



FCC REPORT Report Reference No.....: TRE1709017501 R/C....: 49459 FCC ID.....:: **ZSW-30-048** Applicant's name: **b** mobile HK Limited Address..... Flat 18; 14/F Block 1; Golden Industrial Building;16-26 Kwai Tak Street; Kwai Chung; New Territories; Hong Kong. Manufacturer....: b mobile HK Limited Flat 18; 14/F Block 1; Golden Industrial Building; 16-26 Kwai Tak Address..... Street; Kwai Chung; New Territories; Hong Kong. **Mobile Phone** Test item description:: Trade Mark **Bmobile** Model/Type reference.....: AX1015 Listed Model(s) FCC Part 22: PUBLIC MOBILE SERVICES Standard:: FCC Part 24: PERSONAL COMMUNICATIONS SERVICES Date of receipt of test sample...... Sep.20, 2017 Date of testing.....: Sep.21, 2017 - Oct.10, 2017 Date of issue..... Oct.11, 2017 Result.....: Pass Compiled by Candy Liv, Zolward.pan (position+printedname+signature)...: File administrators Candy Liu Supervised by (position+printedname+signature)....: Project Engineer : Edward Pan Approved by (position+printedname+signature)....: Manager Hans Hu Testing Laboratory Name:: Shenzhen Huatongwei International Inspection Co., Ltd. 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Address..... Gongming, Shenzhen, China Shenzhen Huatongwei International Inspection Co., Ltd. All rights reserved.

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The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. Test standards and Report version

1.1. Applicable Standards

The tests were performed according to following standards:

FCC Part 22: PRIVATE LAND MOBILE RADIO SERVICES.

FCC Part 24: PUBLIC MOBILE SERVICES

FCC Part 27: MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

TIA/EIA 603 D June 2010: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

FCC Part 2: FREQUENCY ALLOCA-TIONS AND RADIO TREATY MAT-TERS; GENERAL RULES AND REG-ULATIONS

<u>971168 D01 Power Meas License Digital Systems v02r02:</u>provides a methodology for fully characterizing the fundamental power of wideband (> 1 MHz) digitally modulated RF signals acceptable to the FCC for demonstrating compliance for licensed transmitters.

1.2. Report version

Version No.	Date of issue	Description
00	Oct.11, 2017	Original

2. Test Description

Test Item	Section in CFR 47	Result	Test Engineer
RF Output Power	Part 2.1046 Part 22.913(a) Part 24.232(c)	Pass	William Wang
99% & -26 dB Occupied Part 2.1049 Bandwidth Part 22.917(b) Part 24.238(b) Part 24.238(b)		Pass	William Wang
Conducted Spurious Emissions	Part 2.1051 Part 22.917 Part 24.238	Pass	William Wang
Band Edge	Part 2.1051 Part 22.917 Part 24.238	Pass	William Wang
ERP and EIRP	Part 22.913(a) Part 24.232(b)	Pass	William Wang
Radiated Spurious Emissions	Part 2.1053 Part 22.917 Part 24.238	Pass	William Wang
Frequency stability vs. temperature	Part 2.1055(a)(1)(b) Part 22.355 Part 24.235	Pass	William Wang
Frequency stability vs. voltage Part 2.1055(d)(1)(2) Part 22.355 Part 24.235		Pass	William Wang
Peak-Average Ratio	Part 24.232	Pass	William Wang

Note: The measurement uncertainty is not included in the test result.

3. SUMMARY

3.1. Client Information

Applicant:	b mobile HK Limited	
Address:	Flat 18; 14/F Block 1; Golden Industrial Building;16-26 Kwai Tak Street; Kwai Chung; New Territories; Hong Kong.	
Manufacturer:	b mobile HK Limited	
Address:	Flat 18; 14/F Block 1; Golden Industrial Building;16-26 Kwai Tak Street; Kwai Chung; New Territories; Hong Kong.	

3.2. Product Description

Name of EUT:	Mobile Phone		
Trade Mark:	Bmobile		
Model No.:	AX1015		
Listed Model(s):	-		
IMEI 1:	861638031655405		
IMEI 2:	861638031655413		
Power supply:	DC 3.8V From exchange battery		
Adapter information:	Input: 100-240Va.c., 50/60Hz, 0.2A Output: 5Vd.c., 500mA		
Hardware version:	SPR_S3215_V4.0		
Software version:	Bmobile_AX1015_TIGO_V004		
2G:			
Support Network:	GSM, GPRS, EGPRS		
Support Band:	GSM850, PCS1900		
Modulation:	GSM/GPRS/EGPRS: GMSK		
Transmit Frequency:	GSM850: 824.20MHz-848.80MHz PCS1900: 1850.20MHz-1909.80MHz		
Receive Frequency:	GSM850: 869.20MHz-893.80MHz PCS1900: 1930.20MHz-1989.80MHz		
GPRS Class:	12		
EGPRS Class:	12		
Antenna type:	PIFA Antenna		
Antenna gain:	GSM850: 1.2 dBi PCS1900: 1.8 dBi		
3G:			
Operation Band:	FDD Band II and FDD Band V		
Power Class:	Power Class 3		
Modilation Type:	QPSK/16QAM/64QAM/HSUPA/HSDPA		
DC-HSUPA Release Version:	Not Supported		
Antenna type:	PIFA Antenna		
Antenna gain:	Band II: 1.8 dBi,Band V: 1.2dBi		
•	-		

3.3. Operation state

> <u>Test frequency list</u>

GSM850		PCS1900	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
128	824.20	512	1850.20
190	836.60	661	1880.00
251	848.80	810	1909.80

FDD Band II		FDD Band V		
Channel	Frequency (MHz)	Channel	Frequency (MHz)	
9262	1852.4	4132	826.40	
9400	1880.0	4183	836.60	
9538	1907.6	4233	846.60	

> <u>Test mode</u>

For RF test items

The EUT has been tested under typical operating condition. Testing was performed by configuring EUT to maimum output power status.

The Test EUT support two SIM card(SIM1,SIM2), so all the tests are performed at each SIM card (SIM1,SIM2) mode, the datum recorded is the worst case for all the mode at SIM1 Card mode.

3.4. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- - supplied by the manufacturer
- - supplied by the lab

Length (m):	/
Shield:	/
Detachable:	/
Manufacturer:	/
Model No.:	/

3.5. Modifications

No modifications were implemented to meet testing criteria.

4. TEST ENVIRONMENT

4.1. Address of the test laboratory

Laboratory: Shenzhen Huatongwei International Inspection Co., Ltd. Address: 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

4.2. Test Facility

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No.: 3902.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 762235

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files.

IC-Registration No.:5377B-1

Two 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No.: 5377B-1.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our A2LA accreditation.

4.3. Equipments Used during the Test

RF Co	onducted				
No.	Equipment	Manufacturer	Model No.	SerialNo.	Last Cal.
1	UNIVERSAL RADIO COMMUNICATION	Rohde&Schwarz	CMU200	112012	2016/11/13
2	WIDEB.RADIO COMM.TESRER	Rohde&Schwarz	CMW500	1201.0002K50	2016/11/13
3	Spectrum Analyzer	Rohde&Schwarz	FSU26	201141	2016/11/13
4	MXA Signal Analyzer	Agilent Technologies	N9020A	MY5050187	2016/11/13
5	Splitter	Mini-Circuit	ZAPD-4	400059	2016/11/13
6	Climate Chamber	ESPEC	EL-10KA	05107008	2016/11/13
DED	adiated				
No.	Equipment	Manufacturer	Model No.	SerialNo.	Last Cal.
	UNIVERSAL RADIO				
1	COMMUNICATION	Rohde&Schwarz	CMU200	112012	2016/11/13
2	WIDEB.RADIO COMM.TESRER	Rohde&Schwarz	CMW500	1201.0002K50	2016/11/13
3	Spectrum Analyzer	Rohde&Schwarz	FSU26	201141	2016/11/13
4	HORNANTENNA	ShwarzBeck	9120D	1012	2016/11/13
5	HORNANTENNA	ShwarzBeck	9120D	1011	2016/11/13
6	Ultra-Broadband Antenna	ShwarzBeck	VULB9163	538	2016/11/13
7	Ultra-Broadband Antenna	ShwarzBeck	VULB9163	539	2016/11/13
8	TURNTABLE	MATURO	TT2.0		N/A
9	ANTENNA MAST	MATURO	TAM-4.0-P		N/A
10	EMI Test Software	Audix	E3	N/A	N/A
11	EMI Test Receiver	Rohde&Schwarz	ESIB 26	100009	2016/11/13
12	RF Test Panel	Rohde&Schwarz	TS / RSP	335015/0017	2016/11/13
13	High pass filter	Compliance Direction systems	BSU-6	34202	2016/11/13
14	Splitter	Mini-Circuit	ZAPD-4	400059	2016/11/13
15	Horn Antenna	SCHWARZBECK	BBHA9170	25841	2016/11/13
16	Horn Antenna	SCHWARZBECK	BBHA9170	25842	2016/11/13
17	Preamplifier	ShwarzBeck	BBV 9718	BBV 9718	2016/11/13
18	Broadband Preamplifier	ShwarzBeck	BBV743	9743-0079	2016/11/13
19	Signal Generator	Rohde&Schwarz	SMF100A	101932	2016/11/13
20	Amplifer	Compliance Direction systems	PAP1-4060	120	2016/11/13
21	TURNTABLE	ÉTS	2088	2149	2016/11/13
22	ANTENNA MAST	ETS	2075	2346	2016/11/13
23	HORNANTENNA	Rohde&Schwarz	HF906	100068	2016/11/13
24	HORNANTENNA	Rohde&Schwarz	HF906	100039	2016/11/13

The calibration interval was one year.

4.4. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature/Tnor:	15~35°C
lative Humidity	30~60 %
Air Pressure	950-1050 hPa

4.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01"Electromagnetic compatibilityand Radio spectrum Matters (ERM);Uncertainties in the measurementof mobile radio equipment characteristics;Part 1"and TR-100028-02 "Electromagnetic compatibilityand Radio spectrum Matters (ERM);Uncertainties in the measurement characteristics;Part 2" and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test Items	MeasurementUncertainty	Notes
Frequency stability	25 Hz	(1)
Transmitter power conducted	0.57 dB	(1)
Transmitter power Radiated	2.20 dB	(1)
Conducted spurious emission 9KHz-12.75 GHz	1.60 dB	(1)
Conducted Emission 9KHz-30MHz	3.39 dB	(1)
Radiated Emission 30~1000MHz	4.24 dB	(1)
Radiated Emissio 1~18GHz	5.16 dB	(1)
Radiated Emissio 18-40GHz	5.54 dB	(1)
Occupied Bandwidth		(1)

 This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

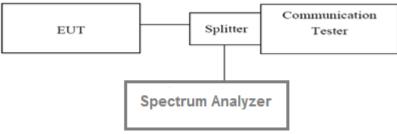
5. TEST CONDITIONS AND RESULTS

5.1. Conducted Output Power

LIMIT

N/A

TEST CONFIGURATION



TEST PROCEDURE

- 1. The transmitter output port was connected to base station.
- 2. 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.
- 3. Set EUT at maximum power through base station.
- 4. Select lowest, middle, and highest channels for each band and different modulation.
- 5. Measure the maximum burst average power.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

☑ Passed □ Not Applicable

Report No.: TRE1709017501

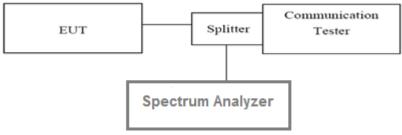
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EUT Mode	Channel	Frequency (MHz)	Power (dBm)
GSM 850 (GMSK)	128	824.20	33.50
	190	836.60	33.46
(Cimory)	251	848.80	33.35
	128	824.20	33.39
GPRS850 (GMSK,1Slot)	190	836.60	33.33
	251	848.80	33.25
50550050	128	824.20	33.32
EGPRS850 (GMSK,1Slot)	190	836.60	33.28
(GMSR, 15101)	251	848.80	33.25
	512	1850.20	29.76
PCS1900 (GMSK)	661	1880.00	29.43
(GMOR)	810	1909.80	29.29
	512	1850.20	29.75
GPRS1900 (GMSK,1Slot)	661	1880.00	29.43
	810	1909.80	29.29
	512	1850.20	29.69
EGPRS1900 (GMSK,1Slot)	661	1880.00	29.38
(GMSR, 15101)	810	1909.80	29.23
	9262	1852.40	23.43
WCDMA Band II	9400	1880.00	23.52
	9538	1907.60	23.51
	4132	826.40	23.30
WCDMA Band V	4183	836.60	23.28
	4233	846.60	23.16

5.2. 99% & -26 dB Occupied Bandwidth

N/A

TEST CONFIGURATION



TEST PROCEDURE

- 1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer
- 2. RBWwas set to about 1% of emission BW, VBW= 3 times RBW.
- 3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

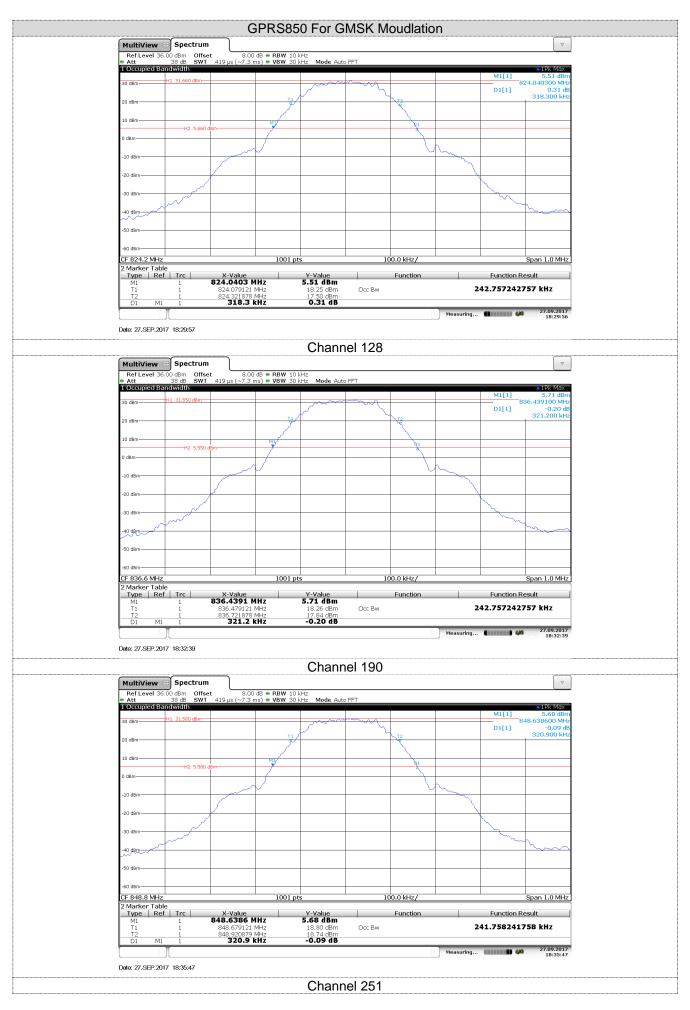
☑ Passed □ Not Applicable

Report No.: TRE1709017501

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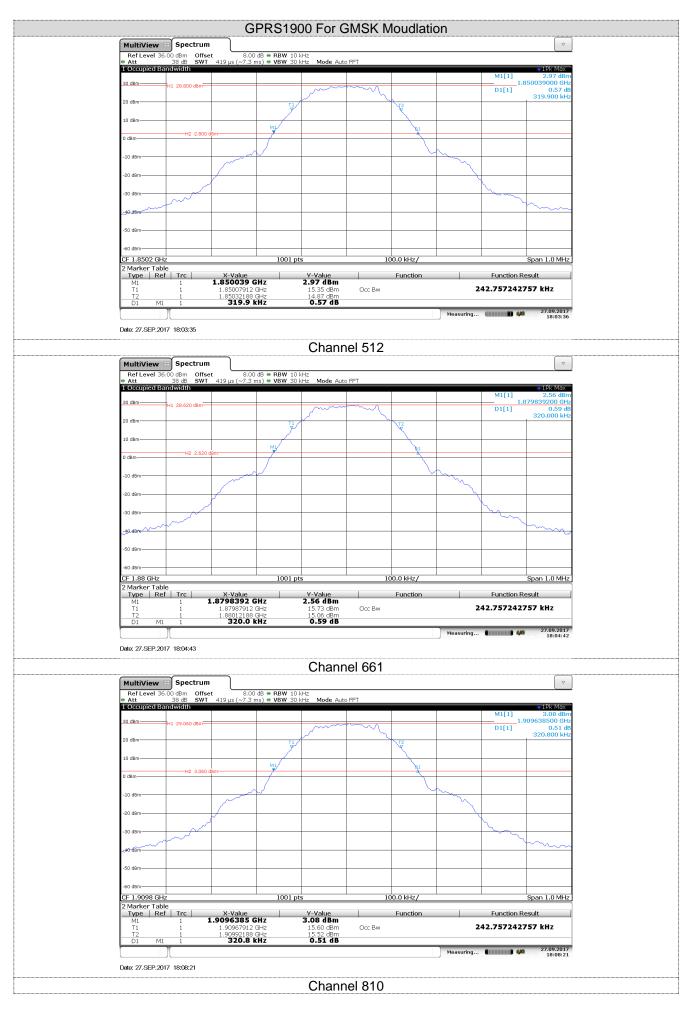
EUT Mode	Channel	Frequency (MHz)	99% Occupy bandwidth (KHz)	-26dB bandwidth (KHz)
	128	824.20	245.75	321.20
GSM 850 (GMSK)	190	836.60	243.75	320.80
(Civility)	251	848.80	243.75	320.50
	128	824.20	242.75	318.30
GPRS850 (GMSK,1Slot)	190	836.60	242.75	321.20
	251	848.80	241.75	320.90
50000050	128	824.20	243.75	320.20
EGPRS850 (GMSK,1Slot)	190	836.60	243.75	323.10
	251	848.80	242.75	321.50
	512	1850.20	244.75	320.80
PCS1900 (GMSK)	661	1880.00	243.75	321.50
	810	1909.80	243.75	323.80
	512	1850.20	242.75	319.90
GPRS1900 (GMSK,1Slot)	661	1880.00	242.75	320.00
	810	1909.80	242.75	320.80
	512	1850.20	245.75	317.80
EGPRS1900 (GMSK,1Slot)	661	1880.00	243.75	322.10
	810	1909.80	243.75	319.80
	9262	1852.40	4095.90	4714.00
WCDMA Band II	9400	1880.00	4095.90	4689.00
	9538	1907.60	4095.90	4688.00
	4132	826.40	4085.91	4680.00
WCDMA Band V	4183	836.60	4095.90	4670.00
	4233	846.60	4095.90	4701.00

MultiView			SOINIOO	0 For Gl		adiatio	n		
Bef Level 36			dB = BBW 10	kH z					
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10 dBm	H2 5.220 d	Bm	MI			<u>b</u> 1			
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-20 dBm		1							
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-40 dBm									~~~~
-50 dBm									
-60 dBm									
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Date: 27.SEP.201	7 17:29:13								17.29:13
	-			Charr	nel 128				
(Ghan					
Ref Level 36.	OO dBm Offse 38 dB SWT		dB • RBW 10	kHz					Ľ
Att 1 Occupied Ba	38 dB SWT	419 µs (~7.3 n	ns) 🖶 VBW 30	kHz Mode Aut	o FFT			M1[1]	• 1Pk Max
30 dBm	H1 31.910 dBm				the second			M1[1] ————————————————————————————————————	5.85 dBm 6.438900 MHz 0.39 dB
20 dBm						T2			320.800 kHz
10 dBm						\sum			
	H2 5.910 d	Bm	1						
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-40 dBm	~~~								<u>~</u>
-50 dBm									
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-60 dBm			1001 pt	e	10	0.0.642/			Spap 1.0 MHz
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CF 836.6 MHz 2 Marker Table Type Ref M1	e Trc 1	X-Value 836.4389 M 836.4781221	IHz	Y-Value 5.85 dBm		0.0 kHz/ Function	2	Function Re	sult
CF 836.6 MHz 2 Marker Table Type Ref	e Trc 1 1 1 1	X-Value 836.4389 M 836.478122 836.721878 f 320.8 k	IHz		Occ Bw		2		sult 56 kHz
CF 836.6 MHz 2 Marker Table Type Ref M1 T1 T2	e Trc 1 1 1 1	X-Value 836.4389 M 836.478122 I 836.721878 I 320.8 k	IHz	Y-Value 5.85 dBm				Function Re	sult
CF 836.6 MHz 2 Marker Table Type Ref M1 T1 T2	I I 1 1 1 1 1 1	X-Value 836,4389 836,4389 21 836,721878 836,721878 320.8 k	IHz	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	Occ Bw			Function Re	sult 56 kHz 27.09.2017
CF 836.6 MHz 2 Marker Table Type Ref M1 T1 T2 D1 M1	I I 1 1 1 1 1 1	X-Value 836.4389 M 836.478122 836.721878 I 320.8 k	IHz	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB				Function Re	sult 56 kHz 27.09.2017
CF 836.6 MHz 2 Marker Table Type Ref M1 T1 T2 D1 M1 Date: 27.SEP.201 MultiView	Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836.4781221 836.721878 320.8 k	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw			Function Re	sult 56 kHz 27.09.2017
MultiView MultiView Ref Level 36	Trc 1 1 1 1 1 1 1 1 1 1 1 1 1 1	836.4781221 836.721878 320.8 k	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw			Function Re	sult 56 kHz 27.09.2017 17:31:04
MultiView Ref MultiView Ref	Trc 1 1 1 1 1 1 1 1 1 1 1 1 1 1	836.4781221 836.721878 320.8 k	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw			Function Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ♥ ■ 1Pk Max 5.96 dBm
CF 836.6 MHz 2 Marker Table Type Ref T1 T T2 D1 D1 MI D2 Cr.SEP.201 MultiView Ref Level 36. * Att E Occupied Ba 30 dBm D	Trc 1 1 1 1 1 1 1 1 1 1 1 1 1 1	836.4781221 836.721878 320.8 k	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw			Function Re 43.7562437	ssult 56 kHz 27.09.2017 17:31:04 ▼
MultiView Ref MultiView Ref	Trc 1 1 1 1 1 1 1 1 1 1 1 1 1 1	836.4781221 836.721878 320.8 k	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw			Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
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MultiView MultiView Ref Level 36.9 At the complete the c	Trc 1 1 1 1 1 7	836,478122 836,721878 320.8 320.8	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
MultiView Ref Ref Level 36. MultiView MultiView Ref Level 36. a dbm 20 dbm	Trc 1 1 1 1 1 7	836,4781227 836,721878 320.8 320.8	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
MultiView Ref MultiView Ref MultiView Ref MultiView Ref Ref Level 36 Att 1 Oden 30 dbm 20 10 dbm 0 0 dbm 30	Trc 1 1 1 1 1 7	836,4781227 836,721878 320.8 320.8	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
MultiView CF 836.6 MHz 2 Marker Table Type Ref Type Ref Milt T1 T D Milt Date: 27.SEP.201 Milt Milt Date: 20.08m Milt Milt Milt Date: 20.08m Milt <	Trc 1 1 1 1 1 7	836,4781227 836,721878 320.8 320.8	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
MultiView Ref MultiView Ref MultiView Ref MultiView Ref Ref Level 36 Att 1 Oden 30 dbm 20 10 dbm 0 0 dbm 30	Trc 1 1 1 1 1 7	836,4781227 836,721878 320.8 320.8	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
MultiView CF 836.6 MHz 2 Marker Table Type Ref Type Ref Milt T1 T D Milt Date: 27.SEP.201 Milt Milt Date: 20.08m Milt Milt Milt Date: 20.08m Milt <	Trc 1 1 1 1 1 7	836,4781227 836,721878 320.8 320.8	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
CF 836.6 MHz 2 Marker Table Type Ref T1 1 T2 D1 D1 MI Complex 27.SEP.201 Ref Level 36. * Att Fe Complex Base 20 dBm 10 dBm -20 dBm -30 dBm	Trc 1 1 1 1 1 7	836,4781227 836,721878 320.8 320.8	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
CF 836.6 MHz 2 Marker Table Type Table	Trc 1 1 1 1 1 7	836,4781227 836,721878 320.8 320.8	HTZ MHZ MHZ HTZ	Y-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
CF 836.6 MHz 2 Marker Table Type Ref Til 1 Total 1 Di MilliView Ref Level 36. • Att E Occupied Ba 30 dBm 20 dBm 10 dBm 10 dBm	Irc I	836,4781227 836,721878 320.8 320.8	HTZ MHZ MHZ HTZ	V-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB Chann KHz KHz Mode Aut		Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
CF 836.6 MHz 2 Marker Table Type Ref Table Image: 2000 mm Date: 27.SEP.201 MultiView E Ref Level 36 Att 1 Occupied Ba 30 dBm 20 dBm Io dBm 10 dBm -0 dBm -30 dBm -0 dBm -50 dBm -50 dBm -20 dBm -70 dBm	Irrc I	836,478122 R 836,72182 R 336,72182 R 336,72182 R 419 μs (~7.3 n 8m	Hz Hz Hz Hz Hz Hz Hz Hz Hz Hz	V-Value S.85 dBm 17.76 dBm 18.17 dBm 0.39 dB Channe KHz Htz Mode Aut Mode Aut S V-Value		Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 17:31:04
CF 836.6 MHz 2 Marker Table Type Type I T1 T2 D1 MultiView Ref Level 36. * Att EOccupied Ba 30 dBm 20 dBm 10 dBm -0 dBm -30 dBm -30 dBm -20 dBm -30 dBm -20 dBm -30 dBm -20 dBm -30 dBm -30 dBm -40 gBm	Irrc I	836, 478122 г 336, 72182 г 336, 72182 г 320, 8 к 419 µs (~7, 3 п 419 µs (~7, 3 п) 8 м 8 м 8 м 8 м 8 м 8 м 8 м 8 м 8 м 8 м	Hz Hz Hz Hz Hz Hz Hz Hz	V-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB Chann KHz KHz Mode Aut Mode Aut S V-Value S-96 dBm 18.15 dBm 18.06 dBm 18.06 dBm		Function	Measuring	Function Re 43.7562437 Image: state sta	sult 56 kHz 27,09,2017 17:31:04
Multiview CF 836.6 MHz 2 Marker Table Type Type Ref Multiview Image: Complexity of the second sec	Irrc I	836, 478122 г 336, 72182 г 336, 7218 г 320.8 к к 8.00 419 µs (~7.3 п 419 µs (~7.3 п	Hz Hz Hz Hz Hz Hz Hz Hz	V-Value 5.85 dBm 17.76 dBm 18.17 dBm 0.39 dB Chann Chann KHz KHz Mode Aut V-Value 5.96 dBm		Function		Function Re	sult 56 kHz 27,09,2017 17:31:04



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Ref Level 36			dB • RBW 10	kHz					▽
Att 1 Occupied Ba	38 dB SWT andwidth	419 µs (~7.3 n	ns) = VBW 30	kHz Mode Aut	o FFT			M1[1]	 1Pk Max 5,58 dBm
30 dBm	H1 31.390 dBm				many			D1[1]	4.041600 MHz -0.23 dB
20 dBm			<u> </u>		~	12 V			320.200 kHz
10 dBm			M¥						
0 dBm	H2 5.390 c	Bm	1						
-10 dBm		~~~~~	\checkmark			L.	m		
		م م							
-20 dBm	5	/							
-30 dBm	man							- they	~
-40 dBm	1								
-50 dBm									
-60 dBm	,		1001 pi	's	10	0.0 kHz/			Span 1.0 MHz
2 Marker Tab Type Re	le	X-Value		Y-Value		Function		Function Re	
M1 T1	1 1	X-Value 824.0416 M 824.078122	MHz	5.58 dBm 17.06 dBm	Occ Bw		2	43.7562437	
T2 D1 M1	1	824.321878 320.2	MHz (Hz	18.03 dBm -0.23 dB			,		27.09.2017
	Л						Measuring	4/0	18:44:19
Date: 27.SEP.20	n7 18:44:20				al 400				
(Cnanr	nel 128				
Ref Level 36	5.00 dBm Offse 38 dB SWT		dB • RBW 10	kHz					
Att 1 Occupied Ba	andwidth	419 µs (~7.3 n	ns) = VBW 30	kriz Mode Aut	orti			M1[1]	1Pk Max 6.42 dBm
30 dBm	H1 31.930 dBm				mont			D1[1]	6.440000 MHz -0.58 dB
20 dBm			T1/	1		T2			323.100 kHz
10 dBm			My						
0 dBm	H2 5.930 c		\vdash			1			
-10 dBm		- marine	Υ			<u> </u>	<u> </u>		
-20 dBm		/					\vdash	<u></u>	
-30 dBm								\sim	
-مر								~~~~	<u></u>
-40 dBm									
-50 dBm									
-60 dBm	1				1		+		Span 1.0 MHz
CF 836.6 MHz	2		1001 pt	.5	10	0.0 kHz/			
2 Marker Tab Type Re	le f Trc	X-Value			10	0.0 kHz/ Function		Function Re	
2 Marker Tab Type Re M1 T1	le	X-Value 836.44 M 836.4781221 836.721878	1Hz	Y-Value 6.42 dBm	Occ Bw		2		sult
2 Marker Tabl Type Re M1	le f Trc 1 1 1	X-Value 836.44 M 836.478122 836.721878 323.1 J	1Hz					Function Re	sult 56 kHz 27.09.2017
2 Marker Tabl Type Re M1 T1 T2 D1 M1	le f Trc		1Hz	Y-Value 6.42 dBm				Function Re	sult 56 kHz
2 Marker Tabl Type Re M1 T1 T2	le f Trc		1Hz	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB	Occ Bw			Function Re	sult 56 kHz 27.09.2017
2 Marker Tabl Type Re M1 T1 T2 D1 M1	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1 1	836.478122 836.721878 323.1	1Hz	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB				Function Re	sult 56 kHz 27.09.2017
2 Marker Tab Type Re M1 T1 T2 D1 M1 Date: 27.SEP.20 MultiView RefLevel 36 e Att	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1 1	836.478122 836.721878 323.1 I	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw			Function Re	27.09.2017 20:02:24
2 Marker Tab Type Re M1 T1 T2 D1 M1 Date: 27.SEP.20 MultiView Ref Level 36 Att 1 Occupied Ba	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1 1	836.478122 836.721878 323.1 I	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw			Function Re 43.7562437	ssult 56 kHz 27.09.2017 20:02:24 ♥ ■ 1Pk Max 6.37 dBm
2 Marker Tab Type Re 1 Type Re 1 Type Re 1 Type Re 1 Type Re 1 Coupled B2 3 0 dBm	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836.478122 836.721878 323.1 I	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw			Function Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re M1 T1 T2 D1 M1 Date: 27.SEP.20 MultiView Ref Level 36 Att 1 Occupied Ba	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836.478122 836.721878 323.1 I	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw			Eunction Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re 1 Type Re 1 Type Re 1 Type Re 1 Type Re 1 Coupled B2 3 0 dBm	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72187 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 m	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw			Eunction Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re M1 T1 D1 M1 Date: 27.SEP.20 MultiView Ref Level 36 Att 1 Occupied B2 30 dBm	e f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72187 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 m	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re MI 172 D1 M1 T2 D1 M1 Date: 27.SEP.20 MultiView Ref Level 36 Att 10 ccupicd B2 30 dbm 10 dbm	e f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72187 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 m	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re 1 Type Re 1 Type Re 1 Type Re 1 Type Re 1 Coupled B 2 Dete: 27.SEP.20 MultiView Ref Level 36 Att 1 Occupied B 30 dbm 10 dbm 0 dbm	e f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72187 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 m	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re M1 T1 T2 D1 M1 Date: 27.SEP.20 MultiView Ref Level 36 Att 1 Occupied 52 Att 1 Occupied 52 30 dBm 20 dBm -10 dBm	e f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72187 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 m	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 MultiView Ref Level 36 Att T Occupied B2 30 dBm 10 dBm -20 dBm -20 dBm	e f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72187 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 m	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re MI 1 TZ DI DI MultiView Ref Level 36 Att 1 Occupied BE 30 dBm 20 dBm -10 dBm -30 dBm	e f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72187 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 m	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 T0 MultiView Ref Level 36 Att T Occupied B2 30 dbm 20 dbm -20 dbm -20 dbm -30 dbm -30 dbm -50 dbm	e f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72187 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 m	IHZ MHz MHz CHZ	Y-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chanr	occ Bw	Function		Eunction Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re MI 1 TZ D1 M1 TZ D1 M1 D1 M1 0 M1 20 Mm 20 dBm 10 dBm -10 dBm -30 dBm -50 dBm -50 dBm -50 dBm -50 dBm	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72187 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 m	IHZ MHz MHz CHZ	V-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chann KHz KHz Mode Aut	Occ Bw	Function		Function Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
2 Marker Tab Type Re MI 1 T2 D1 M1 T2 D1 M1 Dete: 27.SEP.20 MultiView Ref Level 36 Att 1 Occupied B2 30 dbm 20 dbm 10 dbm -20 dbm -30 dbm -30 dbm -50 dbm -60 dbm CF 848.8 MHz 2 Marker Tabb	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,721878 323.1 μ 19 μs (~7.3 n 419 μs (~7.3 n	Hz Hz MHz MHz CHZ CHZ dB • RBW 10 ns) • VBW 30 TH HZ HZ HZ HZ HZ HZ HZ HZ HZ H	V-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chann KHz KHz Mode Aut	Occ Bw	Function		Function Re 43.7562437	sult 56 kHz 27.09.2017 20:02:24
2 Marker Tab Type Re M1 T2 D1 M1 T2 D1 M1 T2 D1 M1 MultiView Ref Level 36 Att 10 dbm 20 dbm 20 dbm 40 dbm 40 dbm 40 dbm 40 dbm 50 dbm 40 d	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72182 323.1 μ 419 μs (~7.3 n 419 μs (~7.3 n) 419 μs (~	Hz Hz MHz MHz CHZ CHZ CHZ CHZ CHZ CHZ CHZ CHZ	V-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chann KHz KHz Mode Aut 	Occ Bw	Function	Measuring	Function Re 43.7562437 Image: State of the stateo	sult 56 kHz 27.09.2017 20:02:24
2 Marker Tab Type Re 1 Type Re 1 Type Re 1 Type Re 1 Type Re 1 Type Re 1 Type Re 1 Coupled B 2 dBm 2 dBm 2 dBm - 10 dBm - 30 dBm - 30 dBm - 40 dBm - 50 dBm - 50 dBm - 60 dBm - 60 dBm - 71 dBm - 71 dBm - 71 dBm - 72 dBm - 72 dBm - 72 dBm - 72 dBm - 73 dBm - 75 dBm	le f Trc 1 1 1 1 1 1 1 1 1 1 1 1 1	836,478122 836,72182 323.1 μ 323.1 μ t 8.00 419 μs (~7.3 n 419 μs (~7.3 n μ μ μ μ κ - Value X-Value	Hz Hz MHz MHz CHZ CHZ CHZ CHZ CHZ CHZ CHZ CHZ	V-Value 6.42 dBm 18.61 dBm 19.02 dBm -0.58 dB Chann KHz KHz Mode Aut 	Occ Bw	Function	Measuring	Function Re	sult 56 kHz 27.09.2017 20:02:24

		F	PCS190	0 For G	MSK Mo	oudlatio	n		
MultiView	B Spectrum								▽
Ref Level 3 Att	6.00 dBm Offse 38 dB SWT	t 8.00 419 µs (~7.3 i	dB • RBW 101 ms) • VBW 301	kHz kHz Mode Aut	o FFT				
1 Occupied B	andwidth							M1[1]	1Pk Max 2.91 dBm
30 dBm	H1 28.510 dBm				m				50040700 GHz -0.73 dB 320.800 kHz
20 dBm			لر <u>1</u> 1	-	~~~	T2 V			320.800 KHz
10 dBm						<u> </u>			
0 dBm	H2 2.510	1Bm	My			<u>01</u>			
-10 dBm							h.		
-10 aBm-		m							
-20 dBm									
-30 dBm								Long	
-40 dBm	\uparrow								m
-50 dBm									
-60 dBm									
CF 1.8502 GF	lz		1001 pt	s	10	0.0 kHz/			Span 1.0 MHz
2 Marker Tab Type Re	ole ef Trc	X-Value L.8500407 (Y-Value 2.91 dBm		Function		Function R	esult
M1 T1	1 1	1.8500407 (1.85007812	GHz GHz	2.91 dBm 14.99 dBm	Occ Bw		2	44.7552447	55 kHz
T2 D1 M	1 1 1	1.85007812 1.85032288 320.8	GHz (Hz	14.99 dBm 15.25 dBm -0.73 dB					
][Measuring	CI III III 490	27.09.2017 17:37:47
Date: 27.SEP.20	017 17:37:47								
				Chanr	nel 512				
MultiView	🗄 Spectrum								▼
Att	6.00 dBm Offse 38 dB SWT	t 8.00 419 µs (~7.3 i	dB = RBW 10 ns) = VBW 30	kHz kHz Mode Aut	o FFT				
1 Occupied B	andwidth							M1[1]	1Pk Max 2.78 dBm
30 dBm-	H1 28.900 dBm			Jun	m			D1[1]	79840000 GHz -0.14 dE 321.500 kHz
20 dBm			T1	~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	VT2 V			321.300 KH2
10 dBm			MI			<u> </u>			
0 dBm	H2 2.900	dBm	, <u> </u>			<u></u>			
-10 dBm			\bigvee				m		
-20 dBm		1							
-30 dBm								my	
-49-d8m								~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	h
-50 dBm									
-60 dBm CF 1.88 GHz			1001 pt	s	10	0.0 kHz/			Span 1.0 MHz
2 Marker Tab Type Re	ole ef Trc	X-Value		Y-Value		Function		Function R	
M1 T1	1 1	1.87984 (1.87987812	GHz	2.78 dBm 15.11 dBm	Occ Bw		2	43.7562437	
T2 D1 M:	1 1 1	1.88012188 321.5	GHz (HZ	15.38 dBm -0.14 dB					
][Measuring	CI III III 490	27.09.2017 17:38:46
Date: 27.SEP.20	017 17:38:46								
				Chanr	nel 661				
MultiView									
Ref Level 3 Att	6.00 dBm Offse 38 dB SWT	t 8.00 419 µs (~7.3 i	dB • RBW 10 ns) • VBW 30	kHz kHz Mode Auti	o FFT				
1 Occupied B								M1[1]	 1Pk Max 2.94 dBm 09638100 GHz
.30.dBm	H1 29.170 dBm			~~~~~	mund			D1[1]	09638100 GHz 0.40 dE 323.800 kHz
20 dBm			11/ 7	1		T2 R			0201000 KH2
10 dBm			М1			\rightarrow			
0 dBm	H2 3.170	dBm							
-10 dBm			\vee			$ \sim $	h		
		~~~~~							
-20 dBm-	~	/						5	
-30 dBm	- martin							- man	
~40 dBm	1								~~~~~
-50 dBm									
-60 dBm-	lz		1001 pt	s	10	0.0 kHz/			Span 1.0 MHz
2 Marker Tab Type Re	ole	X-Value		Y-Value		Function		Function R	
M1 T1	1 :	L.9096381 (	GHz GHz	2.94 dBm 15.81 dBm	Occ Bw		2	43.7562437	
T2 D1 M	1 1 1	1.90967812 1.90992188 <b>323.8</b>	GHz	15.76 dBm 0.40 dB					
	][						Measuring	<b></b>	27.09.2017 17:45:15
Date: 27.SEP.20	)17 17:45:15						Measuring	<b>G</b> INNIN 490	27.09.2017 17:45:15
	)17 17:45:15			Chanr	nel 810		Measuring	•••••••••••••••••••••••••••••••••••••••	27.09.2017 17:45:15



		EG	PRS19	00 For	GMSK N	/loudlat	tion		
MultiView									
Ref Level 3 Att	6.00 dBm Offse 38 dB SWT	t 8.00 419 µs (~7.3 n	dB <b>= RBW</b> 10  ns) <b>= VBW</b> 30	kHz kHz <b>Mode</b> Auto	) FFT				o (DI: Mari
1 Occupied E								M1[1]	● 1Pk Max 2.60 dBm 350040800 GHz
	H1 28.600 dBm			m	my			D1[1]	0.76 dB 317.800 kHz
20 dBm			T1			T2			
10 dBm	112 2 600	(Dec.	MY			P1			
0 dBm	H2 2.600 (	3800				7			
-10 dBm			J			\	my		
-20 dBm		<u> </u>					$ \rightarrow $		
-30 dBm								Lum	
-40 dBm	A A								m
-50 dBm									
-60 dBm									
CF 1.8502 G			1001 pt	s	10	0.0 kHz/			Span 1.0 MHz
2 Marker Tal Type R M1	ef Trc	X-Value L.8500408 G	Hz	Y-Value 2.60 dBm		Function		Function R	esult
T1 T2	1	1.85007712 (	GHz GHz	14.42 dBm 14.93 dBm	Occ Bw		2	45.7542457	54 kHz
D1 M	1 1 Y	317.8 k	Hz	0.76 dB			Measuring	() 40	27.09.2017
Date: 27.SEP.2	017 18:14:54								18:14:54
				Chanr	el 512				
MultiView	😁 Spectrum			2110111					▽
Ref Level 3 Att	6.00 dBm Offse 38 dB SWT		dB <b>= RBW</b> 101 ns) <b>= VBW</b> 301	kHz <u>Mode A</u> ute	FFT				
1 Occupied B	andwidth							M1[1]	<ul> <li>1Pk Max</li> <li>2.65 dBm</li> <li>379839000 GHz</li> </ul>
30 dBm-	H1 28.870 dBm			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mont of			D1[1]	0.41 dB 322.100 kHz
20 dBm			T1	<u></u>		T2 R			
10 dBm			My			81			
0 dBm	H2 2.870 (	18m				1			
-10 dBm			V				<u> </u>		
-20 dBm		$\checkmark$					$ \rightarrow $		
-30 dBm								Share and the second se	
-10 dBm									m
-50 dBm									
-60 dBm									
CF 1.88 GHz			1001 pt	s	10	0.0 kHz/			Span 1.0 MHz
2 Marker Tal Type   Re	ole ef   Trc   1	X-Value 1.879839 G	H7	Y-Value 2.65 dBm		Function		Function R	esult
M1 T1 T2	1	1.87987812 ( 1.88012188 ( <b>322.1 k</b>		15.39 dBm 15.16 dBm	Occ Bw		2	43.7562437	56 kHz
D1 M	1 1	322.1 k	Hz	0.41 dB			Measuring	(	27.09.2017 18:16:29
Date: 27.SEP.2	017 18:16:29								10110125
				Chanr	el 661				
MultiView									▼
Ref Level 3 Att	6.00 dBm Offse 38 dB SWT	t 8.00 419 µs (~7.3 n	dB • RBW 101 ns) • VBW 301	kHz kHz <b>Mode</b> Auto	) FFT				
1 Occupied B								M1[1]	<ul> <li>1Pk Max</li> <li>3.28 dBm</li> <li>09640100 GHz</li> </ul>
	H1 29.030 dBm			June	Jumer /			D1[1]	-0.06 dB 319.800 kHz
20 dBm			T1			T2			
10 dBm	H2 3.030 d	IBm	MI			aı			
0 dBm	na 3.030 (					1			
-10 dBm		- And a start	~			~	h		
-20 dBm									
-30 dBm	har and the second second							2000	
~40 dBm									hm
-50 dBm									
-60 dBm									
CF 1.9098 G			1001 pt	s	10	0.0 kHz/			Span 1.0 MHz
2 Marker Tal	ef Trc	X-Value L.9096401 G	47	Y-Value 3.28 dBm		Function		Function R	esult
M1 T1 T2	1	1.90967812 ( 1.90992188 (	GHz GHz	15.57 dBm 15.36 dBm	Occ Bw		2	43.7562437	56 kHz
D1 M		319.8 k	Hz	-0.06 dB			Measuring		27.09.2017
Date: 27.SEP.2	017 18·19·44								18:19:44
				Char	01010				
				Chanr	el 810				

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Image: Contract of the second seco	MultiView	🗄 Spectrum				( Dana i	•			
Image: Contract of the second seco	Ref Level 3	5.00 dBm Offset 38 dB SWT	41.84 us (~6.9	0 dB • RBW 1	00 kHz 00 kHz Mode /	Auto FFT				
alan and alan and alan alan alan alan al	1 Occupied B	andwidth							M1[1]	-6.59 dBm
la de la conserve de	30 dBm								1	85004400 GHz. 0.52 dE
lan de lander de la de lander de lan	-20-d8m	H1 19.650 dBm			m					4.71400 MHz
Image: Section of the section of th	10 dBm		T				~	22		
Image: Sector	0 dBm							$\left  \right\rangle$		
Service       Service       Service	10 d8m	H2 -6.350 d	Bm M					<u>d</u> 1		
s an and a second secon		h	$\sim$					hin		
a.a.	-20 dBm								mun	
i = 0.1       i = 0.01 pic       i = 0.01 ki/2       Spentition Result         i = 0.01 ki/2       i = 0.01 ki/2       Spentition Result       i = 0.01 ki/2       Spentition Result         i = 0.01 ki/2       i = 0.01 ki/2       Spentition Result       i = 0.01 ki/2       Spentition Result       i = 0.00 ki/2       Spentition Result       Sp	-30 dBm									
ability       Junit Juni Junit Juni Junit Junit Junit Juni Junit Junit Junit Jun	-40 dBm									
Instrument         Instrument         Instrument         Seem 10.00.0452           Winder Talle         See 100.0452         Seem 10.00.0452         Seem 10.00.0452           Winder Talle         See 100.0452         Seem 10.00.0452         Seem 10.00.0452           Winder Talle         See 100.0452         Seem 10.00.0452         Seem 10.00.0452           Winder Talle         See 100.0452         See 100.0452         See 100.0452           Winder Talle         See 100.0452         See 100.0452         See 100.0452           Det 27.55P.2007 100.130         Channel 9262         See 100.0452         See 100.0452           See 10.00.0452         See 100.0452         See 100.0452         See 100.0452           See 10.00.0452         See 1	-50 dBm									
Instruction         Instruction         Instruction         Instruction         Second 10.0 WE           Market Table         Market Table         Second 20.0 WE         Seco	-60 dBm									
Image     The     Solvestice     Visuation     Punction     Punction     Punction     Punction       101     101     105222 Grad     102 Grad     10				1001 pt	:s	1	.0 MHz/		5	Span 10.0 MHz
1         1         1         1         1         1         0.02 bit         0.02 bit <th0.02 bit<="" th=""> <th0.02 bit<="" th=""> <th0.02 bit<="" th=""></th0.02></th0.02></th0.02>	Type Re	ef Trc	X-Value 850044 GI	17	Y-Value -6.59 dBm		Function		Function R	esult
Date:         Preserving         Date:         Preserving	T1 T2	1	1.850352 G 1.854448 G	Hz Hz	10.76 dBm 10.47 dBm	Occ Bw			4.09590409	6 MHz
De 27.25P.2017 165128 Terrare 1 2020 All all all al al all all all all all a	D1 M	1 1 Y	4.714 MI	IZ	0.52 dB			Measuring	<b>1</b>	27.09.2017
Provide and the second	Date: 27 SEP 20	17 16:51:30						medsuring		16:51:30
Number         Spectrum         Condition           Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition         Condition<	540.21.01.2				Chann	1 0262				
Interference       Interference       Interference       Interference         Interference       Interference	(				Unanne	ei 9262				
Interview			8,1	0 dB = RBW 1	00 kHz					V
Bilder Hill 2000 Bill And	Att 1 Occupied B	ात्र dB SWT andwidth	41.84 µs (~6.9	ems) <b>e VBW</b> 3	u∪kHz Mode 4	auto ⊢FT			MILLI	
en am en 19 2020 am en 19 200 a	30 dBm								1	.87765700 GHz
ala 42 5400 Bar 44 5400 Bar 44 5400 Bar 44 5400 Pt 44 5400 Pt 4550 Cho 24 5500 Cho 2500 C	-20-dBm	H1 20.200 dBm		~~~~~						4.68900 MHz
la dan da	10 dBm		T				~	12 X		
to dame de la sub la su	0 dBm							$\left  \right\rangle$		
0 00000000000000000000000000000000000		H2 -5.800 d						di A		
a dame da dame da dame da	-10 dBm	h	$\sim$						~~~~~	
a a a a a a a a a a a a a a a a a a a	-20 dBm	<u>,                                    </u>								- M
00 dem	-30 dBm									
b dam b data data data data data data data da	-40 dBm									
EF 1.86 GHz       1001 pts       1.0 MHz/       Span 10.0 MHz/         2 Marker Table       X Value       V. Value       Function       Function Result         M1       1       1.877955 GHz       11.19 dBm       Occ Bw       4.0955904096 MHz         D1       M1       1       1.877955 GHz       11.19 dBm       Occ Bw       4.0955904096 MHz         D1       M1       4.659 MHz       0.18 dB       Mterzite       7.000 BW       20992017         Ddw: 27.5EP.2017 165356       Channel 9400       Mterzite       3.0 dB       7.000 BW       2095200 GHz       7.000 BW       7.000	-50 dBm									
EF 1.86 GHz       1001 pts       1.0 MHz/       Span 10.0 MHz/         2 Marker Table       X Value       V. Value       Function       Function Result         M1       1       1.877955 GHz       11.19 dBm       Occ Bw       4.0955904096 MHz         D1       M1       1       1.877955 GHz       11.19 dBm       Occ Bw       4.0955904096 MHz         D1       M1       4.659 MHz       0.18 dB       Mterzite       7.000 BW       20992017         Ddw: 27.5EP.2017 165356       Channel 9400       Mterzite       3.0 dB       7.000 BW       2095200 GHz       7.000 BW       7.000	-60 dBm									
Type         Ref         Trc         X-Value         Y-Value         Function         Function Result           T1         1         1.877657 GHz         11.19 GEm         Occ BW         4.095904096 MHz         22092037           D1         1         1.877657 GHz         0.18 GEm         Occ BW         4.095904096 MHz         265537           Det:         27.5EP.2017 165326         Messuring         C         Wessuring         C         22092037           Det:         27.5EP.2017 165326         Messuring         C         22092037         265337           Det:         27.5EP.2017 165326         Sector         C         C         22092037         265337           Det:         27.5EP.2017 165326         8.00.05 # RBW 100 Hz;             216536           Militiview:         Spectrum	CF 1.88 GHz			1001 pt	s	1	.0 MHz/		<u>{</u>	pan 10.0 MHz
11       1       1.87752 GHz       11.19 GBm       Occ BW       4.095904096 MHz         12       1       1.82048 GHz       0.18 GBm       Occ BW       4.095904096 MHz         DDi       Mil       4.689 MHz       0.18 GBm       Weasuring       1.00 MHz       2100 2007         Dote: Z7.5EP.2017 1653:56       Channel 9400       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V       V	Type Re	f Trc	X-Value	17	Y-Value		Function		Function R	esult
D1     M1     1     4.689 MHz     0.18 dB       D1     M1     1     4.689 MHz     0.18 dB       D1     M1     1     4.689 MHz     10.38.35       Date: 27.5EP.2017 16:55:60     Channel 9400     Imasuring     Imasuring     Imasuring       MultiView     Spectrum     Imasuring     Imasuring     Imasuring     Imasuring       0 dem     Imasuring     Imasuring     Imasuring     Imasuring     Imasuring     Imasuring	T1		1.877952 G 1.882048 G	Hz Hz	11.19 dBm 10.88 dBm	Occ Bw			4.09590409	6 MHz
Det: 27.5EP.2017 165355  Channel 9400  MultiView Spectrum Ref Level 35.00 dB * RBW 100 kHz Att 38 dB SWT 41.84 µs (~6.5 ms) * VBW 300 kHz Mode Auto FFT  Coccepted Bandwidth  do dam 4.68800 MHz 4.6880 MHz 4.688		1 1 Y	4.689 MI	IZ	0.18 dB			Measuring	<b>1</b>	27.09.2017
Channel 9400         MittView Spectrum       Image: Spectrum State (Spectrum State (Spec	Date: 27.SEP.20	)17 16:53:56								10:53:57
MultiView         Spectrum         v           Ref Level 36.00.80m         Offet         \$00.88 + RBW 100 LHz         \$00.84 + RBW 300 LHz         \$100 RM           10.02m         Milling         \$1.90525000 GHz         \$1.9052500 GHz         \$1.905250 GHz         \$1.90550 GHz		-			Channe	al 0400				
Ref Level 36.00 dBm         Offset 38.00 dB         8.00 dB         RBW 100 kHz WW 300 kHz         Mode Auto FFT           10 coupled Landwidth         1.94 L84 µs (~6.9 ms) # VBW 300 kHz         1.90 d25.000 GHz 0.42 dB         1.90 302 CD00 GHz 0.42 dB           30 dBm         1.90 42 mm         1.90 32 CD00 GHz 0.42 dB         0.42 dB           10 dBm         1.90 42 mm         1.90 42 mm         0.42 dB           10 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           10 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           10 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           20 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           20 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           20 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           20 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           20 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           20 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           20 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm           20 dBm         1.90 42 mm         1.90 42 mm         1.90 42 mm      <	MultiView	R Spectrum			Unanni	51 3400				
I Occupied Bandwidth         I Lek Max           30 dBm         1,90525000 GHz           40 dBm         0111           10 dBm         0,42 dB           10 dBm         1,90525000 GHz           10 dBm         1,9052500 GHz           10 dBm         1,90525 GHz           10 dBm         1,001 pts           10 dBm         1,001 pts           10 dBm         1,001 pts           1,0 MHz/         Span 10.0 MHz           20 dBm         1,002525 GHz           1001 pts         1,0 MHz/           20 dBm         1,001 pts           11 1         1,905525 GHz           10.3 dBm         0 cc BW           4,0955904096 MHz           10.3 dBm         0 cc BW           11 1         1,9055421 GHz           10.4 dBm         0 cc BW           10.4 dBm         0 cc BW           10.1 M1 1         4,688 MHz           0.42 dB         0 cc BW           10.55322         20.42 dB           Measuring         21,	Ref Level 3		41.84 un /	0 dB • RBW 1	00 kHz	uto FET				Ľ
a) dBm       1.90525000 GHz         a) dBm       0 dBm         b) dBm       10 dBm         a) dBm       10 dBm         c) dBm       10 dBm         a) dBm       10 dBm         c) dBm       10 dBm         a) dBm       10 dBm         c) dBm       10 dBm         a) dBm       10 dBm         b) dBm       10 dBm         a) dBm       1001 pts         a) dBm       1.0 MHz/         Span 10.0 MHz         ZMarker Table       Y-Value         Type       Ref         Trc       X-Value         Y-Value       Function         Ti       1.9052525 GHz         1.0 Hz       Span 10.0 MHz         ZMarker Table       0.02 BW         Ti       1.905383 GHz         D1       Mi         Mi       1.688 MHz <tr< td=""><td>Att 1 Occupied B</td><td>andwidth</td><td>⊶1.04 μs (~6.9</td><td>-ms) = vBW 3</td><td>ou km2 Mode 4</td><td></td><td></td><td></td><td>M1[1]</td><td></td></tr<>	Att 1 Occupied B	andwidth	⊶1.04 μs (~6.9	-ms) = vBW 3	ou km2 Mode 4				M1[1]	
30 dBm     4.68800 MHz       10 dBm     10 dBm       11 1     1.90525 GHz       10 dB dBm     10 dB dBm       11 1     1.90525 GHz       10 dB dBm     0cc BW       10 dB	30 dBm								1	.90525000 GHz 0.42 dE
D dBm H2 -6.210 dBm H2 -7.010 dBm	-20 dBm	H1 19.790 dBm			······		human			4.68800 MHz
D dBm H2 -6.210 dBm H2 -7.210 dBm	10 dBm		×	~			<u>ر ا</u>	2		
H2     6.210 dtm       -10 dtm     -10 dtm       -10 dtm     -10 dtm       -10 dtm     -10 dtm       -20 dtm     -10 dtm       -21 dtm     -21 dtm   <								$ \rangle$		
20 dBm 30 dBm 40 dBm 40 dBm 40 dBm 50 dBm 50 dBm 50 dBm 50 dBm 50 dBm 1001 pts 1.01 pts 1.0 MHz/ 50 dBm 1.0 MHz/ 50 dBm 50 dBm		H2 -6.210 d	Bm M					di di		
30 dbm     40 dbm       40 dbm     40 dbm       50 dbm     50 dbm       60 dbm     60 dbm       100 dbm     1001 pts       100 dbm     1001 pts       100 dbm     1001 pts       100 dbm     1001 pts       11     1.905525 GHz       12     1.905525 GHz       11     1.905525 GHz       12     1.905525 GHz       13.905525 GHz     1.0 MHz/       14.905538 GHz     10.84 dBm       15.90538 GHz     10.42 dB       16.5332     10.5332	-10 dBm		~~					h a		
+0 d8m	-20 dBm	$p \sim 1$	<u> </u>							m
-50 dBm	-30 dBm									
oo dsm.         Image: CF 1.9076 GHz         Image: CF 1.9076 GHz         Image: CF 1.9076 GHz         Image: CF 1.9076 GHz         Span 10.0 MHz         Span 10.0 MHz           ZMarker Table         Type         Ref         Trc         X-Value         Function         Function Result           Min         1         1.90525 GHz         -6.18 dBm         Occ Bw         4.095904096 MHz           T1         1         1.909538 GHz         10.84 dBm         Occ Bw         4.095904096 MHz           D1         M1         1         4.688 MHz         0.42 dB         Measuring         27.09.2017           Date:         27.SEP.2017         16:55:32         Date:         27.SEP.2017         16:55:32	-40 dBm									
of dsm.         Image: CF 1.9076 GHz         Image: CF 1.9076 GHz         Image: CF 1.9076 GHz         Image: CF 1.9076 GHz         Span 10.0 MHz         Span 10.0 MHz           ZMarker Table         Type         Ref         Trc         X-Value         Function         Function Result           Mil         1         1.905525 GHz         -6.18 dBm         Occ Bw         4.095904096 MHz           T1         1         1.9095421 GHz         10.84 dBm         Occ Bw         4.095904096 MHz           D1         M1         1         4.688 MHz         0.42 dB         Measuring         27.09.2017           Date: 27.SEP.2017         16:55:32         Date: 27.SEP.2017         16:55:32         Measuring         27.09.2017	-50 dBm									
CF 1.9076 GHz         1001 pts         1.0 MHz/         Span 10.0 MHz           2 Marker Table         Type         Ref         Tr         1.90525 GHz         -6.18 dBm           Ti         1         1.90525 GHz         -6.18 dBm         Occ Bw         4.095904096 MHz           T2         1         1.90638 GHz         10.80 dBm         Occ Bw         4.095904096 MHz           D1         M1         1         4.688 MHz         0.42 dB         0.42 dB           Date: 27.SEP.2017         16:55:32         Date: 27.SEP.2017         16:55:32										
Type         Ref         Trc         X-Value         Y-Value         Function         Function Result           M1         1         1.905525 GHz         -6.18 dBm         Occ Bw         4.095904096 MHz           T1         1         1.9055421 GHz         10.84 dBm         Occ Bw         4.095904096 MHz           T2         1         1.90638 GHz         10.84 dBm         Occ Bw         4.095904096 MHz           D1         M1         1         4.688 MHz         0.42 dB         0.42 dB           Measuring         1.010111 0.000 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.00000 0.0000 0.0000 0.00000 0.0000 0.0000 0.00000 0.0000 0	CF 1.9076 GH			1001 pt	s	1	.0 MHz/		\$	Span 10.0 MHz
M1         1         1.90525 GHz         -6.18 dBm         Occ Bw         4.095904096 MHz           T1         1         1.005421 GHz         10.80 dBm         Occ Bw         4.095904096 MHz           T2         1         1.909638 GHz         10.80 dBm         Occ Bw         4.095904096 MHz           D1         M1         1         4.688 MHz         0.42 dB         10.80 dBm           D1         M1         1         4.688 MHz         0.42 dB         10.53532	Type Re	ef Trc	X-Value		Y-Value		Function		Function R	esult
D1 M1 1 4.688 MHz 0.42 dB Measuring 1 27.58P.2017 16:55:32	M1 T1		1.90525 G	HZ Hz	10.84 dBm	Occ Bw			4.09590409	6 MHz
Date: 27.5EP.2017 16:55:32	D1 M	1 1 1	4.688 M	Hz	0.42 dB					27 00 2012
								Measuring	<b>4</b> /0	16:55:32
Channel 9538										
Channel 9538	Date: 27.SEP.20	)17 16:55:32								
	Date: 27.SEP.20	)17 16:55:32				-1.0500				

Report Template Version: H00 (2016-08)

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MultiView	🕾 Spectrum				( Baria	•			
Ref Level 36 Att	6.00 dBm Offse 38 dB SWT	t 8.0 41.84 µs (~6.9	00 dB • RBW 1 9 ms) • VBW 3	00 kHz 00 kHz Mode	Auto FFT				_
1 Occupied B	andwidth							M1[1]	1Pk Max -6.60 dBm
30 dBm								D1[1]	824.05800 MHz 0.51 dB
.20 dBm	H1 19.380 dBm			······	h	m			4.68000 MHz
10 dBm		<u> </u>	r			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	12		
0 dBm		/							
-10 dBm	H2 -6.620	dBm M					<u>d</u> 1		
		2					1 2		
-20 dBm								h	m
-30 dBm									
-40 dBm									
-50 dBm									
-60 dBm									
CF 826.4 MHz 2 Marker Tab	ole		1001 p		1	.0 MHz/			Span 10.0 MHz
Type Re	ef   Trc	X-Value 824.058 M	Hz	Y-Value -6.60 dBm	Ora Rui	Function		Function R 4.08591408	
T1 T2 D1 M1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	824.36204 M 828.44795 M <b>4.68 M</b>	MHZ MHZ IHZ	10.84 dBm 10.02 dBm <b>0.51 dB</b>	Occ Bw			4.08591408	ю мнг
							Measuring	() 4/0	27.09.2017 16:56:38
Date: 27.SEP.20	017 16:56:38								
				Chann	el 4132				
MultiView									▼
Ref Level 36 Att	6.00 dBm Offse 38 dB SWT	t 8,0 41.84 µs (~6.5	00 dB • RBW 1 9 ms) • VBW 3	00 kHz 00 kHz Mode	Auto FFT				
1 Occupied B	andwidth							M1[1]	<ul> <li>1Pk Max</li> <li>-6.20 dBm</li> <li>-6.20 MHz</li> </ul>
30 dBm								D1[1]	834.26600 MHz 0.01 dB 4.67000 MHz
-20 dBm	H1 19.790 dBm	т	· ·····	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	h		10		
10 dBm			2			,			
0 dBm		ML							
-10 dBm	H2 -6.210								
-20 dBm	han	$\sim$					$\vdash$		
-30 dBm									home
-40 dBm									
-50 dBm									
-60 dBm-	,		1001 pt	e	1	.0 MHz/			Span 10.0 MHz
2 Marker Tab Type   Re	ble	X-Value	1001 p	y-Value		Function		Function R	
M1 T1	1 1	834.266 M 834.55205 M	MHz	-6.20 dBm 10.50 dBm	Occ Bw	rancaon		4.09590409	
T2 D1 M1	1 1 1	838.64795 M	MHz I <b>Hz</b>	10.26 dBm 0.01 dB					
							Measuring	(IIIII) 490	27.09.2017 16:57:53
Date: 27.SEP.20	017 16:57:52								
				Chann	el 4183				
Ref Level 30	6.00 dBm Offse 38 dB SWT		00 dB = RBW 1	00 kHz					▽
Att 1 Occupied B.	38 dB SWT andwidth	41.84 µs (~6.9	9 ms) • VBW 3	00 kHz Mode	Auto FFT	1			• 1Pk Max
30 dBm								M1[1] D1[1]	-6.73 dBm 844.24500 MHz 0.84 dB
-20 dBm	H1 19.590 dBm		~ ~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	han	h ~~~		01[1]	4.70100 MHz
10 dBm		Т					12 R		
		L /					[ ]		
0 dBm	H2 -6.410	dBm M					di di		
-10 dBm									]
-20 dBm	$\rightarrow$	Г ́						$ \sim \sim$	June
-30 dBm									
-40 dBm									
-50 dBm									
-60 dBm									
CF 846.6 MHz			1001 p	s	1	.0 MHz/		5	Span 10.0 MHz
2 Marker Tab Type Re	ef Trc	X-Value 844.245 M		Y-Value -6.73 dBm		Function		Function R	esult
M1 T1	1 1	844.55205 M 848.64795 M	MHz MHz	-6.73 dBm 10.77 dBm 10.28 dBm 0.84 dB	Occ Bw			4.09590409	6 MHz
T2	-	4.701 M	Hz	0.84 dB					
T2 D1 M1	1 1	4.701 14				I	Mongaria	formation and	27.09.2017
12 D1 M1	)[	4.701 H					Measuring	() 4 <i>3</i> 0	27.09.2017 16:59:36
T2	)[	4.701		Chann	el 4233		Measuring	••••••	27.09.2017 16:59:36

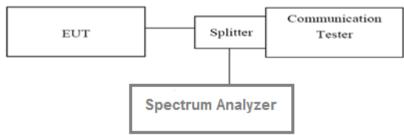
## 5.3. Conducted Spurious Emissions

## LIMIT

Part 24.238 and Part 22.917 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P) dB$ .

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.

## TEST CONFIGURATION



## **TEST PROCEDURE**

- 1. The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.
- 2. The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficientscans were taken to show the out of band Emissions if any up to 10th harmonic.
- 3. For the out of band: Set the RBW= 1MHz, VBW = 3MHz, Start=30MHz, Stop= 10th harmonic.

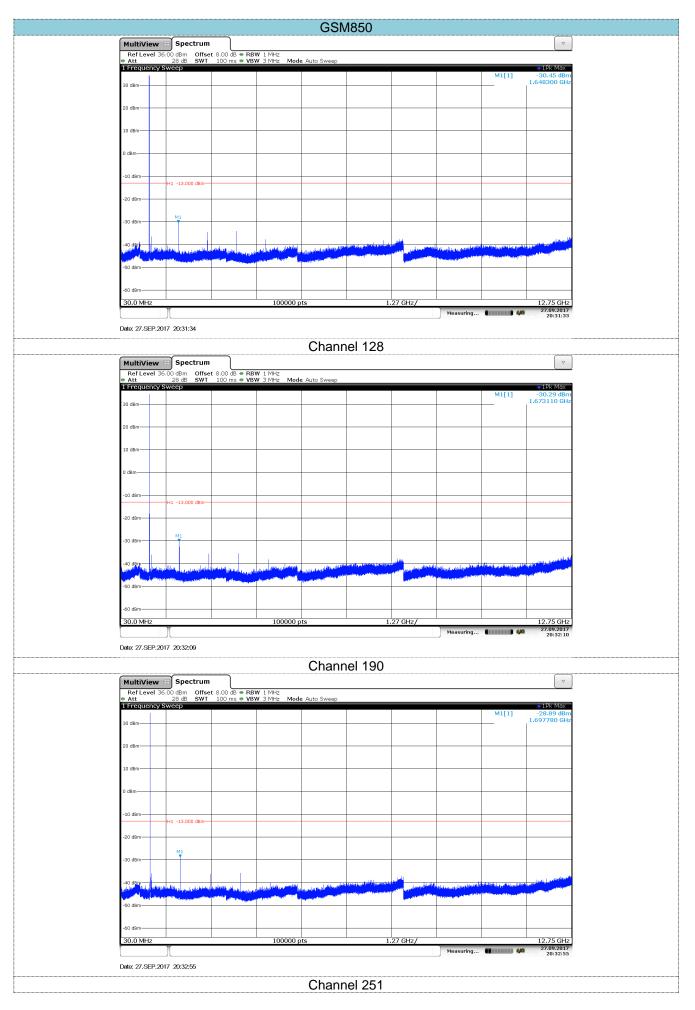
### TEST MODE:

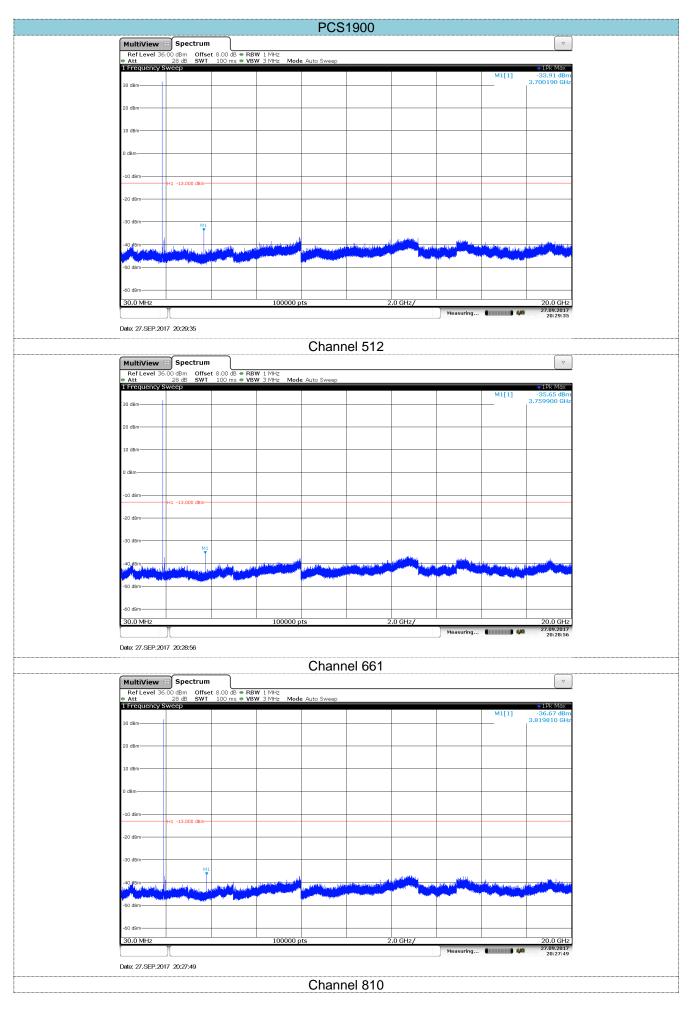
Please refer to the clause 3.3

## TEST RESULTS

## ☑ Passed □ Not Applicable

Note:Worst case at GSM850/PCS1900/WCDMA B2/B5





			١	NCDMA	Band I				
MultiViev Ref Level		et 8.00 dB • RBW 100 ms • VBW	1 MHz						▽
<ul> <li>Att</li> <li>1 Frequence</li> </ul>	18 dB SWT y Sweep	100 ms 🖷 VBW	3 MHz Mode	e Auto Sweep		1	1	1415-2	●1Pk Max
20 dBm								M1[1]	-44.42 dBm 3.706380 GHz
10 dBm									
0 dBm									
-10 dBm									
	H1 -13.000 dBm-								
-20 dBm									
-30 dBm									
-40 dBm									
	M1								
-50 dBm	ilas and sectored to particular	والمقوما ومرجع الملاقع والقوالية	A start of the second se	100 ⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰⁰	and the second secon	(huge)		land to be and	
-60 dBm				and the second s					
-70 dBm									
30.0 MHz			100000 p	ts	2	2.0 GHz/			20.0 GHz
							Measuring	() 4/4	07.00.0047
Date: 27.SEP	2017 17:14:44								
				Channe	el 9262				
MultiViev			1 N.0.1						
Ref Level Att 1 Frequence	26.00 dBm Offs 18 dB SWT y Sweep	et 8.00 dB • RBW 100 ms • VBW	1 MHz 3 MHz Mode	e Auto Sweep					●1Pk Max
20 dBm								M1[1]	-43.77 dBm 3.758300 GHz
20 000									
10 dBm									
0 dBm									
-10 dBm	H1 -13.000 dBm-								
-20 dBm									
-30 dBm									
-40 dBm	M								
-50,dBm	and the state of the	الم ^{اطل} ا والاردان و ا ^{لمطل} ات المحدول	Second and the second state		alderstands and the	and all the second s	and the second	and the state of the section of the	and an adding the second
-60 dBm				and the second					
-50 UBII									
-70 dBm			1005	•-					
30.0 MHz	)(		100000 p	ts	2	2.0 GHz/	Measuring	() 4 <i>9</i> 4	20.0 GHz 27.09.2017 17:13:24
Date: 27.SEP	2017 17:13:24								
				Channe	el 9400				
	v 🗄 Spectrun								▽
Ref Level Att	26.00 dBm Offs 18 dB SWT	et 8.00 dB • RBW 100 ms • VBW	1 MHz 3 MHz Mode	Auto Sweep					
1 Frequenc	y sweep							M1[1]	<ul> <li>1Pk Max</li> <li>-40.79 dBm</li> <li>3.817410 GHz</li> </ul>
20 dBm									5.017410 0H2
10 dBm									
0 dBm									
-10 dBm	H1 -13.000 dBm-								
-20 dBm	_								
-30 dBm									
-40 dBm	м								
-50, #Bm-				Lault a	land the second s	and the second street	Labolization	L	and the second s
-60 dBm									
-70 dBm									
30.0 MHz		1	100000 p	ts	2	2.0 GHz/			20.0 GHz 27.09.2017
	2017 17:10:26						Measuring	<b>.</b>	27.09.2017 17:10:25
Late. 21.3EP									
				Channe	9538				

Ref Lev		Spact	<u> </u>	1	NCDMA	i Danu	V			
Att		B Spectrum .00 dBm Offset 18 dB SWT	8.00 dB • RB	W 1 MHz	- 0.4.5					
1 Freque	ncy S	18 dB SWT weep	100 ms 🖷 VB	WI3 MHz Mod	3 Auto Sweep				M1[1]	●1Pk Max -44.93 dBn
20 dBm										1.654920 GH
10 dBm										
0 dBm										
-10 dBm		H1 -13.000 dBm								
-20 dBm		112 -13,000 dbm								
-30 dBm										
-40 dBm		M1								
-50 d8m									di da na na	المريا والمكرمين ومارورين
	lari bela ser Mananasa	and all a state of the state of	Alternative states in the second		a make and a deltain and			illegiligent And Little		
-60 dBm	-									
-70 dBm						<u> </u>				
30.0 MHz	z	Y		100000 p	its	1	.27 GHz/	Measuring		12.75 GHz 27.09.2017 17:15:45
Date: 27.SE	EP.201	17 17:15:45								17:15:45
					Chann	el 4132				
MultiVie	ew 🦻	Spectrum			Unanni	51 7132				
Ref Lev	<b>el</b> 26.	.00 dBm Offset 18 dB SWT	: 8.00 dB • RB 100 ms • VB	WIMHz WIMHz Mode	e Auto Sweep					
1 Frequer	ncy Sv	weep							M1[1]	<ul> <li>1Pk Max</li> <li>-39.75 dBn</li> </ul>
20 dBm										1.674890 GH
10 dBm										
0 dBm										
-10 dBm		H1 -13.000 dBm								
-20 dBm										
-30 dBm										
Joo donn		M1								
-40 dBm		Ť								
-50 dBm	de la	and the state of the second second	under the second	Juliu Judina kantina (		n deserving of the standard	a fed	المتحصا وحرواج الدولات ومنا	un vinstantikaagasti	and the state of the
-60 dBm	-		and the second				and a second	Under the second part of the second		the set of the second
-00 0011										
-70 dBm				100000 p			.27 GHz/			12.75 GHz
	<u> </u>			100000 [	us		Z/ GHZ/	<u> </u>		
30.0 MHz		][]						Measuring		17:16:29
	=P.201	17 17:16:29						Measuring	(IIIIII) 490	17:16:29
	EP.201	7 17:16:29			Channe	el 4183		Measuring	<b>B</b> 49	17:16:29
Date: 27.SE	ew 8	Spectrum				el 4183		Measuring		17:16:29
Date: 27.SE MultiVie Ref Lev Att	<b>ew</b> 8 vel 26.	Spectrum .00 dBm Offset 18 dB SWT	: 8.00 dB • RB 100 ms • VB	W 1 MHz W 3 MHz Mod		el 4183		Measuring	(IIIIII) 4/4	17:16:29
Date: 27.SE MultiVie Ref Lev Att 1 Freque	<b>ew</b> 8 vel 26.	Spectrum .00 dBm Offset 18 dB SWT	: 8,00 dB • RB 100 ms • VB	W 1 MHz ₩ 3 MHz Mod		el 4183		Measuring	M1[1]	17:16:29
MultiVie Ref Leve Att 20 dBm	<b>ew</b> 8 vel 26.	Spectrum .00 dBm Offset 18 dB SWT	: 8,00 dB ● RB 100 ms ● VB	W 1 MHz W 3 MHz Mod		el 4183		Measuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
Date: 27.SE MultiVie Ref Lev Att 1 Freque	<b>ew</b> 8 vel 26.	Spectrum .00 dBm Offset 18 dB SWT	: 8.00 dB • RB 100 ms • VB	W 1 MHz W 3 MHz Mod		el 4183		Measuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
MultiVie Ref Leve Att 20 dBm	<b>ew</b> 8 vel 26.	Spectrum .00 dBm Offset 18 dB SWT	: 8.00 dB ● RB 100 ms ● VB	W 1 MHz Mod		el 4183		Measuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
Date: 27.SE	<b>ew</b> 8 vel 26.	Spectrum .00 dBm Offset 18 dB SWT	. 8.00 dB ● RB 100 ms ● VB	W 1 MHz W 3 MHz Mod		el 4183		Meosuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
MultiVie Ref Lev Att 10 dBm 10 dBm	ew 8 rel 26.	Spectrum .00 dBm Offset 18 dB SWT	: 8.00 dB ● RB 100 ms ● VB	W 1 MHz W 3 MHz Mod		el 4183		Measuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
Date: 27.SE	ew 8 rel 26.	Spectrum 18 dB SWT weep	: 8.00 dB ● RB 100 ms ● VB	W 1 MHz Mod		el 4183		Meosuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
MultiVie Ref Lev Att 10 dBm 0 dBm -10 dBm	ew 8 rel 26.	Spectrum 18 dB SWT weep	: 8.00 dB ● RB 100 ms ● VB	W 1 MHz Mod		el 4183		Measuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
MultiVie           Ref Leve           Att           1 Frequer           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm	ew 8 rel 26.	Spectrum 18 dB SWT weep	. 8.00 dB ● RB 100 ms ● VB	W 1 MHz Mod		el 4183		Measuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
MultiVic           Ref Lev.           Att           1 Frequence           20 dBm           10 dBm           -10 dBm           -20 dBm	ew 8 rel 26.	Spectrum 18 dB SWT weep	. 8.00 dB ● RB 100 ms ● VB	W 1 MHz W 3 MHz Mod		el 4183		Measuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
MultiVie           Ref Leve           Att           1 Frequer           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm	ew Prel 26.	Spectrum 18 dB SWT weep			e Auto Sweep	el 4183		Meosuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
MultiVie           Ref Lev           Att           IFFEQUER           20 dBm           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	ew Prel 26.	Spectrum 18 dB SWT weep H1 -13.000 dBm-			e Auto Sweep			Measuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
MultiVie           Ref Leve           Att           1 Frequer           10 dBm           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -50 dBm	ew Prel 26.	Spectrum 18 dB SWT weep H1 -13.000 dBm-			e Auto Sweep	el 4183		Measuring		■ 17:16:29 ■ 1Pk Max -42.43 dBn
Dete: 27.SE MultiVie Ref Lev Att 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -30 dBm -30 dBm	ew el ze.	Spectrum 18 dB SWT weep H1 -13.000 dBm-			e Auto Sweep			Measuring		■ 17:16:29 ■ 17:17:16:29 ■ 17:17:17:17:17:17:17:17:17:17:17:17:17:1
MultiVie           Ref Lev.           Att           1 Frequer           20 dBm           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           -70 dBm	ew Prel 26.	Spectrum 18 dB SWT weep H1 -13.000 dBm-			e Auto Sweep		.27 GHz/			17:16:29     ▼     17:16:29     ▼     17:16:29     ▼     17:16:29     ▼     1.695620 GH:     1.695620 GH:     1.695620 GH:     1.695620 GH:     1.695620 GH:     1.12:75 GH2

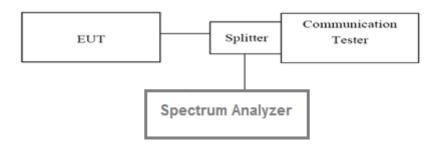
## 5.4. Band Edge

## LIMIT

Part 24.238 and Part 22.917 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P) dB$ .

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.

## **TEST CONFIGURATION**



## **TEST PROCEDURE**

- 1. The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.
- 2. For the bandedge: 2G:Set the RBW=3KHz, VBW = 10KHz, Sweep time= Auto

3G: Set the RBW=100KHz, VBW = 300KHz, Sweep time= Auto

### TEST MODE:

Please refer to the clause 3.3

### **TEST RESULTS**

☑ Passed □ Not Applicable

Report No.: TRE1709017501

Page: 28 of 57

	GSM850										
Channel	Frequency	Measureme	nt Results	Limit	Verdict						
Number	(MHz)	Frequency(MHz)	Values(dBm)	(dBm)	verdict						
128	824.2	824	-15.31	-13.00	Pass						
251	848.8	849	-16.11	-13.00	Pass						

	GPRS850											
Channel	Frequency	Measureme	nt Results	Limit	Verdict							
Number	(MHz)	Frequency(MHz)	Values(dBm)	(dBm)	verdict							
128	824.2	824	-13.18	-13.00	Pass							
251	848.8	849	-14.1	-13.00	Pass							

	EGPRS850										
Channel	Frequency	Measureme	nt Results	Limit	Verdict						
Number	(MHz)	Frequency(MHz)	Values(dBm)	(dBm)	Verdict						
128	824.2	824	-13.82	-13.00	Pass						
251	848.8	849	-14.61	-13.00	Pass						

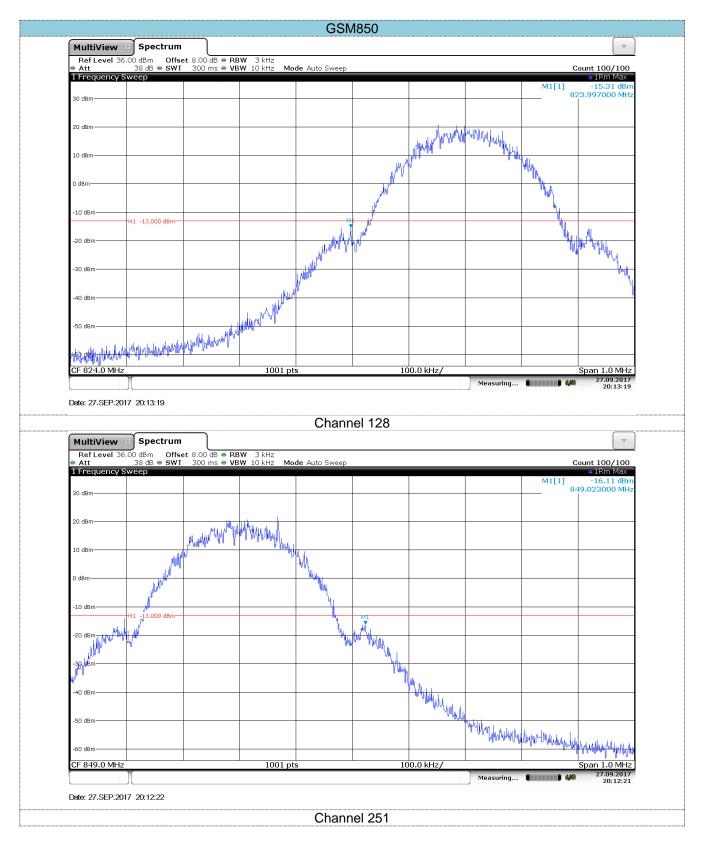
		PCS	1900		
Channel	Frequency	Measureme	nt Results	Limit	Verdict
Number	(MHz)	Frequency(MHz)	Values(dBm)	(dBm)	verdict
512	1850.2	1850	-13.97	-13.00	Pass
810	1909.8	1910	-14.27	-13.00	Pass

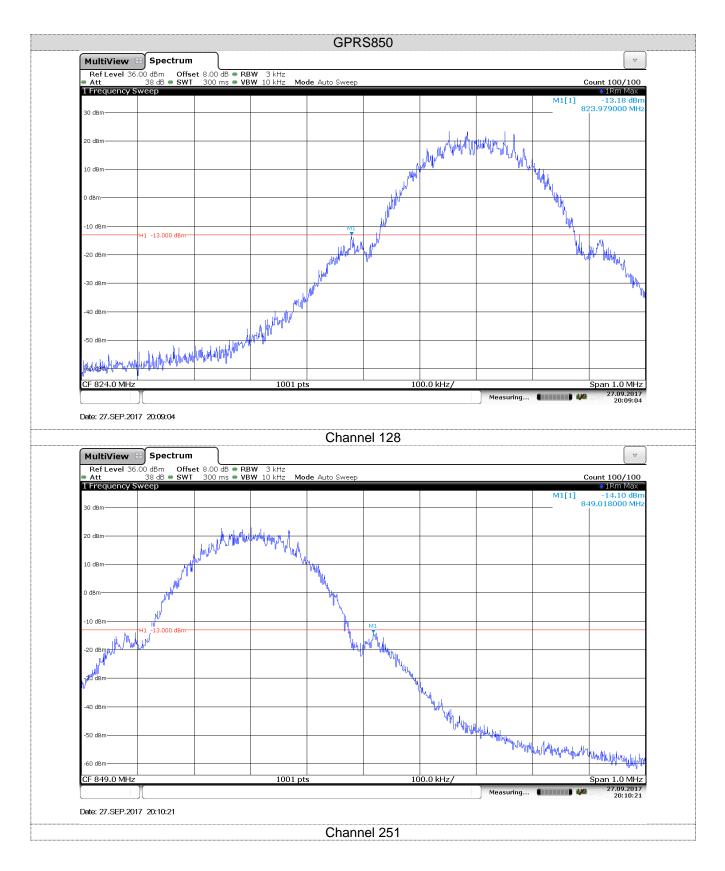
		GPR	S1900		
Channel	Frequency	Measureme	nt Results	Limit	Verdict
Number	(MHz)	Frequency(MHz)	Values(dBm)	(dBm)	Verdici
512	1850.2	1850	-13.91	-13.00	Pass
810	1909.8	1910	-14.85	-13.00	Pass

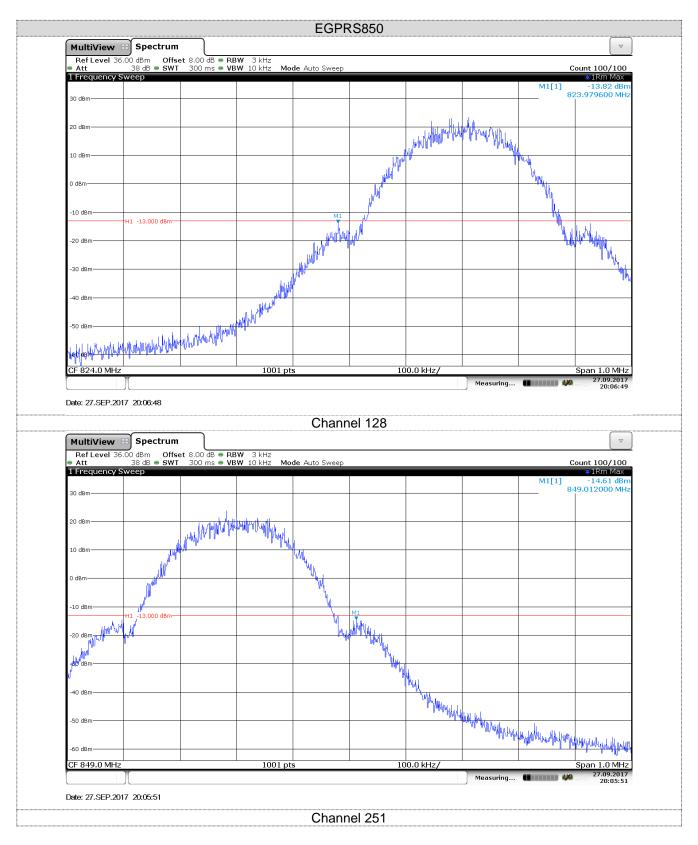
		EGPR	S1900		
Channel	Frequency	Measureme	nt Results	Limit	Verdict
Number	(MHz)	Frequency(MHz)	Values(dBm)	(dBm)	Verdict
512	1850.2	1850	-14.89	-13.00	Pass
810	1909.8	1910	-15.35	-13.00	Pass

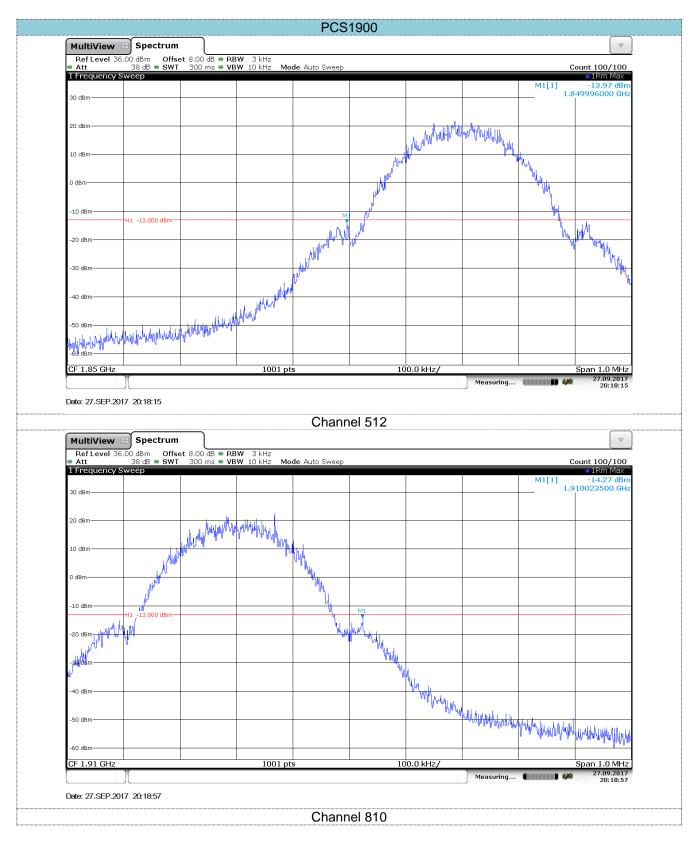
		WCDMA	A Band II		
Channel	Frequency	Measureme	nt Results	Limit	Verdict
Number	(MHz)	Frequency(MHz)	Values(dBm)	(dBm)	verdict
9262	1852.4	1850	-18.68	-13.00	Pass
9538	1907.6	1910	-19.49	-13.00	Pass

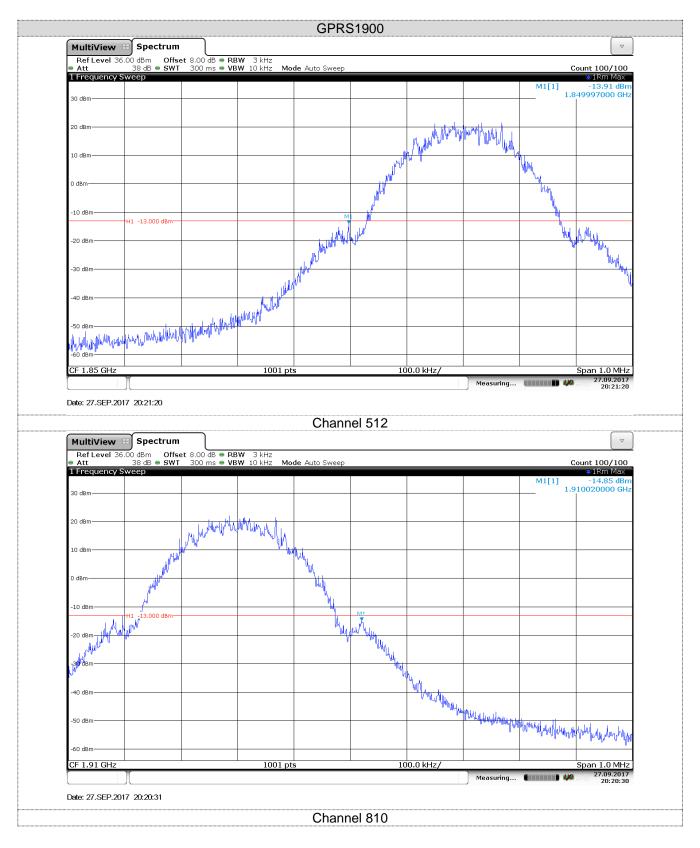
		WCDMA	A Band V		
Channel	Frequency	Measureme	nt Results	Limit	Verdict
Number	(MHz)	Frequency(MHz)	Values(dBm)	(dBm)	verdict
4132	826.4	824	-20.71	-13.00	Pass
4233	846.6	849	-19.43	-13.00	Pass

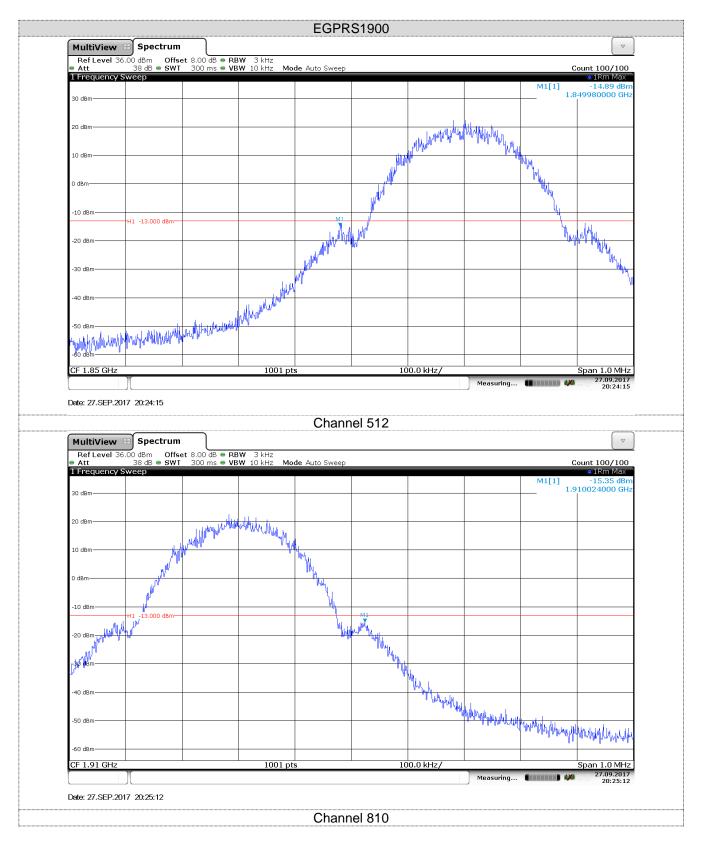










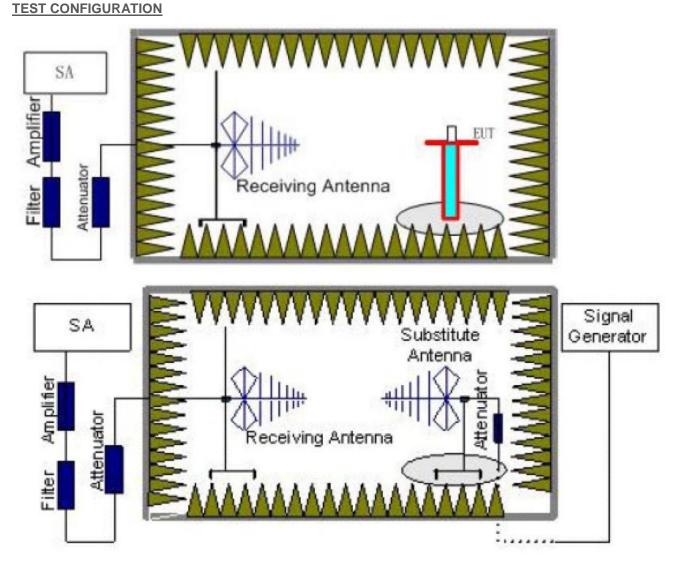


MultiView 🗄 Spec	trum							
Ref Level 36.00 dBm	Offset 8.00 dB 🖷	RBW 100 kHz	ada Auto Sussa					
Att 38 dB     I Frequency Sweep	● SWT 300 ms ●	VBW 300 KHZ N	iode Auto Sweep					Ount 100/100 ●1Rm Max
30 dBm							M1[1]	-18.68 dBm 1.85000000 GHz
20 dBm								
10 dBm					and the second state of th	ىمى مەككە يىتىكە كەللالار _{تەل} ىمى مەرمىمى مەر	el and a construction of the second	and the second s
0 dBm								
-10 dBm				1				
H1 -13.000	) dBm			N.				
-20 dBm				<u>*</u>				+
		at a transfer del provention	m					
-30 dBm	A contraction							
H40,dBm	,							
-50 dBm								
-60 dBm								
CF 1.85 GHz		1001 p	ts		1.0 MHz/		. () 4	Span 10.0 MHz 27.09.2017
MultiView 🗄 Spec	trum		Chann	el 9262				
Ref Level 36.00 dBm Att 38 dB	trum	RBW 100 kHz VBW 300 kHz N						⊽ Count 100/100
MultiView B Spec Ref Level 36.00 dBm Att 38 dB	trum Offset 8.00 dB •	<b>RBW</b> 100 kHz <b>VBW</b> 300 kHz <b>N</b>			1	1		Count 100/100 • 1Rm Max
MultiView 😁 Spec	trum Offset 8.00 dB •	RBW 100 kHz VBW 300 kHz N					M1[1]	Count 100/100
MultiView Spec Ref Level 36.00 dBm Att 38 dB I Frequency Sweep	trum Offset 8.00 dB •	RBW 100 kHz VBW 300 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB I Frequency Sweep	trum Offset 8.00 dB •	RBW 100 kHz VBW 300 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB I Frequency Sweep 30 dBm 20 dBm	trum Offset 8.00 dB •	RBW 100 kHz VBW 300 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB I Frequency Sweep 30 dBm	trum Offset 8.00 dB •	RBW 100 kHz VBW 300 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB I Frequency Sweep 30 dBm 20 dBm	trum Offset 8.00 dB •	RBW 100 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB 1 Frequency Sweep 30 dBm 20 dBm 10 dBm	trum Offset 8.00 dB •	RBW 100 kHz VBW 300 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB 1 Frequency Sweep 30 dBm 20 dBm 10 dBm 0 dBm -10 fbm	SWT 300 ms	RBW 100 kHz VBW 300 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB 1 Frequency Sweep 30 dBm 20 dBm 10 dBm -10 dBm H1 -13.000	SWT 300 ms	RBW 100 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB 1 Frequency Sweep 30 dBm 20 dBm 10 dBm 0 dBm -10 fbm	SWT 300 ms	RBW 100 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB 1 Frequency Sweep 30 dBm 20 dBm 10 dBm -10 dBm +10 cBm +10 cBm +11 -13.000	SWT 300 ms	RBW 100 kHz N					M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB 1 Frequency Sweep 30 dBm 20 dBm 10 dBm -10 dBm -10 dBm H1 -13.000 -2q dBm	SWT 300 ms	RBW 100 kHz VBW 300 kHz N			Supple Supple in		M1[1]	Count 100/100 01Rm Max -19.49 dBm
MultiView Spec Ref Level 36.00 dBm Att 38 dB 1 Frequency Sweep 30 dBm 20 dBm 10 dBm -10 dBm -10 dBm H1 -13.000 -2q dBm	SWT 300 ms	RBW 100 kHz V VBW 300 kHz N			Supple Supple in		M1[1]	Count 100/100 01Rm Max -19.49 dBm
Multiview         Spec           Ref Level 36.00 dBm         38 dB           1 Frequency Sweep         30 dBm           30 dBm         20 dBm           10 dBm         40 dBm	SWT 300 ms	RBW 100 kHz N			Supple Supple in		M1[1]	Count 100/100 91Rm Max -19.49 dBm 1.91000000 GHz
MultiView Spec Ref Level 36.00 dBm Att 38 dB 1 Frequency Sweep 30 dBm 20 dBm 10 dBm -10 dBm -10 dBm H1 -13.000 -20 dBm -30 dBm	SWT 300 ms	RBW 100 kHz N			Supple Supple in		M1[1]	Count 100/100 91Rm Max -19.49 dBm 1.91000000 GHz
Multiview         Spect           Ref Level 36.00 dBm         38 dB           1 Frequency Sweep         30 dBm           20 dBm         20 dBm           10 dBm         40 dBm           -10 dBm         40 dBm           -30 dBm         -30 dBm	SWT 300 ms	RBW 100 kHz V VBW 300 kHz N			Supple Supple in		M1[1]	Count 100/100 91Rm Max -19.49 dBm 1.91000000 GHz
MultiView         Spect           Ref Level 36.00 dBm         38 dB           1 Frequency Sweep         30 dBm           30 dBm         30 dBm           10 dBm         40 dBm           -30 dBm         40 dBm           -50 dBm         -50 dBm	SWT 300 ms	VBW 300 kHz N					M1[1]	Count 100/100 91Rm Max -19.49 dBm 1.91000000 GHz
MultiView         Spect           Ref Level 36.00 dBm         38 dB           1 Frequency Sweep         30 dBm           30 dBm         30 dBm           10 dBm         40 dBm           -30 dBm         40 dBm           -50 dBm         -50 dBm	SWT 300 ms	RBW 100 kHz V VBW 300 kHz N			Supple Supple in		M1[1]	Count 100/100  Immax -19.49 dBm 1.91000000 GH2
Multiview         Spect           Ref Level 36.00 dBm         38 dB           1 Frequency Sweep         30 dBm           20 dBm         20 dBm           10 dBm         40 dBm           -10 dBm         40 dBm           -30 dBm         -30 dBm	Image: strain of the second	VBW 300 kHz N					M1[1]	Count 100/100 91Rm Max -19.49 dBm 1.91000000 GHz

MultiView	J -	(							▽
Ref Level 36. Att	00 dBm Offse 38 dB • SWT	et 8.00 dB • R 300 ms • VI	BW 100 kHz BW 300 kHz Mo	ode Auto Sweep					Count 100/100
1 Frequency S								M1[1]	1Rm Max -20.71 dBm
30 dBm								[WILL]	824.00000 MH
20 dBm									
10 dBm					Jundania	and the state of the second second			man and a second se
0 dBm									
0 ubiii									
-10 dBm					/				$\rightarrow$
	H1 -13.000 dBm				/				
-20 dBm				M	<u>¢</u>				+
				. mr					
-30 dBm				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					
-40 dBm	Jan Land	when	~						
-40 UBID	7 YUV								
-50 dBm									
-60 dBm									+
CF 824.0 MHz			1001 pts	S	1	0 MHz/			Span 10.0 MHz 27.09.2017
Date: 27.SEP.201 MultiView	~			Channe	el 4132				
Ref Level 36.	Spectrum	et 8.00 dB 🖷 RI	<b>BW</b> 100 kHz		el 4132				
MultiView Ref Level 36.	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz Ma		el 4132				Count 100/100 ●1Rm Max
MultiView Ref Level 36. Att 1 Frequency S	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz Md		el 4132			M1[1]	Count 100/100
MultiView Ref Level 36. Att	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz M		el 4132			M1[1]	⊽ © 18m Max -19,43 dBn
MultiView Ref Level 36. Att 1 Frequency S	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz Me		el 4132			M1[1]	⊽ © 18m Max -19,43 dBn
MultiView 8 Ref Level 36. Att 1 Frequency S 30 dBm-	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz Mo		9 4132			M1[1]	© © 18m Max -19,43 dBr
MultiView 8 Ref Level 36. Att 1 Frequency S 30 dBm-	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz M		el 4132			M1[1]	⊽ © 18m Max -19,43 dBn
MultiView P Ref Level 36. • Att 1 Frequency S 30 dBm	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz M		el 4132			M1[1]	⊽ © 18m Max -19,43 dBn
MultiView 9 Ref Level 36. Att 1 Frequency S 30 dBm	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz M		el 4132			M1[1]	© © 18m Max -19,43 dBr
MultiView P Ref Level 36. • Att 1 Frequency S 30 dBm	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz Mo		el 4132			M1[1]	⊽ © 18m Max -19,43 dBn
MultiView P Ref Level 36. Att 1 Frequency S 30 dBm 20 dBm 10 dBm 0 dBm	Spectrum OO dBm Offse 38 dB • SWT	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz M		el 4132			M1[1]	© © 18m Max -19,43 dBr
MultiView P Ref Level 36. Att 1 Frequency S 30 dBm 20 dBm 10 dBm 0 dBm	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz M		el 4132			M1[1]	© © 18m Max -19,43 dBr
MultiView P Ref Level 36. • Att 1 Frequency S 30 dBm 20 dBm 10 dBm -10 dBm	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz M					M1[1]	© © 18m Max -19,43 dBr
MultiView P Ref Level 36. • Att 1 Frequency S 30 dBm 20 dBm 10 dBm -10 dBm	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz M					M1[1]	© © 18m Max -19,43 dBr
MultiView E Ref Level 36. • Att 1 Frequency S 30 dBm 20 dBm 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz Me		el 4132			M1[1]	© © 18m Max -19,43 dBr
MultiView E Ref Level 36. • Att 1 Frequency S 30 dBm- 20 dBm- 10 dBm- -10 dBm- -20 dBm-	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz Mo		el 4132			M1[1]	© © 18m Max -19,43 dBr
MultiView E Ref Level 36. • Att 1 Frequency S 30 dBm 20 dBm 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz Mo					M1[1]	© © 18m Max -19,43 dBr
MultiView E Ref Level 36. • Att 1 Frequency S 30 dBm 20 dBm 10 dBm -10 dBm -10 dBm -30 dBm -40 dBm	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz M					M1[1]	© © 18m Max -19,43 dBr
MultiView         E           Ref Level 36.         Att           1 Frequency S         30 dBm           20 dBm         30 dBm           10 dBm	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI	BW 100 kHz M BW 300 kHz M		el 4132			M1[1]	© © 18m Max -19,43 dBr
MultiView           Ref Level 36.           • Att           1 Frequency S           30 dBm           20 dBm           10 dBm           -10 dBm           -20 dBm           -30 dBm           -50 dBm           -60 dBm	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI	BW 100 kHz BW 300 kHz Ma	ode Auto Sweep		.0 MHz/		M1[1]	Count 100/100
MultiView         E           Ref Level 36.         Att           1 Frequency S         30 dBm           20 dBm         30 dBm           10 dBm         9           -10 dBm         9           -30 dBm         9           -40 dBm         9	Spectrum OD dBm Offse 38 dB SWT Weep	et 8.00 dB 🖷 RI		ode Auto Sweep			Measuring	M1[1]	Count 100/100 91Rm Max -19,43 dBn 849.00000 MH

## 5.5. ERP and EIRP

LIMIT GSM850/WCDMA Band V: 7W ERP PCS1900/WCDMA Band II: 2W EIRP WCDMA Band V: 1W EIRP



## TEST PROCEDURE

- 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 EUT for emission measurements. The height of receiving antenna is 1.0m. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.
- 2. A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
- 3. The EUT is then put into continuously transmitting mode at its maximum power level during the test.Set Test Receiver or Spectrum RBW=1MHz,VBW=3MHz for above 1GHz and RBW=100kHz,VBW=300kHz for 30MHz to 1GHz,, And the maximum value of the receiver should be recorded as (Pr).
- 4. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the

frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest isconnected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

- A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (PcI) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
- The measurement results are obtained as described below: Power(EIRP)=PMea- PAg - Pcl + Ga We used SMF100A micowave signal generator which signal level can up to 33dBm,so we not used power Amplifier for substituation test; The measurement results are amend as described below: Power(EIRP)=PMea- Pcl + Ga
- This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.
   ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP-2.15dBi.

#### TEST MODE:

Please refer to the clause 3.3

#### TEST RESULTS

#### ☑ Passed □ Not Applicable

Mode	Channel	Antenna Pol.	ERP	Limit (dBm)	Result
	128	V	33.11		
	120	Н	28.13		
GSM850	190	V	32.23	38.45	Pass
00111030	150	Н	28.76	30.40	1 435
	251	V	33.86		
	201	Н	29.69		
	128	V	32.76		Pass
	120	Н	27.51	38.45	
GPRS850	190	V	32.12		
01100000		Н	27.79		
	251	V	32.45		
	201	Н	28.66		
	128	V	32.57		
	120	Н	27.66		
EGPRS850	190	V	31.79	38.45	Pass
2011(0000	150	Н	27.12	30.43	F 055
	251	V	32.02		
	201	Н	27.11		

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Mode	Channel	Antenna Pol.	EIRP	Limit (dBm)	Result
	512	V	29.12		
	512	Н	29.43		
PCS1900	661	V	29.84	33.00	Pass
F C S 1900	001	Н	29.86	33.00	F 855
	810	V	27.75		
	010	Н	30.10		
	512	V	29.07		Pass
	012	Н	28.11	33.00	
GPRS1900	661	V	29.44		
011101300		Н	29.43		
	810	V	27.68		
	010	Н	29.55		
	512	V	29.33		
	012	Н	28.43		
EGPRS1900	661	V	28.75	33.00	Pass
201101000	001	Н	27.53		1 435
	810	V	27.41		
	010	Н	28.99		

Mode	Channel	Antenna Pol.	EIRP	Limit (dBm)	Result
	9262	V	18.11		Pass
	9202	Н	19.79		
WCDMA Band II	9400 - 9538 -	V	20.01	- 33.00	
		Н	18.98		
		V	20.12		
		Н	22.89		

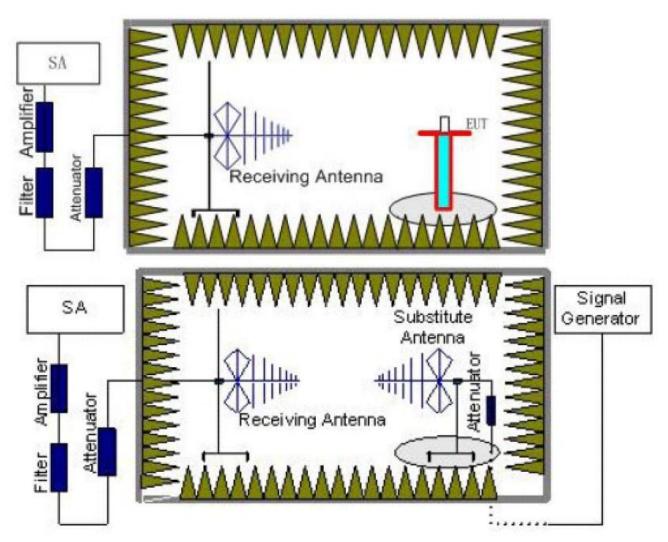
Mode	Channel	Antenna Pol.	ERP	Limit (dBm)	Result
	4132	V	17.57		Pass
	4132	Н	17.35		
WCDMA Band V	4183	V	19.00	38.45	
		Н	18.24		
		V	19.65		
		Н	17.63		

## 5.6. Radiated Spurious Emission

LIMIT

-13dBm

**TEST CONFIGURATION** 



## TEST RESULTS

- 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 EUT for emission measurements. The height of receiving antenna is 1.0m. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.
- 2. A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
- 3. The EUT is then put into continuously transmitting mode at its maximum power level during the test.Set Test Receiver or Spectrum RBW=1MHz,VBW=3MHz for above 1GHz and RBW=100kHz,VBW=300kHz for 30MHz to 1GHz, And the maximum value of the receiver should be recorded as (Pr).
- 4. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest isconnected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be

performed by rotating the test item and adjusting the receiving antenna polarization.

- A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (PcI) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
- The measurement results are obtained as described below: Power(EIRP)=PMea- PAg - Pcl + Ga We used SMF100A micowave signal generator which signal level can up to 33dBm,so we not used power Amplifier for substituation test; The measurement results are amend as described below: Power(EIRP)=PMea- Pcl + Ga
- This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.
   ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP-2.15dBi.

#### TEST MODE:

Please refer to the clause 3.3

#### **TEST RESULTS**

☑ Passed □ Not Applicable

Note: Worst case at GSM850/PCS1900/WCDMA B2/B5

		GS	M850		
Channel Frequency Spurious Emission					D It
Channel	(MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
	182.21	Vertical	-57.15		
	259.91	V	-48.46		_
	1648.51	V	-36.55	40.00	
	2472.57	V	-47.33	-13.00	Pass
	4119.70	V	-14.86		
100	4945.67	V	-27.37		
128	182.21	Horizontal	-58.18		
	259.91	Н	-43.40		
	1648.51	Н	-38.77	10.00	Deser
	2472.57         H         -44.08           4119.70         H         -16.83	-44.08	-13.00	Pass	
	4945.67	Н	-28.57	-13.00 -13.00 -13.00 -13.00	
	182.21	Vertical	-58.54		Page
	259.91	V	-50.39	-13.00	
	1674.06	V	-38.67		
	1891.17	V	-46.61		Pass
	4179.88	V	-14.98		
100	5017.92	V	-25.42		
190	182.21	Horizontal	-59.14		
	259.91	Н	-52.75		
	1674.06	Н	-42.22	10.00	D
	2510.89	Н	-44.17	-13.00	Pass
	4179.88         V         -14.98           5017.92         V         -25.42           182.21         Horizontal         -59.14           259.91         H         -52.75           1674.06         H         -42.22				
	5017.92	Н	-24.14	-13.00 -13.00	
	182.21	Vertical	-56.93		
	259.91	V	-45.35		
	1698.14	V	-41.02	12.00	Deee
	2547.01	V	-47.16	-13.00	Pass
	4240.94	V	-20.29		
251	5091.22	V	-26.26		
251	182.21	Horizontal	-56.84		
	259.91	Н	-52.42		
	1698.14	Н	-42.55	40.00	Dece
	2547.01	н	-44.89	-13.00	Pass
	5091.22	Н	-26.89		
	5945.86	Н	-39.08		

Remark:

1. The emission behaviour belongs to narrowband spurious emission.

2. The emission levels of not record in the report are very lower than the limit and not show in test report.

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		PCS	S1900		
Channel	Frequency	Lizzit (dDzz)	Decult		
Channel	(MHz)	Polarization	Level (dBm)	Limit (dBm)	Result
	182.21	Vertical	-65.17		
	259.91	V	-54.15		
	1094.27	V	-48.62	10.00	Dest
	1196.11	V	-48.67	-13.00	Pass
	3700.48         V         -33.82           512         5554.08         V         -48.47           156.09         Horizoptal         -63.63				
540	5554.08	V	-48.47		
512	156.09	Horizontal	-63.63		
	259.91	Н	-51.28		
	1260.88	Н	-53.13	40.00	5
	2262.04	Н	-48.81	-13.00	Pass
	3700.48	Н	-33.16		
	5554.08	Н	-43.21		
	182.21	Vertical	-63.29		
	259.91	V	-51.58	42.00	
	1429.11	V	-53.12		Dest
	2340.41	V	-49.42	-13.00	Pass
	3759.98	V	-35.24		
004	5643.40	V	-38.90		
661	156.09	Horizontal	-58.01		Pass
	182.21	Н	-56.72		
	1196.11	Н	-51.20	12.00	
	2264.53	Н	-48.59	-13.00	
	3759.98	Н	-34.17		
	5643.40	Н	-45.01		
	169.24	Vertical	-75.17		
	259.91	V	-50.86		
	1091.87	V	-52.57	12.00	Deee
	1674.06	V	-52.61	-13.00	Pass
	3820.45	V	-38.20		
04.0	5725.84	V	-39.78		
810	156.09	Horizontal	-57.55		
	259.91	н	-50.99		
	1197.42	н	-51.62	40.00	Daaa
	1513.13	Н	-52.33	-13.00	Pass
	3820.45	Н	-36.14		
	5725.84	Н	-38.81		

Remark:

1.

The emission behaviour belongs to narrowband spurious emission. The emission levels of not record in the report are very lower than the limit and not show in test report. 2.

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		WCDM	A Band II		
Channel	Frequency	Spurious	Emission	Lizzit (dDzz)	Decult
Channel	(MHz)	Polarization	Level (dBm)	Limit (abm)	Result
	43.86 266.39	Vertical	-63.24		
	266.39	V	-54.69		
	1095.47	V	-48.18	10.00	Daar
	2340.41	V	-50.72	-13.00	Pass
	3705.85	V	-53.45		
0000	4113.73	V	-51.64		
9262	9262         184.14         Horizontal         -64.72           9262         184.14         Horizontal         -64.72				
	266.39	н	-59.33		
	1290.30	н	-52.01	10.00	Dava
	2580.81	н	-46.21	-13.00	Pass
	3705.85	н	-49.89		
	7252.75	н	-49.23		
	143.46	Vertical	-70.03		
	266.39	V	-50.33	-13.00	
	1290.30	V	-51.24		Dava
	2580.81	V	-44.45		Pass
	3754.53	V	-54.49		
0.400	5643.40	V	-50.51		
9400	143.46	Horizontal	-61.99		Pass
	245.69	н	-65.10		
	1196.11	н	-52.07	10.00	
	1778.33	н	-48.10	-13.00	
	3759.98	н	-53.28		
	5635.22	н	-49.77	Limit (dBm) -13.00 -13.00 -13.00 -13.00	
	43.71	Vertical	-62.63		
	266.39	V	-56.61		
	1197.42	V	-52.72	12.00	Deee
	1290.30	V	-51.07	-13.00	Pass
	3814.91	V	-52.29		
0520	9539.87	V	-37.72		
9538	99.87	Horizontal	-72.29		
	266.39	н	-61.86		
	1260.88	н	-53.77	40.00	Deer
	1574.17	н	-53.31	-13.00	Pass
	3814.91	н	-54.87		
	9553.71	Н	-40.57		

Remark:

1.

The emission behaviour belongs to narrowband spurious emission. The emission levels of not record in the report are very lower than the limit and not show in test report. 2.

		WCDM	A Band V					
Channel Frequency Spurious Emission Limit (dBm) Result								
Channel	(MHz)	Polarization	Level (dBm)	Limit (aBm)	Result			
	266.39         Vertical         -52.82           784.27         V         -45.79	-52.82						
	784.27	V	-45.79	-				
	1097.88	V	-51.56	12.00	Deee			
	1097.88         V         -51.56         -13           1741.59         V         -40.24         -13           4131.67         V         -50.63         -13           4132         4960.04         V         -49.74         -13           143.46         Horizontal         -62.25         -62.25           316.45         H         -46.75         -46.75	V	-40.24	-13.00	Pass			
4400	4960.04	V	-49.74					
4132	143.46	Horizontal	-62.25					
	316.45	н	-46.75					
	1653.95	н	-46.07	10.00	Dees			
	1762.77	н	-47.25	-13.00	Pass			
		-53.70						
	4137.66	н	-42.52	-13.00				
	74.85	Vertical	-72.93		Daga			
	266.39	V	-66.20					
	1290.30	V	-53.07	-13.00				
	2330.15	V	-50.28		Pass			
	3343.25	V	-56.32					
1100	4173.82	V	-41.13					
4183	143.46	Horizontal	-63.09					
	184.14	н	-62.84					
	1290.30	Н	-51.58	40.00	Dees			
	2432.15	Н	-46.23	-13.00	Pass			
	4185.95	Н	-42.76					
	5010.65	Н	-47.29	-13.00 -13.00 -13.00 -13.00 -13.00 -13.00				
	46.73	Vertical	-68.45					
	266.39	V	-52.55					
	1694.41	V	-40.88	40.00	Dese			
	2580.81	V	-47.52	-13.00	Pass			
	3387.17	V	-52.85					
1000	4234.80	V	-40.63					
4233	43.55	Horizontal	-62.36					
	266.39	Н	-57.43					
	1197.42	Н	-50.11		_			
	1694.41	н	-40.88	-13.00	Pass			
	4234.80	н	-40.65					
	5083.85	Н	-48.15					

Remark:

1. The emission behaviour belongs to narrowband spurious emission.

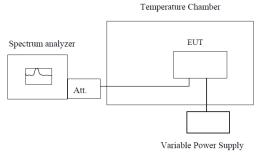
2. The emission levels of not record in the report are very lower than the limit and not show in test report.

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

LIMIT

2.5ppm

#### **TEST CONFIGURATION**



Note: Measurement setup for testing on Antenna connector

#### TEST PROCEDURE

- 1. The equipment under test was connected to an external DC power supply and input rated voltage.
- 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.
- 3. The EUT was placed inside the temperature chamber.
- 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°Coperating frequency as reference frequency.
- 5. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.
- 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

#### TEST MODE:

Please refer to the clause 3.3

#### **TEST RESULTS**

☑ Passed □ Not Applicable

Note:Worst case at GSM850/PCS1900/WCDMA B2/B5 mid channel

Refe	Reference Frequency: GSM850 Middle channel=190 channel=836.6MHz							
Power supplied	Temperature (°C)	Frequency error		Limit (ppm)	Result			
(Vdc)	Temperature ( C)	Hz	ppm	Linit (ppin)	Result			
	-30	4.07	0.005					
	-20	1.61	0.002					
	-10	2.39	0.003					
	0	3.81	0.005					
3.80	10	2.45	0.003	2.50	Pass			
	20	3	0.004					
	30	2.62	0.003					
	40	5.42	0.006	1				
	50	1.78	0.002					
Refe	erence Frequency: PC	CS1900 Middle ch	annel=661 chan	nel=1880MHz				
Power supplied	Temperature (°C)	Frequency error		Limit (ppm)	Result			
(Vdc)	remperature ( C)	Hz	ppm	Linit (ppin)	Result			
	-30	3.1	0.002					
	-20	12.49	0.007					
	-10	0.68	0.000					
	0	18.27	0.010					
3.80	10	1.52	0.001	2.50	Pass			
	20	8.07	0.004					
	30	1.84	0.001					
	40	4.81	0.003					
	50	9.46	0.005					

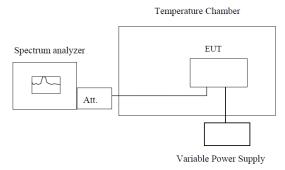
Reference Frequency: WCDMA Band II Middle channel=9400 channel=1880MHz							
Power supplied	Temperature (°C)	Frequen	cy error	Limit (ppm)	Result		
(Vdc)		Hz	ppm	Emit (ppm)	Result		
	-30	12.68	0.007				
	-20	21.32	0.011				
	-10	20.71	0.011				
	0	17.06	0.009				
3.80	10	19.58	0.010	2.50	Pass		
	20	16.92	0.009				
	30	23.55	0.013				
	40	16.09	0.009	-			
	50	22.37	0.012				
Reference	ce Frequency: WCDN	1A Band V Middle	channel=4182 ch	annel=836.6MH	z		
Power supplied	Temperature (°C)	Frequency error		Limit (ppm)	Result		
(Vdc)	Temperature ( C)	Hz	ppm	Einin (ppin)	Result		
	-30	9.92	0.012				
	-20	10.23	0.012				
	-10	8.71	0.010				
	0	11.02	0.013				
3.80	10	9.43	0.011	2.50	Pass		
	20	12.42	0.015				
	30	7.27	0.009				
	40	10.55	0.013				
	50	8.47	0.010				

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

LIMIT

2.5ppm

#### **TEST CONFIGURATION**



Note: Measurement setup for testing on Antenna connector

#### TEST PROCEDURE

- 1. Set chamber temperature to 25°C. Use a variable DC power source topower the EUT and set the voltage to rated voltage.
- 2. Set the spectrum analyzer RBW lowenough to obtain the desired frequency resolution and recorded the frequency.
- 3. Reduce the input voltage to specified extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.

#### **TEST MODE:**

Please refer to the clause 3.3

#### TEST RESULTS

🛛 Passed

Not Applicable

Note:Worst case at GSM850/PCS1900/WCDMA B2/ B5 mid channel

Report No.: TRE1709017501

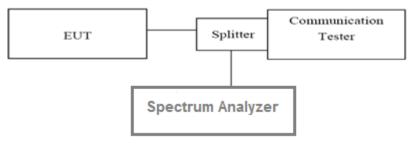
Reference	e Frequency: GSM85	0 (GSM link) Mide	lle channel=190	channel=836.6M⊦	lz	
Temperature (°C)	Power supplied	Frequer	icy error	Limit (ppm)	Result	
Temperature ( C)	(Vdc)	Hz	ppm	Limit (ppm)	Result	
	4.35	3.00	0.004			
25	3.80	2.62	0.003	2.50	Pass	
	3.60	5.42	0.006			
Reference	e Frequency: PCS190	00 (GSM link) Mid	dle channel=661	channel=1880MH	lz	
Temperature (°C)	Power supplied	Frequer	cy error	Limit (ppm)	Result	
Temperature ( C)	(Vdc)	Hz	ppm	Linit (ppin)	Result	
	4.35	8.07	0.004		Pass	
25	3.80	1.84	0.001	2.50		
	3.60	4.81	0.003			
Referen	ce Frequency: WCDM	MA Band II Middle	channel=9400 c	hannel=1880MHz		
Temperature (°C)	Power supplied	Frequency error		Limit (	ppm)	
Temperature ( C)	(Vdc)	Hz	ppm	Res	Result	
	4.35	16.92	0.009			
25	3.80	23.55	0.013	2.50	Pass	
	3.60	16.09	0.009			
Referen	ce Frequency: WCDM	IA Band V Middle	channel=4183 c	hannel=836.6MHz	Z	
Temperature (°C)	Power supplied	Frequer	cy error	Limit (ppm)	Result	
remperature (°C)	(Vdc)	Hz	ppm	Linit (ppin)	Result	
	4.35	12.42	0.015			
25	3.80	7.27	0.009	2.50	Pass	
	3.60	10.55	0.013			

## 5.9. Peak-Average Ratio

LIMIT

13dB

#### TEST CONFIGURATION



#### TEST PROCEDURE

According with KDB 971168

- 1. The signal analyzer's CCDF measurement profile is enabled
- 2. Frequency = carrier center frequency
- 3. Measurement BW > Emission bandwidth of signal
- 4. The signal analyzer was set to collect one million samples to generate the CCDF curve

5. The measurement interval was set depending on the type of signal analyzed. Forcontinuoussignals(>98% duty cycle), the measurement interval was set to 1ms. For bursttransmissions, the spectrum analyzer is set to use an internal " RF Burst" trigger that issynced with an incoming pulse and the measurement interval is set to less than the duration of the " on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

#### TEST MODE:

Please refer to the clause 3.3

#### TEST RESULTS

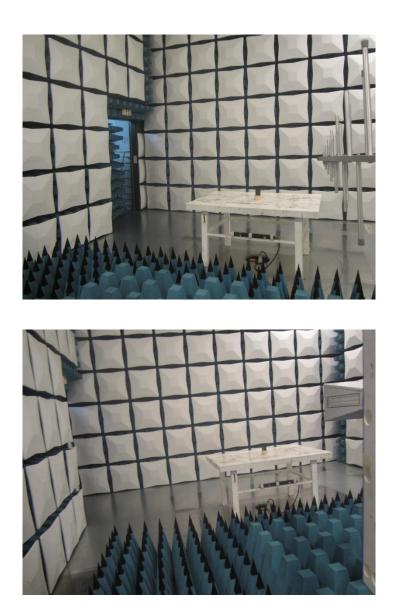
#### ☑ Passed □ Not Applicable

Band	Channel	Frequency(MHz)	PAR	Limit(dB)	Result
	512	1850.2	2.67	13.00	Pass
PCS1900	661	1880.0	2.66	13.00	Pass
	810	1909.8	2.66	13.00	Pass

Band	Channel	Frequency(MHz)	PAR	Limit(dB)	Result
WCDMA BAND II	9262	1852.4	2.57	13.00	Pass
	9400	1880.0	2.66	13.00	Pass
	9538	1907.6	2.87	13.00	Pass

# 6. Test Setup Photos of the EUT

Radiated emission:



## 7. External and Internal Photos of the EUT

## External photos of the EUT











INPUT: AC 100-240V~50-60Hz 0.2A OUTPUT: DC 5.0V-500mA



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## Internal photos of the EUT





