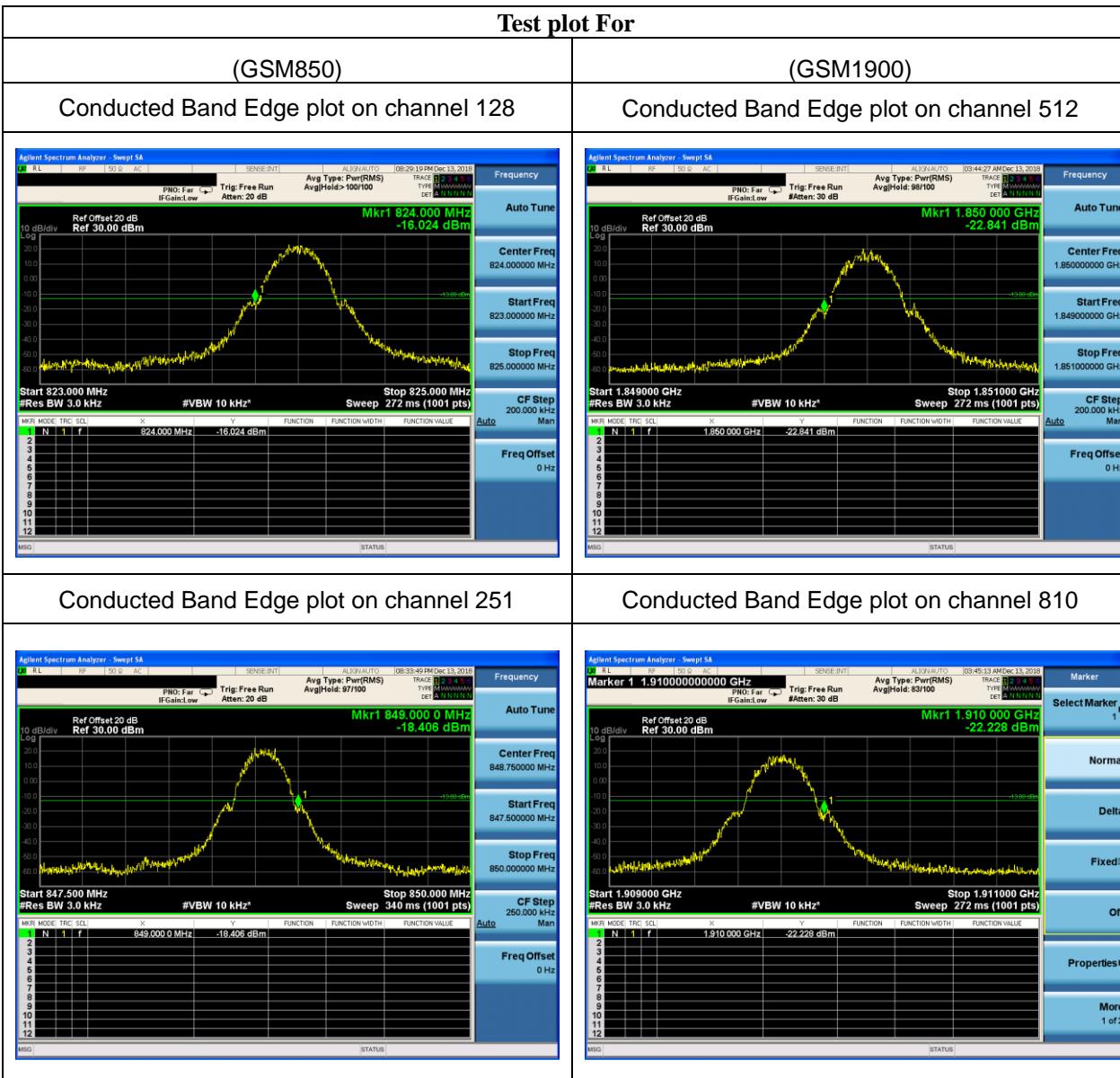
The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

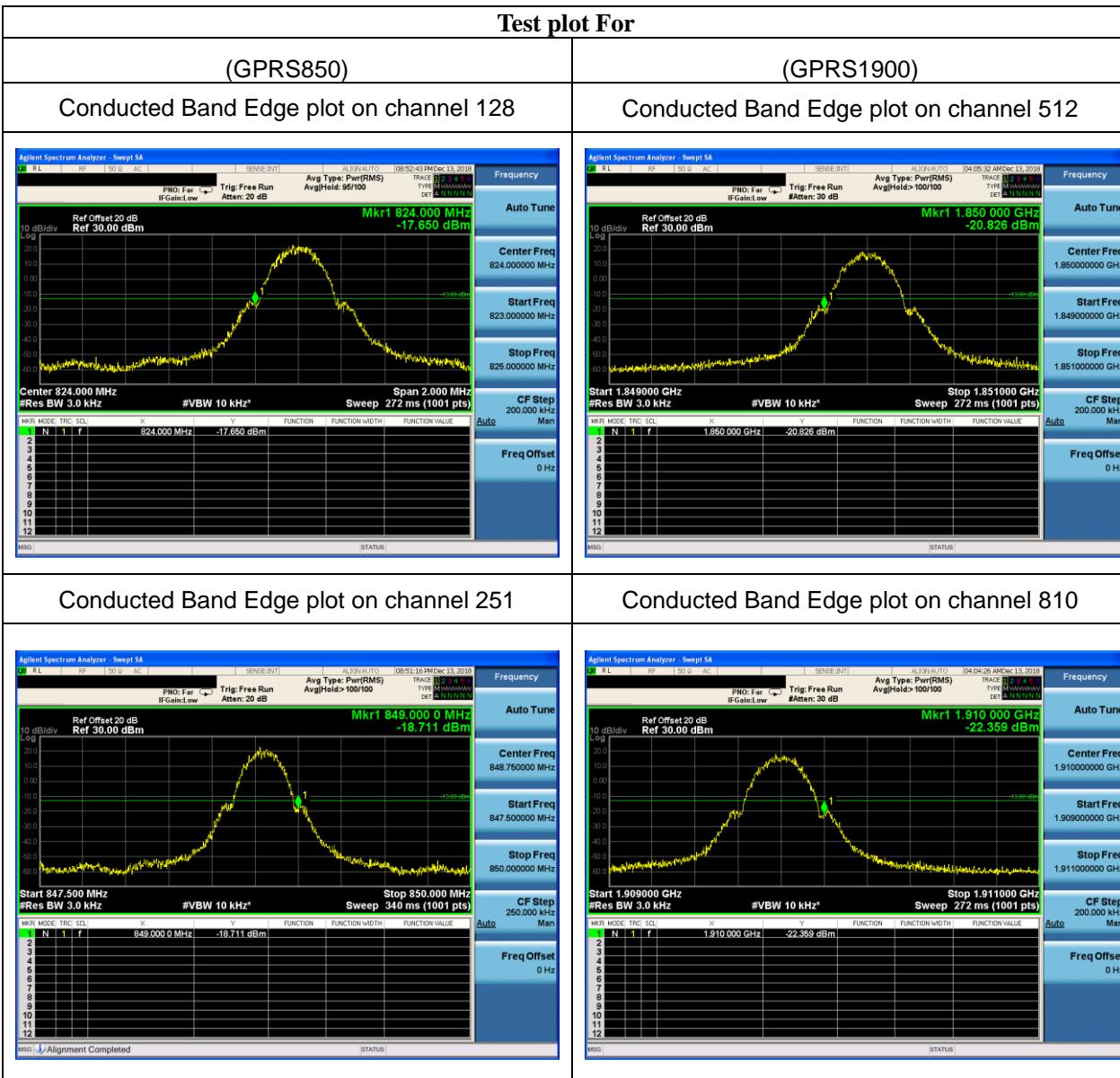
The limit line is derived from  $43 + 10\log(P)$  dB below the transmitter power P(Watts)

$$\begin{aligned} &= P(W) - [43 + 10\log(P)] \text{ (dB)} \\ &= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)} \\ &= -13 \text{ dBm.} \end{aligned}$$

### 7.7.6 Test Results

EUT:	LTE SMARTPHONE	Model No.:	RG725
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	GSM/GPRS/EGPRS 850/ GSM/GPRS/EGPRS 1900/ UMTS band V/ UMTS band IV	Test By:	Loren Luo
Results: PASS			

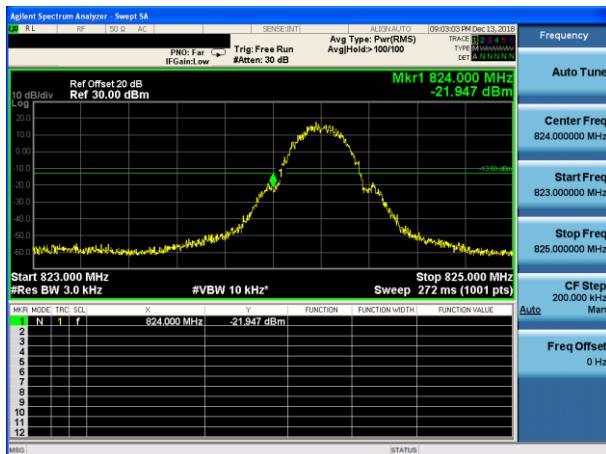




## Test plot For

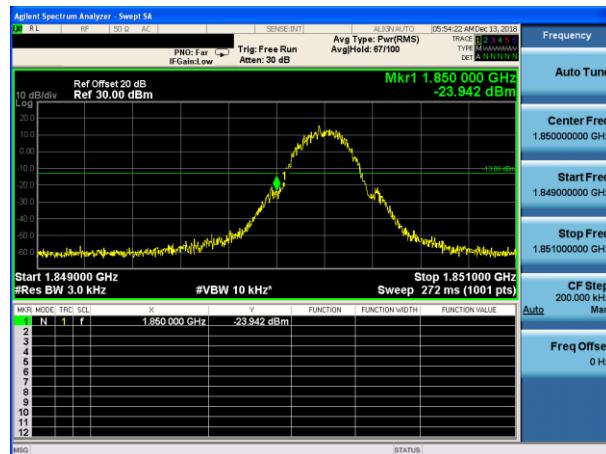
(EGPRS850)

Conducted Band Edge plot on channel 128

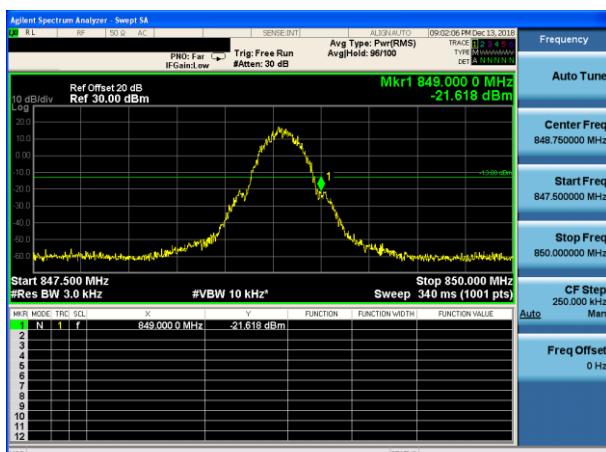


(EGPRS1900)

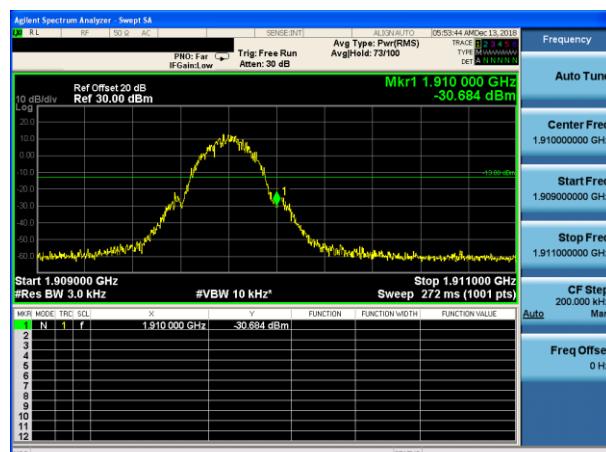
Conducted Band Edge plot on channel 512

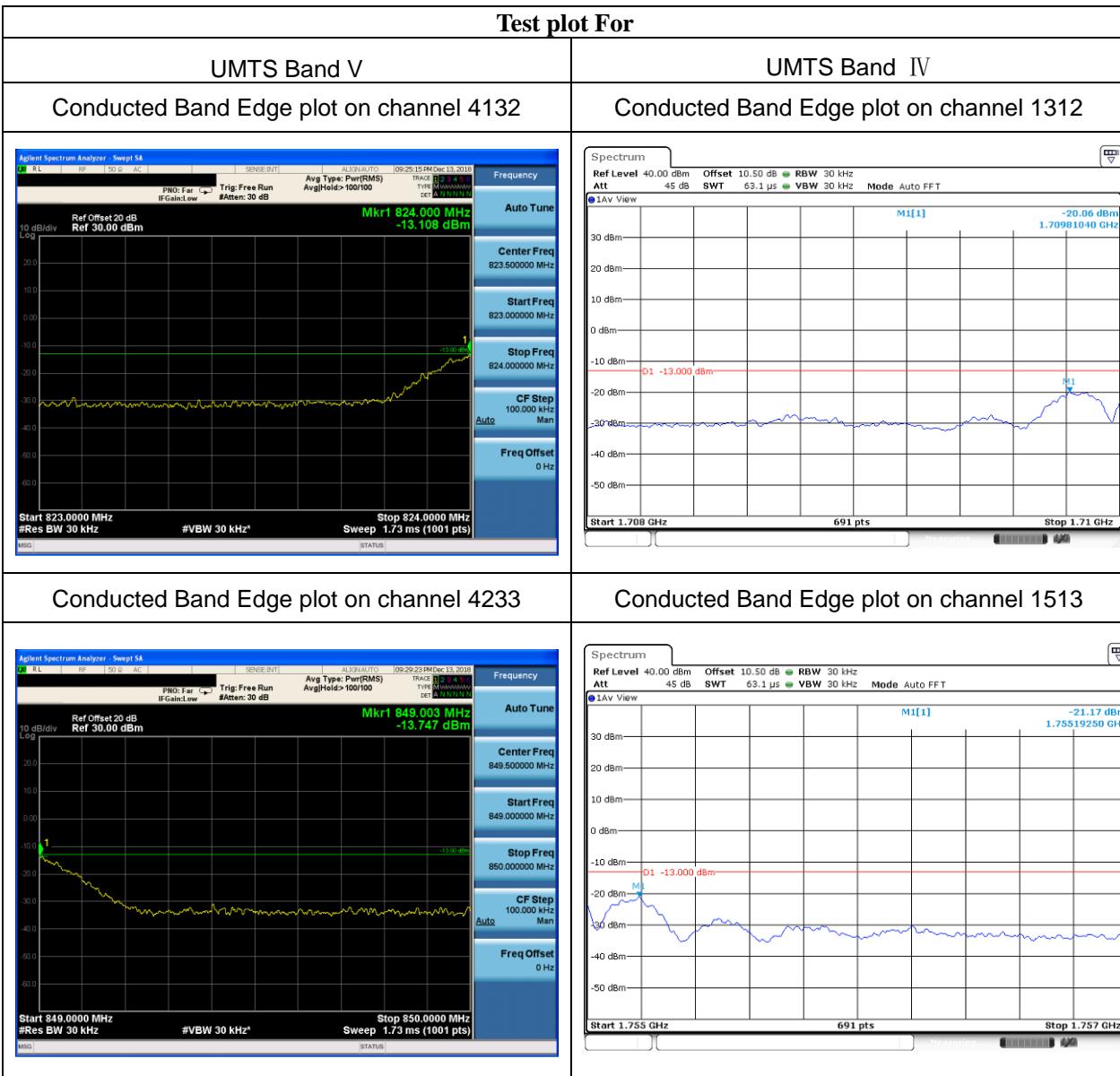


Conducted Band Edge plot on channel 251



Conducted Band Edge plot on channel 810





## 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 Section6.0

### 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)

$$\begin{aligned} &= P(W) - [43 + 10\log(P)] \text{ (dB)} \\ &= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)} \\ &= -13 \text{ dBm.} \end{aligned}$$

### 7.8.6 Test Results

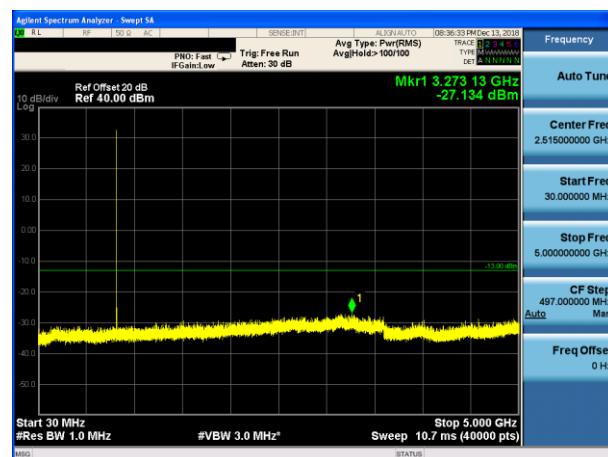
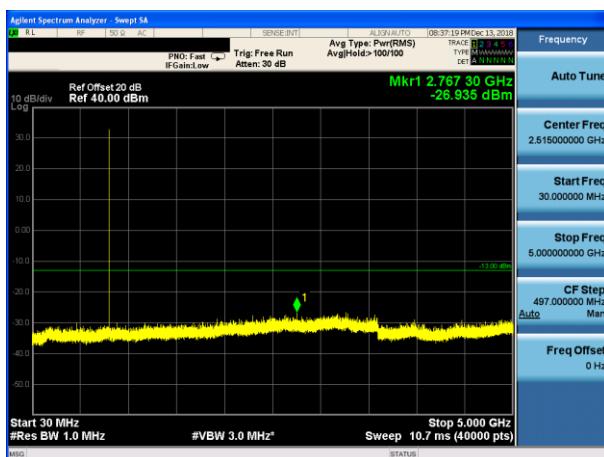
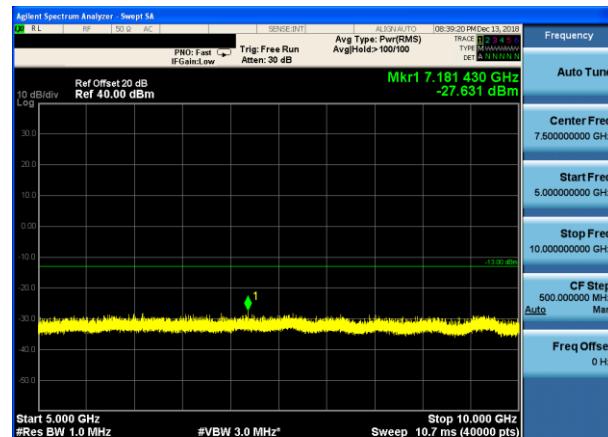
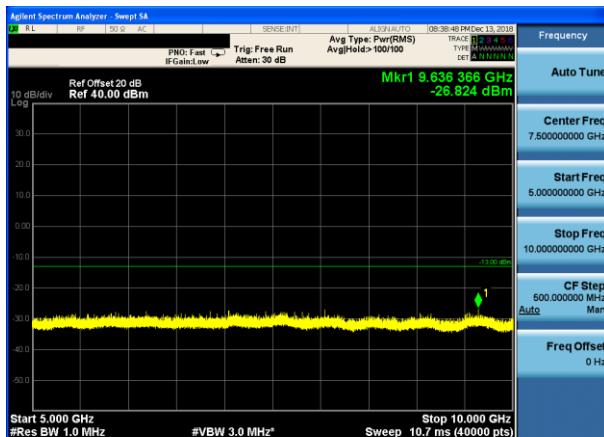
EUT:	LTE SMARTPHONE	Model No.:	RG725
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	GSM/GPRS/EGPRS 850/ GSM/GPRS/EGPRS 1900/ UMTS band V// UMTS Band IV	Test By:	Loren Luo
Results: PASS			

## Test Plot

GSM850

Conducted Emission Transmitting Mode CH 128  
30MHz – 5GHz

GSM850

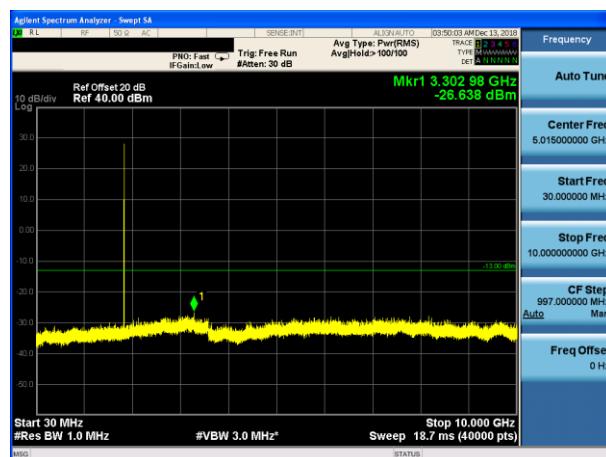
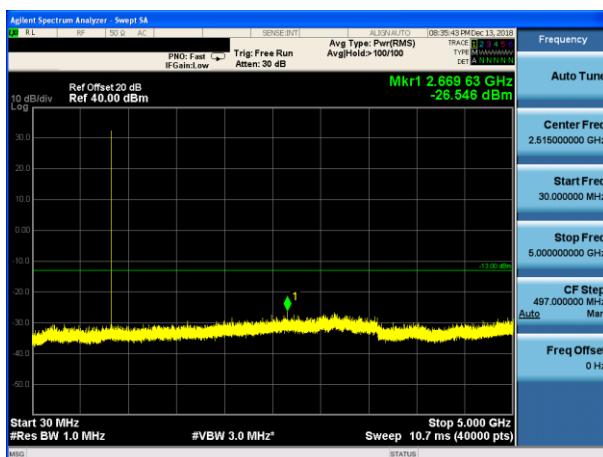
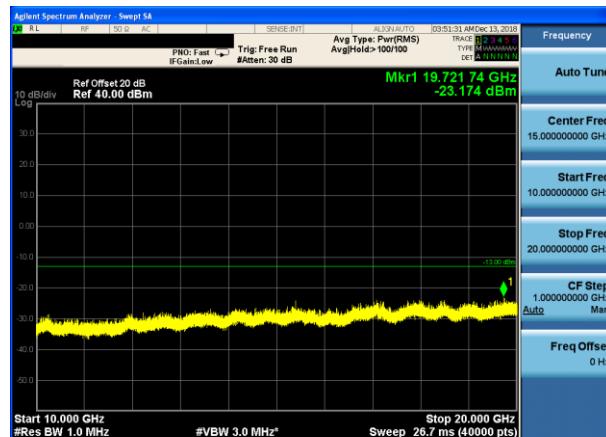
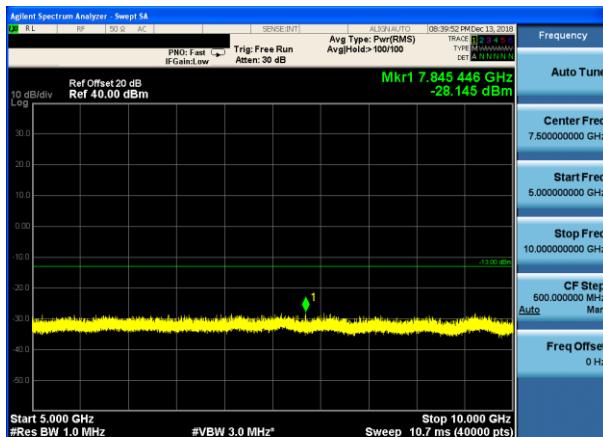
Conducted Emission Transmitting Mode CH 190  
30MHz – 5GHzConducted Emission Transmitting Mode CH 128  
5GHz – 10GHzConducted Emission Transmitting Mode CH 190  
5GHz – 10GHz

## Test Plot

GSM850

Conducted Emission Transmitting Mode CH 251  
30MHz – 5GHz

GSM1900

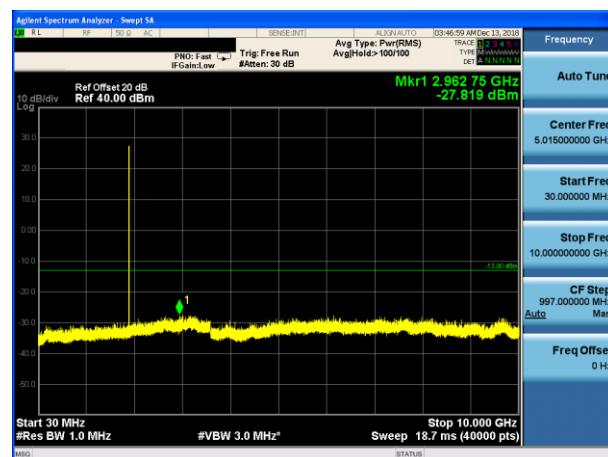
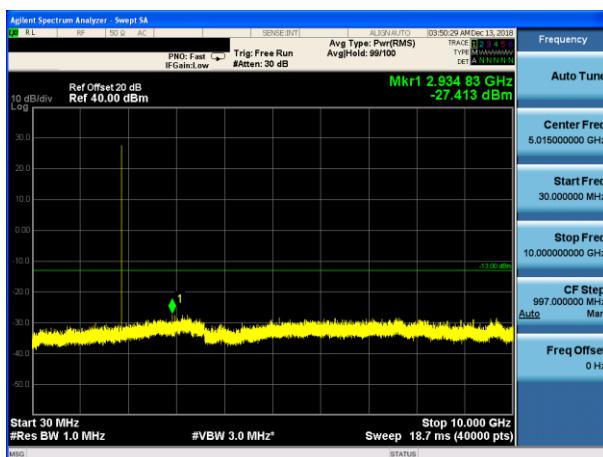
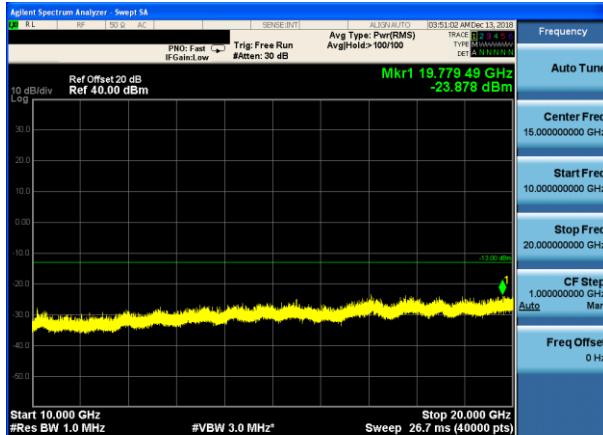
Conducted Emission Transmitting Mode CH 512  
30MHz – 10GHzConducted Emission Transmitting Mode CH 251  
5GHz – 10GHzConducted Emission Transmitting Mode CH 512  
10GHz – 20GHz

## Test Plot

GSM1900

Conducted Emission Transmitting Mode CH 661  
30MHz – 10GHz

GSM1900

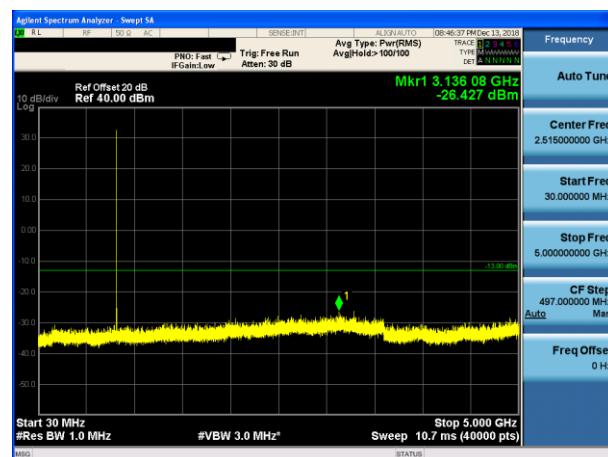
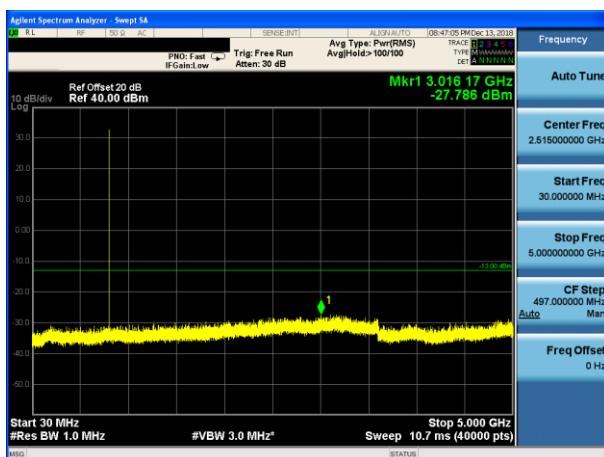
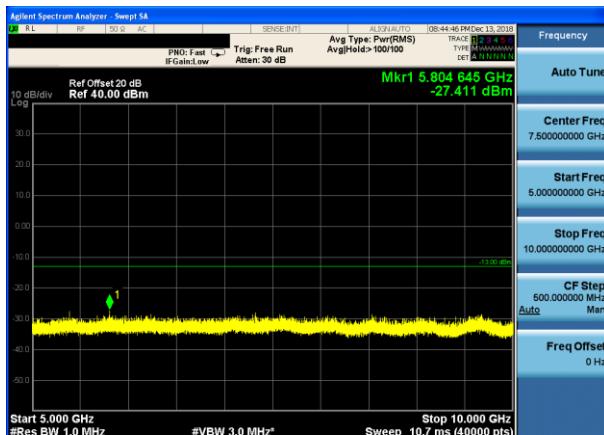
Conducted Emission Transmitting Mode CH 810  
30MHz – 10GHzConducted Emission Transmitting Mode CH 661  
10GHz – 20GHzConducted Emission Transmitting Mode CH 810  
10GHz – 20GHz

## Test Plot

GPRS850

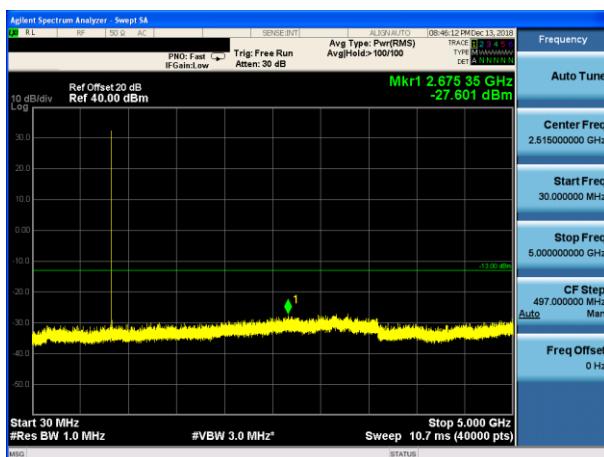
Conducted Emission Transmitting Mode CH 128  
30MHz – 5GHz

GPRS850

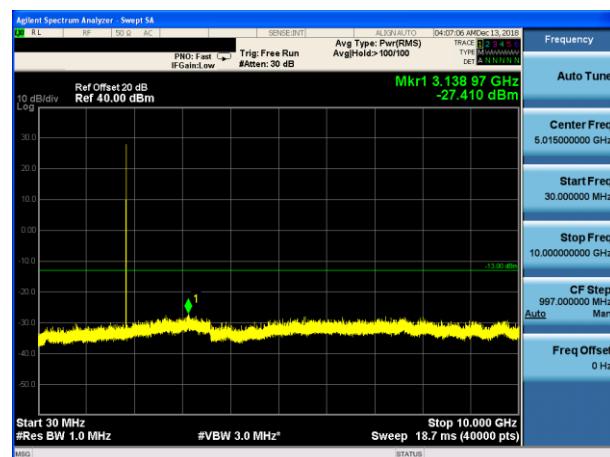
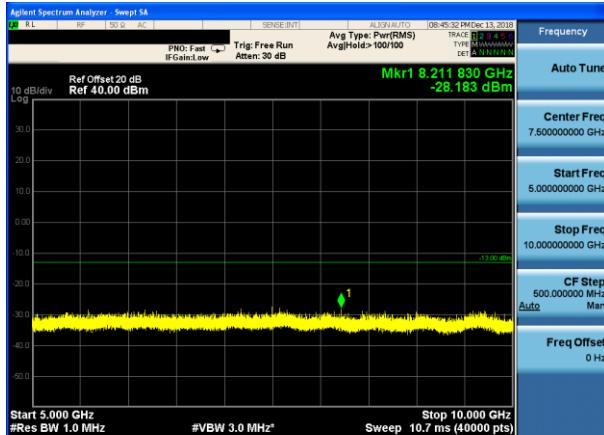
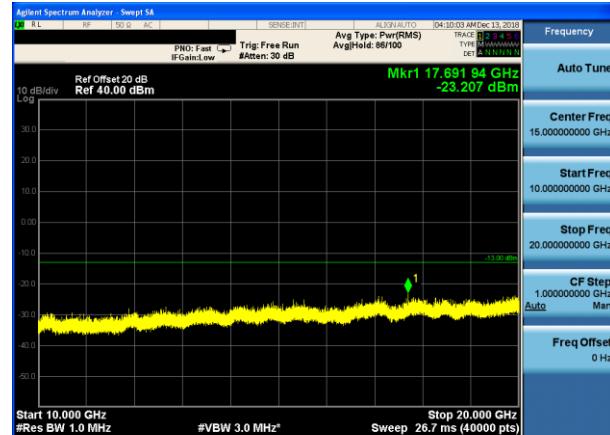
Conducted Emission Transmitting Mode CH 190  
30MHz – 5GHzConducted Emission Transmitting Mode CH 128  
5GHz – 10GHzConducted Emission Transmitting Mode CH 190  
5GHz – 10GHz

## Test Plot

## GPRS850

Conducted Emission Transmitting Mode CH 251  
30MHz – 5GHz

## GPRS1900

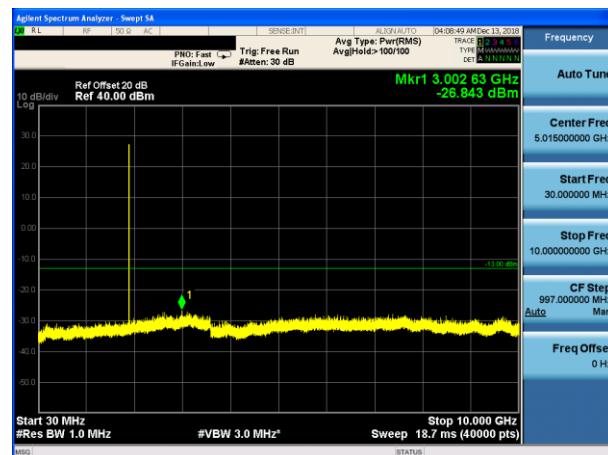
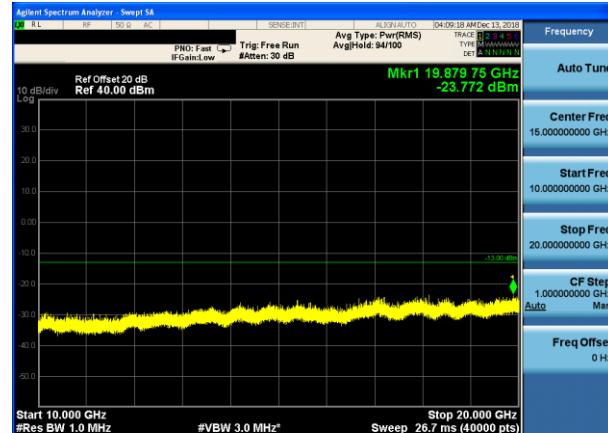
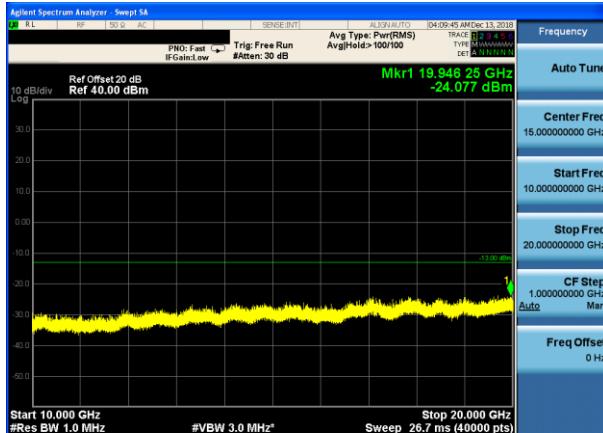
Conducted Emission Transmitting Mode CH 512  
30MHz – 10GHzConducted Emission Transmitting Mode CH 251  
5GHz – 10GHzConducted Emission Transmitting Mode CH 512  
10GHz – 20GHz

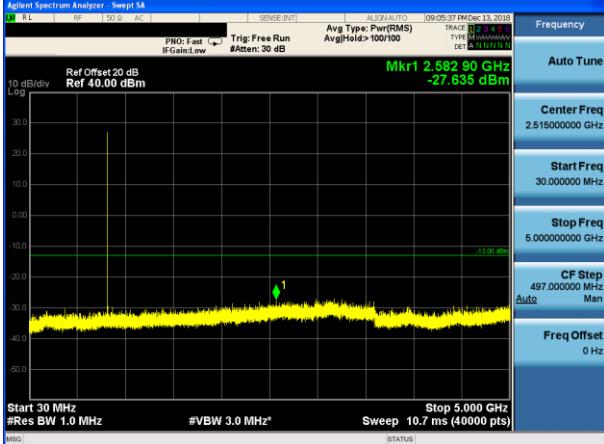
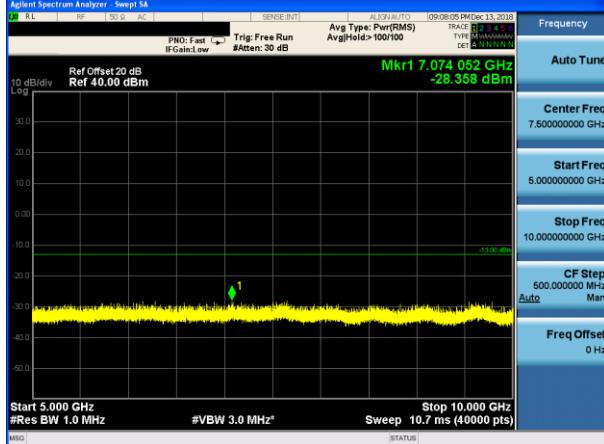
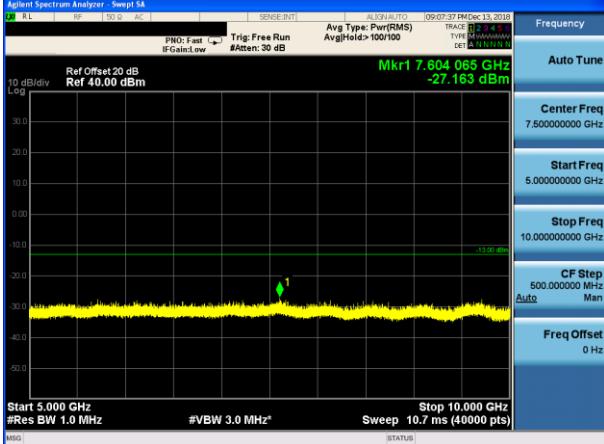
## Test Plot

GPRS1900

Conducted Emission Transmitting Mode CH 661  
30MHz – 10GHz

GPRS1900

Conducted Emission Transmitting Mode CH 810  
30MHz – 10GHzConducted Emission Transmitting Mode CH 661  
10GHz – 20GHzConducted Emission Transmitting Mode CH 810  
10GHz – 20GHz

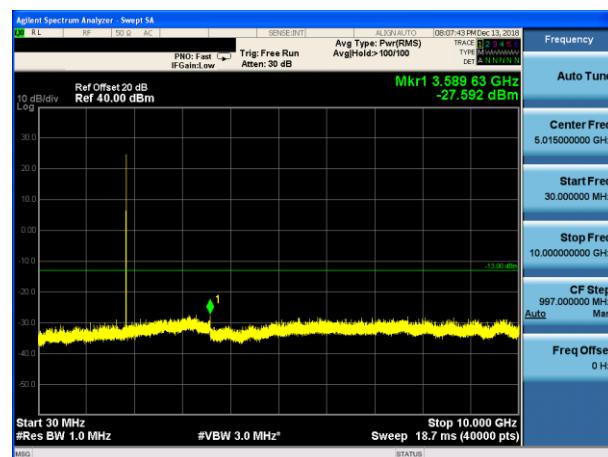
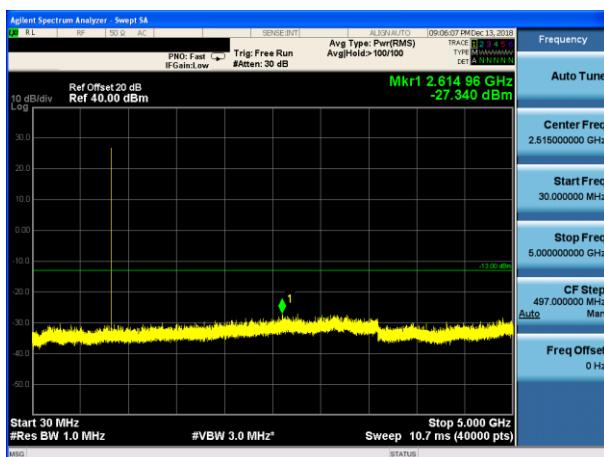
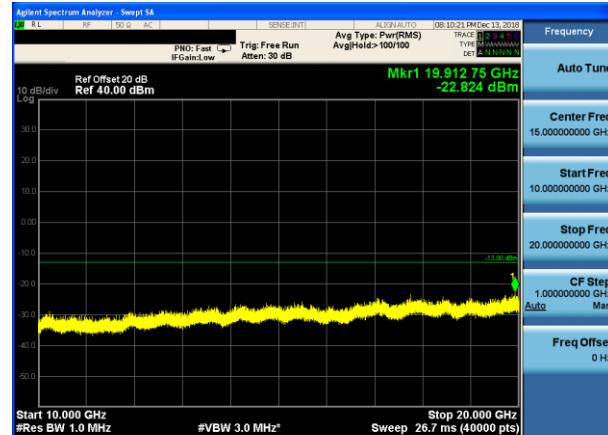
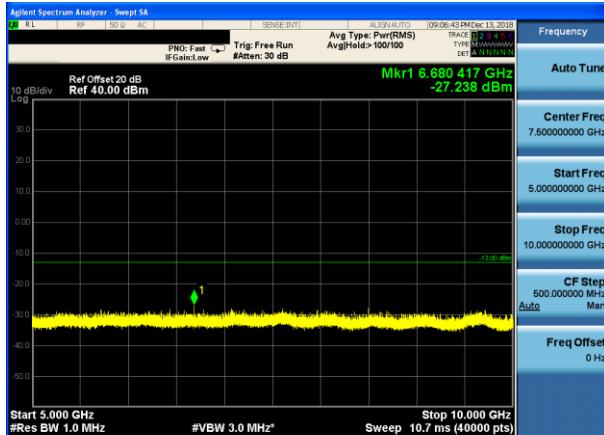
Test Plot	
EGPRS850	EGPRS850
Conducted Emission Transmitting Mode CH 128 30MHz – 5GHz	Conducted Emission Transmitting Mode CH 190 30MHz – 5GHz
	
Conducted Emission Transmitting Mode CH 128 5GHz – 10GHz	Conducted Emission Transmitting Mode CH 190 5GHz – 10GHz
	

## Test Plot

EGPRS850

Conducted Emission Transmitting Mode CH 251  
30MHz – 5GHz

EGPRS1900

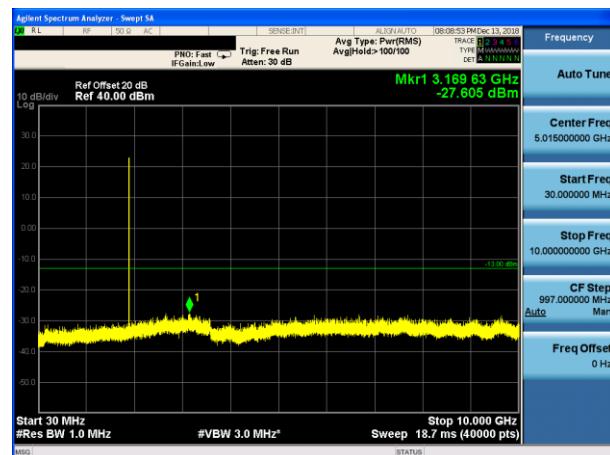
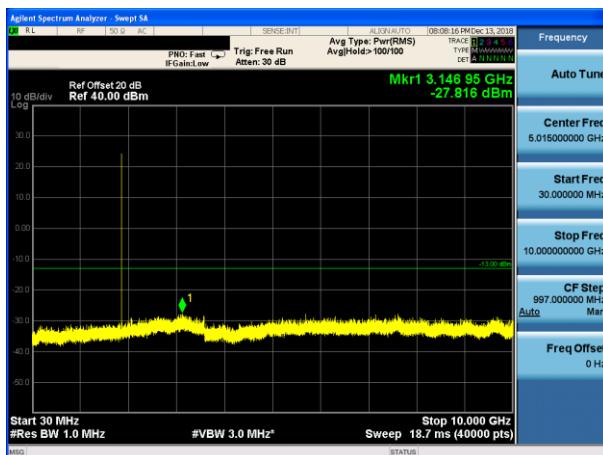
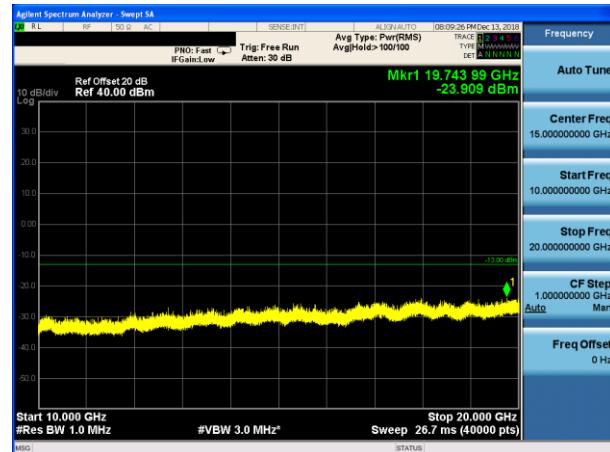
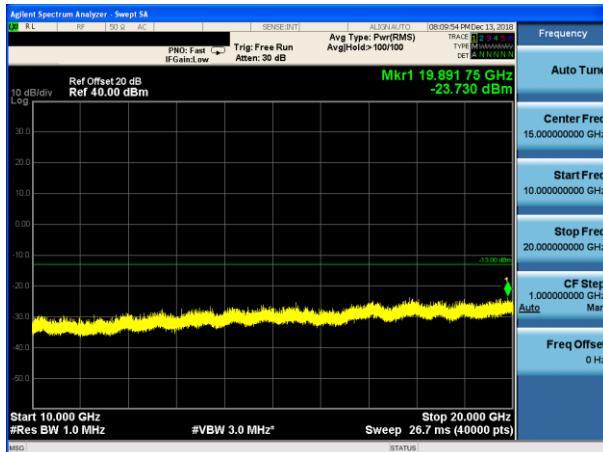
Conducted Emission Transmitting Mode CH 512  
30MHz – 10GHzConducted Emission Transmitting Mode CH 251  
5GHz – 10GHzConducted Emission Transmitting Mode CH 512  
10GHz – 20GHz

## Test Plot

EGPRS1900

Conducted Emission Transmitting Mode CH 661  
30MHz – 10GHz

EGPRS1900

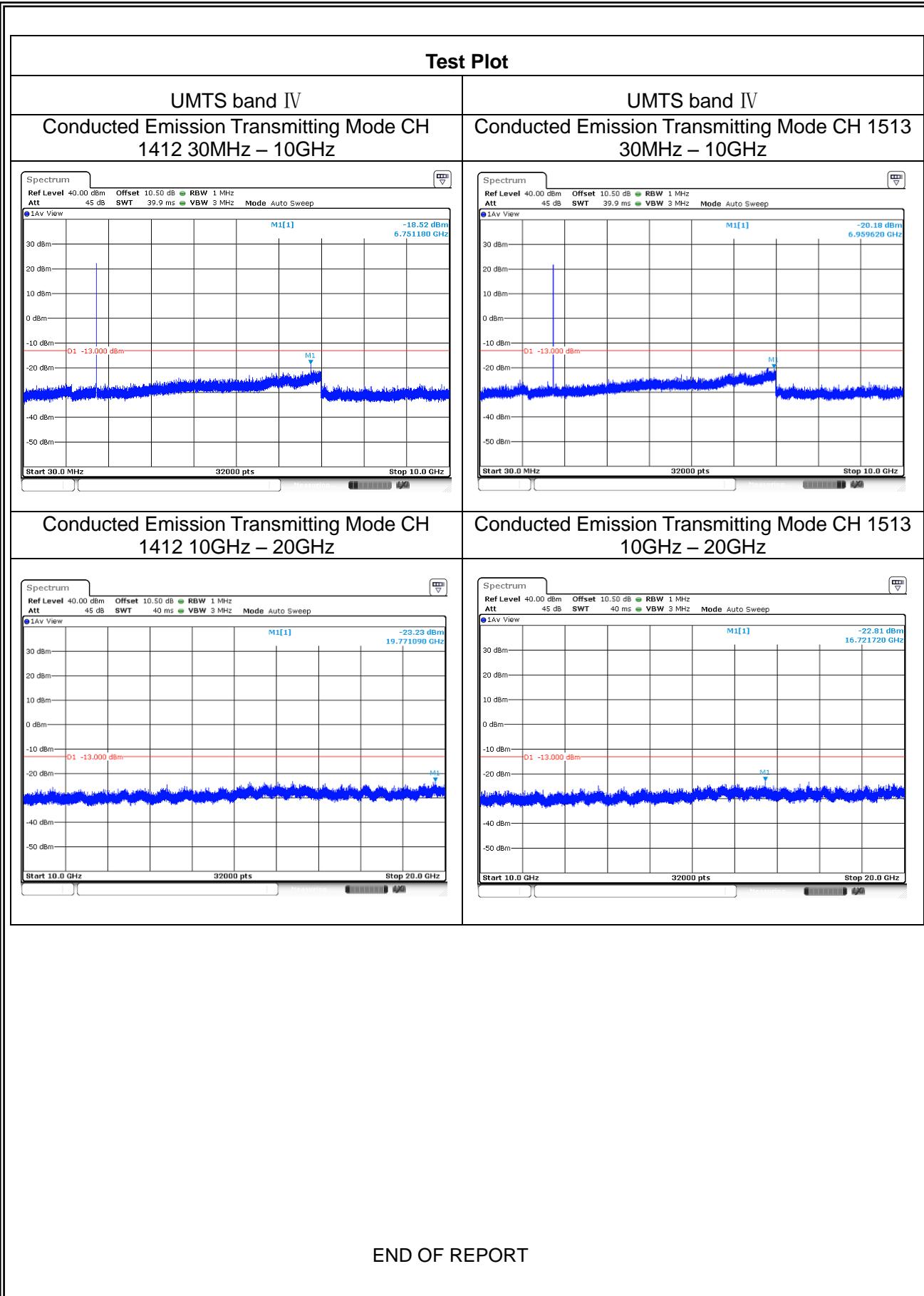
Conducted Emission Transmitting Mode CH 810  
30MHz – 10GHzConducted Emission Transmitting Mode CH 661  
10GHz – 20GHzConducted Emission Transmitting Mode CH 810  
10GHz – 20GHz

## Test Plot

UMTS band V	UMTS band V
Conducted Emission Transmitting Mode CH 4132 30MHz – 5GHz	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 IV Conducted Emission Transmitting Mode CH 1312 30MHz – 10GHz
Conducted Emission Transmitting Mode CH 4233 5GHz – 10GHz	Conducted Emission Transmitting Mode CH 1312 10GHz – 20GHz



END OF REPORT