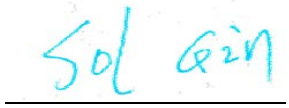
FCC Test Report

Application Purpose	:	Original grant
Applicant Name:	:	TECNO MOBILE LIMITED
FCC ID	:	2ADYY-W4
Equipment Type	:	Mobile phone
Model Name	:	W4
Report Number	:	FCC16083893A-5
Standard(S)	:	FCC Part 22H & 24E Rules
Date Of Receipt	:	August 11, 2016
Date Of Issue	:	August 24, 2016
Test By	:	 *(Daisy Qin)*
Reviewed By	:	 *(Sol Qin)*
Authorized by	:	 *(Michal Ling)*
Prepared by	:	**QTC Certification & Testing Co., Ltd.** 2nd Floor,B1 Buiding,Fengyeyuan Industrial Plant,,Liuxian 2st.Road,Xin'an Street,Bao'an District,,Shenzhen, 518000China. **Registration Number: 588523**

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	August 24, 2016	Valid	Original Report
V1.1	September 02，2016	August 24, 2016	Valid	Original Report

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1. CERTIFICATION

Applicant	TECNO MOBILE LIMITED
Address	ROOMS 05-15, 13A/F., SOUTH TOWER,WORLD FINANCE CENTRE, HARBOUR CITY, 17 CANTON ROAD, TSIM SHA TSUI, KOWLOON, HONG KONG
Manufacturer	SHENZHEN TECNO TECHNOLOGY CO.,LTD.
Address	1-4th Floor,3rd Building,Pacific Industrial Park,No.2088,Shenyan Road,Yantian District,Shenzhen,Guangdong,China
Equipment Type	Mobile phone
Brand Name	TECNO
Test Model	W4
Hardware version:	AW875L-MB-BOM-V2.01
Software version:	W4-AW875C1-M-160721V1
Series Model	N/A
Difference description	N/A
Deviation	None
Condition of Test Sample	Normal

We hereby certify that:

All measurement facilities used to collect the measurement data are located at QTC Certification & Testing Co., Ltd.
Registration Number: 588523

The data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C 63.4:2014 and TIA/EIA 603. The sample tested as described in this report is in compliance with the FCC Rules Part 22H and 24E.
The test results of this report relate only to the tested sample identified in this report.

2. GENERAL INFORMATION

2.1.EUT Description

Equipment Type:	Mobile phone
Hardware version:	AW875L-MB-BOM-V2.01
Software version:	W4-AW875C1-M-160721V1
Frequency Bands:	☒GSM 850 ☒PCS 1900 (U.S. Bands) ☒GSM 900 ☒DCS 1800 (Non-U.S. Bands) U.S. Bands: ☒UMTS FDD Band II ☒UMTS FDD Band V Non-U.S. Bands: ☒UMTS FDD Band I ☒UMTS FDD Band VIII
Antenna Type:	Detachable Antenna
Antenna gain:	0.82dBi
Battery information:	Li-ion Battery : BL-AW875A Voltage: 3.8V Capacity: 3000mAh Limited Charge Voltage: 4.35V
Adapter Information:	Adapter: A8-501000 Input: AC 100-240VAC 50/60Hz 0.2A Output: DC 5V 1A
Card(S):	Card 2: UMTS Card Slot
Max power:	See note 3
GPRS Class:	12
Extreme Vol. Limits:	DC 3.3V to 4.35V (Normal: DC 3.8V)
Extreme Temp. Tolerance	-10℃ to +55℃

Note 1: The High Voltage DC 4.35V and Low Voltage DC 3.3V were declared by manufacturer, The EUT couldn't be operating normally with higher or lower voltage.

3. TEST DESCRIPTION

3.1. Test Facility

The test site used to collect the radiated data is located at:
QTC Certification & Testing Co., Ltd.
Registration Number: 588523

EUT System Configuration:
The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

Fig. 3.2-1 Configuration of EUT System

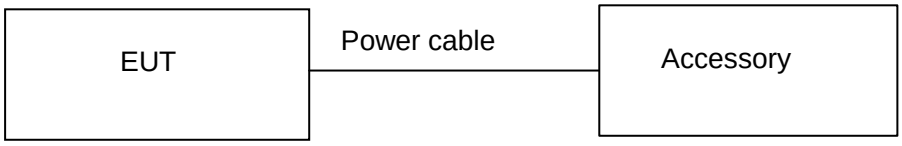


Table 3.2-1 Equipment Used in EUT System

Item	Equipment	Model No.	ID or Specification	Note
1	Mobile phone	W4	FCC ID: 2ADYY-W4	EUT
2	DC SOURCE	RXN-3010D	Series: 2008006875	Power supply

***Note: All the accessories have been used during the test. The following "EUT" in setup diagram means EUT system.

3.2.Description Of Test Channels And Test Modes

During the testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication Tester (CMU 200) to ensure max power transmission and proper modulation. Three channels (The top channel, the middle channel and the bottom channel) were chosen for testing on following frequency band(s).

Test channels:

Band	Channel		Frequency (MHz)
GSM850	Low	128	824.2
	Middle	190	836.6
	High	251	848.8

Band	Channel		Frequency (MHz)
PCS1900	Low	512	1850.2
	Middle	661	1880
	High	810	1909.8

Band	Channel		Frequency (MHz)
WCDMA BAND II	Low	9263	1852.6
	Middle	9400	1880
	High	9537	1907.4

Band	Channel		Frequency (MHz)
WCDMA BAND V	Low	4133	826.6
	Middle	4175	835
	High	4232	846.4

The worst condition was recorded in the test report if no other modes test data.

3.3.Equipment Modifications

Not available for this EUT intended for grant.

4. SUMMARY OF TEST REQUIREMENTS AND RESULTS

For GSM850/GPRS850:

Item Number	Item Description		Test Channel	FCC Rules	Result
1	Output Power	Conducted Output Power	128/190/251	2.1046/22.913(a) (2)	Pass
		Radiated Output Power	128/190/251		
2	Spurious Emission	Conducted Spurious Emission	128/190/251	2.1051 / 22.917	Pass
		Radiated Spurious Emission	128/190/251		
3	Mains Conducted Emission			15.207	Pass
4	Frequency Stability		190	2.1055/22.355	Pass
5	Occupied Bandwidth		128/190/251	2.1049	Pass
6	Emission Bandwidth		128/190/251	22.917(a)(b)	Pass
7	Band Edge		128/190/251	22.917(a)	Pass

For PCS1900/GPRS1900:

Item Number	Item Description		Test Channel	FCC Rules	Result
1	Output Power	Conducted Output Power	512/661/810	2.1046/24.232(c)	Pass
		Radiated Output Power	512/661/810		
2	Peak-to-Average Ratio	Peak-to-Average Ratio	512/661/810	24.232(d)	Pass
3	Spurious Emission	Conducted Spurious Emission	512/661/810	2.1051 / 24.238(a)	Pass
		Radiated Spurious Emission	512/661/810		
4	Mains Conducted Emission			15.207	Pass
5	Frequency Stability		661	2.1055/24.235	Pass
6	Occupied Bandwidth		512/661/810	2.1049	Pass
7	Emission Bandwidth		512/661/810	24.238(a)(b)	Pass
8	Band Edge		512/661/810	24.238(a)(b)	Pass

For WCDMA BAND II:

Item Number	Item Description		Test Channel	FCC Rules	Result
1	Output Power	Conducted Output Power	9263/9400/9537	2.1046/22.913(a) (2)	Pass
		Radiated Output Power	9263/9400/9537		
2	Spurious Emission	Conducted Spurious Emission	9263/9400/9537	2.1051 / 22.917	Pass
		Radiated Spurious Emission	9263/9400/9537		
3	Frequency Stability		9400	2.1055/22.355	Pass
4	Occupied Bandwidth		9263/9400/9537	2.1049	Pass
5	Emission Bandwidth		9263/9400/9537	22.917(a)(b)	Pass
6	Band Edge		9263/9400/9537	22.917(a)	Pass

For WCDMA BAND V:

Item Number	Item Description		Test Channel	FCC Rules	Result
1	Output Power	Conducted Output Power	4133/4175/4232	2.1046/22.913(a) (2)	Pass
		Radiated Output Power	4133/4175/4232		
2	Spurious Emission	Conducted Spurious Emission	4133/4175/4232	2.1051 / 22.917	Pass
		Radiated Spurious Emission	4133/4175/4232		
3	Frequency Stability		4175	2.1055/22.355	Pass
4	Occupied Bandwidth		4133/4175/4232	2.1049	Pass
5	Emission Bandwidth		4133/4175/4232	22.917(a)(b)	Pass
6	Band Edge		4133/4175/4232	22.917(a)	Pass

5. MEASUREMENT INSTRUMENTS

NAME OF EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	Calibration Date	Calibration Due.
EMI Test Receiver	R&S	ESCI	100005	08/19/2016	08/18/2017
ESPI Test Receiver	ROHDE&SCHWARZ	ESPI	101139	08/19/2016	08/18/2017
LISN	AFJ	LS16	16010222119	08/19/2016	08/18/2017
LISN(EUT)	Mestec	AN3016	04/10040	08/19/2016	08/18/2017
Universal Radio Communication Tester	R&S	CMU 200	1100.0008.02	08/19/2016	08/18/2017
Coaxial cable	Megalon	LMR400	N/A	08/12/2016	08/11/2017
GPIB cable	Megalon	GPIB	N/A	08/12/2016	08/11/2017
Spectrum Analyzer	R&S	FSU	100114	08/19/2016	08/18/2017
Pre Amplifier	H.P.	HP8447E	2945A02715	10/13/2016	10/12/2017
Pre-Amplifier	CDSI	PAP-1G18-38	--	10/13/2016	10/12/2017
Bi-log Antenna	SUNOL Sciences	JB3	A021907	09/13/2016	09/12/2017
9*6*6 Anechoic	--	--	--	08/21/2016	08/20/2017
Horn Antenna	COMPLIANCE ENGINEERING	CE18000	--	09/13/2016	09/12/2017
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-631	08/23/2016	08/22/2017
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	04/25/2016	04/24/2017
System-Controller	CCS	N/A	N/A	N.C.R	N.C.R
Turn Table	CCS	N/A	N/A	N.C.R	N.C.R
Antenna Tower	CCS	N/A	N/A	N.C.R	N.C.R
RF cable	Murata	MXHQ87WA3000	-	08/21/2016	08/20/2017
Loop Antenna	EMCO	6502	00042960	08/22/2016	08/21/2017
Horn Antenna	SCHWARZBECK	BBHA 9170	1123	08/19/2016	08/18/2017
Three-way connector	Weinschel	1506A	A1213	08/19/2016	08/18/2017
Attenuator	MCL	BW-W40W5+	1306	08/19/2016	08/18/2017
Signal generator	Agilent	8920B	VS36141817	08/19/2016	08/18/2017
Power amplifier	rflight	NTWPA-00810150100E	13103205	08/19/2016	08/18/2017
Power amplifier	rflight	NTWPA-1060040E	13104214	08/19/2016	08/18/2017
Bi-log Antenna	A.H. Systems Inc.	SAS-522-3	1326	08/21/2016	08/20/2017

6. OUTPUT POWER

5.1. Conducted Output Power

Measurement Method

The EUT was setup for the max output power with pseudo random data modulation. Power was measured with Spectrum Analyzer. The measurements were performed on all modes (GSM/GPRS 850, GSM/ GPRS1900) at 3 typical channels described in section 3.3 of this report for each band.

Measurement Result

Conducted Output Power Limits for GSM850 band		
Mode	**Nominal Peak Power**	**Tolerance(dB)**
GSM850	33 dBm (2W)	+/- 1
Conducted Output Power Limits for PCS1900 band		
Mode	**Nominal Peak Power**	**Tolerance(dB)**
PCS1900	30 dBm (1W)	+/- 1

Conducted Output Power Limits for WCDMA BAND II band		
Mode	**Nominal Average Power**	**Tolerance(dB)**
WCDMA BAND II	23 dBm (200mW)	+/- 2
Conducted Output Power Limits for WCDMA BAND V band		
Mode	**Nominal Average Power**	**Tolerance(dB)**
WCDMA BAND V	23 dBm (200mW)	+/- 2

GSM 850:

Card 1:

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power (dBm)	PAPR (dB)	Duty cycle Factor(dB)	Frame Power(dBm)
GSM850	824.2	33.20	32.31	0.89	-9	23.31
	836.6	33.04	32.4	0.64	-9	23.40
	848.8	32.93	32.43	0.50	-9	23.43
GPRS850	824.2	30.12	29.21	0.91	-9	20.21
	836.6	29.98	29.54	0.44	-9	20.54
	848.8	29.88	29.21	0.67	-9	20.21
EPRS850	824.2	25.45	24.07	1.38	-9	15.07
	836.6	25.52	24.33	1.19	-9	15.33
	848.8	25.48	24.02	1.46	-9	15.02

Card 2:

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power (dBm)	PAPR (dB)	Duty cycle Factor(dB)	Frame Power (dBm)
GSM850	824.2	32.98	32.14	0.84	-9	26.14
	836.6	33.05	32.54	0.51	-9	26.54
	848.8	33.09	32.65	0.44	-9	26.65
GPRS850	824.2	33.02	32.75	0.27	-9	23.75
	836.6	32.91	32.21	0.7	-9	23.21
	848.8	32.88	32.02	0.86	-9	23.02
EPRS850	824.2	25.58	24.93	0.65	-9	15.93
	836.6	25.52	24.02	1.5	-9	15.02
	848.8	25.52	24.68	0.84	-9	15.68

PCS 1900:

Card 1:

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power (dBm)	PAPR (dB)	Duty cycle Factor(dB)	Frame Power (dBm)
GSM1900	1850.2	29.65	29.6	0.05	-9	20.6
	1880	29.75	29.01	0.74	-9	20.01
	1909.8	29.80	29.18	0.62	-9	20.18
GPRS1900	1850.2	27.01	26.98	0.97	-9	17.98
	1880	27.00	26.13	0.13	-9	17.13
	1909.8	27.01	26.96	0.95	-9	17.96
EPRS1900	1850.2	24.53	23.56	0.97	-9	14.56
	1880	25.42	24.11	1.31	-9	15.11
	1909.8	24.57	24.02	0.55	-9	15.02

Card 2:

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power (dBm)	PAPR (dB)	Duty cycle Factor(dB)	Frame Power (dBm)
GSM1900	1850.2	28.98	28.12	0.86	-9	19.12
	1880	29.21	29.01	0.20	-9	20.01
	1909.8	29.65	28.78	0.87	-9	19.78
GPRS1900	1850.2	29.16	28.1	1.06	-9	19.1
	1880	29.13	28.13	1.00	-9	19.13
	1909.8	29.79	28.65	1.14	-9	19.65
EPRS1900	1850.2	24.62	23.80	0.82	-9	14.8
	1880	24.00	23.99	0.01	-9	14.99
	1909.8	24.08	23.83	0.25	-9	14.83

WCDMA BAND II：

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power(dBm)	PAPR (dB)
RMC 12.2k	1852.6	26.45	22.77	3.68
	1880	26.86	22.15	4.71
	1907.4	25.73	21.71	4.02
HSDPA SUBTEST 1	1852.6	26.45	22.77	3.68
	1880	26.86	22.15	4.71
	1907.4	25.12	22.32	2.8
HSUPA SUBTEST 1	1852.6	25.69	22.10	3.59
	1880	26.21	22.23	3.98
	1907.4	25.12	22.32	2.8

WCDMA BAND V：

Mode	Frequency (MHz)	Peak Power (dBm)	Avg. Burst Power(dBm)	PAPR (dB)
RMC 12.2k	826.6	26.21	22.54	3.67
	835	25.98	22.65	3.33
	846.4	26.82	22.74	4.08
HSDPA SUBTEST 1	826.6	25.63	22.45	3.18
	835	25.75	22.65	3.1
	846.4	25.18	22.31	2.87
HSUPA SUBTEST 1	826.6	25.43	22.12	3.31
	835	25.51	22.31	3.2
	846.4	25.87	22.85	3.02

5.2. RADIATED OUTPUT POWER

Measurement Method

KDB 978 168 5.6 Determining ERP and EIRP from conducted RF output power measurements

In many cases, the RF output power limits for licensed digital transmission devices is specified in terms of effective radiated power (ERP) or equivalent isotropic radiated power (EIRP). Typically, ERP is specified when the operating frequency is less than or equal to 1 GHz and EIRP is specified when the operating frequency is greater than 1 GHz. Both are determined by adding the transmit antenna gain to the conducted RF output power with the primary difference between the two being that when determining the ERP, the transmit antenna gain is referenced to a dipole antenna (i.e., dBd) whereas when determining the EIRP, the transmit antenna gain is referenced to an isotropic antenna (dBi).

The relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$ERP/EIRP = P_{Meas} + G_T - L_C$$

where:

ERP/EIRP	=	effective or equivalent radiated power, respectively (expressed in the same units as P_{Meas}, typically dBW or dBm);
P_{Meas}	=	measured transmitter output power or PSD, in dBm or dBW;
G_T	=	gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
L_C	=	signal attenuation in the connecting cable between the transmitter and antenna, in dB. *(For personal/portable radios utilizing an integral antenna, this factor is typically negligible. However, in a fixed station transmit system that utilizes a long cable run between the transmitter and the transmitting antenna, this factor can be significant. The minimum cable loss should be used in this equation)*

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

Note: ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dBi. (KDB 412172 D01)

Provisions Applicable

This is the test for the maximum radiated power from the EUT. Rule Part 24.232(b) specifies, “Mobile/portable stations are limited to 2 watts e.i.r.p. Peak power” and 24.232(c) specifies that "Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.” Rule Part 22.913(a) specifies “Maximum ERP. The effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 500 Watts. The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.”

Mode	Nominal Peak Power
GSM 850/WCDMA BAND II/V	<=38.45 dBm (7W)
PCS 1900	<=33 dBm (2W)

Measurement Result

Card 1:

Radiated Power (E.R.P) for GSM 850 MHZ				
Mode	Frequency (MHz)	Result		Conclusion
		Max. Peak ERP (dBm)	Polarization Of Max. ERP	
GSM850	824.2	33.11	Horizontal	Pass
	836.6	29.96	Horizontal	Pass
	848.8	31.89	Horizontal	Pass

Radiated Power (E.I.R.P) for PCS 1900 MHZ				
Mode	Frequency (MHz)	Result		Conclusion
		Max. Peak E.I.R.P.(dBm)	Polarization Of Max. E.I.R.P.	
GSM 1900	1850.2	29.45	Horizontal	Pass
	1880.0	29.26	Horizontal	Pass
	1909.8	29.18	Horizontal	Pass

Card 2:

Radiated Power (E.R.P) for GSM 850 MHZ				
Mode	**Frequency (MHz)**	**Result**		**Conclusion**
		Max. Peak ERP (dBm)	**Polarization Of Max. ERP**	
GSM850	824.2	32.66	Horizontal	Pass
	836.6	33.14	Horizontal	Pass
	848.8	33.25	Horizontal	Pass

Radiated Power (E.I.R.P) for PCS 1900 MHZ				
Mode	**Frequency (MHz)**	**Result**		**Conclusion**
		Max. Peak E.I.R.P.(dBm)	**Polarization Of Max. E.I.R.P.**	
GSM 1900	1850.2	29.04	Horizontal	Pass
	1880.0	29.25	Horizontal	Pass
	1909.8	29.48	Horizontal	Pass

Radiated Power (E.I.R.P) for WCDMA BAND Ⅱ				
Mode	**Frequency (MHz)**	**Result**		**Conclusion**
		Max. Peak ERP (dBm)	**Polarization Of Max. ERP**	
WCDMA BAND Ⅱ	1852.6	22.73	Horizontal	Pass
	1880	22.42	Horizontal	Pass
	1907.4	21.95	Horizontal	Pass

Radiated Power (E.R.P) for WCDMA BAND Ⅴ				
Mode	**Frequency (MHz)**	**Result**		**Conclusion**
		Max. Peak E.I.R.P.(dBm)	**Polarization Of Max. E.I.R.P.**	
WCDMA BAND Ⅴ	826.6	22.33	Horizontal	Pass
	835	22.15	Horizontal	Pass
	846.4	22.38	Horizontal	Pass

7. SPURIOUS EMISSION

6.1. CONDUCTED SPURIOUS EMISSION

Measurement Method

The following steps outline the procedure used to measure the conducted emissions from the EUT.
1, Determine frequency range for measurements: From CFR 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency.

Provisions Applicable

On any frequency outside frequency band of the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

Measurement Result

PLEASE REFER TO: APPENDIX A TEST PLOTS FOR CONDUCTED SPURIOUS EMISSION.

Note: 1. Below 30MHZ no Spurious found and The GSM modes is the worst condition.

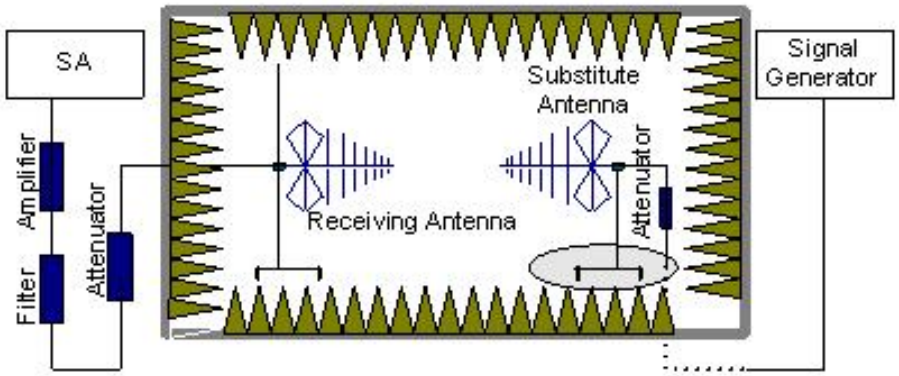
6.2. Radiated Spurious Emission

Measurement Method

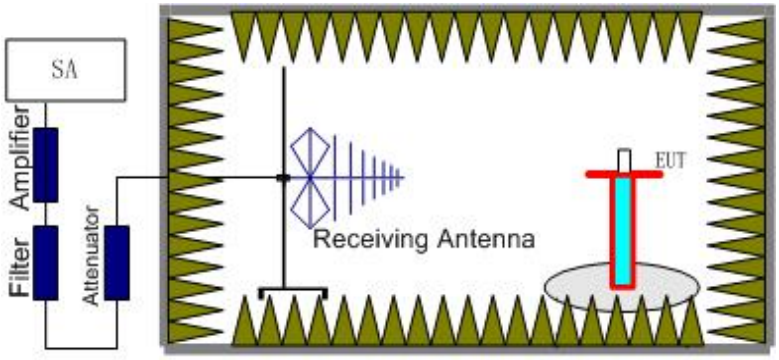
The measurements procedures specified in TIA-603C-2004 were used for testing. The spectrum was scanned from 9 KHz to the 10th harmonic of the highest frequency generated within the equipment. The measurements were performed on all modes(WCDMA BAND V) at 3 typical channels(the Top Channel, the Middle Channel and the Bottom Channel) for each band.

The procedure of radiated spurious emissions is as follows:

a) Pre-calibration With pre-calibration method, the Radiated Spurious Emissions(RSE) is calculated as, RSE=Rx（dBuV）+CL（dB）+SA（dB）+Gain（dBi）-107（dBuV to dBm）The SA is calibrated using following setup.



b) EUT was placed on a 0.8 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the test item for emission measurements. The height of receiving antenna is 0.8m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the test item and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic were measured with peak detector and 1MHz bandwidth.



Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the WCDMA BAND V (826.4MHz, 836MHz, 846.6MHz), . It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.

The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss and the air loss. The measurement results are obtained as described below: $Power=P_{Mea}+A_{Rpl}$

Provisions Applicable

(a) On any frequency outside a licensee’s frequency block (e.g. A, D, B, etc.) within the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

Note: only result the worst condition of each test mode:

Measurement Result

GSM850:

The Worst Test Results for Channel 128/824.2MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1648.4	-30.42	-4.99	-25.43	-13	Horizontal
1648.4	-27.33	-2.45	-24.88	-13	Vertical
2472.6	-29.37	3.61	-32.98	-13	Horizontal
2472.6	-30.35	2.82	-33.17	-13	Vertical

The Worst Test Results for Channel 190/836.6MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1673.2	-26.07	-4.99	-21.08	-13	Horizontal
1673.2	-30.42	-2.45	-27.97	-13	Vertical
2509.8	-26.42	3.61	-30.03	-13	Horizontal
2509.8	-29.10	2.82	-31.92	-13	Vertical

The Worst Test Results for Channel 251/848.8MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1697.6	-31.61	-4.99	-26.62	-13	Horizontal
1697.6	-30.63	-2.45	-28.18	-13	Vertical
2549.4	-25.66	3.61	-29.27	-13	Horizontal
2549.4	-32.03	2.82	-34.85	-13	Vertical

PCS1900:

The Worst Test Results for Channel 512/1850.2MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3700.4	-33.59	-3.21	-30.38	-13	Horizontal
3700.4	-28.56	0.34	-28.90	-13	Vertical
5550.6	-34.15	3.95	-38.10	-13	Horizontal
5550.6	-32.35	-2.26	-30.09	-13	Vertical

The Worst Test Results for Channel 661/1880MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3760	-26.25	-3.21	-23.04	-13	Horizontal
3760	-34.52	0.34	-34.86	-13	Vertical
5640	-28.54	3.95	-32.49	-13	Horizontal
5640	-34.81	-2.26	-32.55	-13	Vertical

The Worst Test Results for Channel 810/1909.8MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3819.6	-34.90	-3.21	-31.69	-13	Horizontal
3819.6	-30.11	0.34	-30.45	-13	Vertical
5729.4	-32.97	3.95	-36.92	-13	Horizontal
5729.4	-27.99	-2.26	-25.73	-13	Vertical

WCDMA BAND II:

The Worst Test Results for Channel 9263/1852.6MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3705.2	-33.18	-3.21	-29.97	-13	Horizontal
3705.2	-32.45	0.34	-32.79	-13	Vertical
5557.8	-27.69	3.95	-31.64	-13	Horizontal
5557.8	-26.29	-2.26	-24.03	-13	Vertical

The Worst Test Results for Channel 9400/1880MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3760	-28.35	-3.21	-25.14	-13	Horizontal
3760	-27.21	0.34	-27.55	-13	Vertical
5640	-28.56	3.95	-32.51	-13	Horizontal
5640	-30.55	-2.26	-28.29	-13	Vertical

The Worst Test Results for Channel 9537/1907.4MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
3814.8	-29.06	-3.21	-25.85	-13	Horizontal
3814.8	-27.68	0.34	-28.02	-13	Vertical
5722.2	-32.16	3.95	-36.11	-13	Horizontal
5722.2	-32.86	-2.26	-30.60	-13	Vertical

WCDMA BAND V:

The Worst Test Results for Channel 4133/826.6MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1653.2	-30.73	-4.99	-25.74	-13	Horizontal
1653.2	-26.69	-2.45	-24.24	-13	Vertical
2479.8	-29.34	3.61	-32.95	-13	Horizontal
2479.8	-34.25	2.82	-37.07	-13	Vertical

The Worst Test Results for Channel 4175/835MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1670	-32.95	-4.99	-27.96	-13	Horizontal
1670	-34.31	-2.45	-31.86	-13	Vertical
2505	-26.38	3.61	-29.99	-13	Horizontal
2505	-27.53	2.82	-30.35	-13	Vertical

The Worst Test Results for Channel 4232/846.4MHz					
Frequency(MHz)	Power(dBm)	A_{Rpl} (dBm)	P_{Mea}(dBm)	Limit（dBm）	Polarity
1692.8	-32.52	-4.99	-27.53	-13	Horizontal
1692.8	-27.21	-2.45	-24.76	-13	Vertical
2539.2	-30.71	3.61	-34.32	-13	Horizontal
2539.2	-34.69	2.82	-37.51	-13	Vertical

Note: Below 30MHZ no Spurious found.

8. FREQUENCY STABILITY

Measurement Method

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a “call mode”. This is accomplished with the use of R&S CMU200 DIGITAL RADIO COMMUNICATION TESTER.

1 , Measure the carrier frequency at room temperature.

2 , Subject the EUT to overnight soak at -10℃.

3 , With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on channel 4180 for WCDMA band V, measure the carrier frequency.

These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.

4 , Repeat the above measurements at 10℃ increments from -10℃ to +50℃. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

5 , Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1 1/2 hours unpowered, to allow any self-heating to stabilize, before continuing.

6 , Subject the EUT to overnight soak at +50℃.

7 , With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.

8 , Repeat the above measurements at 10℃ increments from +50℃ to -10℃. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

9 , At all temperature levels hold the temperature to +/- 0.5℃ during the measurement procedure.

Provisions Applicable

- **For Hand carried battery powered equipment**

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies.For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.

- **For equipment powered by primary supply voltage**

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. For this EUT section 2.1055(d) (1) applies. This requires varying primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment, the normal environment temperature is 25^{o}C.

Measurement Result (WORST)

Frequency Error against Voltage for GSM 850 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.3	29	0.035
3.8	34	0.041
4.35	31	0.037

Frequency Error against Temperature for GSM 850 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	32	0.038
0	34	0.041
10	38	0.045
20	39	0.047
30	33	0.039
40	36	0.043
50	33	0.039

Frequency Error against Voltage for PCS 1900 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.3	28	0.015
3.8	38	0.020
4.35	38	0.020

Frequency Error against Temperature for PCS 1900 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	41	0.022
0	29	0.015
10	30	0.016
20	38	0.020
30	40	0.021
40	40	0.021
50	29	0.015

Measurement Result (WORST)

Frequency Error against Voltage for GPRS 850 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.3	38	0.046
3.8	34	0.041
4.35	35	0.042

Frequency Error against Temperature for GPRS 850 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	31	0.038
0	30	0.035
10	32	0.039
20	41	0.049
30	38	0.045
40	30	0.036
50	36	0.043

Frequency Error against Voltage for GPRS 1900 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.3	29	0.015
3.8	32	0.017
4.35	36	0.019

Frequency Error against Temperature for GPRS 1900 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	41	0.022
0	30	0.016
10	30	0.016
20	38	0.020
30	32	0.017
40	37	0.020
50	30	0.016

Frequency Error against Voltage for EGPRS 850 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.3	30	0.036
3.8	29	0.035
4.35	34	0.041

Frequency Error against Temperature for EGPRS 850 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	40	0.048
0	37	0.044
10	35	0.042
20	37	0.044
30	40	0.048
40	31	0.037
50	29	0.035

Frequency Error against Voltage for EGPRS 1900 band (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.3	34	0.018
3.8	29	0.016
4.35	35	0.018

Frequency Error against Temperature for EGPRS 1900 band (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	34	0.018
0	41	0.022
10	35	0.018
20	40	0.021
30	32	0.017
40	31	0.016
50	32	0.017

UTRA BANDS

Frequency Error against Voltage for WCDMA BAND 2 (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error (ppm)
3.3	39	0.021
3.8	29	0.015
4.35	29	0.015

Frequency Error against Temperature for WCDMA BAND 2 (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	32	0.017
0	29	0.015
10	40	0.021
20	39	0.021
30	33	0.018
40	38	0.020
50	33	0.018

Frequency Error against Voltage for WCDMA BAND 5 (Mid channel)

Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.3	31	0.037
3.8	35	0.042
4.35	34	0.042

Frequency Error against Temperature for WCDMA BAND 5 (Mid channel)

Temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-10	32	0.038
0	39	0.046
10	29	0.035
20	29	0.034
30	34	0.041
40	34	0.041
50	29	0.034

9. OCCUPIED BANDWIDTH

Measurement Method

The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

Provisions Applicable

The emission bandwidth is defined as two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power.

Measurement Result

GSM850:

Frequency (MHz)	OBW(99%)
824.2	248.39 KHz
836.6	245.19KHz
848.8	248.39KHz

PCS1900:

Frequency (MHz)	OBW(99%)
1850.2	245.19KHz
1880	245.19KHz
1909.8	246.79KHz

GPRS 850:

Frequency (MHz)	OBW(99%)
824.2	243.58 KHz
836.6	248.39KHz
848.8	246.79KHz

GPRS 1900:

Frequency (MHz)	OBW(99%)
1850.2	248.39KHz
1880	245.19KHz
1909.8	246.79KHz

EGPRS 850:

Frequency (MHz)	OBW(99%)
824.2	248.39 KHz
836.6	235.57KHz
848.8	235.57KHz

EGPRS 1900:

Frequency (MHz)	OBW(99%)
1850.2	250.00KHz
1880	254.80KHz
1909.8	245.19KHz

UTRA BANDS

BAND 2:

Frequency (MHz)	OBW(99%)
1852.6	4.246MHz
1880	4.214MHz
1907.4	4.214MHz

BAND 5:

Frequency (MHz)	OBW(99%)
826.6	4.166MHz
835	4.182MHz
846.4	4.150MHz

Please refers to Appendix B for compliance test plots

10. EMISSION BANDWIDTH

Measurement Method

The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

Provisions Applicable

The emission bandwidth is defined as two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power

Measurement Result

Emission Bandwidth (-26dBc) for GSM850		
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	824.2	315.71
Middle Channel	836.6	314.19
High Channel	848.8	310.90

Emission Bandwidth (-26dBc) for GSM1900		
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	1850.2	314.10
Middle Channel	1880	314.10
High Channel	1909.8	314.10

Emission Bandwidth (-26dBc) for GPRS850		
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	824.2	312.50
Middle Channel	836.6	318.91
High Channel	848.8	314.10

Emission Bandwidth (-26dBc) for GPRS1900		
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	1850.2	315.70
Middle Channel	1880	315.70
High Channel	1909.8	315.70

Emission Bandwidth (-26dBc) for EGPRS850		
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	824.2	307.69
Middle Channel	836.6	307.28
High Channel	848.8	294.87

Emission Bandwidth (-26dBc) for EGPRS1900		
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	1850.2	320.51
Middle Channel	1880	315.70
High Channel	1909.8	315.69

Emission Bandwidth (-26dBc) for WCDMA BAND II		
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	1852.6	4.903
Middle Channel	1880	4.871
High Channel	1907.4	4.903

Emission Bandwidth (-26dBc) for WCDMA BAND V		
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	826.6	4.711
Middle Channel	835	4.711
High Channel	846.4	4.679

Please refers to Appendix B for compliance test plots

11. BAND EDGE

Measurement Method

The test set up and general procedure is similar to conducted peak output power test. Only different for setting the measurement configuration of the measuring instrument of Spectrum Analyzer.

Provisions Applicable

As Specified in FCC rules of 22.917(a)

Measurement Result

GSM850:

Test Channel	BW(MHz)	UL Channel	Frequency(MHz)	Judgment
Low Range	0.2	128	824.2	Pass
High Range	0.2	251	848.8	Pass

PCS 1900：

Test Channel	BW(MHz)	UL Channel	Frequency(MHz)	Judgment
Low Range	0.2	512	1850.2	Pass
High Range	0.2	810	1909.8	Pass

UTRA BANDS

BAND 2:

Test Channel	BW(MHz)	UL Channel	Frequency(MHz)	Judgment
Low Range	5	9263	1852.6	Pass
High Range	5	9537	1907.4	Pass

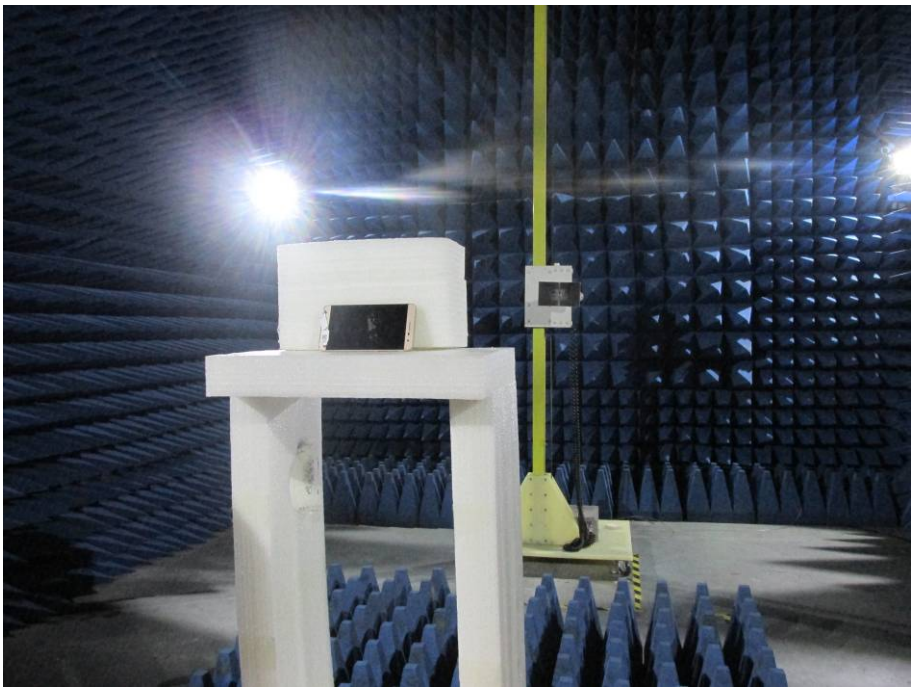
BAND 5:

Test Channel	BW(MHz)	UL Channel	Frequency(MHz)	Judgment
Low Range	5	4133	826.6	Pass
High Range	5	4232	846.4	Pass

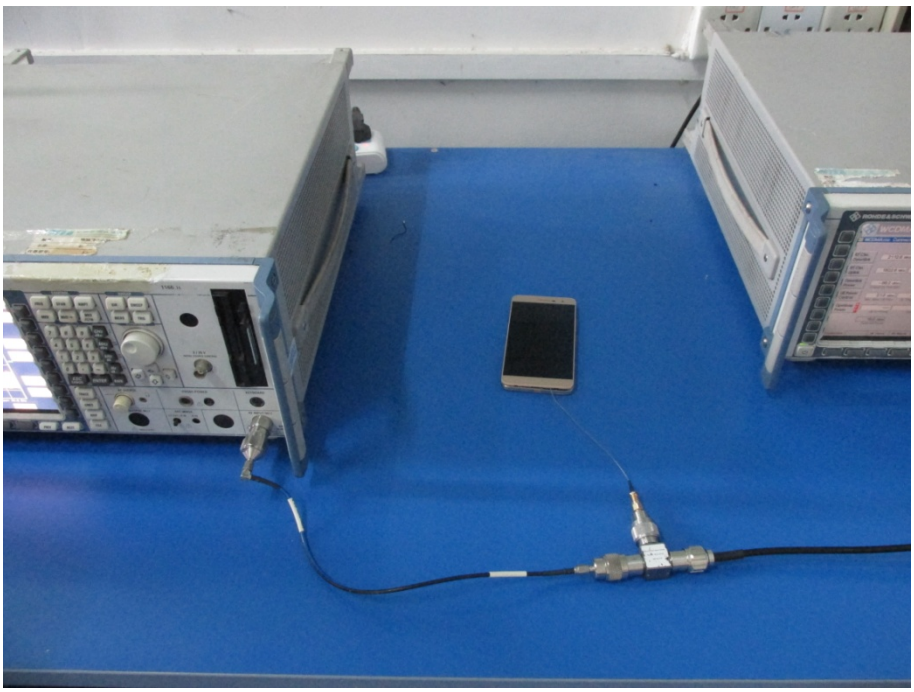
Please refers to Appendix C for compliance test plots

12. EUT TEST PHOTO

RADIATED EMISSION TEST
(Frequency above 1GHz)



RF TEST



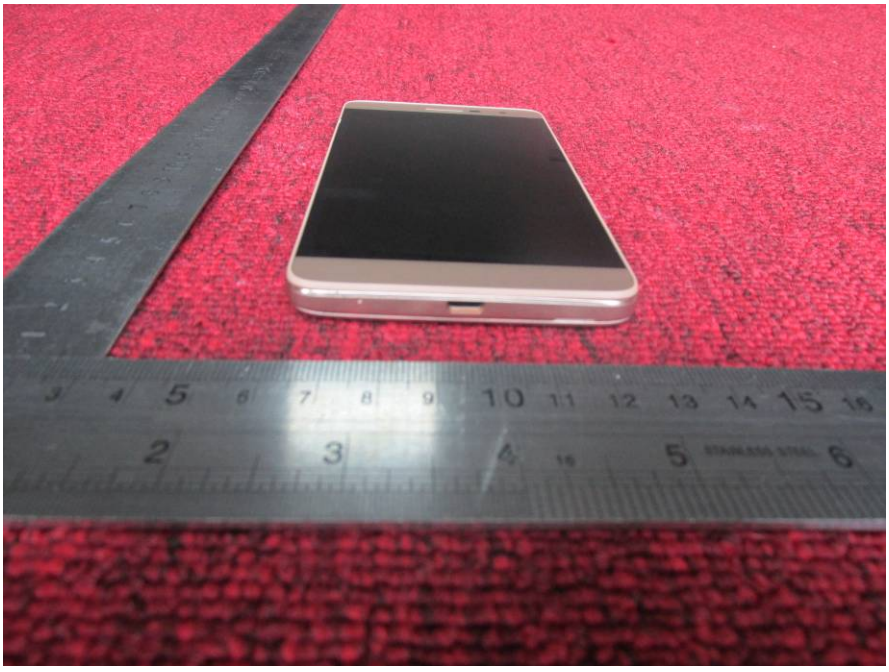
13. EUT PHOTO

Appearance photograph of EUT

Appearance photograph of EUT

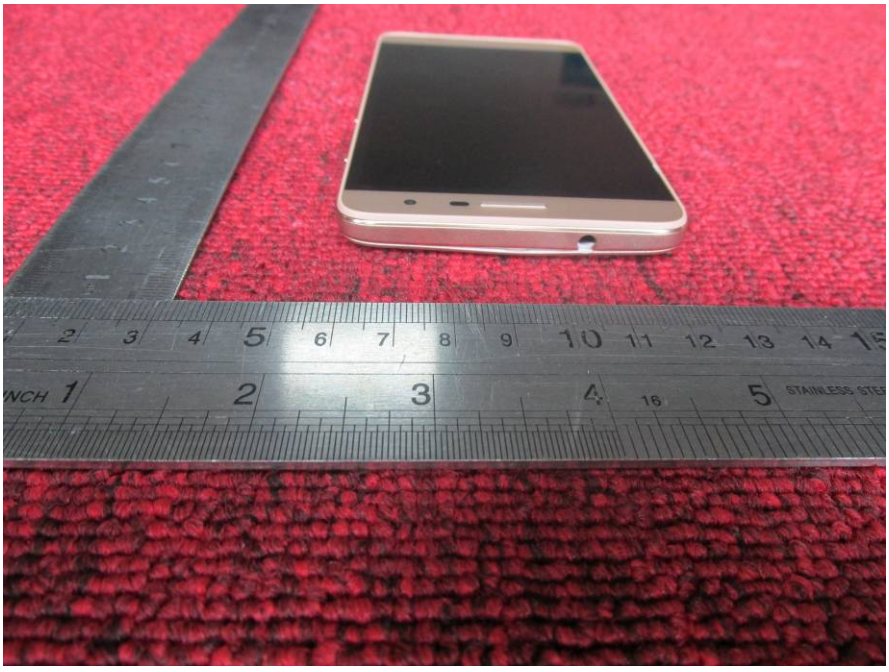
Appearance photograph of EUT

Appearance photograph of EUT



Appearance photograph of EUT

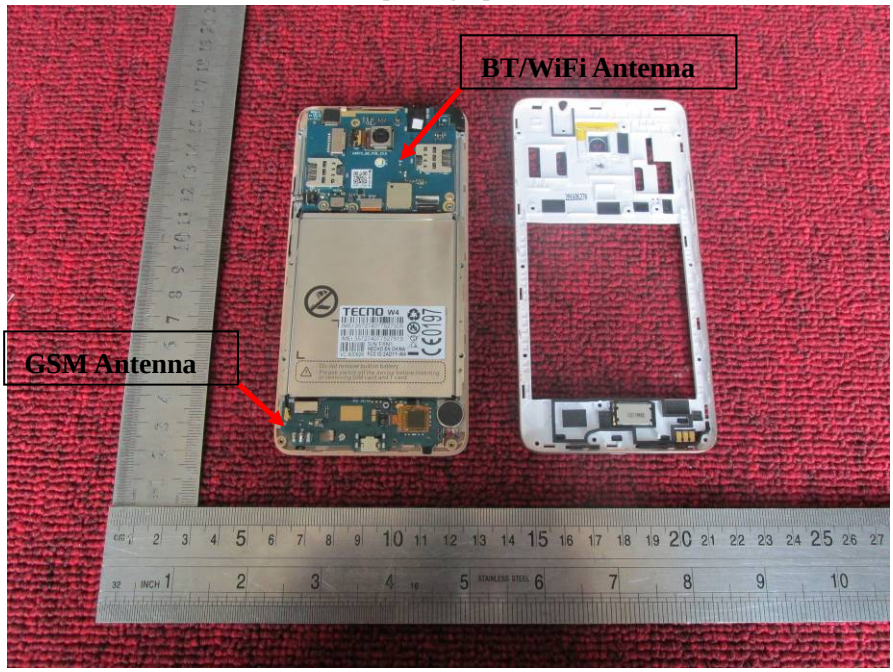
Appearance photograph of EUT



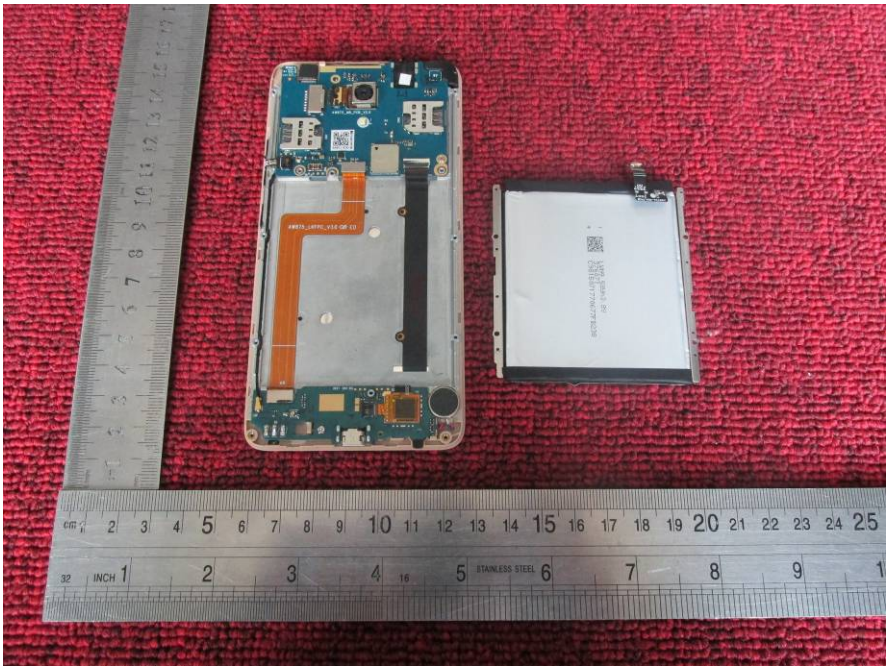
Appearance photograph of EUT

Appearance photograph of EUT

Internal photograph of EUT



Internal photograph of EUT



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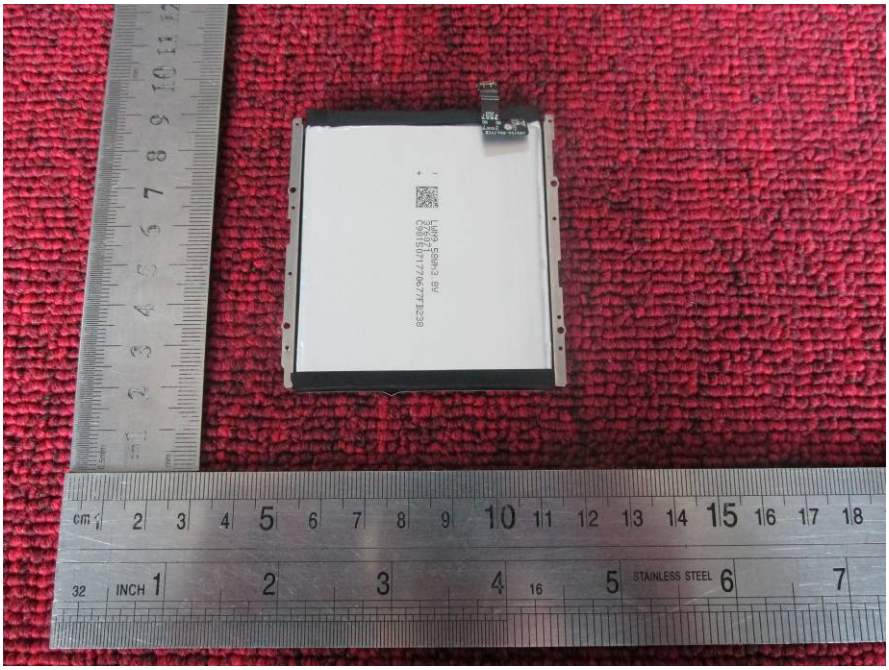
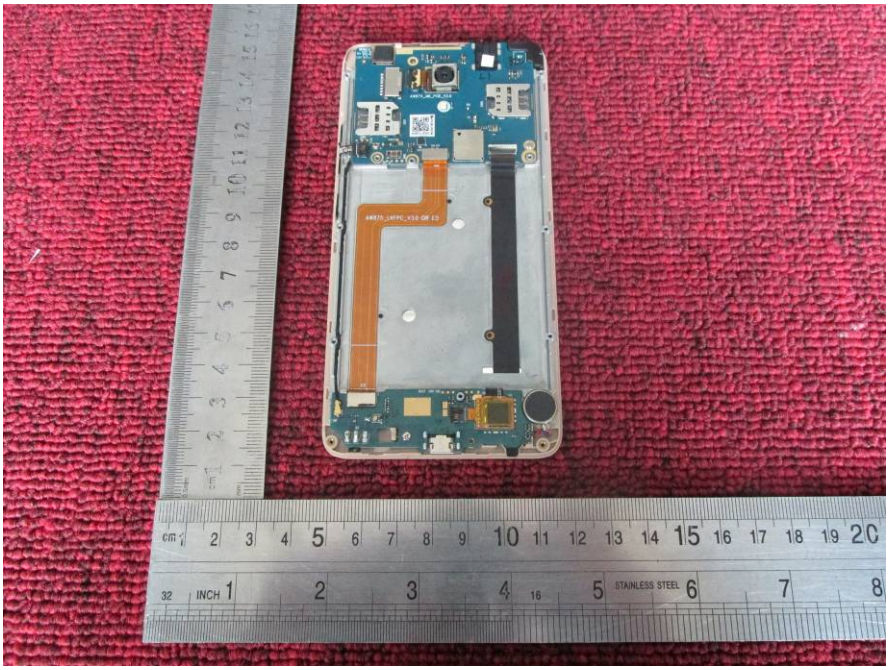


Internal photograph of EUT

Internal photograph of EUT



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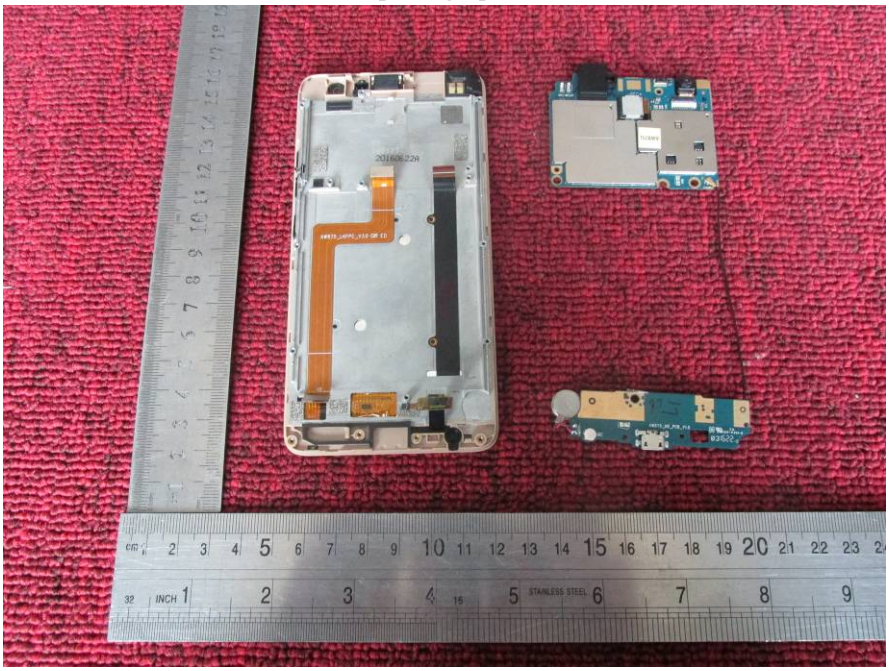

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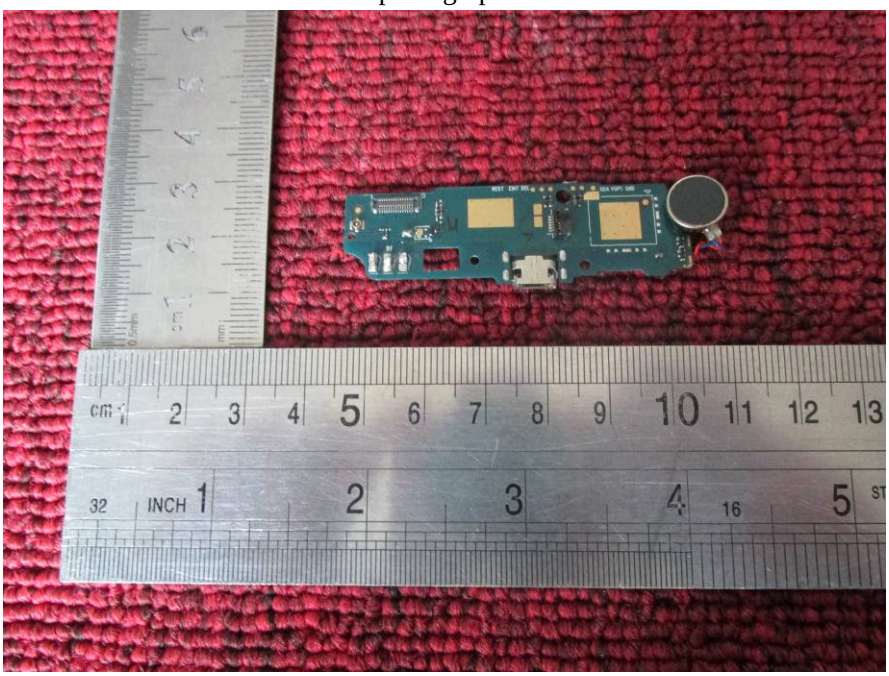
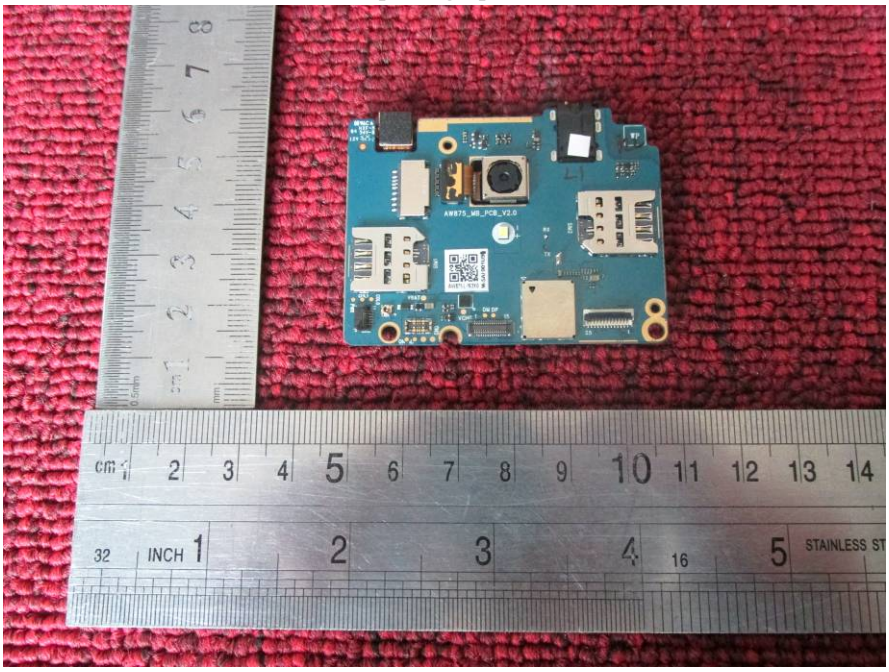
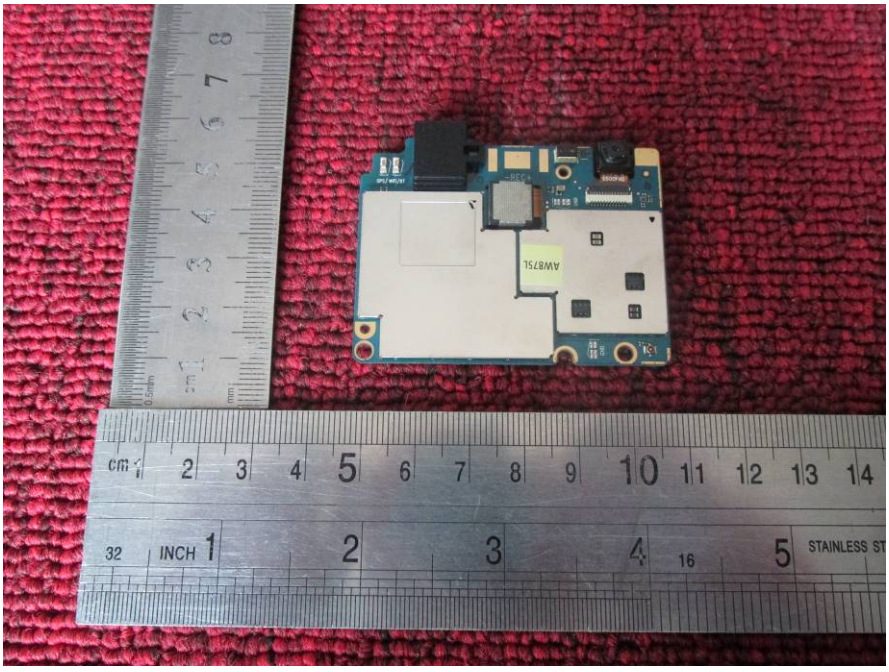


Internal photograph of EUT

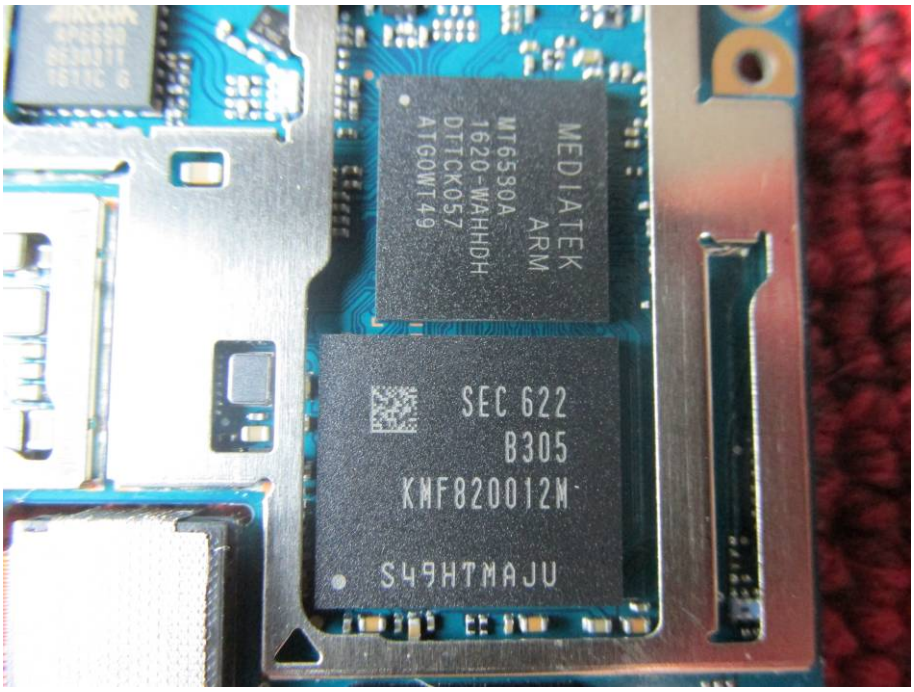
Internal photograph of EUT



Internal photograph of EUT



Internal photograph of EUT



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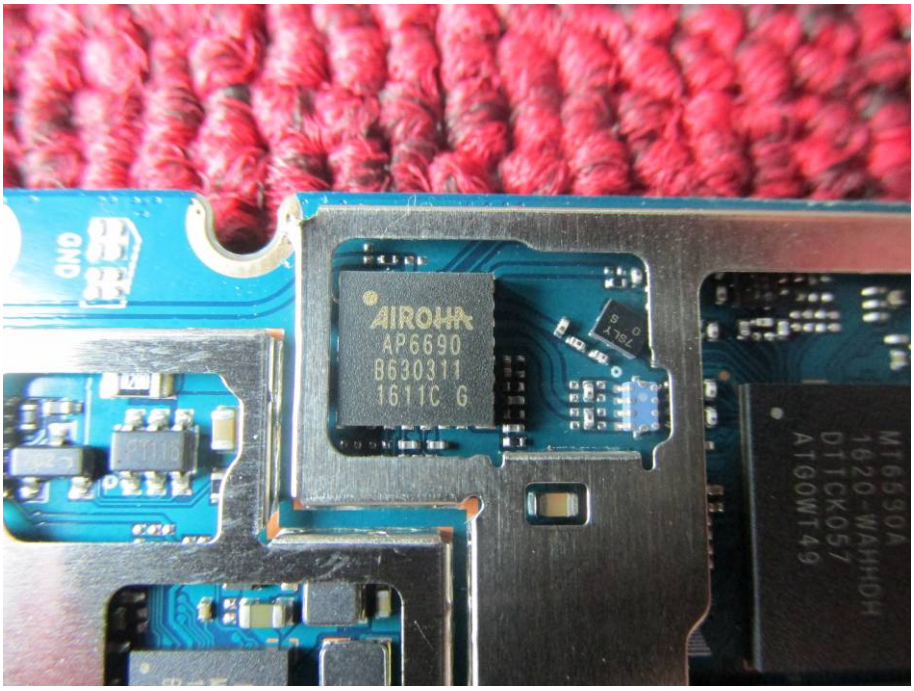
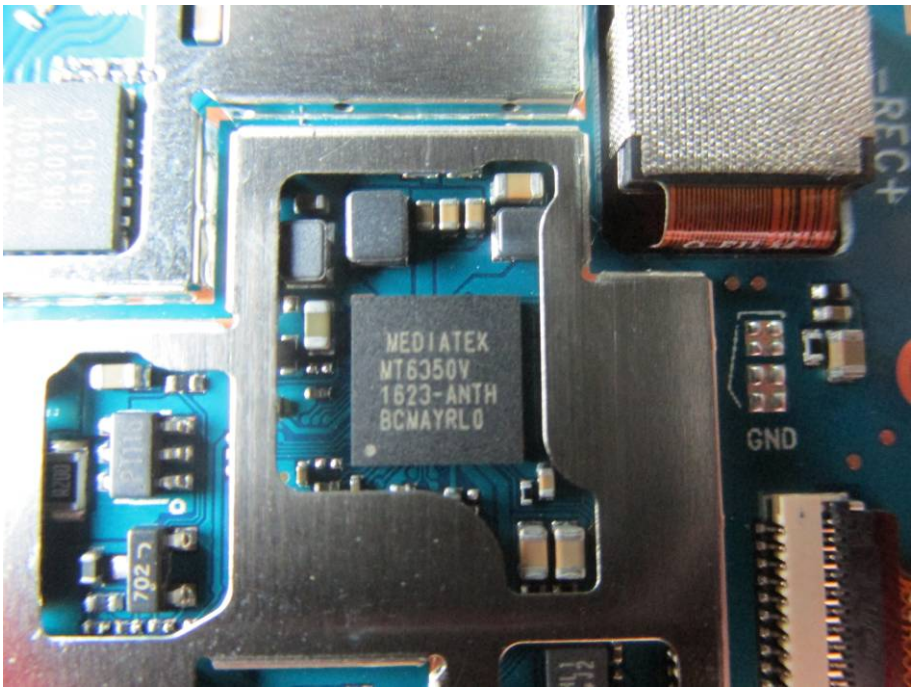
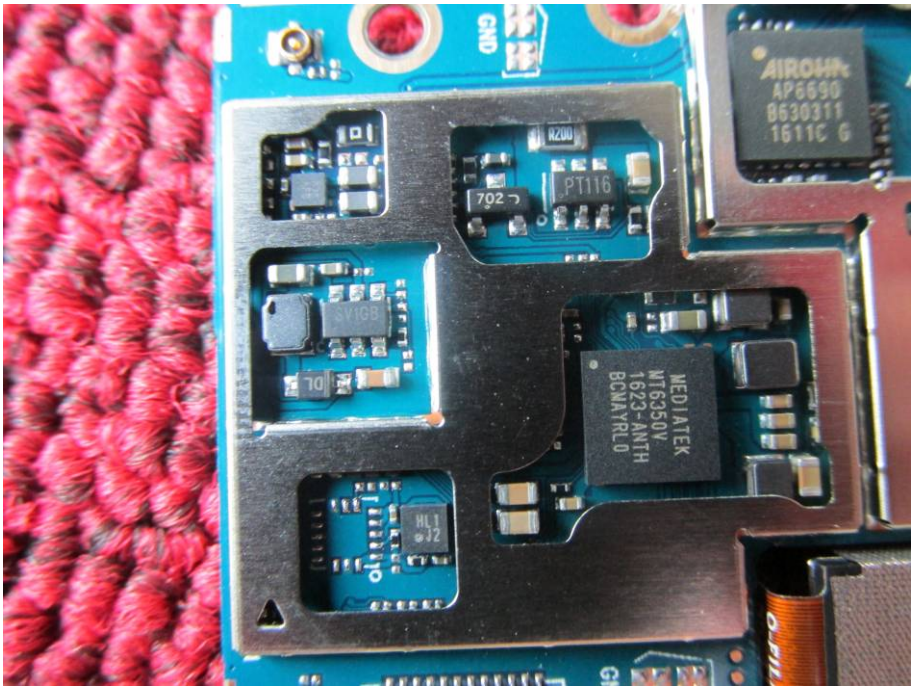


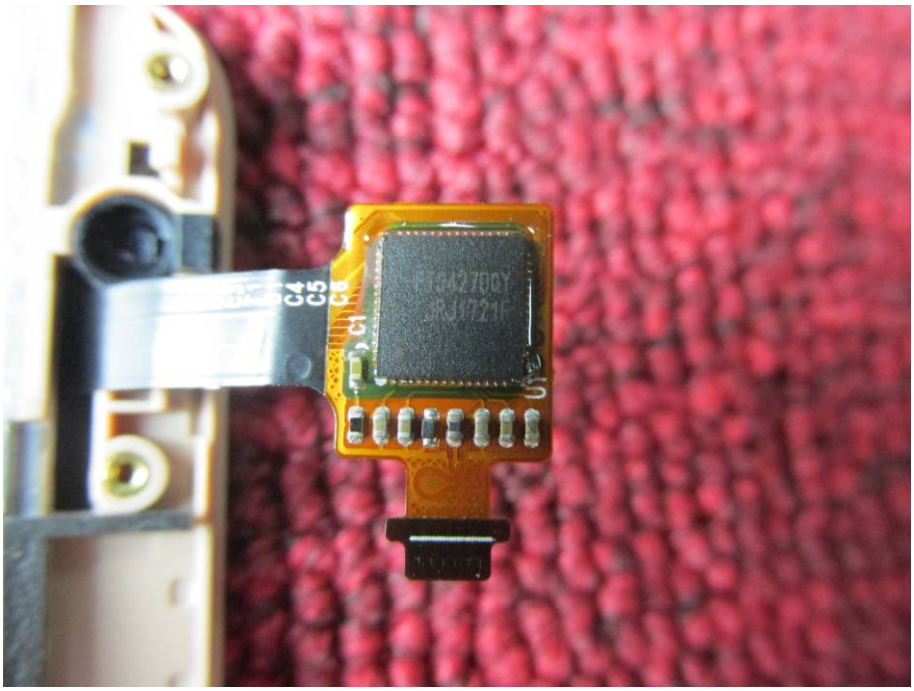
Internal photograph of EUT



Internal photograph of EUT



Internal photograph of EUT

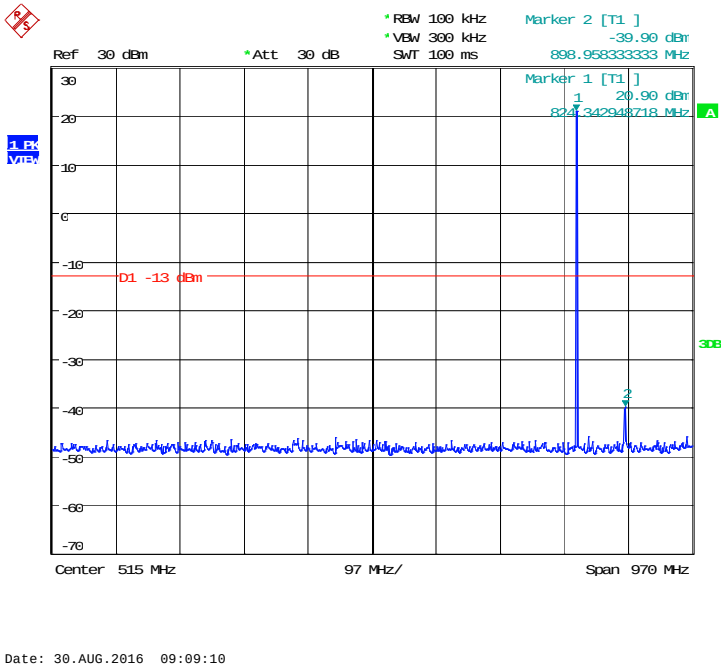


Note: The EUT and CMU200, frequency analyzer are connected by three-way connector. There produce loss, like three-way connector loss, attenuator loss, RF cable loss. The offset is compensation.

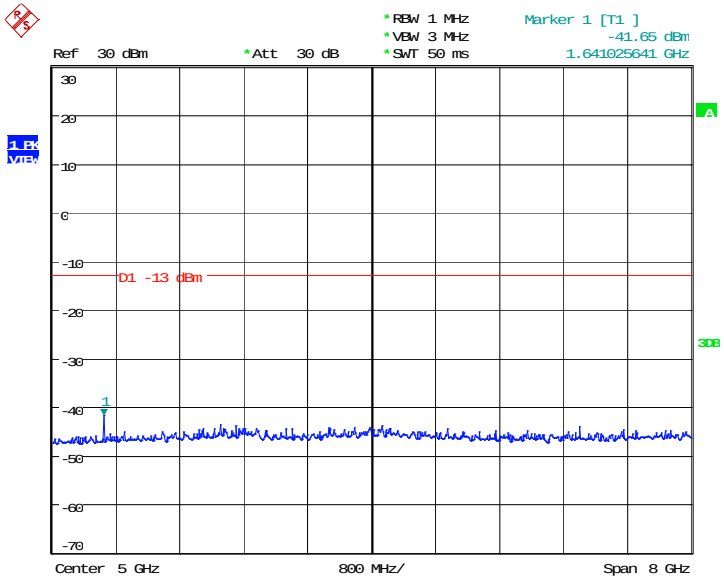
APPENDIX A: TEST PLOTS FOR CONDUCTED SPURIOUS EMISSION

CONDUCTED EMISSION IN GSM850 BAND

Conducted Emission Transmitting Mode CH 128 30MHz – 1GHz

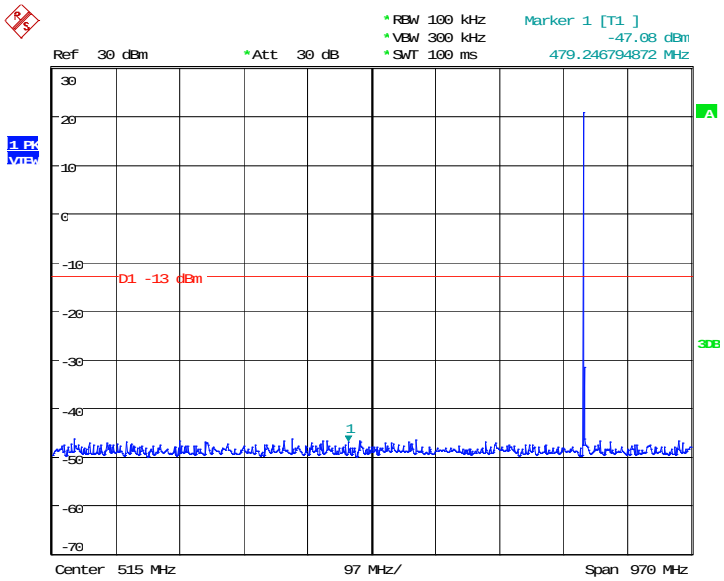


Conducted Emission Transmitting Mode CH 128 1GHz – 9GHz



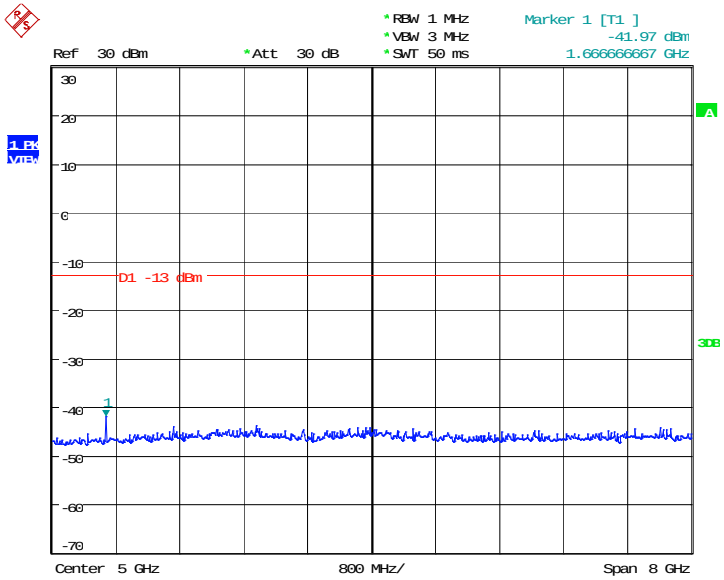
Date: 29.AUG.2016 18:46:55

Conducted Emission Transmitting Mode CH 190 30MHz – 1GHz



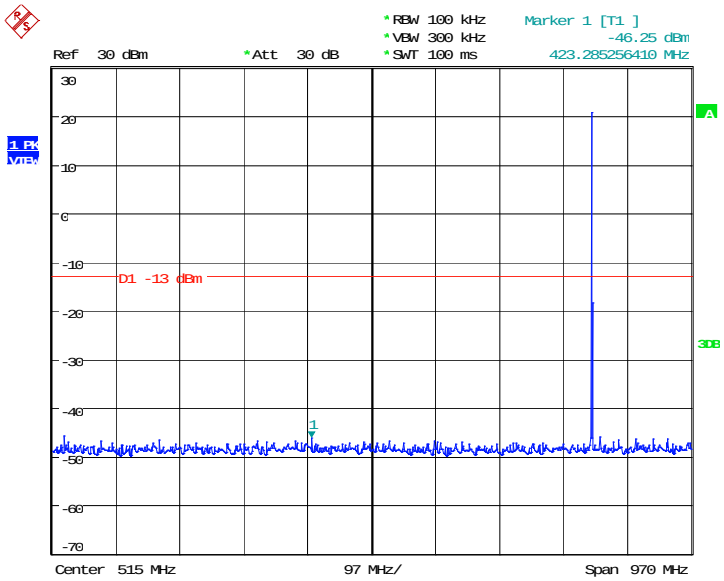
Date: 29.AUG.2016 18:48:41

Conducted Emission Transmitting Mode CH 190 1GHz – 9GHz



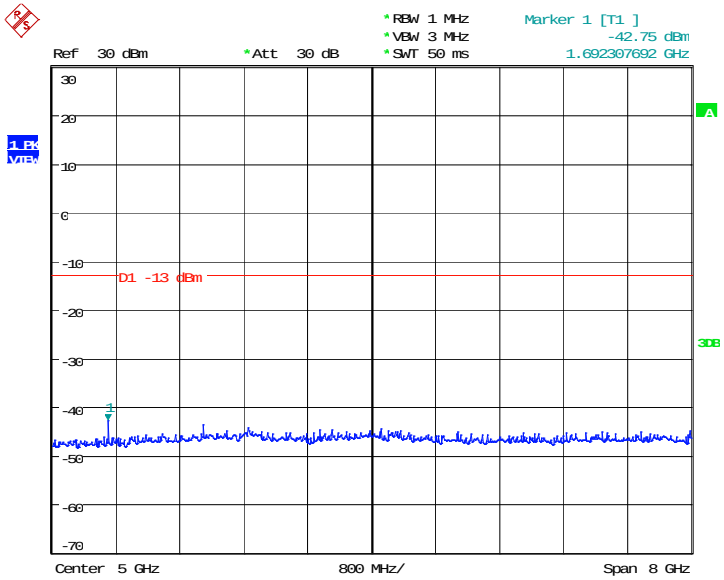
Date: 29.AUG.2016 18:49:31

Conducted Emission Transmitting Mode CH 251 30MHz – 1GHz



Date: 29.AUG.2016 18:50:49

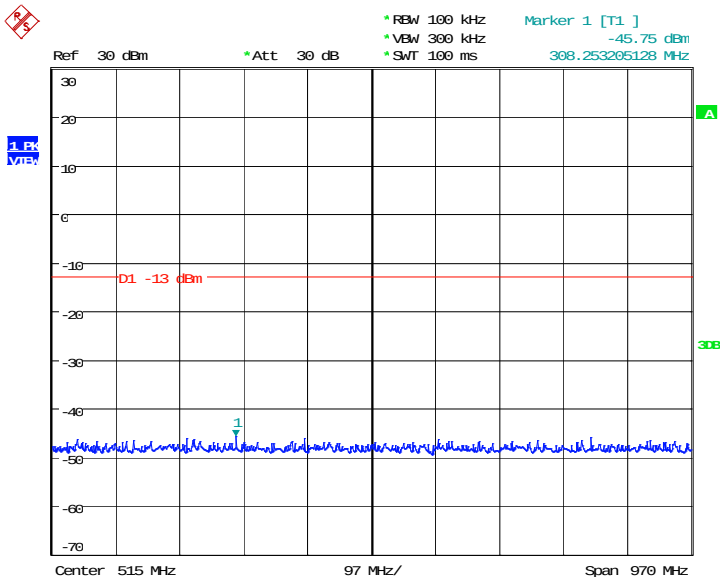
Conducted Emission Transmitting Mode CH 251 1GHz – 9GHz



Date: 29.AUG.2016 18:51:22

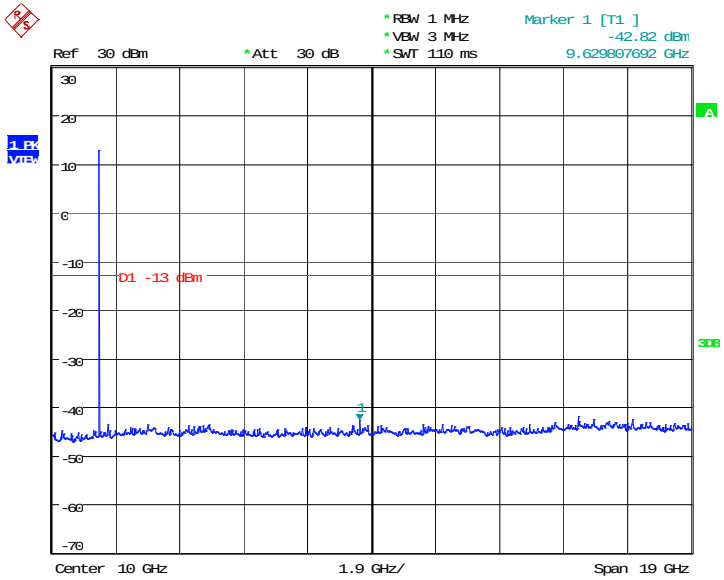
CONDUCTED EMISSION IN PCS1900 BAND

Conducted Emission Transmitting Mode CH 512 30MHz – 1GHz



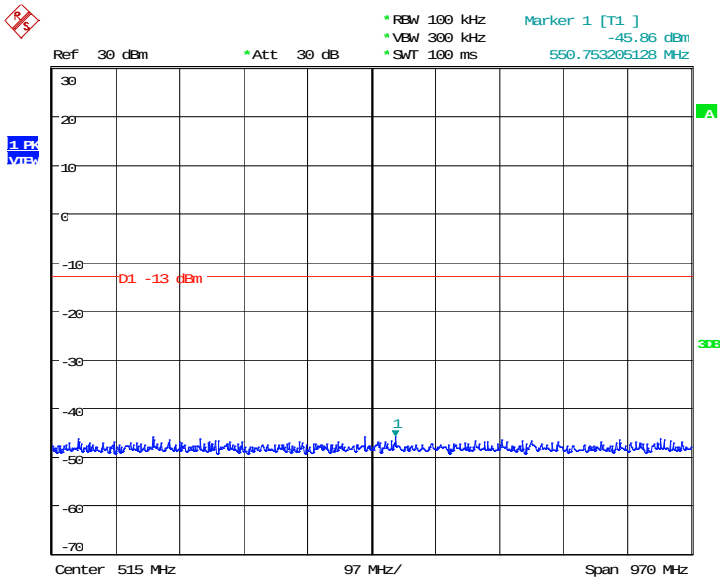
Date: 29.AUG.2016 18:55:18

Conducted Emission Transmitting Mode CH 512 1GHz – 20GHz



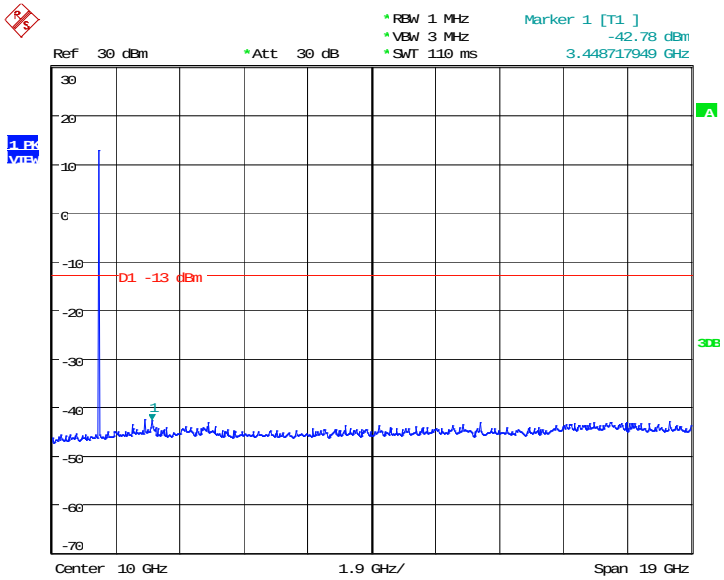
Date: 29.AUG.2016 19:09:57

Conducted Emission Transmitting Mode CH 661 30MHz – 1GHz



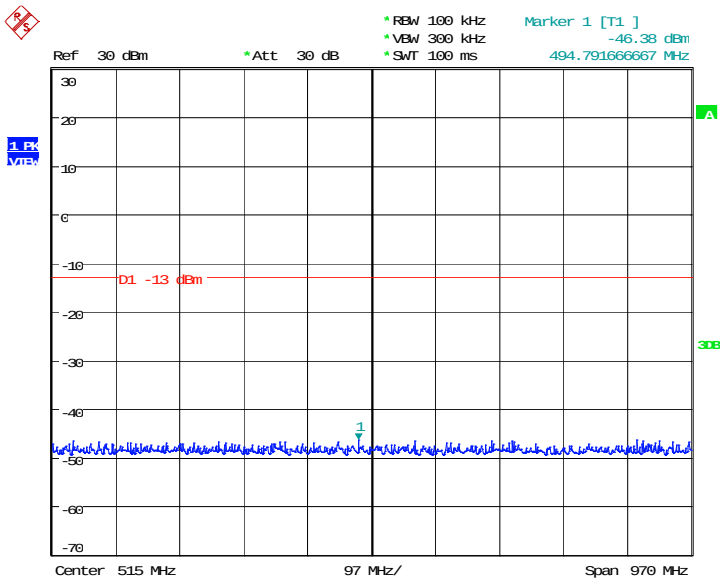
Date: 29.AUG.2016 18:59:20

Conducted Emission Transmitting Mode CH 661 1GHz – 20GHz



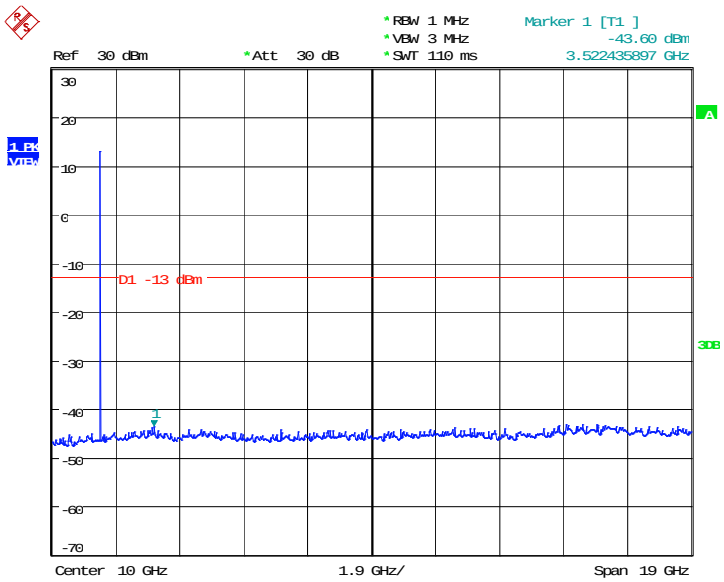
Date: 29.AUG.2016 19:11:16

Conducted Emission Transmitting Mode CH 810 30MHz – 1GHz



Date: 29.AUG.2016 19:12:16

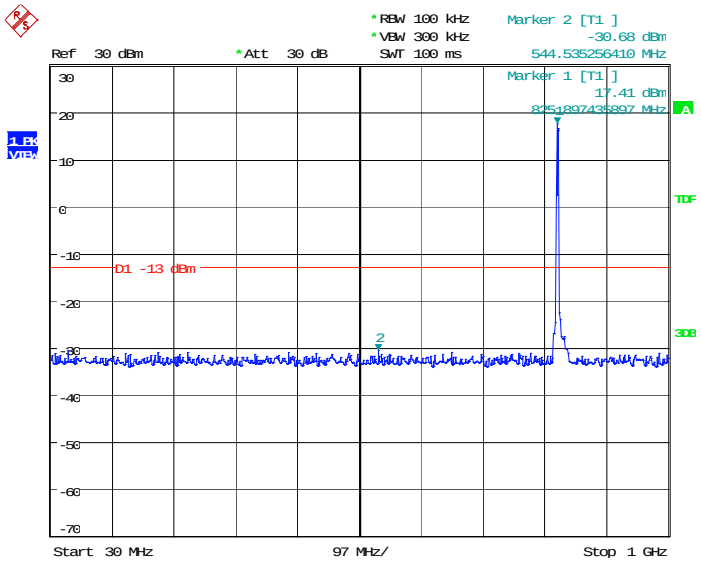
Conducted Emission Transmitting Mode CH 810 1GHz – 20GHz



Date: 29.AUG.2016 19:16:29

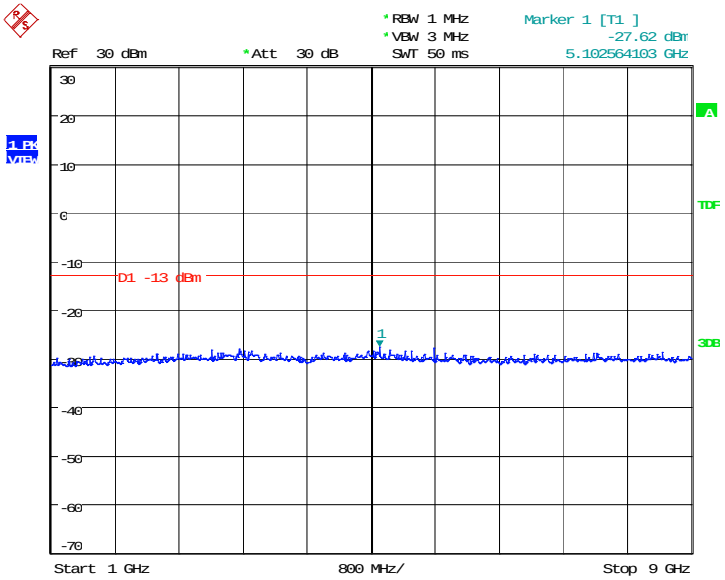
CONDUCTED EMISSION IN WCDMA Band V

Conducted Emission Transmitting Mode CH 4133 30MHz – 1GHz



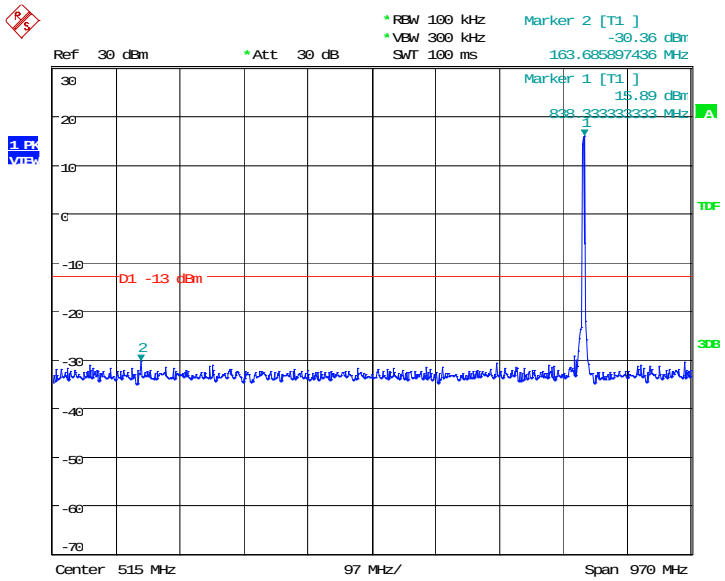
Date: 30.AUG.2016 09:18:35

Conducted Emission Transmitting Mode CH 4133 1GHz – 9GHz



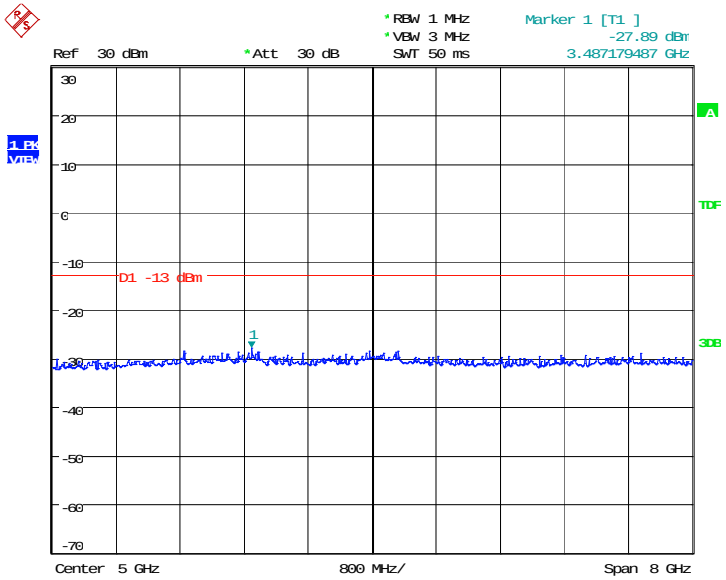
Date: 30.AUG.2016 09:19:45

Conducted Emission Transmitting Mode CH 4175 30MHz – 1GHz



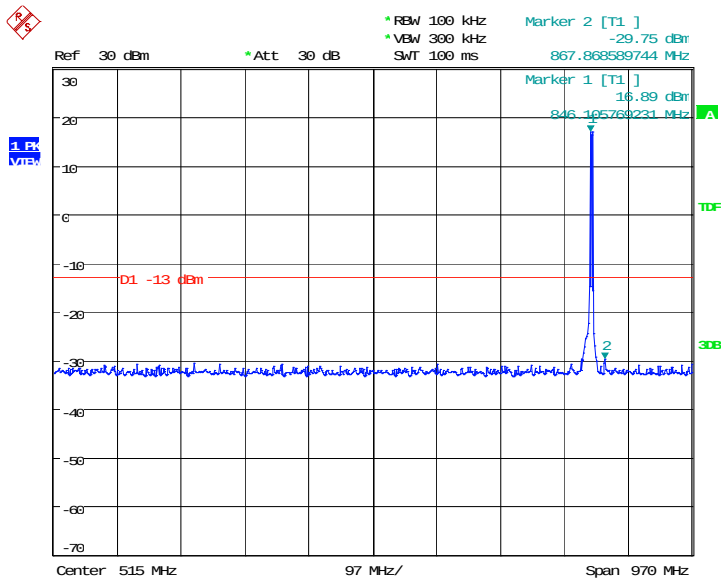
Date: 30.AUG.2016 09:22:19

Conducted Emission Transmitting Mode CH 4175 1GHz – 9GHz



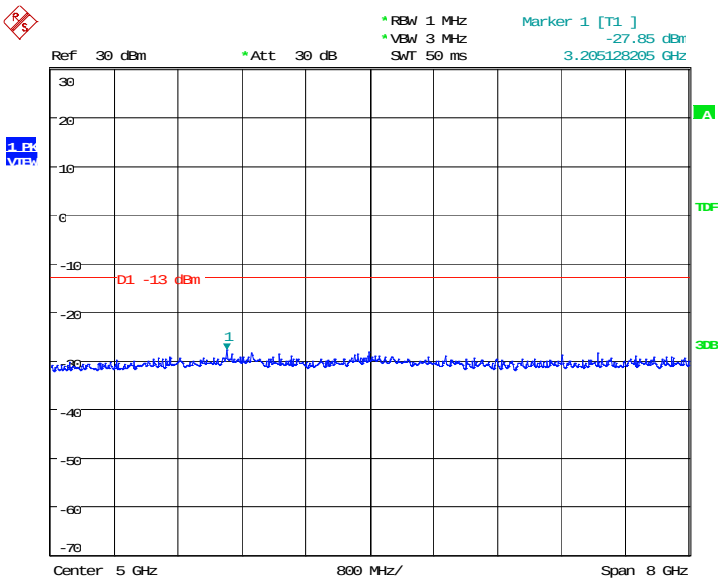
Date: 30.AUG.2016 09:20:36

Conducted Emission Transmitting Mode CH 4232 30MHz – 1GHz



Date: 30.AUG.2016 09:23:05

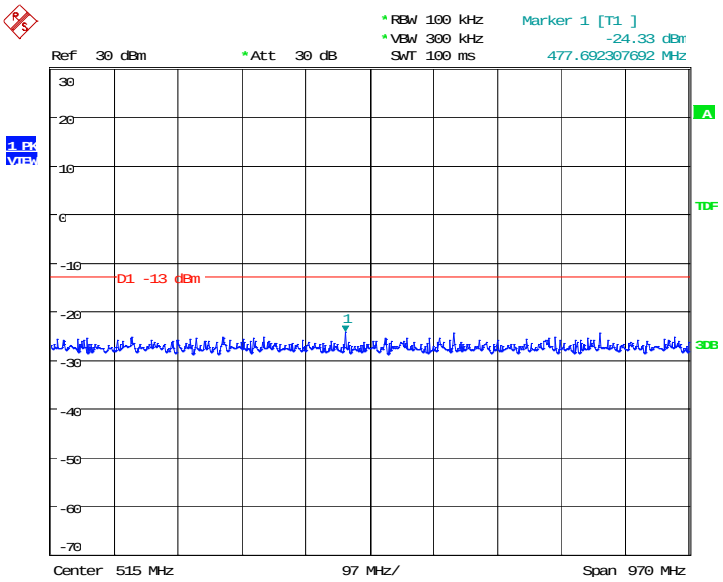
Conducted Emission Transmitting Mode CH 4232 1GHz – 9GHz



Date: 30.AUG.2016 09:24:10

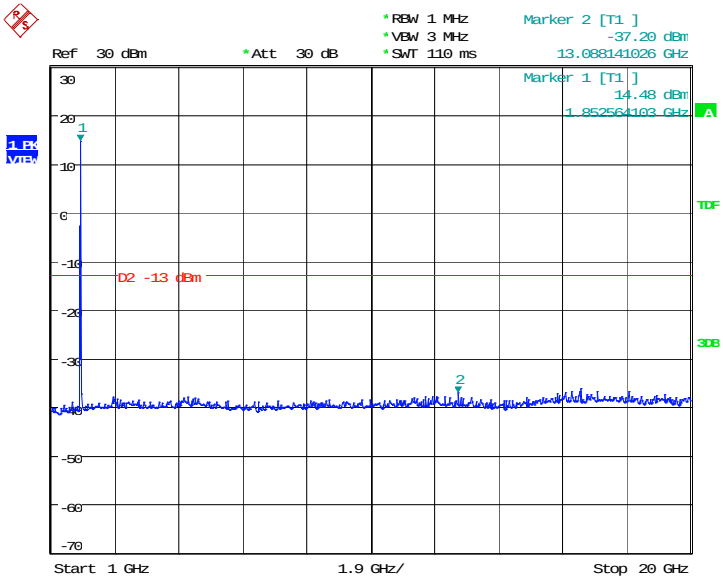
CONDUCTED EMISSION IN WCDMA Band II

Conducted Emission Transmitting Mode CH 9263 30MHz – 1GHz



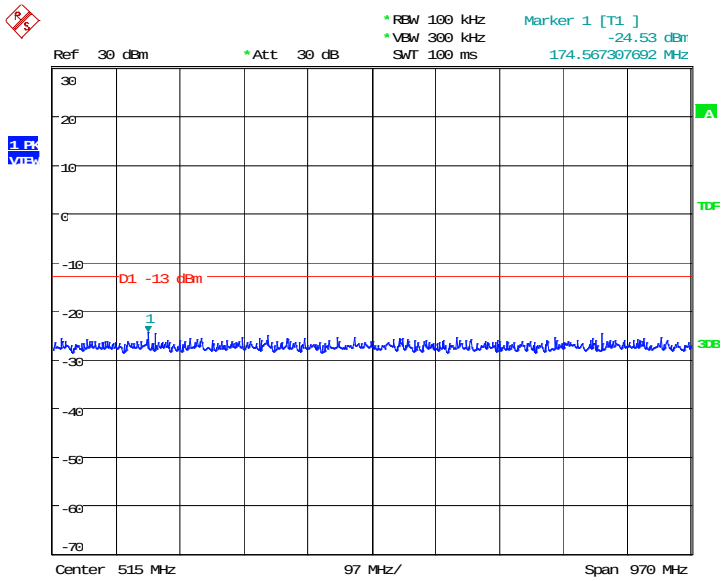
Date: 30.AUG.2016 09:29:08

Conducted Emission Transmitting Mode CH 9263 1GHz – 20GHz



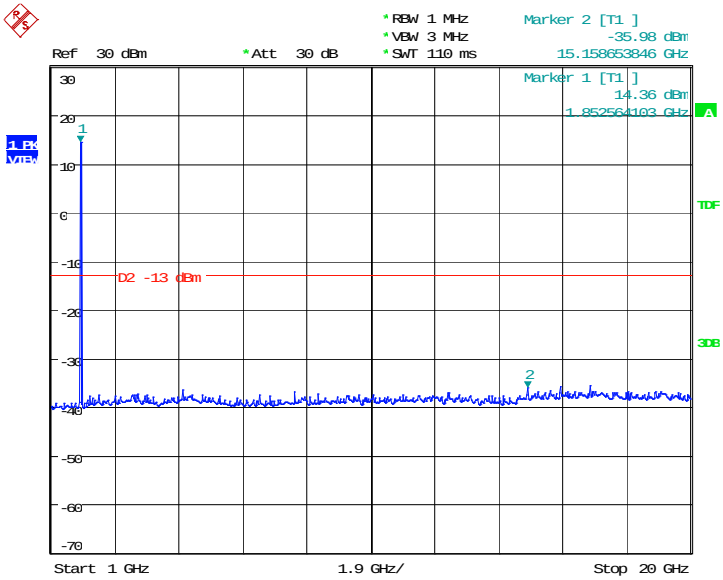
Date: 2.SEP.2016 15:34:04

Conducted Emission Transmitting Mode CH 9400 30MHz – 1GHz



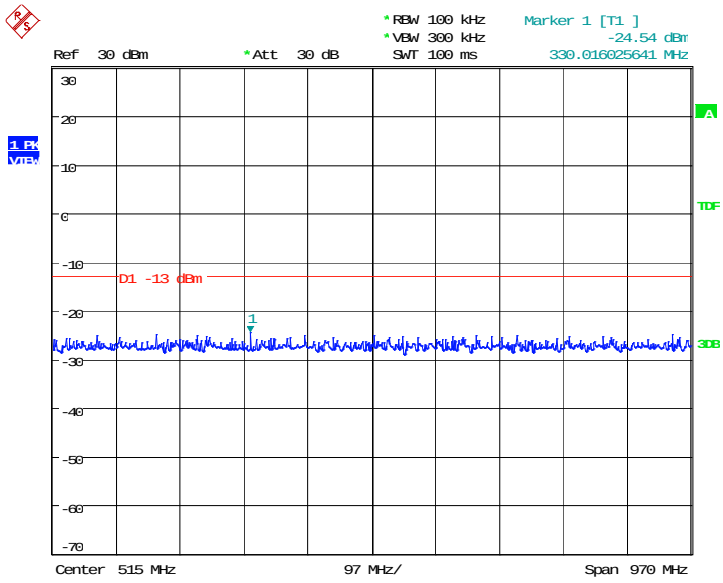
Date: 30.AUG.2016 09:29:35

Conducted Emission Transmitting Mode CH 9400 1GHz – 20GHz



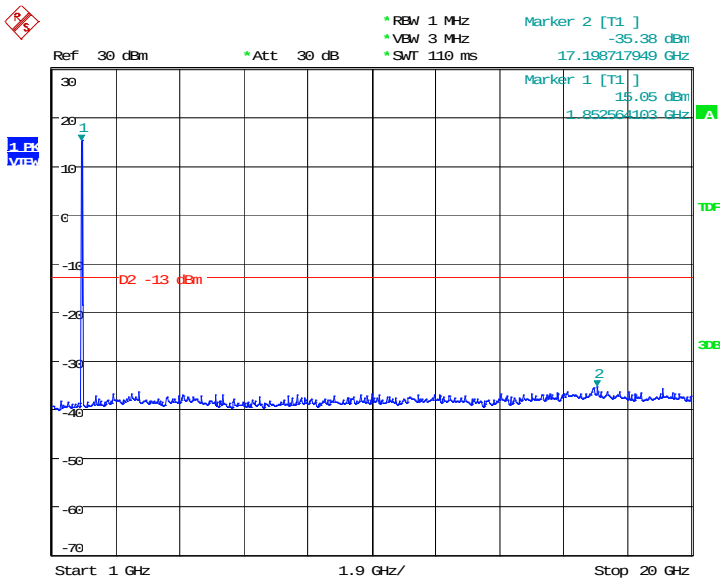
Date: 2.SEP.2016 15:36:55

Conducted Emission Transmitting Mode CH 9537 30MHz – 1GHz



Date: 30.AUG.2016 09:33:21

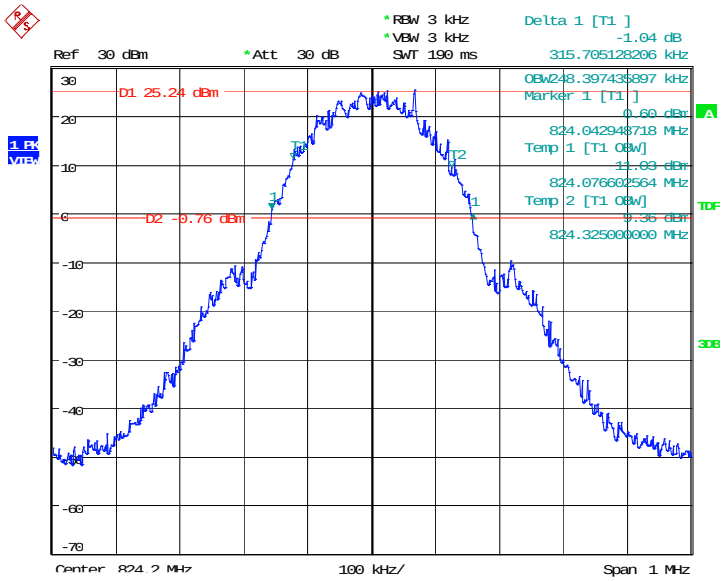
Conducted Emission Transmitting Mode CH 9537 1GHz – 20GHz



Date: 2.SEP.2016 15:38:58

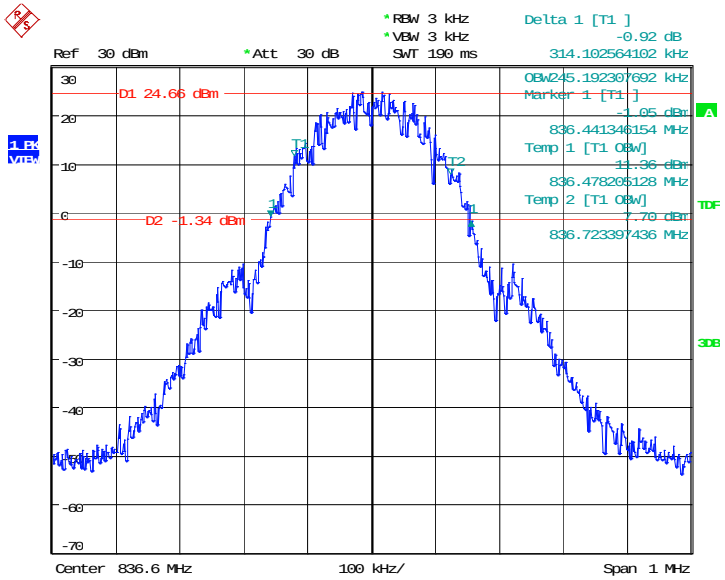
APPENDIX B: TEST PLOTS FOR OCCUPIED BANDWIDTH (99% and -26dBc)

Occupied Bandwidth (99% and -26dBc) GSM 850 BAND CH 128



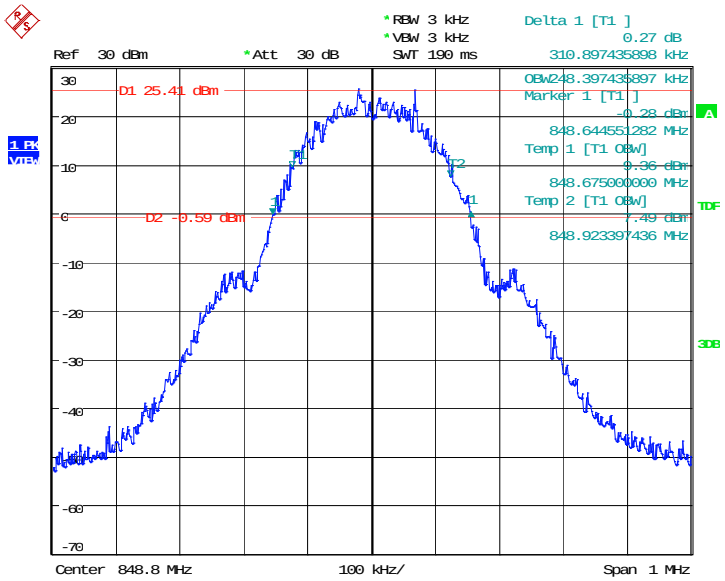
Date: 26.AUG.2016 10:43:18

Occupied Bandwidth (99% and -26dBc) GSM 850 BAND CH 190



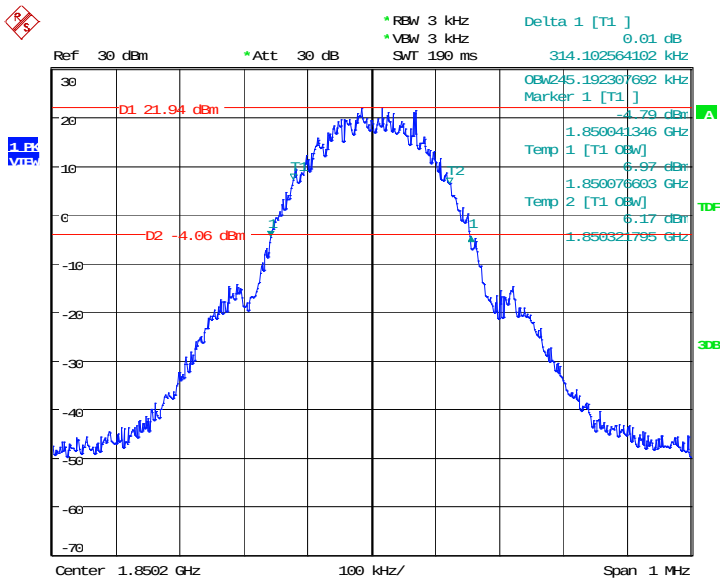
Date: 26.AUG.2016 10:45:15

Occupied Bandwidth (99% and -26dBc) GSM 850 BAND CH 251



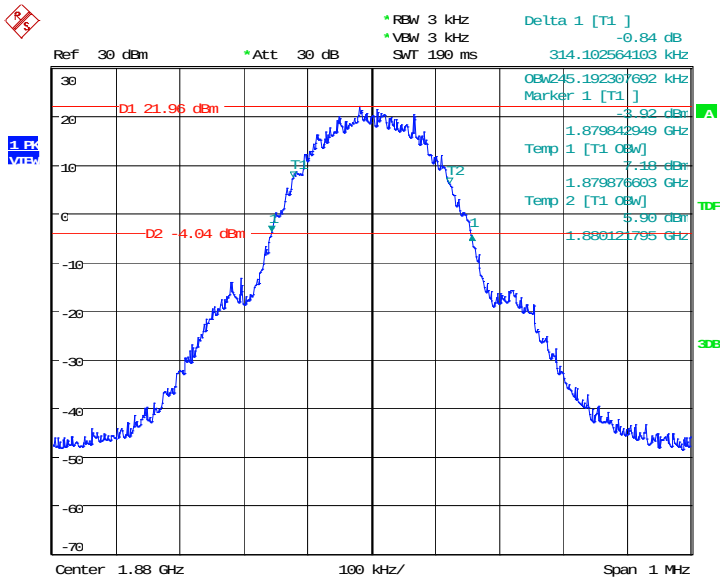
Date: 26.AUG.2016 10:48:09

Occupied Bandwidth (99% and -26dBc) PCS 1900 BAND CH 512



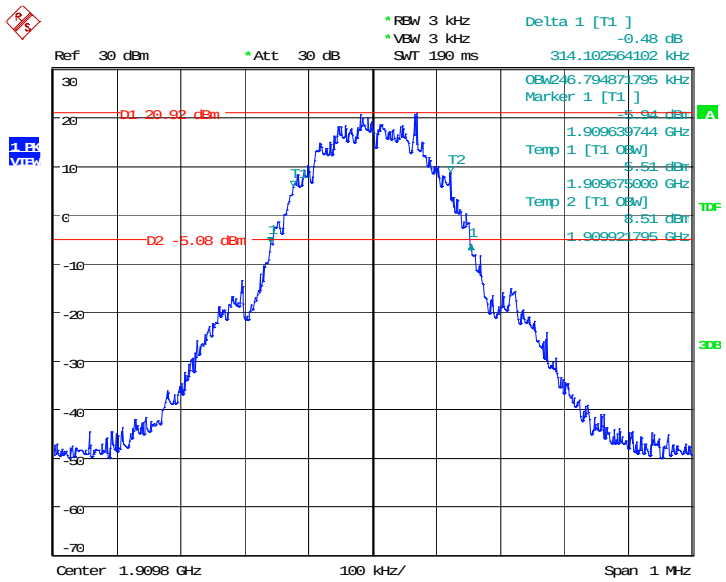
Date: 26.AUG.2016 10:57:11

Occupied Bandwidth (99% and -26dBc) PCS 1900 BAND CH 661



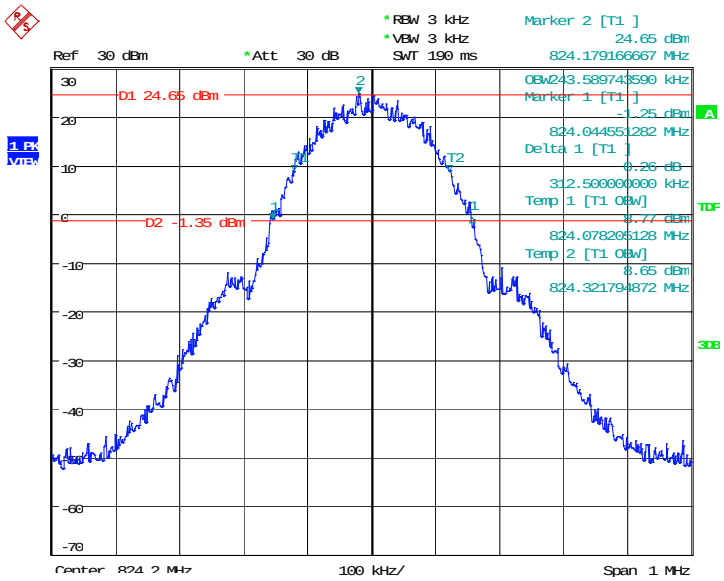
Date: 26.AUG.2016 11:00:26

Occupied Bandwidth (99% and -26dBc) PCS 1900 BAND CH 810



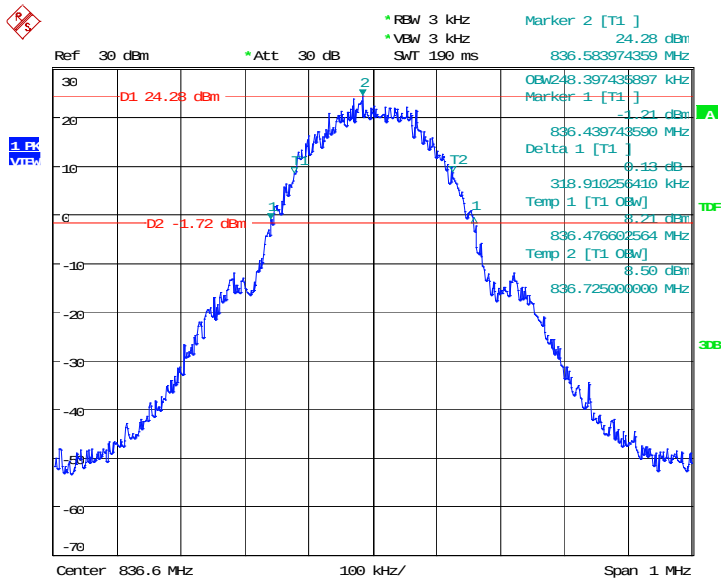
Date: 26.AUG.2016 11:02:25

Occupied Bandwidth (99% and -26dBc) GPRS 850 BAND CH 128



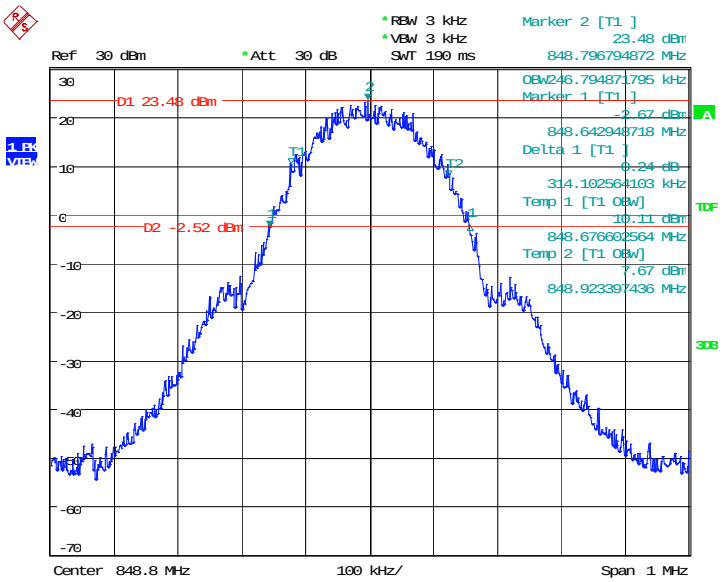
Date: 9.SEP.2016 17:59:26

Occupied Bandwidth (99% and -26dBc) GPRS 850 BAND CH 190



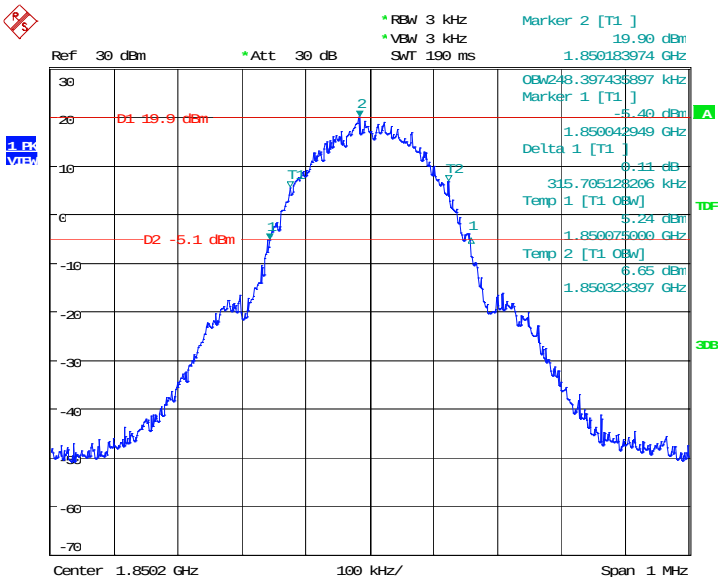
Date: 9.SEP.2016 18:01:02

Occupied Bandwidth (99% and -26dBc) GPRS 850 BAND CH 251



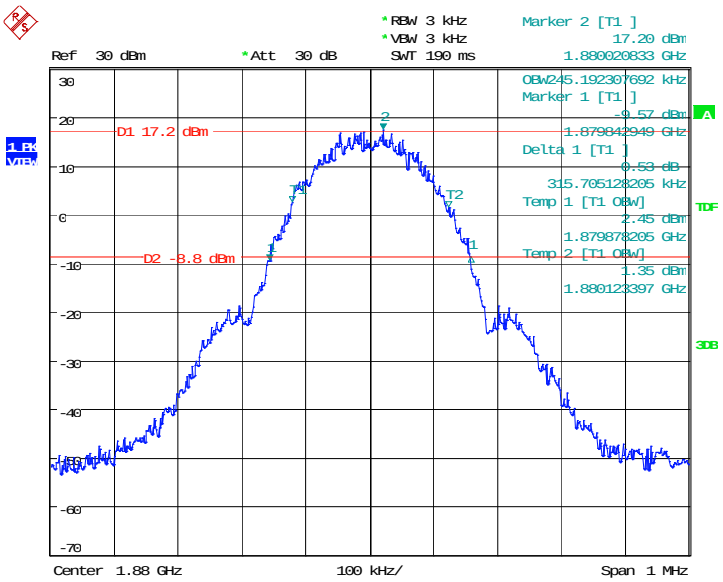
Date: 9.SEP.2016 18:02:41

Occupied Bandwidth (99% and -26dBc) GPRS 1900 BAND CH 512



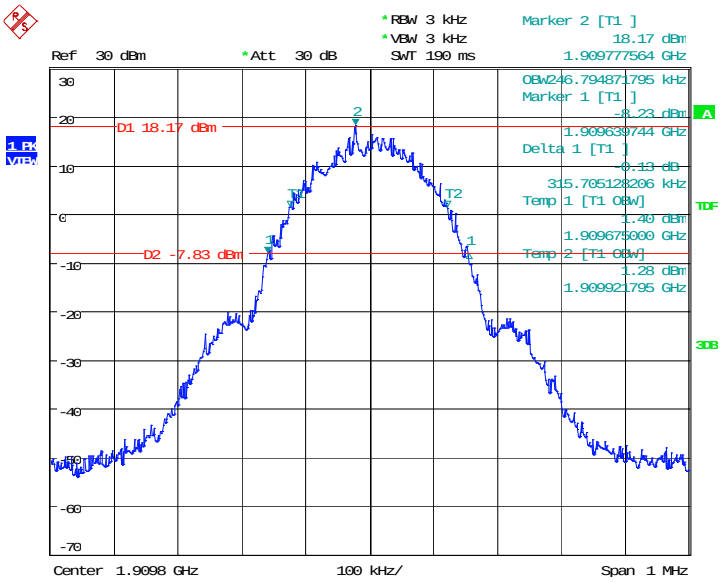
Date: 9.SEP.2016 18:10:49

Occupied Bandwidth (99% and -26dBc) GPRS 1900 BAND CH 661



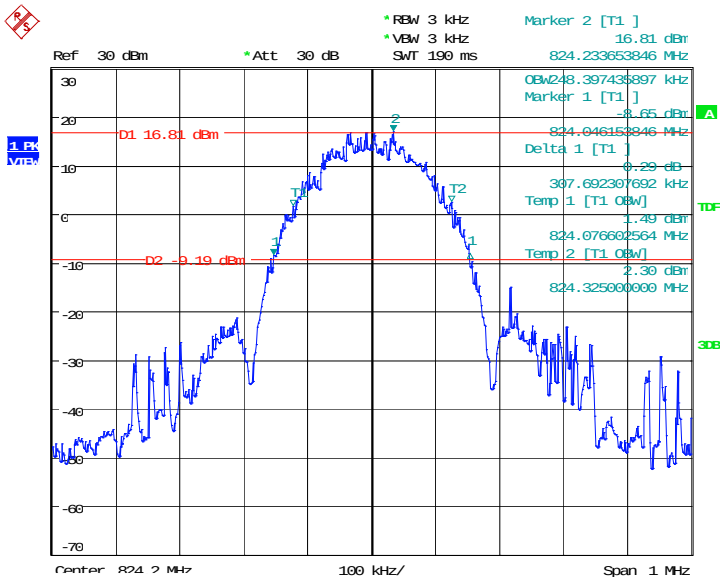
Date: 9.SEP.2016 18:13:10

Occupied Bandwidth (99% and -26dBc) GPRS 1900 BAND CH 810



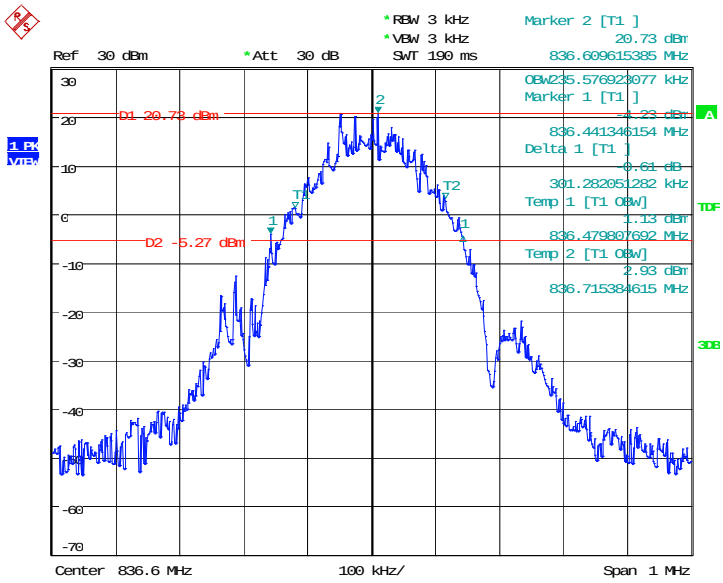
Date: 9.SEP.2016 18:14:33

Occupied Bandwidth (99% and -26dBc) EGPRS 850 BAND CH 128



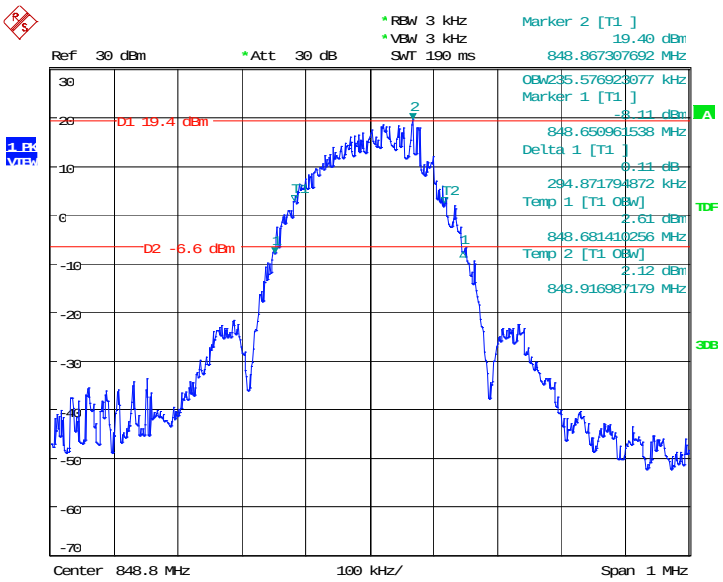
Date: 9.SEP.2016 18:33:14

Occupied Bandwidth (99% and -26dBc) EGPRS 850 BAND CH 190



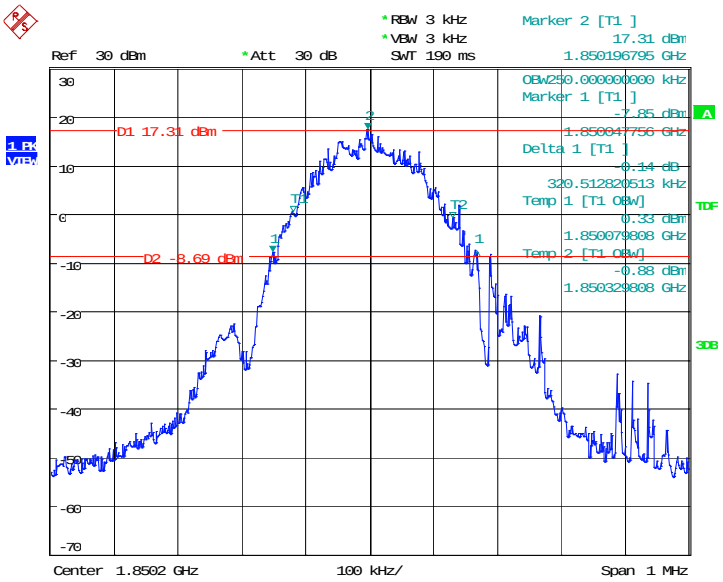
Date: 9.SEP.2016 18:36:14

Occupied Bandwidth (99% and -26dBc) EGPRS 850 BAND CH 251



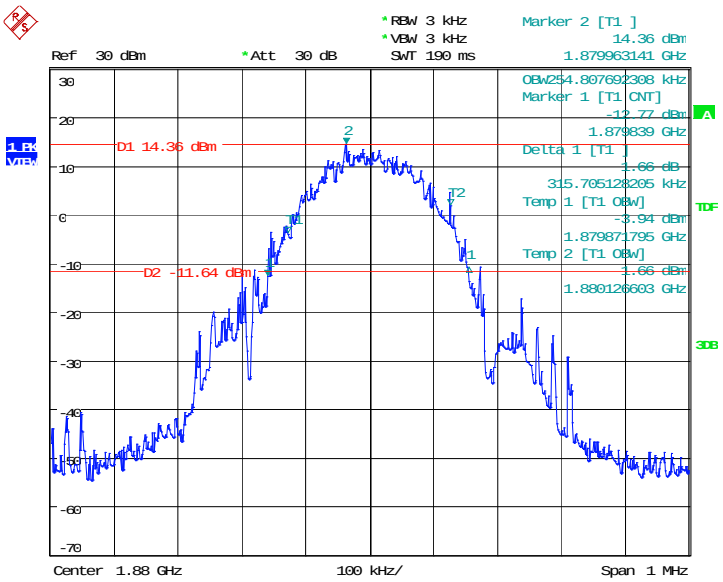
Date: 9.SEP.2016 18:37:35

Occupied Bandwidth (99% and -26dBc) EGPRS 1900 BAND CH 512



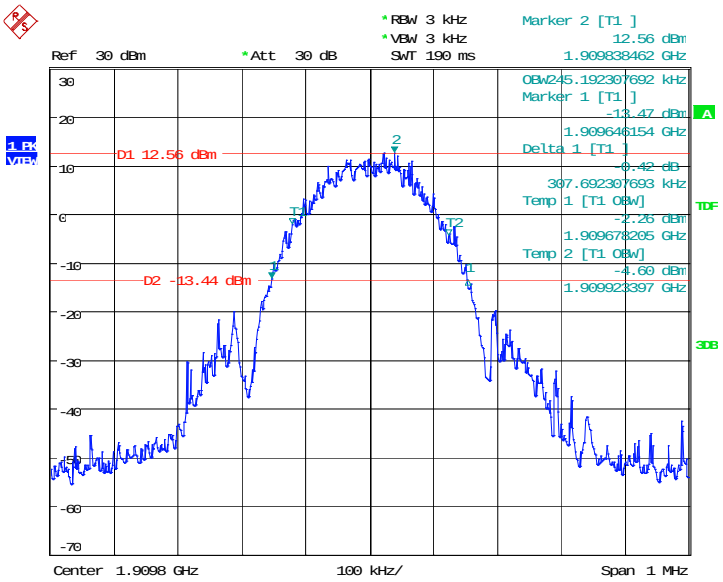
Date: 9.SEP.2016 18:25:00

Occupied Bandwidth (99% and -26dBc) EGPRS 1900 BAND CH 661



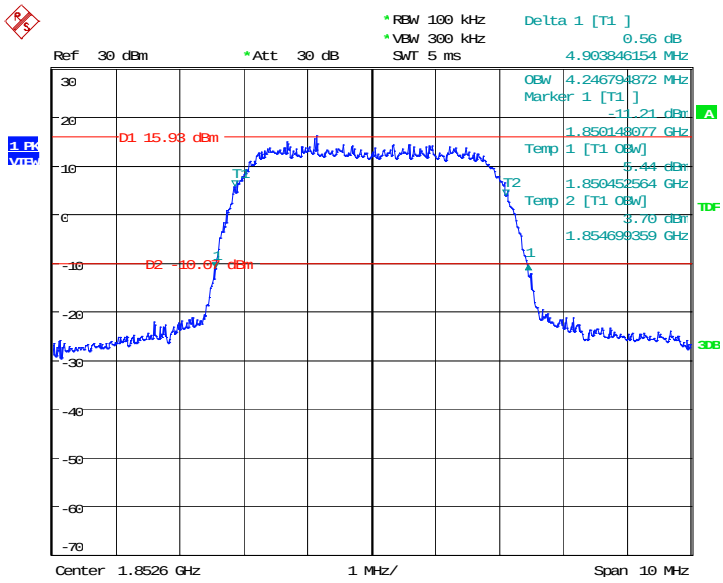
Date: 9.SEP.2016 18:27:25

Occupied Bandwidth (99% and -26dBc) EGPRS 1900 BAND CH 810



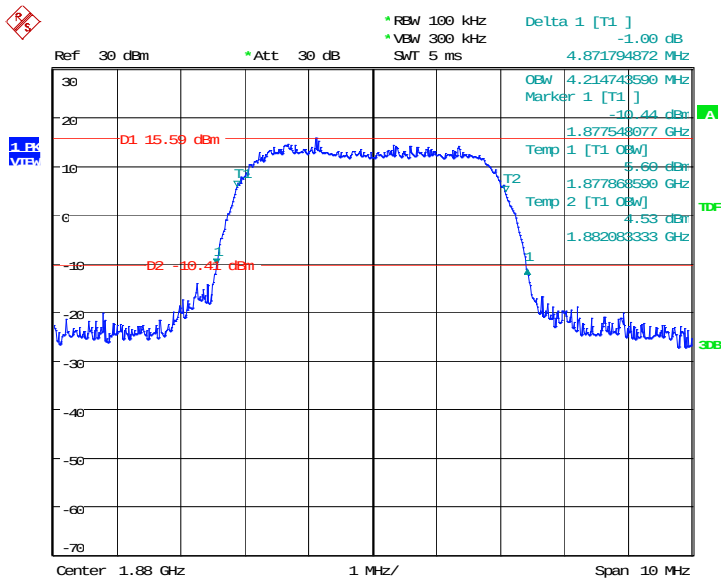
Date: 9.SEP.2016 18:29:45

Occupied Bandwidth (99% and -26dBc) WCDMA BAND II CH 9263

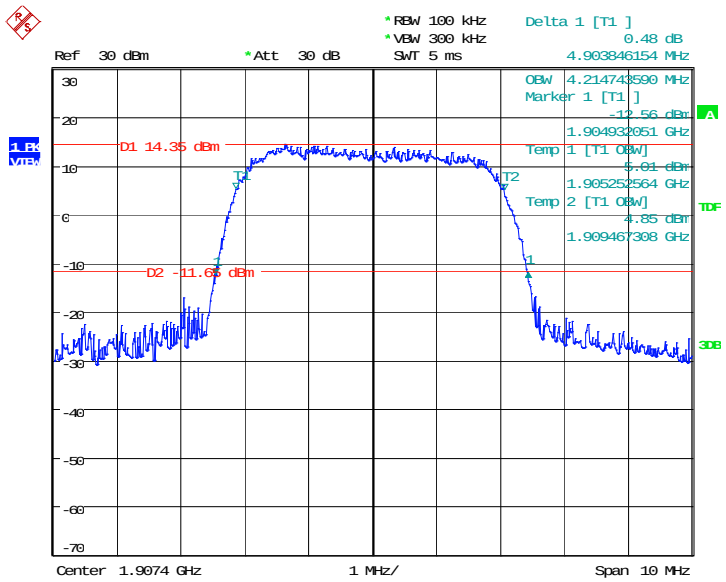


Date: 26.AUG.2016 11:20:55

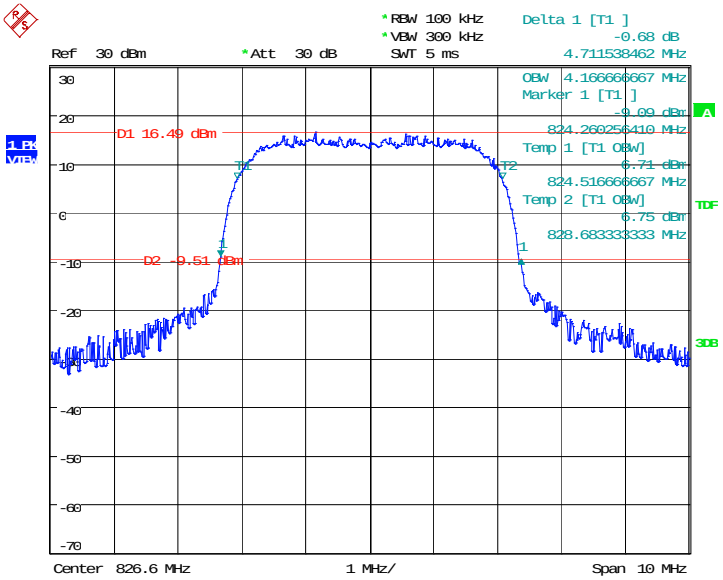
Occupied Bandwidth (99%and-26dBc) WCDMA BAND II CH 9400



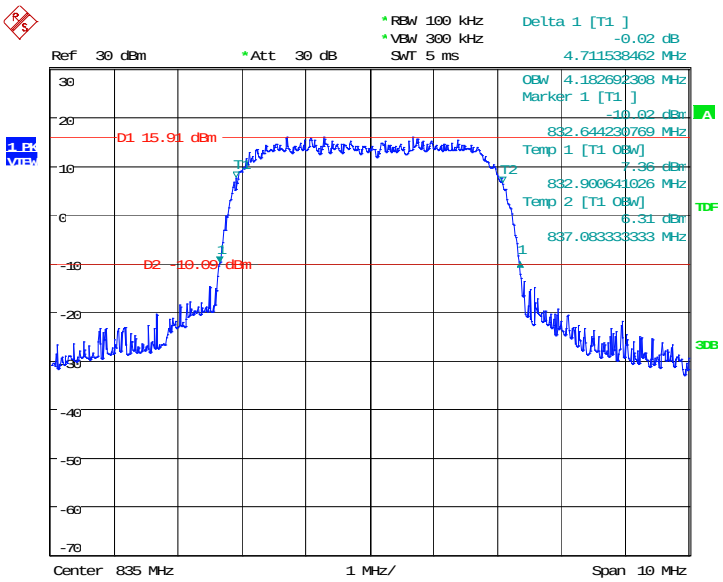
Occupied Bandwidth (99%and-26dBc) WCDMA BAND II CH 9537



Occupied Bandwidth (99%and-26dBc) WCDMA BAND V CH 4133

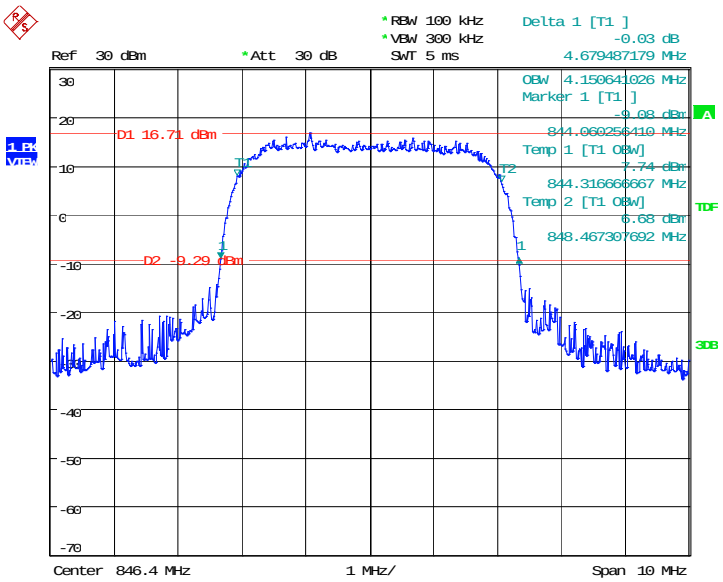


Occupied Bandwidth (99%and-26dBc) WCDMA BAND V CH 4175



Date: 26.AUG.2016 11:53:30

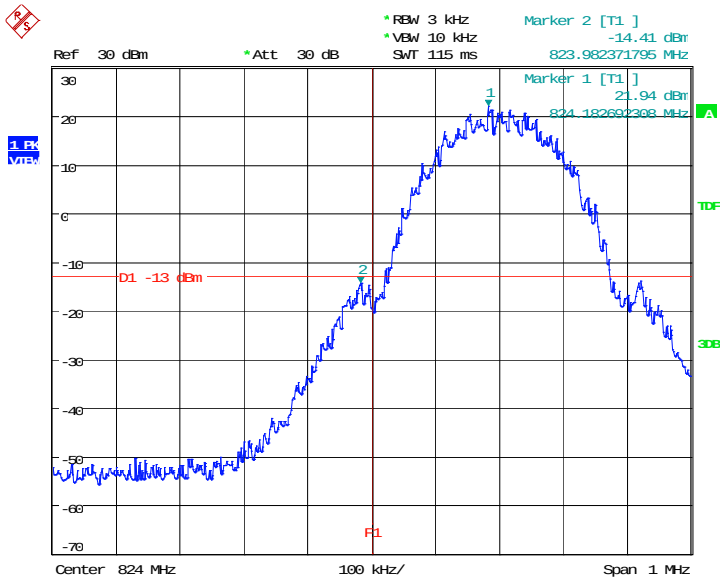
Occupied Bandwidth (99%and-26dBc) WCDMA BAND V CH 4232



Date: 26.AUG.2016 13:50:42

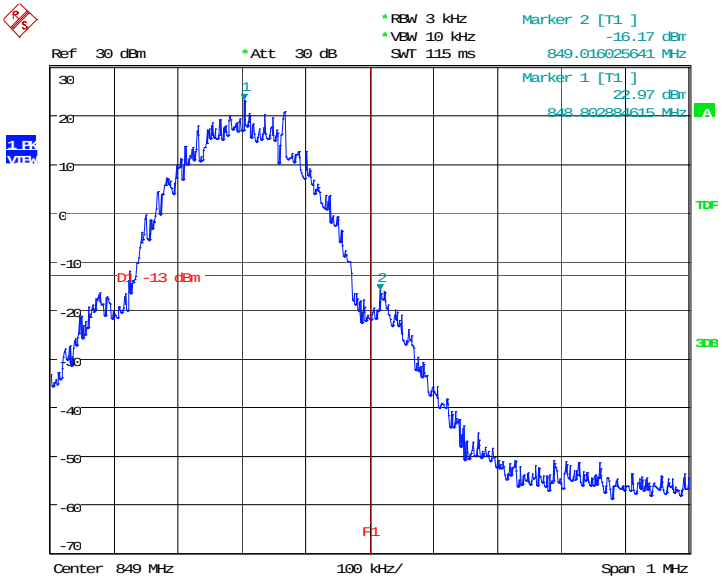
APPENDIX C: TEST PLOTS FOR BAND EDGES

Low Band Edge GSM 850 BAND CH 128



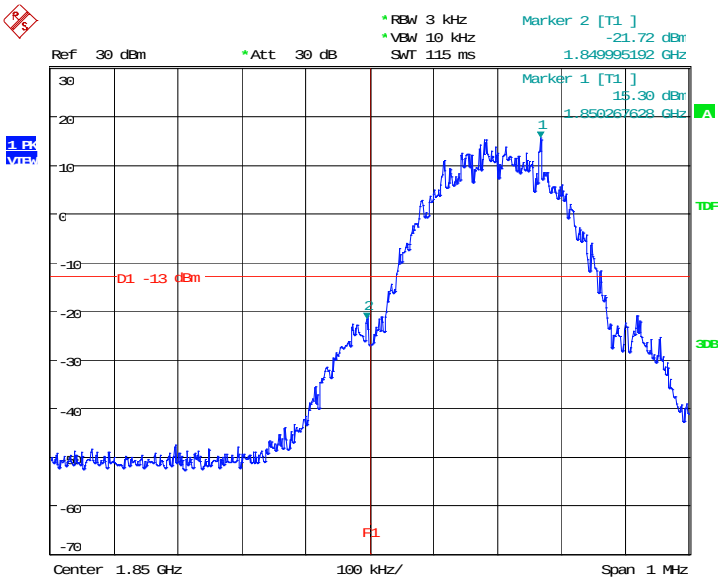
Date: 30.AUG.2016 09:46:33

High Band Edge GSM 850 BAND CH 251



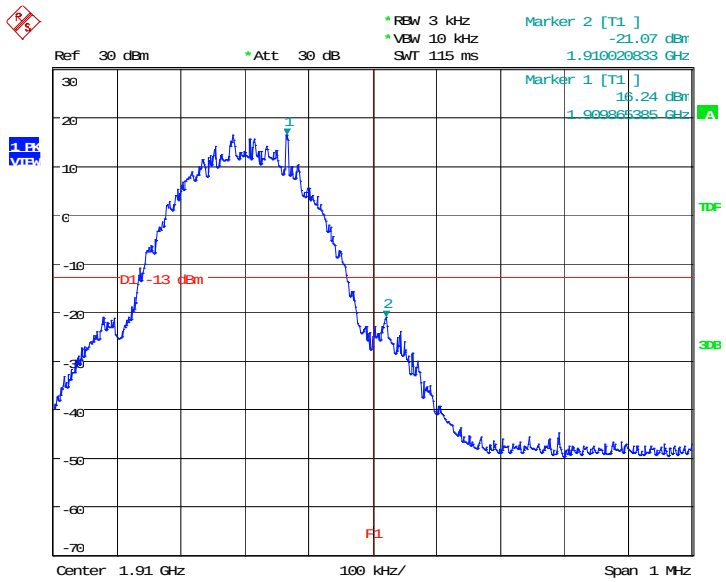
Date: 30.AUG.2016 09:47:59

Low Band Edge PCS 1900 BAND CH 512

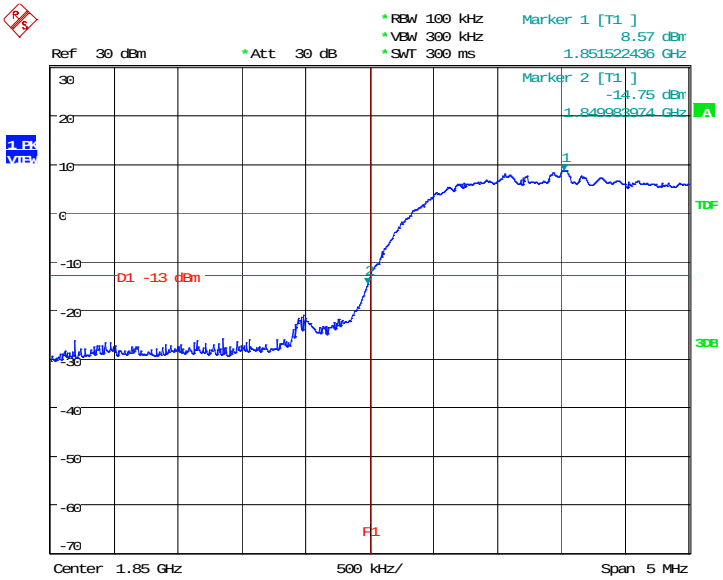


Date: 30.AUG.2016 09:51:36

High Band Edge PCS 1900 BAND CH 810

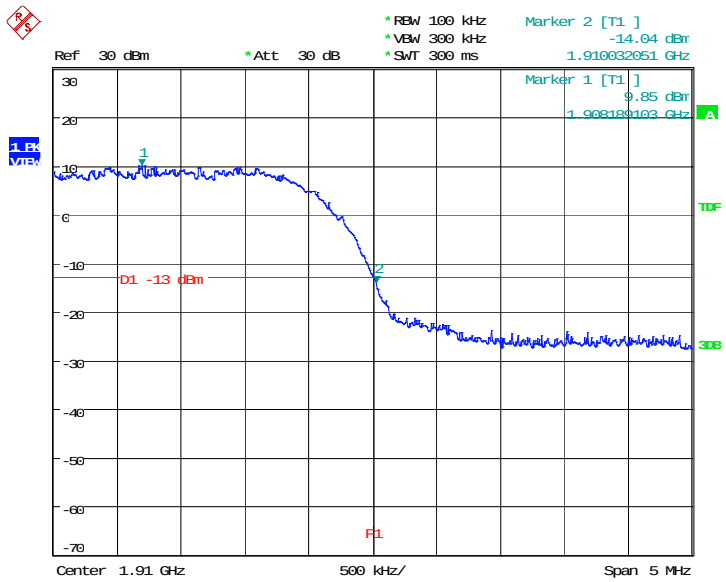


Low Band Edge WCDMA BAND II CH 9263



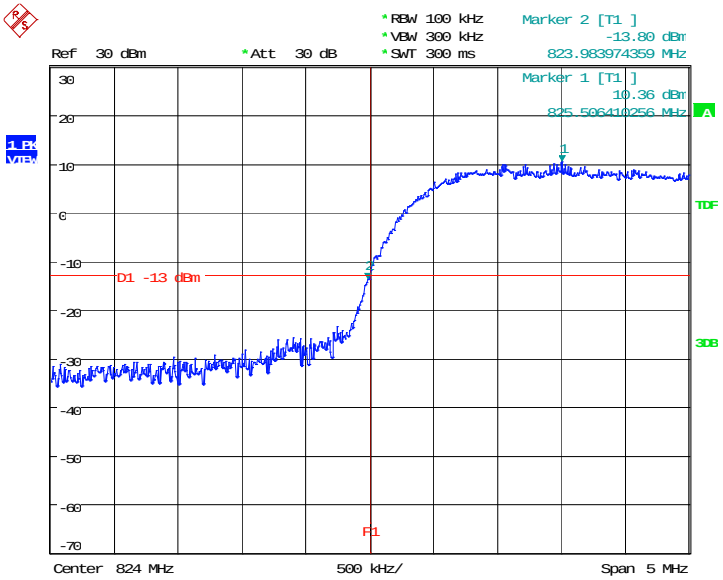
Date: 30.AUG.2016 10:03:07

High Band Edge WCDMA BAND II CH 9537



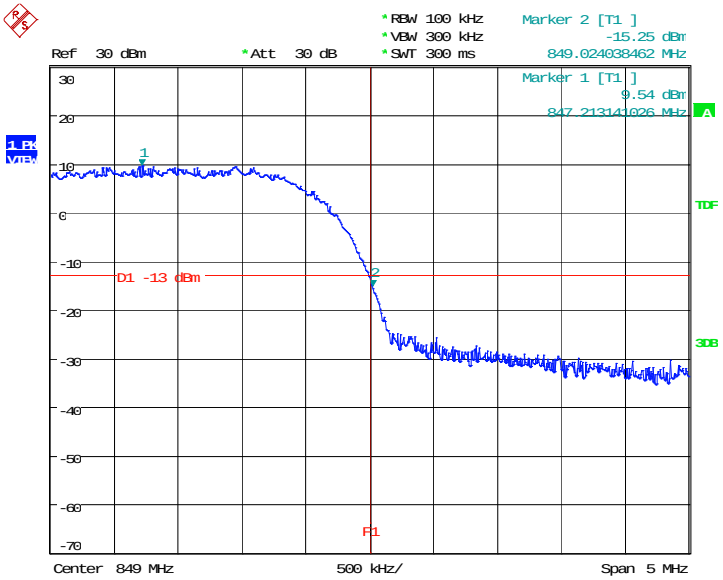
Date: 30.AUG.2016 10:07:27

Low Band Edge WCDMA BAND V CH 4133



Date: 30.AUG.2016 10:13:26

High Band Edge WCDMA BAND V CH 4232



Date: 30.AUG.2016 10:15:44

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