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FCC RADIO REPORT

Report No: STS1501039F01

Issued for

UNNECTO HOLDING LIMITED ROOM 1501(445),15/F.,SPA CENTRE,53-55 LOCKHART

ROAD, WANCHAI, HONGKONG

Product Name:	3G MOBILE PHONE
Brand Name:	unnecto ™
Model No.:	U905
Series Model:	N/A
FCC ID:	2ADR3U905
Test Standard:	FCC Part 22H and 24E

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TEST RESULT CERTIFICATION

2 of 113

	UNNECTO HOLDING LIMITED
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	SHENZHEN UNI-ONE ELECTRONIC CO.,LTD
Address	.5/F,Bldg A2,Kexing Science Park,Keyuan Rd.,Hi-Tech Park Shenz- hen,P.R.China
Product name	3G MOBILE PHONE
Band name	unnecto ™
Model and/or type reference .	U905
Standards	FCC Part 22H and 24E
Test procedure	TIA 603 C
This device described above I	has been tested by STS and the test results show that the equipment under test
(EUT) is in compliance with th the report.	ne FCC requirements. And it is applicable only to the tested sample identified in
This report shall not be reproc	duced except in full, without the written approval of STS, this document may be
altered or revised by STS, per	rsonal only, and shall be noted in the revision of the document.
Date of Test	
Date of performance of tests	15 Jan. 2015 ~21 Jan. 2014
Date of Issue	21 Jan. 2014
Test Result	Pass

Testing Engineer	:	Jula
		(Tony Liu)
Technical Manager	:	Artati approval
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TABLE OF CONTENTS

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1. SUMMARY OF TEST RESULTS	5
1.1 TEST FACILITY	5
1.2 MEASUREMENT UNCERTAINTY	5
2. GENERAL INFORMATION	6
2.1 PRODUCT DESCRIPTION	6
2.2 RELATED SUBMITTAL(S) / GRANT (S)	7
2.3 SPECIAL ACCESSORIES	7
2.4 EUT CONFIGURATION	7
2.5 EUT EXERCISE	7
2.6 CONFIGURATION OF EUT SYSTEM	7
2.7 MEASUREMENT INSTRUMENTS	8
3. SUMMARY OF TEST RESULTS	9
4. DESCRIPTION OF TEST MODES	9
5. OUTPUT POWER	10
5.1 CONDUCTED OUTPUT POWER	10
5.2 PEAK-TO-AVERAGE RADIO (PAR) OF TRANSMITTER	16
5.3 RADIATED OUTPUT POWER	21
6. SPURIOUS EMISSION	25
6.1 SPURIOUS EMISSION	25
6.2 RADIATED SPURIOUS EMISSION	27
7. FREQUENCY STABILITY	33
7.1 MEASUREMENT METHOD	33
7.2 PROVISIONS APPLICABLE	34
7.3 MEASUREMENT RESULT	35
8. OCCUPIED BANDWIDTH	40
8.1 MEASUREMENT METHOD	40
8.2 PROVISIONS APPLICABLE	40
8.3 MEASUREMENT RESULT	40
9. EMISSION BANDWIDTH	43
9.1 MEASUREMENT METHOD	43
9.2 PROVISIONS APPLICABLE	43
9.3 MEASUREMENT RESULT	43
10. BAND EDGE	46
10.1 MEASUREMENT METHOD	46



Page



10.2 PROVISIONS APPLICABLE	46
10.3 MEASUREMENT RESULT	46
APPENDIX I	47
TEST PLOTS FOR CONDUCTED SPURIOUS EMISSION	47
APPENDIX II	77
TEST PLOTS FOR OCCUPIED BANDWIDTH (99%)	77
EMISSION BANDWIDTH (-26DBC)	77
APPENDIX III	101
TEST PLOTS FOR BAND EDGES	101
APPENDIX IV	113
PHOTOS OF TEST SETUP	113



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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

The radiated emission testing was performed according to the procedures of ansi C63.10: 2009; TIA 603 C and fcc cfr 47 rules of 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057

5 of 113

Item Number	Item Description		FCC Rules	
1	Output	Conducted output power	22.013(a)/24.232(b)	
I	Power	Radiated output power	22.913(a) / 24.232 (b)	
	Spurious	Conducted	2.1051 / 22.917 / 24.238	
2	Spurious Emission	spurious emission		
		Radiated spurious emission		
3	Frequency Stability		2.1055 /24.235	
4	Occupied Bandwidth		2.1049 (h)(i)	
5	Emission Bandwidth		22.917(b) / 24.238 (b)	
6	Band Edge		22.917(b) / 24.238 (b)	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

1.1 TEST FACILITY

Shenzhen STS Test Services Co., Ltd.

Add. : 1/F, Building 2, Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China.

FCC Registration No.: 842334; IC Registration No.: 12108A-1

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%





2. GENERAL INFORMATION

2.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

Hardware version: Software version: FCC ID: Frequency Bands:	3G MOBILE PHONE UH09_MB_V0.1 2014-11-11 ALPS.KK1.MP1.V2.10 2ADR3U905 ☑GSM 850 ☑PCS 1900 (U.S. Bands) □GSM 900 □DCS 1800 (Non-U.S. Bands) U.S. Bands: ☑UMTS FDD Band II ☑UMTS FDD Band V Non-U.S. Bands: □UMTS FDD Band I □UMTS FDD Band VIII GSM850:30.70dBm,GSM1900:28.88dBm WCDMA Band V:22.84dBm,WCDMA Band II:21.51dBm GSM(850):245KGXW: GSM(1900):245KGXW		
Software version:	ALPS.KK1.MP1.V2.10 2ADR3U905 Second Second		
FCC ID:	2ADR3U905		
Frequency Bands:	GSM 850 PCS 1900 (U.S. Bands) GSM 900 DCS 1800 (Non-U.S. Bands) U.S. Bands: UMTS FDD Band II UMTS FDD Band V Non-U.S. Bands: UMTS FDD Band I UMTS FDD Band VIII GSM850:30.70dBm,GSM1900:28.88dBm WCDMA Band V:22.84dBm,WCDMA Band II:21.51dBm		
Frequency Bands:	□GSM 900 □DCS 1800 (Non-U.S. Bands) U.S. Bands: □UMTS FDD Band II □UMTS FDD Band V Non-U.S. Bands: □UMTS FDD Band I □UMTS FDD Band VIII GSM850:30.70dBm,GSM1900:28.88dBm WCDMA Band V:22.84dBm,WCDMA Band II:21.51dBm		
	Non-U.S. Bands: UMTS FDD Band I UMTS FDD Band VIII GSM850:30.70dBm,GSM1900:28.88dBm WCDMA Band V:22.84dBm,WCDMA Band II:21.51dBm		
	WCDMA Band V:22.84dBm,WCDMA Band II:21.51dBm		
	GSM(850):245KGXW; GSM(1900):245KGXW		
Type of Emission:	GSM(850):245KGXW: GSM(1900):245KGXW GPRS(850):249KGXW; GPRS(1900):248KGXW EDGE(850):248KG7W: EDGE(1900):252KG7W WCDMA850:4M18F9W WCDMA1900:4M19F9W		
I SIM CARD	Support dual-SIM, dual standby, the multiple SIM card with two lines cannot transmitting at the same time		
Antenna:	PIFA Antenna		
Antenna gain:	-1.3 dBi		
Power Supply:	DC 3.8V by battery or DC 5.0V supplied by adapter		
Battery parameter:	DC 3.8V/2500mAh		
Adapter Input:	AC100-240V, 50-60Hz, 0.18A		
Adapter Output:	DC 5.0V, 1000mA		
GPRS/EDGE Class	Multi-Class12		
Extreme Vol. Limits:	DC3.4 V to 4.35 V (Nominal DC3.8V)		
Extreme Temp. Tolerance	-30℃ to +50℃		
** Note: The High Voltage 4.3 couldn't be operate normally v	35V and Low Voltage 3.4V was declared by manufacturer, The EUT with higher or lower voltage.		



2.2 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for fcc id: 2ADR3U905 filing to comply with the fcc part 22H&24E.

2.3 SPECIAL ACCESSORIES

The battery and the charger, earphone supplied by the applicant were used as accessories and being tested with eut intended for fcc grant together.

2.4 EUT CONFIGURATION

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

2.5 EUT EXERCISE

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.

2.6 CONFIGURATION OF EUT SYSTEM

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



Table 2-1 Equipment Used in EUT System

Item	Equipment	Model No.	No. ID or Specification	
1	3G MOBILE PHONE U905		FCC ID: 2ADR3U905	EUT

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



2.7 MEASUREMENT INSTRUMENTS

The radiated emission testing was performed according to the procedures of ansi C 63.10: 2009; TIA 603C and fcc cfr 47 rules of 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057.

Equipment	Manufacturer	Model	Serial Number	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4407B	MY50140340	2014.10.25	2015.10.24
Test Receiver	R&S	ESCI	101427	2014.10.25	2015.10.24
Communication Tester	Agilent	8960	MY48360751	2014.10.25	2015.10.24
Communication Tester	R&S	CMU200	112012	2014.10.25	2015.10.24
Test Receiver	R&S	ESCI	102086	2014.10.25	2015.10.24
Loop Antenna	Daze	ZN30900N	SEL0097	2014.10.27	2015.10.26
Bilog Antenna	Teseq	CBL6111D	34678	2014.10.27	2015.10.26
Horn Antenna	R&S	9120D	152265	2014.10.27	2015.10.26



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3. SUMMARY OF TEST RESULTS

Item Number	Item Description		FCC Rules	Result	
		Conducted			
1	Output	Output Power	22.913(a) / 24.232 (b)	Pass	
•	Power	Radiated		1 000	
		Output Power			
		Conducted			
2	Spurious	Spurious Emission	2.1051 / 22.917 /	Pass	
2	Emission	Radiated	24.238	F 855	
		Spurious Emission			
3	Mains C	onducted Emission	15.107 / 15.207	Pass	
4	Frequency Stability		2.1055 /24.235	Pass	
5	Occupied Bandwidth		2.1049 (h)(i)	Pass	
6	Emission Bandwidth		22.917(b) / 24.238 (b)	Pass	
7	Band Edge		22.917(b) / 24.238 (b)	Pass	

4. DESCRIPTION OF TEST MODES

During the testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication Tester (CMU 200) to ensure max power transmission and proper modulation. Three channels (The top channel, the middle channel and the bottom channel) were chosen for testing on both GPRS850 and GPRS1900 frequency band.

Note: GSM/GPRS/EDGES850, GSM/GPRS/EDGE1900, HSDPA band V, HSUPA band V And HSDPA band II, HSUPA band II modes have been tested during the test.

the worst condition (GPRS/EDGE 850) be recorded in the test report if no other modes test data.



5. OUTPUT POWER

5.1 CONDUCTED OUTPUT POWER

5.1.1 MEASUREMENT METHOD

The EUT was setup for the max output power with pseudo random data modulation. Power was measured with Spectrum Analyzer. The measurements were performed on all modes(GSM/GPRS /EDGE850, GSM/GPRS/EDGE1900, HSDPA /HSUPA band V, HSDPA /HSUPA band II) at 3 typical channels(the Top Channel, the Middle Channel and the Bottom Channel) for each band.

5.1.2 MEASUREMENT RESULT

Conducted Output Power Limits for GSM 850 MHZ				
Mode Nominal Peak Power Tolerance(dB)				
GSM850 30 dBm		+/- 1		

Conducted Output Power Limits for PCS 1900 MHZ				
Mode Nominal Peak Power Tolerance(dB)				
GSM1900	28 dBm	+/- 1		

Conducted Output Power Limits for WCDMA band V/II					
Mode Nominal Peak Power Tolerance(dB)					
WCDMA band V 22 dBm		+/- 1			
WCDMA band II	21.1 dBm	+/- 0.5			

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GSM 850:

Mode	Frequency (MHz)	Peak Power	AVG Power	
	824.2	30.68	30.40	
GSM850	836.6	30.70	30.37	
	848.8	30.61	30.23	
0000050	824.2	30.66	30.41	
GPRS850	836.6	30.66	30.37	
(1 Slot)	848.8	30.57	30.31	
000000	824.2	29.51	29.13	
GPRS850	836.6	29.56	29.29	
(2 Slot)	848.8	29.43	29.20	
000000	824.2	27.33	26.96	
GPRS850	836.6	27.43	27.04	
(3 Slot)	848.8	27.26	26.89	
000000	824.2	26.18	25.97	
GPRS850	836.6	26.42	26.12	
(4 Slot)	848.8	26.25	26.03	
	824.2	30.62	30.24	
EDGE850	836.6	30.62	30.33	
(1 Slot)	848.8	30.53	30.23	
	824.2	29.52	29.17	
EDGE850	836.6	29.53	29.27	
(2 Slot)	848.8	29.45	29.23	
	824.2	27.39	27.04	
EDGE850	836.6	27.39	27.06	
(3 Slot)	848.8	27.32	26.96	
	824.2	26.31	25.93	
EDGE850	836.6	26.27	25.88	
(4 Slot)	848.8	26.29	26.00	

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PCS 1900:

Mode	Frequency (MHz)	Peak Power	AVG Power
	1850.2	28.88	28.54
GSM1900	1880	28.56	28.25
	1909.8	28.64	28.44
	1850.2	28.86	28.49
GPRS1900	1880	28.55	28.16
(1 Slot)	1909.8	28.63	28.32
	1850.2	27.75	27.40
GPRS1900	1880	27.48	27.09
(2 Slot)	1909.8	27.57	27.26
	1850.2	25.68	25.39
GPRS1900	1880	25.45	25.15
(3 Slot)	1909.8	25.41	25.08
	1850.2	24.61	24.23
GPRS1900	1880	24.34	24.06
(4 Slot)	1909.8	24.28	23.92
	1850.2	28.83	28.60
EDGE1900	1880	28.52	28.13
(1 Slot)	1909.8	28.61	28.35
	1850.2	27.72	27.34
EDGE1900	1880	27.48	27.15
(2 Slot)	1909.8	27.41	27.06
	1850.2	25.70	25.38
EDGE1900	1880	25.36	25.13
(3 Slot)	1909.8	25.40	25.07
	1850.2	24.53	24.15
EDGE1900	1880	24.29	24.05
(4 Slot)	1909.8	24.21	23.99

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UMTS BAND V

Mode	Frequency(MHz)	Peak Power	AVG Power	
	826.4	22.64	22.29	
WCDMA 850 RMC	836.6	22.48	22.19	
RIVIC	846.6	22.84	22.59	
	826.4	22.60	22.39	
HSDPA Subtest 1	836.6	22.45	22.07	
Sublest	846.6	22.79	22.58	
	826.4	21.48	21.15	
HSDPA	836.6	21.41	21.18	
Subtest 2	846.6	21.64	21.39	
	826.4	20.96	20.68	
HSDPA	836.6	20.82	20.42	
Subtest 3	846.6	21.11	20.71	
	826.4	20.26	20.01	
HSDPA	836.6	20.28	20.05	
Subtest 4	846.6	20.44	20.19	
	826.4	22.53	22.28	
HSUPA	836.6	22.41	22.03	
Subtest 1	846.6	22.76	22.36	
	826.4	21.47	21.13	
HSUPA	836.6	21.22	20.92	
Subtest 2	846.6	21.76	21.50	
	826.4	20.47	20.39	
HSUPA	836.6	20.36	20.34	
Subtest 3	846.6	20.25	20.11	
	826.4	20.29	19.95	
HSUPA	836.6	20.10	19.79	
Subtest 4	846.6	20.45	20.16	
	826.4	19.69	19.38	
HSUPA	836.6	19.47	19.18	
Subtest 5	846.6	19.84	19.44	

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UMTS BAND II

Mode	Frequency(MHz)	Peak Power	AVG Power	
	1852.4	21.51	21.25	
WCDMA 1900 RMC	1880	21.36	21.12	
RING	1907.6	21.24	20.99	
	1852.4	21.42	21.06	
HSDPA	1880	21.33	21.08	
Subtest 1	1907.6	21.18	20.86	
	1852.4	20.27	19.95	
HSDPA	1880	20.25	19.85	
Subtest 2	1907.6	20.10	19.84	
HSDPA	1852.4	19.77	19.49	
Subtest 3	1880	19.74	19.34	
Sublest 3	1907.6	19.55	19.33	
	1852.4	19.20	18.98	
HSDPA	1880	19.18	18.91	
Subtest 4	1907.6	18.93	18.62	
	1852.4	21.36	21.03	
HSUPA	1880	21.29	21.04	
Subtest 1	1907.6	21.14	20.88	
	1852.4	20.24	20.00	
HSUPA	1880	20.23	19.85	
Subtest 2	1907.6	20.12	19.82	
	1852.4	19.65	19.37	
HSUPA	1880	19.59	19.24	
Subtest 3	1907.6	19.45	19.18	
	1852.4	19.10	18.80	
HSUPA	1880	19.05	18.79	
Subtest 4	1907.6	18.94	18.62	
	1852.4	18.41	18.03	
HSUPA	1880	18.37		
Subtest 5	1907.6	18.34	17.96	



According to 3GPP 25.101 sub-clause 6.2.2, the maximum output power is allowed to be reduced by following the table.

Table 6.1aA: UE maximum output power with HS-DPCCH and E-DCH

UE Transmit Channel Configuration	CM(db)	MPR(db)			
For all combinations of ,DPDCH,DPCCH	0≤ CM≤3.5	MAX(CM-1,0)			
HS-DPDCH, E-DPDCH and E-DPCCH	05 CIVIS5.5				
Note: CM=1 for β_{c}/β_{d} =12/15, β_{hs}/β_{c} =24/15.For all other combinations of DPDCH, DPCCH,					

HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

The device supports MPR to solve linearity issues (ACLR or SEM) due to the higher peak-to average ratios (PAR) of the GSM/GPRS/EDGE,HSDPA/HSUPA signal. This prevents saturating the full range of the TX DAC inside of device and provides a reduced power output to the RF transceiver chip according to the Cubic Metric (a function of the combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH).

When E-DPDCH channels are present the beta gains on those channels are reduced firsts to try to get the power under the allowed limit. If the beta gains are lowered as far as possible, then a hard limiting is applied at the maximum allowed level.

The SW currently recalculates the cubic metric every time the beta gains on the E-DPDCH are reduced. The cubic metric will likely get lower each time this is done .However, there is no reported reduction of maximum output power in the HSUPA mode since the device also provides a compensate for the power back-off by increasing the gain of TX_AGC in the transceiver (PA) device.

The end effect is that the DUT output power is identical to the case where there is no MPR in the device.





5.2 PEAK-TO-AVERAGE RADIO (PAR) OF TRANSMITTER

5.2.1 STANDARD APPLICABLE

According to §24.232(d), Power measurements for transmissions by stations authorized under this section may be

made either in accordance with a Commission-approved average power technique or in compliance with

paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the

provisions of §24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

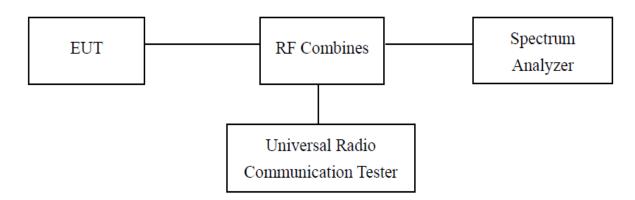
5.2.2 TEST EQUIPMENT LIST AND DETAILS

Equipment	Manufacturer	Model	Serial Number	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4407B	MY50140340	2014.10.25	2015.10.24
Communication Tester	Agilent	8960	MY48360751	2014.10.25	2015.10.24
Communication Tester	R&S	CMU200	112012	2014.10.25	2015.10.24
TEST RECEIVER	R&S	ESCI	102086	2014.10.25	2015.10.24

5.2.3 TEST PROCEDURE

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 30kHz and the peak-to-average ratio (PAR) of the transmission was recorded.

Test Configuration for the emission bandwidth testing:



5.2.4 ENVIRONMENTAL CONDITIONS

Temperature:	25 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar



5.2.5 SUMMARY OF TEST RESULTS

GSM 850:

Mode	Frequency (MHz)	Peak Power	AVG Power	PAR	Limit
	824.20	30.68	30.40	0.28	13.00
GSM850	836.60	30.70	30.37	0.33	13.00
	848.80	30.61	30.23	0.38	13.00
GPRS850	824.20	30.66	30.41	0.25	13.00
	836.60	30.66	30.37	0.29	13.00
(1 Slot)	848.80	30.57	30.31	0.26	13.00
GPRS850	824.20	29.51	29.13	0.38	13.00
	836.60	29.56	29.29	0.27	13.00
(2 Slot)	848.80	29.43	29.20	0.23	13.00
GPRS850	824.20	27.33	26.96	0.37	13.00
	836.60	27.43	27.04	0.39	13.00
(3 Slot)	848.80	27.26	26.89	0.37	13.00
GPRS850	824.20	26.18	25.97	0.21	13.00
	836.60	26.42	26.12	0.30	13.00
(4 Slot)	848.80	26.25	26.03	0.22	13.00
EDGE850	824.20	30.62	30.24	0.38	13.00
	836.60	30.62	30.33	0.29	13.00
(1 Slot)	848.80	30.53	30.23	0.30	13.00
EDGE850	824.20	29.52	29.17	0.35	13.00
	836.60	29.53	29.27	0.26	13.00
(2 Slot)	848.80	29.45	29.23	0.22	13.00
EDGE850	824.20	27.39	27.04	0.35	13.00
	836.60	27.39	27.06	0.33	13.00
(3 Slot)	848.80	27.32	26.96	0.36	13.00
EDGE850	824.20	26.31	25.93	0.38	13.00
	836.60	26.27	25.88	0.39	13.00
(4 Slot)	848.80	26.29	26.00	0.29	13.00



PCS 1900:

Mode	Frequency (MHz)	Peak Power	AVG Power	PAR	Limit
	1850.20	28.88	28.54	0.34	13.00
GSM1900	1880.00	28.56	28.25	0.31	13.00
	1909.80	28.64	28.44	0.20	13.00
GPRS1900	1850.20	28.86	28.49	0.37	13.00
	1880.00	28.55	28.16	0.39	13.00
(1 Slot)	1909.80	28.63	28.32	0.31	13.00
GPRS1900	1850.20	27.75	27.40	0.35	13.00
	1880.00	27.48	27.09	0.39	13.00
(2 Slot)	1909.80	27.57	27.26	0.31	13.00
GPRS1900	1850.20	25.68	25.39	0.29	13.00
	1880.00	25.45	25.15	0.30	13.00
(3 Slot)	1909.80	25.41	25.08	0.33	13.00
GPRS1900	1850.20	24.61	24.23	0.38	13.00
	1880.00	24.34	24.06	0.28	13.00
(4 Slot)	1909.80	24.28	23.92	0.36	13.00
EDGE1900	1850.20	28.83	28.60	0.23	13.00
	1880.00	28.52	28.13	0.39	13.00
(1 Slot)	1909.80	28.61	28.35	0.26	13.00
EDGE1900	1850.20	27.72	27.34	0.38	13.00
	1880.00	27.48	27.15	0.33	13.00
(2 Slot)	1909.80	27.41	27.06	0.35	13.00
EDGE1900	1850.20	25.70	25.38	0.32	13.00
	1880.00	25.36	25.13	0.23	13.00
(3 Slot)	1909.80	25.40	25.07	0.33	13.00
EDGE1900	1850.20	24.53	24.15	0.38	13.00
	1880.00	24.29	24.05	0.24	13.00
(4 Slot)	1909.80	24.21	23.99	0.22	13.00



UMTS BAND V

Mode	Frequency (MHz)	Peak Power	AVG Power	PAR	Limit
WCDMA 850	826.40	22.64	22.29	0.35	13.00
	836.60	22.48	22.19	0.29	13.00
RMC	846.60	22.84	22.59	0.25	13.00
HSDPA	826.40	22.60	22.39	0.21	13.00
	836.60	22.45	22.07	0.38	13.00
Subtest 1	846.60	22.79	22.58	0.21	13.00
HSDPA	826.40	21.48	21.15	0.33	13.00
	836.60	21.41	21.18	0.23	13.00
Subtest 2	846.60	21.64	21.39	0.25	13.00
HSDPA	826.40	20.96	20.68	0.28	13.00
	836.60	20.82	20.42	0.40	13.00
Subtest 3	846.60	21.11	20.71	0.40	13.00
HSDPA	826.40	20.26	20.01	0.25	13.00
-	836.60	20.28	20.05	0.23	13.00
Subtest 4	846.60	20.44	20.19	0.25	13.00
HSUPA	826.40	22.53	22.28	0.25	13.00
	836.60	22.41	22.03	0.38	13.00
Subtest 1	846.60	22.76	22.36	0.40	13.00
HSUPA	826.40	21.47	21.13	0.34	13.00
	836.60	21.22	20.92	0.30	13.00
Subtest 2	846.60	21.76	21.50	0.26	13.00
HSUPA	826.40	20.47	20.39	0.08	13.00
	836.60	20.36	20.34	0.02	13.00
Subtest 3	846.60	20.25	20.11	0.14	13.00
HSUPA	826.40	20.29	19.95	0.34	13.00
	836.60	20.10	19.79	0.31	13.00
Subtest 4	846.60	20.45	20.16	0.29	13.00
HSUPA	826.40	19.69	19.38	0.31	13.00
	836.60	19.47	19.18	0.29	13.00
Subtest 5	846.60	19.84	19.44	0.40	13.00



UMTS BAND II

Mode	Frequency (MHz)	Peak Power	AVG Power	PAR	Limit
WCDMA 1900	1852.40	21.51	21.25	0.26	13.00
	1880.00	21.36	21.12	0.24	13.00
RMC	1907.60	21.24	20.99	0.25	13.00
HSDPA	1852.40	21.42	21.06	0.36	13.00
	1880.00	21.33	21.08	0.25	13.00
Subtest 1	1907.60	21.18	20.86	0.32	13.00
HSDPA	1852.40	20.27	19.95	0.32	13.00
	1880.00	20.25	19.85	0.40	13.00
Subtest 2	1907.60	20.10	19.84	0.26	13.00
HSDPA	1852.40	19.77	19.49	0.28	13.00
	1880.00	19.74	19.34	0.40	13.00
Subtest 3	1907.60	19.55	19.33	0.22	13.00
HSDPA	1852.40	19.20	18.98	0.22	13.00
-	1880.00	19.18	18.91	0.27	13.00
Subtest 4	1907.60	18.93	18.62	0.31	13.00
HSUPA	1852.40	21.36	21.03	0.33	13.00
	1880.00	21.29	21.04	0.25	13.00
Subtest 1	1907.60	21.14	20.88	0.26	13.00
HSUPA	1852.40	20.24	20.00	0.24	13.00
	1880.00	20.23	19.85	0.38	13.00
Subtest 2	1907.60	20.12	19.82	0.30	13.00
HSUPA	1852.40	19.65	19.37	0.28	13.00
	1880.00	19.59	19.24	0.35	13.00
Subtest 3	1907.60	19.45	19.18	0.27	13.00
HSUPA	1852.40	19.10	18.80	0.30	13.00
	1880.00	19.05	18.79	0.26	13.00
Subtest 4	1907.60	18.94	18.62	0.32	13.00
HSUPA	1852.40	18.41	18.03	0.38	13.00
	1880.00	18.37	18.13	0.24	13.00
Subtest 5	1907.60	18.34	17.96	0.38	13.00



5.3 RADIATED OUTPUT POWER

5.3.1 MEASUREMENT METHOD

The EUT was setup for the max output power with pseudo random data modulation. Power was measured with Spectrum Analyzer. The measurements were performed on all modes(GSM/GPRS/EDGE850, GSM/GPRS/EDGE1900, HSDPA/HSUPA band V, HSDPA/HSUPA band II) at 3 typical channels(the Top Channel, the Middle Channel and the Bottom Channel) for each band.

The measurements procedures specified in TIA-603C-2009 were applied.

- 1.In an anechoic antenna test chamber, a half-wave dipole antenna for the frequency band of interest is placed at the reference centre of the chamber. An RF Signal source for the frequency band of interest is connected to the dipole with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A known (measured) power (Pin) is applied to the input of the dipole, and the power received (Pr) at the chamber's probe antenna is recorded.
- 2. The substitution method is used. Substitution values at each frequency are measured before and saved to the test software. A "reference path loss" is established as ARpI=Pin + 2.15 Pr. The ARpI is the attenuation of "reference path loss", and including the gain of receive antenna, the cable loss and the air loss. The measurement results are obtained as described below: Power=PMea+ARpI
- 3. The EUT is substituted for the dipole at the reference centre of the chamber and a scan is performed to obtain the radiation pattern.
- 4. From the radiation pattern, the co-ordinates where the maximum antenna gain occurs are identified.
- 5. The EUT is then put into continuously transmitting mode at its maximum power level.
- 6.Power mode measurements are performed with the receiving antenna placed at the coordinates determined in Step 3 to determine the output power as defined in Rule 24.232 (b) and (c). The "reference path loss" from Step1 is added to this result.
- 7. This value is EIRP since the measurement is calibrated using a half-wave dipole antenna of known gain (2.15 dBi) and known input power (Pin).
- 8.ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dBi..
 9.Both Horizontal And Vertical Antenna Polarities Were Tested And Performed Pretest To Three Orthogonal Axis. The Worst Case Emissions Were Reported

5.3.2 PROVISIONS APPLICABLE

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

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



5.3.3 MEASUREMENT RESULT

Radiated Power (ERP) for GSM 850 MHZ					
		Re	sult		
Mode	Frequency	Max. Peak ERP	Polarization	Conclusion	
		(dBm)	Of Max. ERP		
	824.2	25.66	Horizontal	Pass	
	824.2	27.63	Vertical	Pass	
GSM850	836.6	25.71	Horizontal	Pass	
G310000 -	836.6	27.57	Vertical	Pass	
	848.8	25.55	Horizontal	Pass	
	848.8	27.59	Vertical	Pass	

Radiated Power (ERP) for GPRS 850 MHZ					
		Res	sult		
Mode	Frequency	Max. Peak ERP	Polarization	Conclusion	
		(dBm)	Of Max. ERP		
	824.2	25.58	Horizontal	Pass	
	824.2	27.60	Vertical	Pass	
GPRS850	836.6	25.66	Horizontal	Pass	
GFR3000 -	836.6	27.51	Vertical	Pass	
	848.8	25.60	Horizontal	Pass	
	848.8	27.63	Vertical	Pass	

Radiated Power (ERP) for EDGE 850 MHZ					
		Re	sult		
Mode	Frequency	Max. Peak ERP	Polarization	Conclusion	
		(dBm)	Of Max. ERP		
	824.2	25.58	Horizontal	Pass	
	824.2	27.47	Vertical	Pass	
EDGE850	836.6	25.64	Horizontal	Pass	
EDGE000	836.6	27.58	Vertical	Pass	
	848.8	25.46	Horizontal	Pass	
	848.8	27.46	Vertical	Pass	

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Radiated Power (EIRP) for PCS 1900 MHZ					
		Res	sult		
Mode	Frequency	Max. Peak	Polarization	Conclusion	
		E.I.R.P.(dBm)	Of Max. E.I.R.P.		
	1850.2	23.83	Horizontal	Pass	
	1850.2	25.78	Vertical	Pass	
PCS1900	1880.0	23.88	Horizontal	Pass	
1 001000	1880.0	25.76	Vertical	Pass	
	1909.8	23.84	Horizontal	Pass	
	1909.8	25.85	Vertical	Pass	

Radiated Power (EIRP) for GPRS 1900 MHZ					
		Re	sult		
Mode	Frequency	Max. Peak E.I.R.P.(dBm)	Polarization Of Max. E.I.R.P.	Conclusion	
	1850.2	23.72	Horizontal	Pass	
-	1850.2	25.85	Vertical	Pass	
GPRS	1880.0	23.75	Horizontal	Pass	
1900	1880.0	25.76	Vertical	Pass	
	1909.8	23.71	Horizontal	Pass	
	1909.8	25.77	Vertical	Pass	

	Radiated Power (EIRP) for EDGE 1900 MHZ					
		Re	sult			
Mode	Frequency	Max. Peak	Polarization	Conclusion		
		E.I.R.P.(dBm)	Of Max. E.I.R.P.			
	1850.2	23.74	Horizontal	Pass		
	1850.2	25.81	Vertical	Pass		
EDGE	1880.0	23.83	Horizontal	Pass		
1900	1880.0	25.65	Vertical	Pass		
	1909.8	23.68	Horizontal	Pass		
	1909.8	25.75	Vertical	Pass		

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	Radiated Power (ERP) for UMTS band ∨					
Mode	Frequency	Max. Peak	Polarization	Conclusion		
		E.I.R.P.(dBm)	Of Max. E.I.R.P.			
	826.4	18.84	Horizontal	Pass		
	826.4	19.81	Vertical	Pass		
RMC	836.6	18.68	Horizontal	Pass		
12.2kbps	836.6	19.80	Vertical	Pass		
	846.6	18.62	Horizontal	Pass		
	846.6	19.62	Vertical	Pass		

	Radiated Power (EIRP) for UMTS band II						
		F	Result				
Mode	Frequency	Max. Peak	Polarization	Conclusion			
		E.I.R.P.(dBm)	Of Max. E.I.R.P.				
	1852.4	17.42	Horizontal	Pass			
	1852.4	18.49	Vertical	Pass			
RMC	1880	17.37	Horizontal	Pass			
12.2kbps	1880	18.44	Vertical	Pass			
	1907.6	17.45	Horizontal	Pass			
	1907.6	18.49	Vertical	Pass			

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6. SPURIOUS EMISSION

6.1 SPURIOUS EMISSION

6.1.1 MEASUREMENT METHOD

The following steps outline the procedure used to measure the conducted emissions from the EUT. 1.Determine frequency range for measurements: From CFR 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency. For the equipment of PCS1900 band, this equates to a frequency range of 30 MHz to 20 GHz, For the equipment of band II, data taken from 30 MHz to 20 GHz. For GSM850, data taken from 30 MHz to 9 GHz.

2. Determine EUT transmit frequencies: the following typical channels were chosen to conducted emissions testing.

Typical Channels for testing of GSM/GPRS 850 MHz					
Channel Frequency (MHz)					
128	824.2				
190	836.6				
251 848.8					

Typical Channels for testing of PCS/ GPRS 1900 MHz					
Channel	Frequency (MHz)				
512	1850.2				
661	1880.0				
810	1909.8				

Typical Channels for testing of UMTS band V					
Channel	Frequency (MHz)				
4132	826.4				
4183	836.6				
4233	846.6				

Typical Channels for testing of UMTS band II					
Channel	Frequency (MHz)				
9262	1852.4				
9400	1880				
9538	1907.6				

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6.1.2 PROVISIONS APPLICABLE

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

6.1.3 MEASUREMENT RESULT

PLEASE REFER TO : APPENDIX I TEST PLOTS FOR CONDUCTED SPURIOUS EMISSION Note: 1. Below 30MHZ no Spurious found and The GSM modes is the worst condition.

2. As no emission found in standby or receive mode, no recording in this report.



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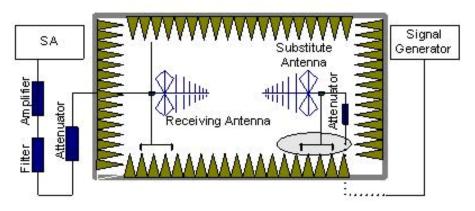
6.2.1 MEASUREMENT METHOD

The measurements procedures specified in TIA-603C-2004 were used for testing. The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment. The resolution bandwidth is set 1MHz as outlined in Part 24.238. The measurements were performed on all modes(GSM/GPRS/EDGE850, GSM/GPRS/EDGE1900, HSDPA/HSUPA band V, HSDPA/HSUPA band II) at 3 typical channels(the Top Channel, the Middle Channel and the Bottom Channel) for each band.

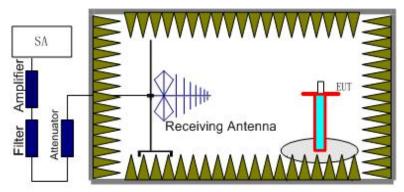
27 of 113

The procedure of radiated spurious emissions is as follows:

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



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





Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the PCS 1900 band (1850.2 MHz, 1880 MHz and 1909.8 MHz) ,GSM850 band (824.2MHz, 836.6MHz, 848.8MHz), UMTS band V (4132 (826.4MHz), 4183(836.6MHz) and 4233 (846.6MHz) and UMTS band II (9262 (1852.4.6MHz), 9400(1880MHz) and 9538 (1907.6MHz). It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of any band into any of the other blocks.

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

6.2.2 PROVISIONS APPLICABLE

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

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6.2.3 MEASUREMENT RESULT

GSM 850:

	The	Worst Test Re	esults Channe	I 128/824.2 M	Hz	
Frequency(MHz	Power(dBm)	ARpl (dBm)	Р _{меа} (dBm)	Limit	Margin	Polarity
1648.422	-35.25	-4.65	-39.9	-13	-26.9	Horizontal
2472.612	-36.45	-2.21	-38.66	-13	-25.66	Horizontal
3296.821	-31.24	0.21	-31.03	-13	-18.03	Horizontal
1648.422	-38.63	-4.65	-43.28	-13	-30.28	Vertical
2472.612	-41.35	-2.21	-43.56	-13	-30.56	Vertical
3296.821	-42.86	0.21	-43.07	-13	-30.07	Vertical
	The	Worst Test Re	esults Channe	I 190/836.6 M	Hz	
Frequency(MHz	Power(dBm)	ARpl (dBm)	Р _{меа} (dBm)	Limit	Margin	Polarity
1673.213	-36.82	-4.65	-41.47	-13	-28.47	Horizontal
2509.821	-42.05	-2.21	-44.26	-13	-31.26	Horizontal
3346.405	-38.34	0.21	-38.13	-13	-25.13	Horizontal
1673.213	-37.73	-4.65	-42.38	-13	-29.38	Vertical
2509.821	-31.47	-2.21	-33.68	-13	-20.68	Vertical
3346.405	-36.28	0.21	-36.07	-13	-23.07	Vertical
	The	Worst Test Re	esults Channe	I 251/848.8 M	Hz	
Frequency(MHz	Power(dBm)	ARpl (dBm)	Р _{меа} (dBm)	Limit	Margin	Polarity
1697.612	-35.57	-4.65	-40.22	-13	-27.22	Horizontal
2546.413	-43.49	-2.21	-45.7	-13	-32.7	Horizontal
3395.214	-42.82	0.21	-42.61	-13	-29.61	Horizontal
1697.612	-35.38	-4.65	-40.03	-13	-27.03	Vertical
2546.413	-41.51	-2.21	-43.72	-13	-30.72	Vertical
3395.214	-37.25	0.21	-37.04	-13	-24.04	Vertical

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





PCS 1900:

	The W	orst Test Res	ults for Chann	el 512/1850.2M	Hz	
Frequency(MH	Power(dBm)	A _{Rpl} (dBm)	Р _{меа} (dBm)	Limit (dBm)	Margin	Polarity
3700.411	-33.17	0.33	-32.84	-13	-19.84	Horizontal
5550.612	-35.18	4.01	-31.17	-13	-18.17	Horizontal
7400.823	-42.56	10.7	-31.86	-13	-18.86	Horizontal
3700.411	-34.62	0.33	-34.29	-13	-21.29	Vertical
5550.612	-35.31	4.01	-31.3	-13	-18.3	Vertical
7400.823	-41.37	10.7	-30.67	-13	-17.67	Vertical
	The W	orst Test Res	ults for Chann	el 661/1880.0M	Hz	
Frequency(MH	Power(dBm)	A _{Rpl} (dBm)	Р _{меа} (dBm)	Limit (dBm)	Margin	Polarity
3760.121	-36.93	0.33	-36.6	-13	-23.6	Horizontal
5640.231	-32.76	4.01	-28.75	-13	-15.75	Horizontal
7520.214	-42.54	10.7	-31.84	-13	-18.84	Horizontal
3760.121	-31.32	0.33	-30.99	-13	-17.99	Vertical
5640.231	-36.28	4.01	-32.27	-13	-19.27	Vertical
7520.214	-37.31	10.7	-26.61	-13	-13.61	Vertical
	The W	orst Test Res	ults for Chann	el 810/1909.8M	Hz	
Frequency(MH	Power(dBm)	A _{Rpl} (dBm)	Р _{меа} (dBm)	Limit (dBm)	Margin	Polarity
3819.623	-32.69	0.33	-32.36	-13	-19.36	Horizontal
5729.416	-35.82	4.01	-31.81	-13	-18.81	Horizontal
7639.218	-37.22	10.7	-26.52	-13	-13.52	Horizontal
3819.623	-32.84	0.33	-32.51	-13	-19.51	Vertical
5729.416	-41.37	4.01	-37.36	-13	-24.36	Vertical
7639.218	-38.15	10.7	-27.45	-13	-14.45	Vertical

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

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UMTS band V

		Chan	nel 4358/871.6	MHz		
Frequency(MH	Power(dBm)	A _{Rpl} (dBm)	Р _{меа} (dBm)	Limit (dBm)	Margin	Polarity
1743.797	-34.88	-4.65	-39.53	-13	-26.53	Horizontal
2614.160	-35.55	-2.21	-37.76	-13	-24.76	Horizontal
1743.729	-32.72	-4.65	-37.37	-13	-24.37	Vertical
2614.171	-31.18	-2.21	-33.39	-13	-20.39	Vertical
		Char	nnel 4400/880N	/Hz		
Frequency(MH	Power(dBm)	ARpl (dBm)	Р _{меа} (dBm)	Limit (dBm)	Margin	Polarity
1760.193	-31.43	-4.65	-36.08	-13	-23.08	Horizontal
2640.808	-35.18	-2.21	-37.39	-13	-24.39	Horizontal
1760.173	-27.57	-4.65	-32.22	-13	-19.22	Vertical
2640.794	-35.27	-2.21	-37.48	-13	-24.48	Vertical
		Chan	nel 4457/891.4	MHz		
Frequency(MH	Power(dBm)	ARpl (dBm)	Р _{меа} (dBm)	Limit (dBm)	Margin	Polarity
1782.770	-36.67	-4.65	-41.32	-13	-28.32	Horizontal
2673.791	-38.52	-2.21	-40.73	-13	-27.73	Horizontal
1782.153	-26.19	-4.65	-30.84	-13	-17.84	Vertical
2673.716	-35.33	-2.21	-37.54	-13	-24.54	Vertical

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



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UMTS band II

		Chan	nel 9663/1932.	.6MHz		
Frequency(MHz	Power(dBm)	A _{Rpl} (dBm)	Р _{меа} (dBm)	Limit	Margin	Polarity
3865.775	-34.27	0.33	-33.94	-13	-20.94	Horizontal
5997.177	-35.59	4.01	-31.58	-13	-18.58	Horizontal
3865.735	-34.28	0.33	-33.95	-13	-20.95	Vertical
5997.143	-31.82	4.01	-27.81	-13	-14.81	Vertical
		Chai	nnel 9800/1960	OMHz	-	
Frequency(MHz	Power(dBm)	ARpl (dBm)	Рмеа(dBm)	Limit	Margin	Polarity
3920.093	-31.62	0.33	-31.29	-13	-18.29	Horizontal
5880.194	-35.58	4.01	-31.57	-13	-18.57	Horizontal
3920.119	-27.19	0.33	-26.86	-13	-13.86	Vertical
5880.217	-35.73	4.01	-31.72	-13	-18.72	Vertical
		Chan	nel 9937/1987.	.4MHz		-
Frequency(MHz	Power(dBm)	A _{Rpl} (dBm)	Р _{меа} (dBm)	Limit	Margin	Polarity
3,974.131	-36.36	0.33	-36.03	-13	-23.03	Horizontal
5,962.783	-38.52	4.01	-34.51	-13	-21.51	Horizontal
3,974.184	-27.48	0.33	-27.15	-13	-14.15	Vertical
5,962.753	-35.45	4.01	-31.44	-13	-18.44	Vertical

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



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7. FREQUENCY STABILITY

7.1 MEASUREMENT METHOD

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

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

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

1. Measure the carrier frequency at room temperature.

2. Subject the EUT to overnight soak at -30°C.

3. With the EUT, powered via nominal voltage, connected to the CMU200 and in a simulated call on channel 661 for PCS 1900 band , channel 190 for GSM 850 band and channel 4183 for UMTS band V measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.

4. Repeat the above measurements at 10° increments from -30° to $+50^{\circ}$. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

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

6. Subject the EUT to overnight soak at +50°C.

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

8. Repeat the above measurements at 10° increments from $+50^{\circ}$ to -30° . Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

.At all temperature levels hold the temperature to +/- 0.5° C during the measurement procedure.



7.2 PROVISIONS APPLICABLE

7.2.1 FOR HAND CARRIED BATTERY POWERED EQUIPMENT

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of between 3.3VDC and 4.2VDC, with a nominal voltage of 3.7VDC. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress. These voltages represent a tolerance of -10 % and +12.5 %. For the purposes of measuring frequency stability these voltage limits are to be used.

7.2.2 FOR EQUIPMENT POWERED BY PRIMARY SUPPLY VOLTAGE

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. For this EUT section 2.1055(d)(1) applies. This requires varying primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment, the normal environment temperature is 20oC.



According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. For this EUT section 2.1055(d)(1) applies. This requires varying primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment, the normal environment temperature is 20oC.

35 of 113

Frequency Error Against Voltage for GSM 850 band						
Voltage(V)	Frequency error(Hz)	Frequency error(ppm)				
3.4	14	0.017				
3.7	15	0.018				
4.2	21	0.025				

Frequency	Frequency Error Against Temperature for GSMS850 band					
temperature(°C)	Frequency error(Hz)	Frequency error(ppm)				
-30	19	0.023				
-20	-16	-0.019				
-10	-22	-0.026				
0	36	0.043				
10	-19	-0.023				
20	27	0.032				
30	-21	-0.025				
40	31	0.037				
50	32	0.038				

Frequency Error Against Voltage for GPRS850 band				
Voltage(V)	Frequency error(Hz)	Frequency error(ppm)		
3.4	-18	-0.022		
3.7	23	0.028		
4.2	17	0.020		

Frequency Error Against Temperature for GPRS850 band				
temperature(°C)	Frequency error(Hz)	Frequency error(ppm)		
-30	11	0.013		
-20	34	0.041		
-10	-16	-0.019		
0	12	0.014		
10	-23	-0.028		
20	-16	-0.019		
30	-21	-0.025		
40	27	0.032		
50	32	0.038		





Frequency Error Against Voltage for EDGE 850 band				
Voltage(V)	Frequency error(Hz)	Frequency error(ppm)		
3.4	-18	-0.022		
3.7	22	0.026		
4.2	39	0.047		

Frequency Error Against Temperature for EDGE 850 band				
temperature(°C)	Frequency error(Hz)	Frequency error(ppm)		
-30	-19	-0.023		
-20	23	0.028		
-10	7	0.008		
0	28	0.033		
10	-27	-0.032		
20	-14	-0.017		
30	-21	-0.025		
40	32	0.038		
50	33	0.039		

Note: The EUT doesn't work below -30°C



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Frequency Error Against Voltage for GSM1900 band			
Voltage(V) Frequency error(Hz) Frequency error(ppm)			
3.4	13	0.007	
3.7	-27	-0.014	
4.2	19	0.010	

Frequency Error Against Temperature for GSM1900 band		
temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-30	18	0.010
-20	-23	-0.012
-10	15	0.008
0	24	0.013
10	-24	-0.013
20	26	0.014
30	33	0.018
40	-19	-0.010
50	-21	-0.011

Frequency Error Against Voltage for GPRS1900 band		
Voltage(V)	Frequency error(Hz)	Frequency error(ppm)
3.4	27	0.014
3.7	-19	-0.010
4.2	32	0.017

Frequency Error Against Temperature for GPRS1900 band		
temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-30	-19	-0.010
-20	24	0.013
-10	-17	-0.009
0	16	0.009
10	27	0.014
20	15	0.008
30	26	0.014
40	32	0.017
50	25	0.013



Frequency Error Against Voltage for EDGE 1900 band			
Voltage(V)Frequency error(Hz)Frequency error(ppm)			
3.4	-11	-0.006	
3.7	25	0.013	
4.2	-28	-0.015	

Frequency Error Against Temperature for EDGE 1900 band		
temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-30	14	0.007
-20	22	0.012
-10	12	0.006
0	23	0.012
10	35	0.019
20	27	0.014
30	-14	-0.007
40	24	0.013
50	-19	-0.010

Note: The EUT doesn't work below -30℃





Frequency Error Against Voltage for UMTS band V			
Voltage(V)Frequency error(Hz)Frequency error(ppm)			
3.4	24	0.029	
3.7	24	0.029	
4.2	-13	-0.016	

Frequency Error Against Temperature for UMTS band V		
temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-30	-17	-0.020
-20	-15	-0.018
-10	25	0.030
0	-16	-0.019
10	12	0.014
20	23	0.028
30	12	0.014
40	-29	-0.035
50	-16	-0.019

Note: The EUT doesn't work below -30°C

Frequency Error Against Voltage for UMTS band II			
Voltage(V) Frequency error(Hz) Frequency error(ppm)			
3.4	17	0.009	
3.7	25	0.013	
4.2	-15	-0.008	

Frequency Error Against Temperature for UMTS band II		
temperature(°C)	Frequency error(Hz)	Frequency error(ppm)
-30	28	0.015
-20	-19	-0.010
-10	32	0.017
0	28	0.015
10	-13	-0.007
20	26	0.014
30	18	0.010
40	21	0.011
50	-16	-0.009

Note: The EUT doesn't work below -30 $^\circ\!\mathrm{C}$





8. OCCUPIED BANDWIDTH

8.1 MEASUREMENT METHOD

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

8.2 PROVISIONS APPLICABLE

Limits applicated report test result only.

8.3 MEASUREMENT RESULT

Occupied Bandwidth (99%) for GSM 850 band		
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)
Low Channel	824.2	245.1538
Middle Channel	836.6	239.4517
High Channel	848.8	244.1847

Occupied Bandwidth (99%) for GPRS 850 band			
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
Low Channel	824.2	248.6263	
Middle Channel	836.6	246.2804	
High Channel	848.8	248.4291	

0	ccupied Bandwidth (99%) for	EDGE 850 band
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)
Low Channel	824.2	244.0869
Middle Channel	836.6	244.3971
High Channel	848.8	247.5559

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0	ccupied Bandwidth (99%) for	r GSM1900 band
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)
Low Channel	1850.2	242.8587
Middle Channel	1880.0	241.9055
High Channel	1909.8	245.3238

00	ccupied Bandwidth (99%) for	GPRS1900 band
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)
Low Channel	1850.2	239.7082
Middle Channel	1880.0	242.3375
High Channel	1909.8	248.4231

0	ccupied Bandwidth (99%) for	EDGE 1900 band
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(kHz)
Low Channel	1850.2	247.9936
Middle Channel	1880.0	252.4165
High Channel	1909.8	243.5568

Occupied Bandwidth (99%) fo	or UMTS band V
Frequency(MHz)	Occupied Bandwidth (99%)(MHz)
826.4	4.1501
836.6	4.1649
846.6	4.1710
upied Bandwidth (99%) for UN	ITS HSDPA band V
Frequency(MHz)	Occupied Bandwidth (99%)(MHz)
826.4	4.1680
836.6	4.1617
846.6	4.1791
upied Bandwidth (99%) for UN	ITS HSUPA band V
Frequency(MHz)	Occupied Bandwidth (99%)(MHz)
826.4	4.1698
836.6	4.1575
846.6	4.1741
	Frequency(MHz) 826.4 836.6 846.6 Ipied Bandwidth (99%) for UN Frequency(MHz) 826.4 836.6 846.6 Ipied Bandwidth (99%) for UN Frequency(MHz) 826.4 836.6 846.6 Ipied Bandwidth (99%) for UN Frequency(MHz) 826.4 836.6

=#



(Occupied Bandwidth (99%) fo	r UMTS band II
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(MHz)
Low Channel	1852.4	4.1754
Middle Channel	1880	4.1578
High Channel	1907.6	4.1841
Οςςι	ipied Bandwidth (99%) for UN	ITS HSDPA band II
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(MHz)
Low Channel	1852.4	4.1628
Middle Channel	1880	4.1720
High Channel	1907.6	4.1944
Οςςι	ipied Bandwidth (99%) for UN	ITS HSUPA band II
Mode	Frequency(MHz)	Occupied Bandwidth (99%)(MHz)
Low Channel	1852.4	4.1687
Middle Channel	1880	4.1777
High Channel	1907.6	4.1803







9. Emission Bandwidth

9.1 MEASUREMENT METHOD

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

9.2 PROVISIONS APPLICABLE

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

9.3 MEASUREMENT RESULT

En	nission Bandwidth (-26dBc) f	or GSM850 band
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	824.2	320.677
Middle Channel	836.6	320.968
High Channel	848.8	315.490
Em	ission Bandwidth (-26dBc) fo	or GPRS850 band
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	824.2	318.804
Middle Channel	836.6	320.258
High Channel	848.8	319.388
Em	ission Bandwidth (-26dBc) fo	r EDGE 850 band
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	824.2	318.490
Middle Channel	836.6	317.596
High Channel	848.8	323.588



-		
En	nission Bandwidth (-26dBc) fo	or GSM1900 band
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	1850.2	319.163
Middle Channel	1880.0	316.421
High Channel	1909.8	318.368
Em	ission Bandwidth (-26dBc) fo	r GPRS1900 band
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	1850.2	319.771
Middle Channel	1880.0	320.100
High Channel	1909.8	318.995
Em	ission Bandwidth (-26dBc) fo	r EDGE 1900 band
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)
Low Channel	1850.2	316.565
Middle Channel	1880.0	320.855
High Channel	1909.8	317.816

Er	nission Bandwidth (-26dBc)	for UMTS band V
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)
Low Channel	826.4	4.735
Middle Channel	836.6	4.710
High Channel	846.6	4.694
Emiss	ion Bandwidth (-26dBc) for l	JMTS HSDPA band V
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)
Low Channel	826.4	4.708
Middle Channel	836.6	4.721
High Channel	846.6	4.724
Emiss	ion Bandwidth (-26dBc) for l	JMTS HSUPA band V
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)
Low Channel	826.4	4.718
Middle Channel	836.6	4.711
High Channel	846.6	4.724





Eı	nission Bandwidth (-26dBc)	for UMTS band II
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)
Low Channel	1852.4	4.719
Middle Channel	1880	4.722
High Channel	1907.6	4.733
Emiss	ion Bandwidth (-26dBc) for L	JMTS HSDPA band II
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)
Low Channel	1852.4	4.723
Middle Channel	1880	4.716
High Channel	1907.6	4.779
Emiss	ion Bandwidth (-26dBc) for L	JMTS HSUPA band II
Mode	Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)
Low Channel	1852.4	4.698
Middle Channel	1880	4.724
High Channel	1907.6	4.760





10. BAND EDGE

10.1 MEASUREMENT METHOD

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

10.2 PROVISIONS APPLICABLE

as Specified in FCC rules of 22.917(b) and 24.238(b)

10.3 MEASUREMENT RESULT

Please refers to Appendix III for compliance test plots for band edges

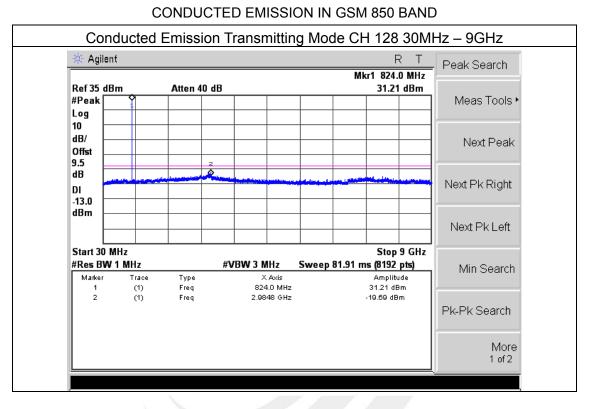


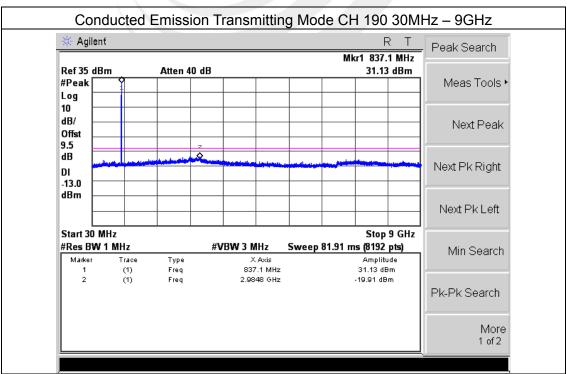
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APPENDIX I

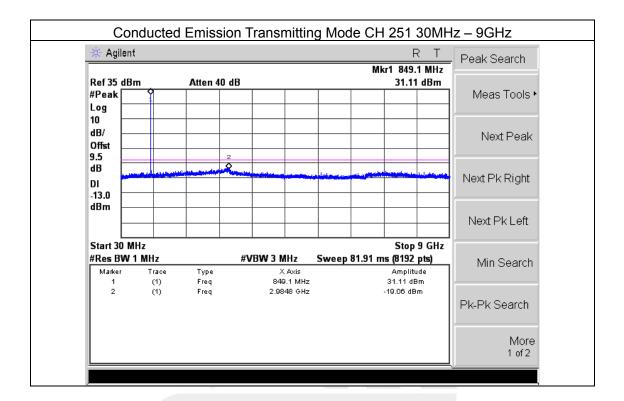
TEST PLOTS FOR CONDUCTED SPURIOUS EMISSION





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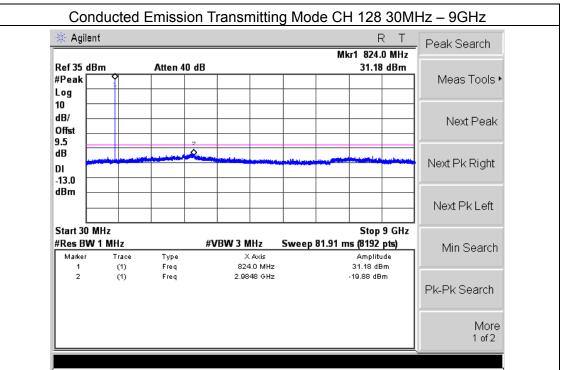


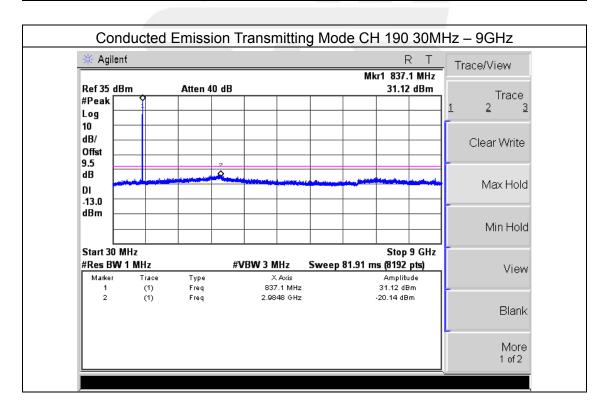




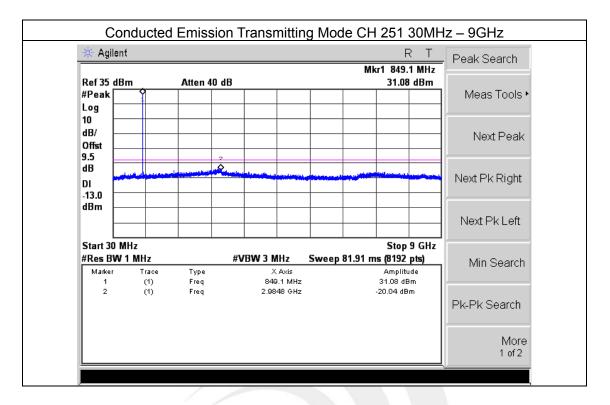


CONDUCTED EMISSION IN GPRS 850 BAND







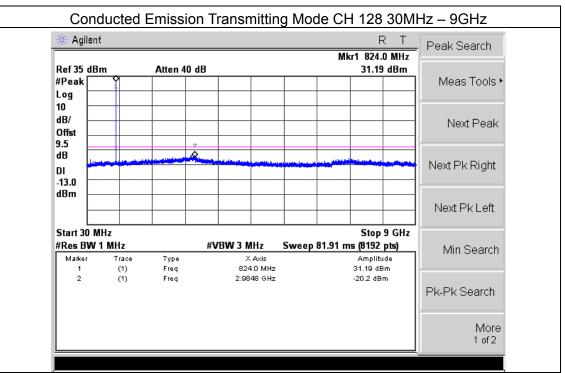


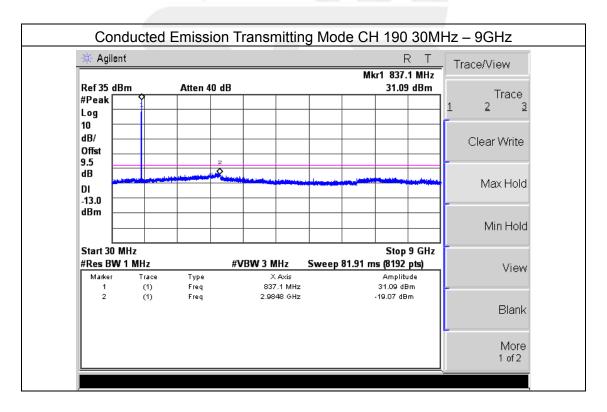




CONDUCTED EMISSION IN EDGE 850 BAND

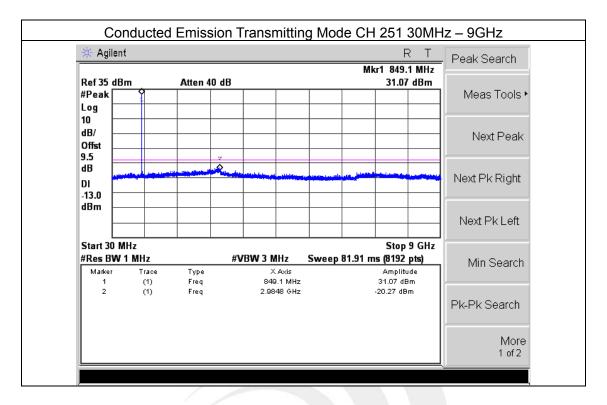
51 of 113





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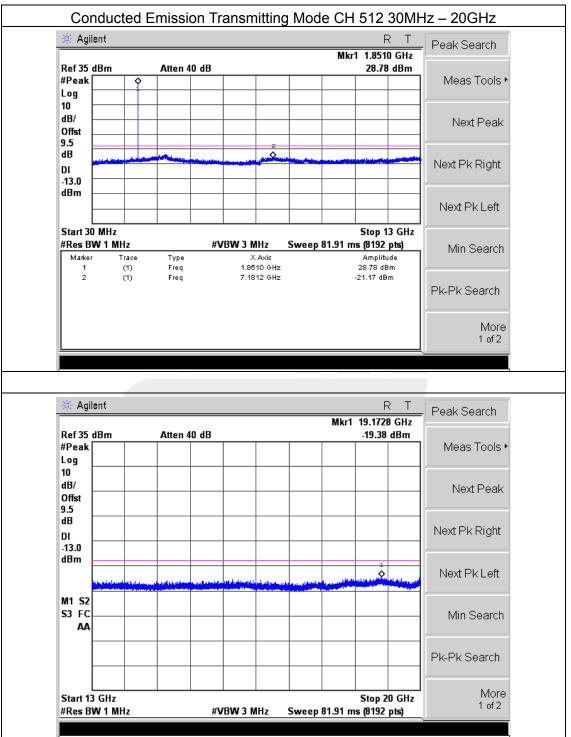




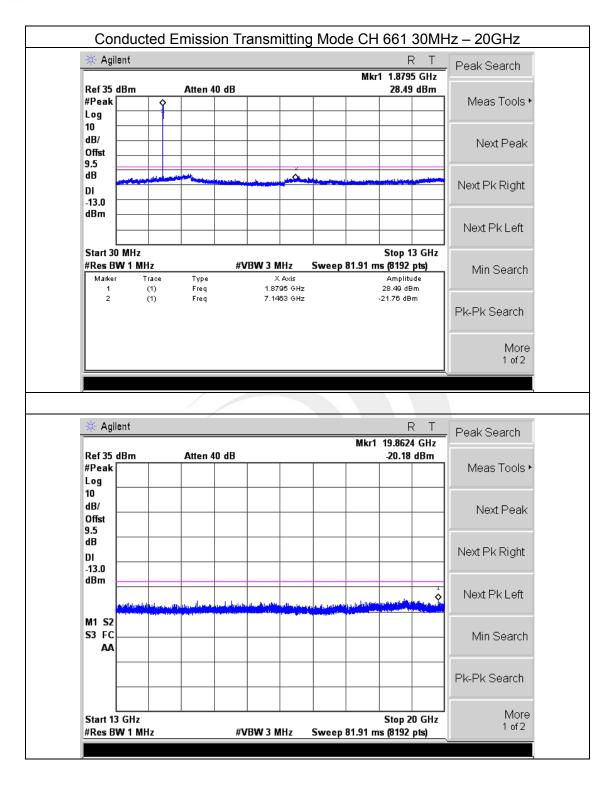




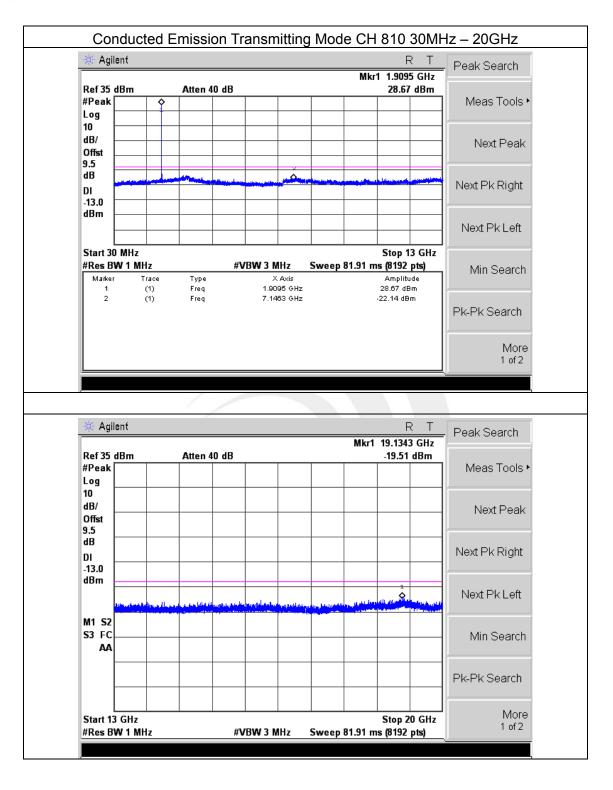
CONDUCTED EMISSION IN GSM1900 BAND







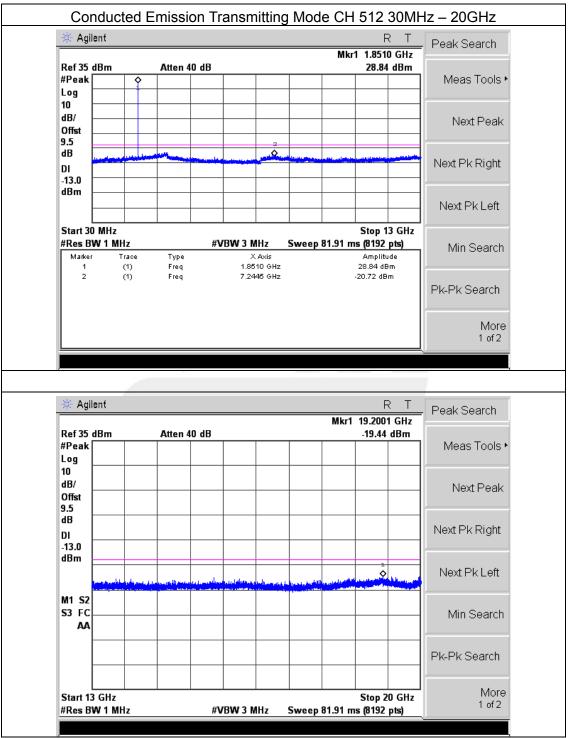




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CONDUCTED EMISSION IN GPRS1900 BAND





🔆 Agilent						RT	- Peak Search
-					Mkr	1 1.8795 GHz	- Peak Search
Ref 35 dBm #Peak Log		Atten 40	dB			28.53 dBm	Meas Tools
10 dB/ 0ffst 9.5							Next Peak
dB DI -13.0							Next Pk Right
dBm							Next Pk Left
Start 30 MH #Res BW 1 Marker 1		Type Freq		MHz Swe (Axis 795 GHz	eep 81.91 n	Stop 13 GHz is (8192 pts) Amplitude 28.53 dBm	Min Search
2	ő	Freq		463 GHz		-22.28 dBm	Pk-Pk Search
							More
							1 of 2
							1 of 2
∰ Agilent		Atten 40	dB		Mkr1	R T 19.5086 GHz 19.43 dBm	1 of 2
Ref 35 dBm #Peak Log		Atten 40	dB		Mkr1		1
Ref 35 dBm #Peak Log 10 dB/ Offst		Atten 40	dB		Mkr1	19.5086 GHz	= Peak Search
Ref 35 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0		Atten 40	dB		Mkr1	19.5086 GHz	= Peak Search Meas Tools
Ref 35 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm		Atten 40			Mkr1	19.5086 GHz	 Peak Search Meas Tools Next Peak
Ref 35 dBm #Peak Log 10 dB/ Offst 9.5 dB DI		Atten 40			Mkr1	19.5086 GHz -19.43 dBm	 Peak Search Meas Tools Next Peak Next Pk Right
Ref 35 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		Atten 40			Mkr1	19.5086 GHz -19.43 dBm	 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left

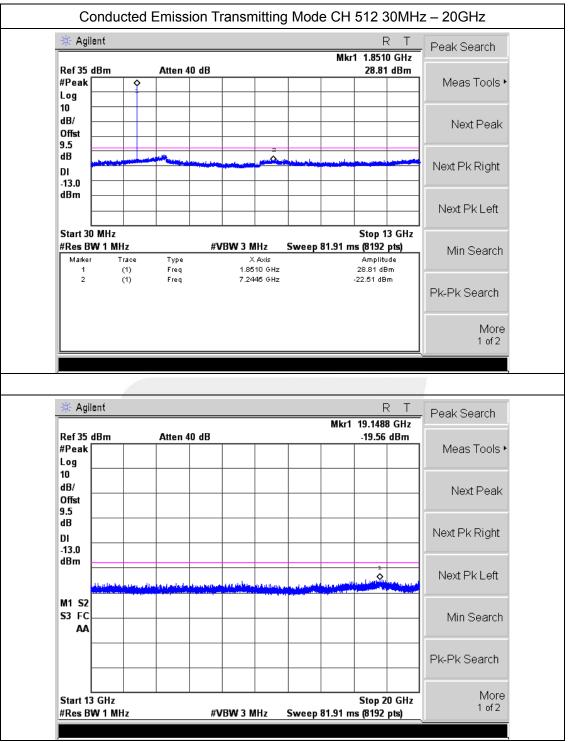
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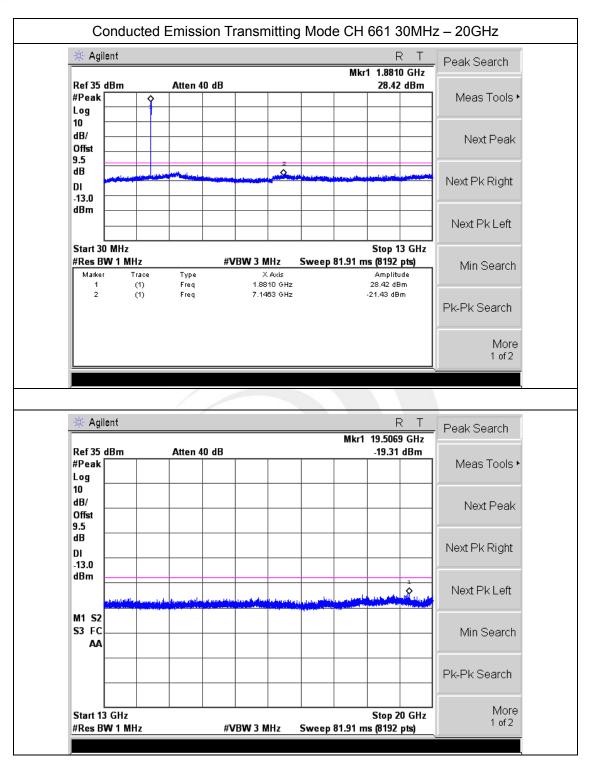
🔆 Agilent					R Mkr1 1.9095	GHz	Trace/View
Ref 35 dBm		Atten 40 dE	1		28.68 d		Trace
#Peak Log						1	
10					_	r	
dB/							Clear Write
Offst							
dB		and the second	, j	and the second second			Max Hold
DI -13.0							iviax noiu
dBm —						ľ	
							Min Hold
Start 30 MH	z				Stop 13	GHz	
#Res BW 1			#VBW 3 MHz	Sweep 81.9	1 ms (8192 pt	ts)	View
Marker 1	Trace (1)	Type Freq	X Axis 1.9095 GHz		Amplitude 28.68 dBm		
2	ă	Freq	7.1463 GHz		-22.08 dBm		
							Blank
						L.	
						- 11	More 1 of 2
		1					
🔆 Agilent		7.			R	T	Peak Search
		Atten 40 dB		M	kr1 19.1881 (GHz	Peak Search
Ref 35 dBm		Atten 40 dB		M		GHz	
Ref 35 dBm /Peak _og		Atten 40 dB	8	M	kr1 19.1881 (GHz	
Ref 35 dBm #Peak Log 10		Atten 40 dE	3	M	kr1 19.1881 (GHz	Meas Tools •
Ref 35 dBm #Peak Log 10 dB/ Dffst		Atten 40 dE		M	kr1 19.1881 (GHz	
Ref 35 dBm #Peak Log 10 dB/ Dffst 9.5		Atten 40 dE		M	kr1 19.1881 (GHz	Meas Tools •
Ref 35 dBm #Peak Log 10 dB/ Dffst 9.5 dB	I	Atten 40 dE	3	M	kr1 19.1881 (GHz	Meas Tools •
Ref 35 dBm /Peak 00 1B/ Dffst 0.5 1B 13.0		Atten 40 dE	B	M	kr1 19.1881 (GHz	Meas Tools • Next Peak
Ref 35 dBm #Peak Log 10 dB/ Offst 9.5 dB DI L13.0		Atten 40 dE	3 	M	kr1 19.1881 (-18.82 d	GHz	Meas Tools • Next Peak Next Pk Right
Ref 35 dBm #Peak Log 10 dB/ Offst 9.5 dB DI L13.0		Atten 40 dE	3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		kr1 19.1881 (GHz	Meas Tools ► Next Peak
Ref 35 dBm /Peak Log 10 18/ 0.5 18 01 13.0 18m 13.0 18m M1 S2		Atten 40 dE	3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		kr1 19.1881 (-18.82 d	GHz	Meas Tools • Next Peak Next Pk Right Next Pk Left
Ref 35 dBm /Peak Log 10 dB/ 0.5 dB 01 13.0 dBm M1 S2 S3 FC		Atten 40 dE	3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		kr1 19.1881 (-18.82 d	GHz	Meas Tools • Next Peak Next Pk Right
Ref 35 dBm #Peak Log 10 dB/ Offst 3.5 dB DI 13.0 dBm M1 S2		Atten 40 dE	3 		kr1 19.1881 (-18.82 d	GHz	Meas Tools • Next Peak Next Pk Right Next Pk Left
Ref 35 dBm /Peak Log 10 dB/ 0.5 dB 01 13.0 dBm M1 S2 S3 FC		Atten 40 dE	3 		kr1 19.1881 (-18.82 d	GHz Bm	Meas Tools • Next Peak Next Pk Right Next Pk Left
Agilent Ref 35 dBm #Peak Log 10 dB/ Offist 9.5 dB DI .13.0 dBm M1 S2 S3 FC AA		Atten 40 dE	3 		kr1 19.1881 (-18.82 d	GHz Bm	Meas Tools • Next Peak Next Pk Right Next Pk Left Min Search
Ref 35 dBm #Peak Log 10 dB/ Offst 3.5 dB DI 13.0 dBm M1 S2 S3 FC		Atten 40 dE	3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5	M	kr1 19.1881 (-18.82 d	GHz Bm	Meas Tools • Next Peak Next Pk Right Next Pk Left Min Search



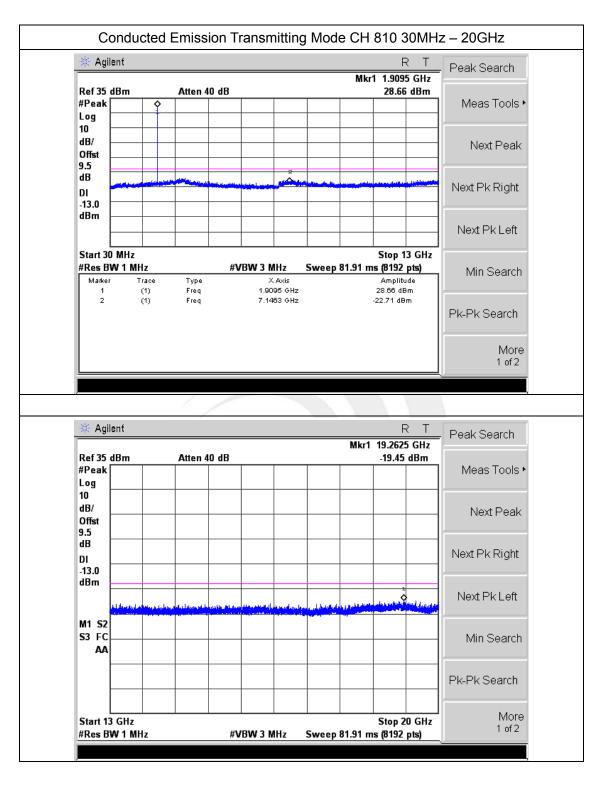
CONDUCTED EMISSION IN EDGE 1900 BAND







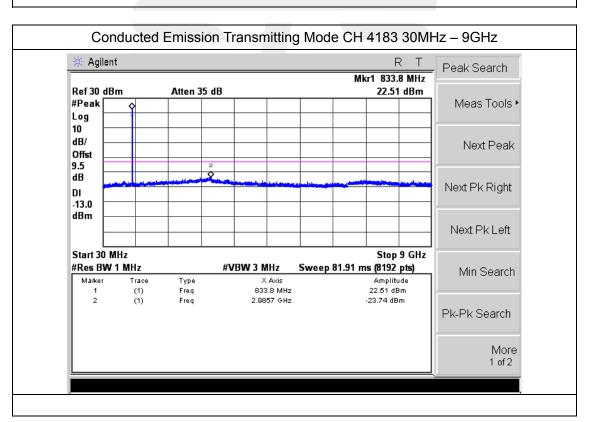




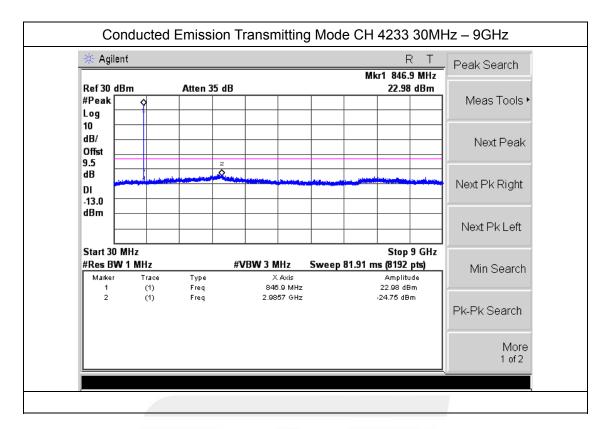


Conducted Emission Transmitting Mode 4132 30MHz - 9GHz Agilent R Τ Peak Search Mkr1 828.3 MHz Ref 30 dBm Atten 35 dB 22.58 dBm #Peak Meas Tools • Log 10 dB/ Next Peak Offst 9.5 Z Ó dB Next Pk Right DI -13.0 dBm Next Pk Left Start 30 MHz Stop 9 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 81.91 ms (8192 pts) Min Search Marker Trace Туре X Axis Amplitude 828.3 MHz 22.58 dBm (1) Freq 1 2 (1) Freq 2.9857 GHz -23.53 dBm Pk-Pk Search More 1 of 2



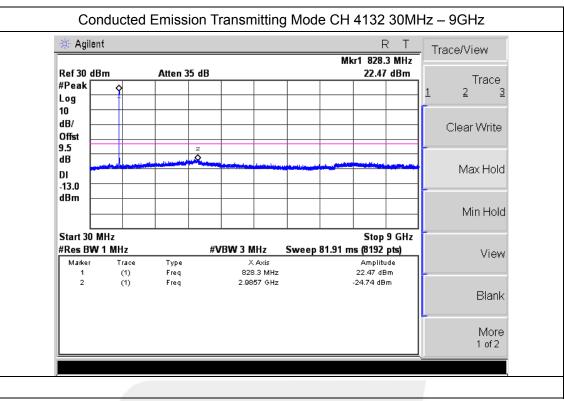




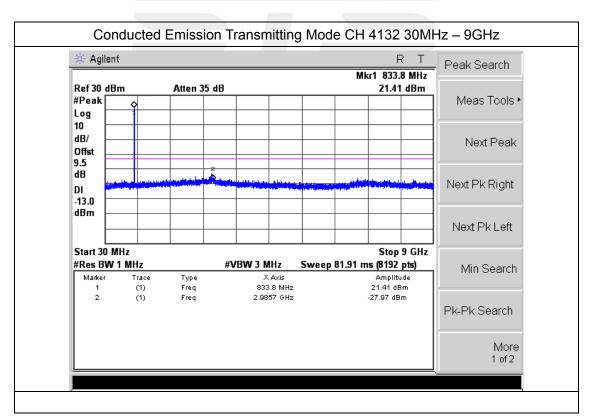




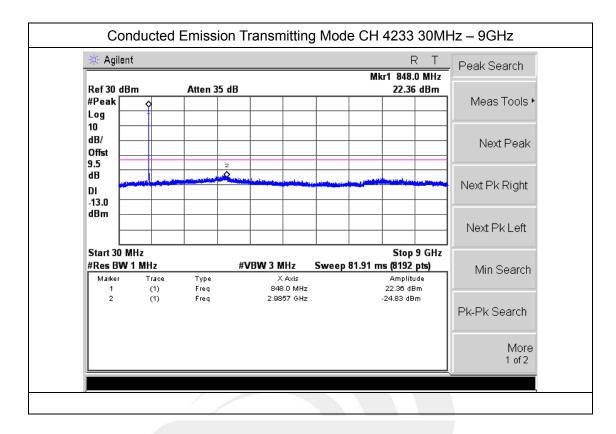




CONDUCTED EMISSION IN UMTS HSDPA band V

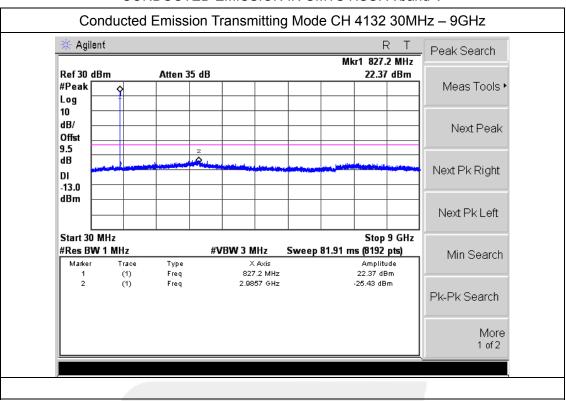




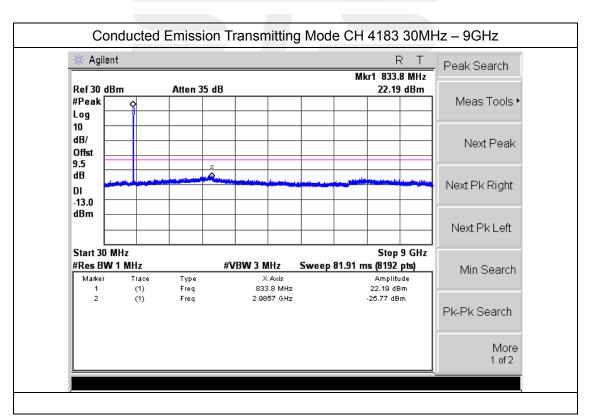




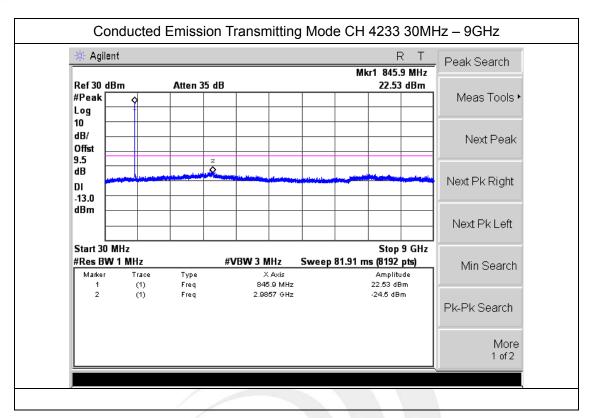








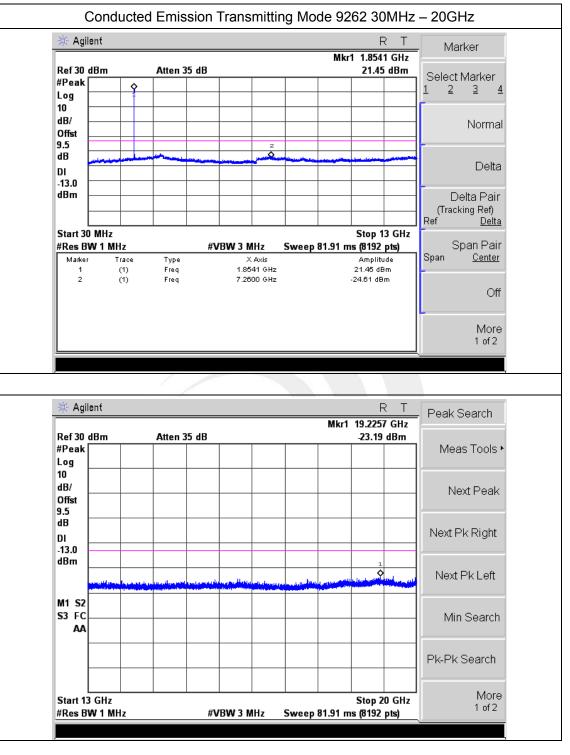






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CONDUCTED EMISSION IN UMTS band II

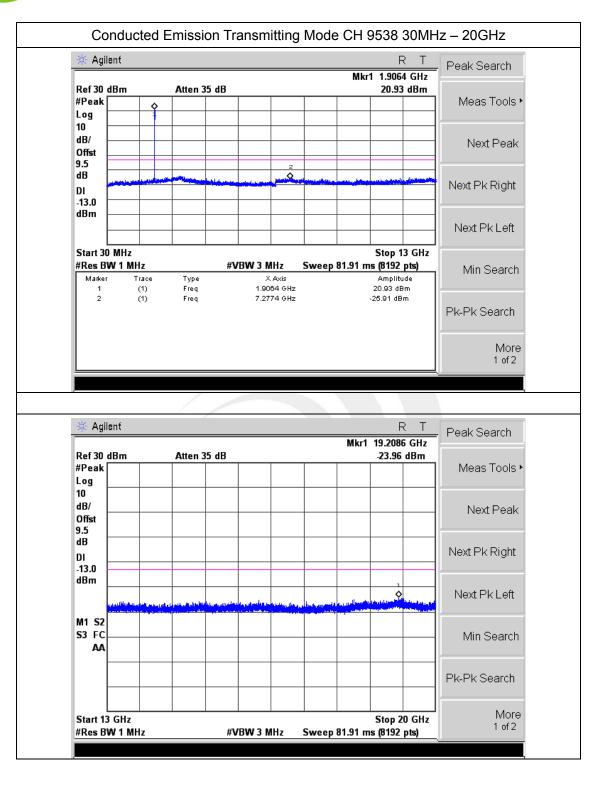
68 of 113



🔆 Agilent						R T	Peak Search
		A., 05 10			Mkr	1 1.8795 GHz	
Ref30dBm #Peak		Atten 35 dB				21.02 dBm	Meas Tools
Log							
10 dB/							
Offst							Next Peak
9.5 dB							
							Next Pk Right
-13.0							-
dBm —							
							Next Pk Left
Start 30 MH						Stop 13 GHz	:
#Res BW 1 Marker	MHz Trace	# \ Type	/BW 3 MHz X Axis	Sweep	81.91 m	i s (8192 pts) Amplitude	Min Search
1	(1)	Freq	1.8795 GH			21.02 dBm	
2	(1)	Freq	7.2774 GH	z		-26.11 dBm	Pk-Pk Search
							i iti it it oodioii
							More
							I INDIE
							1 of 2
∰ Agilenf		//			Mkr1	R T 19.1642 GHz	1 of 2
Ref 30 dBm		Atten 35 dB			Mkr1		1 of 2
Ref 30 dBm #Peak		Atten 35 dB			Mkr1	19.1642 GHz	1 of 2
Ref 30 dBm		Atten 35 dB			Mkr1	19.1642 GHz	1 of 2
Ref 30 dBm #Peak Log 10 dB/		Atten 35 dB			Mkr1	19.1642 GHz	1 of 2
Ref 30 dBm #Peak Log 10		Atten 35 dB			Mkr1	19.1642 GHz	Peak Search Meas Tools
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB		Atten 35 dB			Mkr1	19.1642 GHz	Peak Search Meas Tools Next Peak
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI		Atten 35 dB			Mkr1	19.1642 GHz	Peak Search Meas Tools
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB		Atten 35 dB			Mkr1	19.1642 GHz -24.07 dBm	Peak Search Meas Tools Next Peak
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0		Atten 35 dB			Mkr1	19.1642 GHz	Peak Search Meas Tools Next Peak
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm		Atten 35 dB			Mkr1	19.1642 GHz -24.07 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2		Atten 35 dB			Mkr1	19.1642 GHz -24.07 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0		Atten 35 dB			Mkr1	19.1642 GHz -24.07 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		Atten 35 dB			Mkr1	19.1642 GHz -24.07 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		Atten 35 dB			Mkr1	19.1642 GHz -24.07 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		Atten 35 dB			Mkr1	19.1642 GHz -24.07 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search
Ref 30 dBm #Peak Log 10 dB/ Offst 3.5 dB D1 13.0 dBm M1 S2 S3 FC		Atten 35 dB			Mkr1	19.1642 GHz -24.07 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search

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70 of 113





Conducted Emission Transmitting Mode CH 9262 30MHz - 20GHz Agilent R Τ Peak Search Mkr1 1.8525 GHz Ref 30 dBm Atten 35 dB 21.25 dBm #Peak Meas Tools • Ŷ Log 10 dB/ Next Peak Offst 9.5 dB Next Pk Right DI -13.0 dBm Next Pk Left Start 30 MHz Stop 13 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 81.91 ms (8192 pts) Min Search Marker Trace Туре X Axis 1.8525 GHz Amplitude 21.25 dBm (1) Freq 1 2 (1) Freq 7.2600 GHz -27.17 dBm Pk-Pk Search More 1 of 2 Agilent R Т Peak Search Mkr1 18.6908 GHz Ref 30 dBm -23.97 dBm Atten 35 dB #Peak Meas Tools • Log 10 dB/ Next Peak Offst 9.5 dB Next Pk Right DI -13.0 dBm Next Pk Left ¢ M1 S2 S3 FC Min Search AA Pk-Pk Search More Start 13 GHz Stop 20 GHz 1 of 2 #Res BW 1 MHz #VBW 3 MHz Sweep 81.91 ms (8192 pts)

CONDUCTED EMISSION IN UMTS HSDPA band II

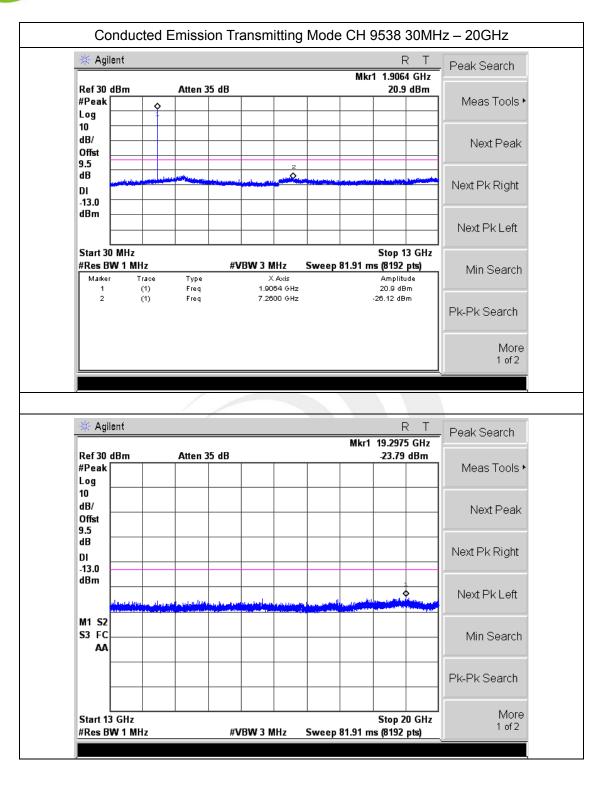
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🔆 Agilent						RT	- Peak Search
D-(20 JD		2E JD			Mkr	1 1.8795 GHz 21.01 dBm	
Ref 30 dBm #Peak		ten 35 dB				21.01 dBm	Meas Tools
Log	¥						-
10 dB/							-
Offst							Next Peak
9.5			2				
dB DI					-		Next Pk Right
-13.0							- J
dBm							-
							Next Pk Left
Start 30 MHz	II	I		<u> </u>		Stop 13 GHz	
#Res BW 1 Mi			/BW 3 MHz	Sweep 81	.91 m	s (8192 pts)	Min Search
		ype req	X Axis 1.8795 GHz			Amplitude 21.01 dBm	
		req	7.2774 GHz			-26.98 dBm	
							Pk-Pk Search
							More 1 of 2
	1	/					<u>_</u>
	/	/			Mkr1	R T	_ Peak Search
Ref 30 dBm	Att	ien 35 dB			Mkr1	R T 19.1394 GHz -23.93 dBm	
Ref 30 dBm #Peak	Ati	ten 35 dB			Mkr1	19.1394 GHz	 Peak Search Meas Tools
Ref 30 dBm #Peak Log	Ati	en 35 dB			Mkr1	19.1394 GHz	
Ref 30 dBm #Peak Log 10 dB/	Att	len 35 dB			Mkr1	19.1394 GHz	
Ref 30 dBm #Peak Log 10 dB/ Offst	Att	ten 35 dB			Mkr1	19.1394 GHz	Meas Tools
Ref 30 dBm #Peak Log 10 dB/	Ati	ien 35 dB			Mkr1	19.1394 GHz	Meas Tools Next Peak
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI		len 35 dB			Mkr1	19.1394 GHz	Meas Tools
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0	Att	len 35 dB			Mkr1	19.1394 GHz	Meas Tools Next Peak
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI	Att	ten 35 dB			Mkr1	19.1394 GHz -23.93 dBm	Meas Tools Next Peak Next Pk Right
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm		ien 35 dB			Mkr1	19.1394 GHz	Meas Tools Next Peak
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2		ien 35 dB			Mkr1	19.1394 GHz -23.93 dBm	Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		len 35 dB			Mkr1	19.1394 GHz -23.93 dBm	Meas Tools Next Peak Next Pk Right
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2		ten 35 dB			Mkr1	19.1394 GHz -23.93 dBm	Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		ten 35 dB			Mkr1	19.1394 GHz -23.93 dBm	Meas Tools Next Peak Next Pk Right Next Pk Left Min Search
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		ien 35 dB			Mkr1	19.1394 GHz -23.93 dBm	Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		ien 35 dB			Mkr1	19.1394 GHz -23.93 dBm	Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search

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73 of 113





Conducted Emission Transmitting Mode CH 9262 30MHz - 20GHz Agilent R Τ Peak Search Mkr1 1.8525 GHz Ref 30 dBm Atten 35 dB 21.2 dBm #Peak Meas Tools • ¢ Log 10 dB/ Next Peak Offst 9.5 dB Next Pk Right DI -13.0 dBm Next Pk Left Start 30 MHz Stop 13 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 81.91 ms (8192 pts) Min Search Marker Trace Туре X Axis 1.8525 GHz Amplitude 21.2 dBm (1) Freq 1 2 (1) Freq 7.2600 GHz -27.78 dBm Pk-Pk Search More 1 of 2 Agilent R Т Peak Search Mkr1 19.9803 GHz Ref 30 dBm -23.08 dBm Atten 35 dB #Peak Meas Tools • Log 10 dB/ Next Peak Offst 9.5 dB Next Pk Right DI -13.0 dBm Next Pk Left M1 S2 S3 FC Min Search AA Pk-Pk Search More Start 13 GHz Stop 20 GHz 1 of 2 #Res BW 1 MHz #VBW 3 MHz Sweep 81.91 ms (8192 pts)

CONDUCTED EMISSION IN UMTS HSUPA band II



🔆 Agilent						RT	- Peak Search
Ref 30 dBn	_	A	40		Mkr1	1.8795 GHz 21.09 dBm	
#Peak	•	Atten 35				21.09 abm	Meas Tools
Log	Ť						
10 dB/							No. + Do alu
Offst							Next Peak
9.5 dB			2				1
					-		Next Pk Right
-13.0							-
dBm –							Nost Dick off
							Next Pk Left
Start 30 MI				_		Stop 13 GHz	
#Res BW 1 Marker	MHz Trace	Туре	#VBW 3 MHz X Axis	Sweep 81.9	91 m	s (8192 pts) Amplitude	Min Search
1	(1)	Freq	1.8795 GH:			21.09 dBm	
2	(1)	Freq	7.2774 GH:	z		26.92 dBm	Pk-Pk Search
							i ki koedicii
							More
							I INULE
							1 of 2
k ∰ Agilent				N	lkr1	R T 19.1719 GHz	
Ref 30 dBn	1	Atten 35	dB	N	lkr1		1 of 2
Ref 30 dBn #Peak	1	Atten 35	dB	N	Akr1	19.1719 GHz	1 of 2
Ref 30 dBn	1	Atten 35	dB	N	Akr1	19.1719 GHz	1 of 2
Ref 30 dBn #Peak Log 10 dB/	1	Atten 35	dB	N	Akr1	19.1719 GHz	1 of 2
Ref 30 dBn #Peak Log 10	1	Atten 35	dB	N	lkr1	19.1719 GHz	 1 of 2 Peak Search Meas Tools
Ref 30 dBn #Peak Log 10 dB/ Offst	1	Atten 35	dB	N	Akr1	19.1719 GHz	 1 of 2 Peak Search Meas Tools Next Peak
Ref 30 dBn #Peak Log 10 dB/ Offst 9.5 dB DI	1	Atten 35	dB	N	lkr1	19.1719 GHz	 1 of 2 Peak Search Meas Tools
Ref 30 dBn #Peak Log 10 dB/ Offst 9.5 dB	1	Atten 35	dB	N	Akr1	19.1719 GHz -22.2 dBm	 1 of 2 Peak Search Meas Tools Next Peak
Ref 30 dBn #Peak Log 10 dB/ 9.5 dB DI -13.0	1	Atten 35	dB	N	1kr1	19.1719 GHz -22.2 dBm	 1 of 2 Peak Search Meas Tools Next Peak
Ref 30 dBn #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm		Atten 35	dB	N	1kr1	19.1719 GHz -22.2 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right
Ref 30 dBn #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2		Atten 35			lkr1	19.1719 GHz -22.2 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dBn #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2		Atten 35	dB		Ikr1	19.1719 GHz -22.2 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right
Ref 30 dBn #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		Atten 35			lkr1	19.1719 GHz -22.2 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dBn #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		Atten 35		N	Ikr1	19.1719 GHz -22.2 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dBn #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		Atten 35			1kr1	19.1719 GHz -22.2 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search
Ref 30 dBn #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm M1 S2 S3 FC		Atten 35			1kr1	19.1719 GHz -22.2 dBm	 1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search

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🔆 Agile	nt						R	Т	Peak Search
D-620 J	n	6 44 21	E 10			Mkı	1 1.9064 GI	1z	
Ref30dl #Peak	sm ¢	Atten 3					21.03 dB	<u>m</u>	Meas Tools
Log	¥								
10 − dB/ −									NotDeeld
Offst								-11	Next Peak
9.5 dB					2				
DI T				and a second second		and the state of the	Relation and a second s		Next Pk Right
-13.0 📙								-14	
dBm -									Next Pk Left
									NOALI K LOIL
Start 30					6	04.04	Stop 13 G		
#Res BW Marker	Trace	Туре	#VB	W 3 MHz X Axis		ep 81.91 n	is (8192 pts) Amplitude		Min Search
1	(1) (1)	Freq Freq		1.9064 G 7.2774 G	Hz		21.03 dBm -27.59 dBm		
2	(0)	Tieq		7.27740	112		-27.58 0011		Pk-Pk Search
									More
			/						1 of 2
🔆 Agile	nt					Mkr1	R 19.1719 GH		
Ref 30 d		Atten 3	5 dB			Mkr1		iz	1 of 2 Peak Search
Ref 30 di #Peak		Atten 3	5 dB			Mkr1	19.1719 Gł	iz	1 of 2
Ref30dl #Peak Log 10		Atten 3	5 dB			Mkr1	19.1719 Gł	iz	1 of 2 Peak Search
Ref 30 dl #Peak Log 10 dB/		Atten 3	5 dB			Mkr1	19.1719 Gł	iz	1 of 2 Peak Search
Ref 30 dl #Peak Log 10 dB/ Offst 9.5		Atten 3	5 dB			Mkr1	19.1719 Gł	iz	1 of 2 Peak Search Meas Tools
Ref 30 dl #Peak Log 10 dB/ Offst 9.5 dB		Atten 3	5 dB			Mkr1	19.1719 Gł	n	1 of 2 Peak Search Meas Tools Next Peak
Ref 30 dl #Peak Log 10 dB/ Offst 9.5 dB DI		Atten 3	5 dB			Mkr1	19.1719 Gł	n	1 of 2 Peak Search Meas Tools
Ref 30 dl #Peak Log 10 dB/ Offst 9.5 dB dB DI		Atten 3	5 dB			Mkr1	19.1719 GH -23.26 dBr	n	1 of 2 Peak Search Meas Tools Next Peak Next Pk Right
Ref 30 dl #Peak Log 10 dB/ Offst 9.5 dB dB DI		Atten 3	5 dB			Mkr1	19.1719 GH -23.26 dBr	n	1 of 2 Peak Search Meas Tools Next Peak
Ref 30 dl #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm		Atten 3	5 dB			Mkr1	19.1719 GH -23.26 dBr	n	1 of 2 Peak Search Meas Tools Next Peak Next Pk Right
Ref 30 dl #Peak Log 10 dB/ Dffst 3.5 dB DI 13.0 dBm dBm M1 S2		Atten 3	5 dB			Mkr1	19.1719 GH -23.26 dBr	n	1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dl #Peak Log 10 dB/ Offst 9.5 dB DI -13.0 dBm dBm M1 S2		Atten 3	5 dB			Mkr1	19.1719 GH -23.26 dBr	n	1 of 2 Peak Search Meas Tools Next Peak Next Pk Right
Ref 30 dl #Peak Log 10 dB/ 0ffst 9.5 d dB DI -13.0 d dBm M1 S2 S3 FC		Atten 3	5 dB			Mkr1	19.1719 GH -23.26 dBr		1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search
Ref 30 dl #Peak Log 10 dB/ Offst 9.5 d dB DI 13.0 d dBm M1 S2 S3 FC		Atten 3:	5 dB			Mkr1	19.1719 GH -23.26 dBr		1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left
Ref 30 dl #Peak Log 10 dB/ Offst 9.5 d dB DI 13.0 d dBm M1 S2 S3 FC		Atten 3	5 dB			Mkr1	19.1719 GH -23.26 dBr		1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search
Ref 30 dl Peak .og 0 0 0B/ .55 18 01 13.0 IBm M1 S2 53 FC		Atten 3	5 dB			Mkr1	19.1719 Gł -23.26 dBr		1 of 2 Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search

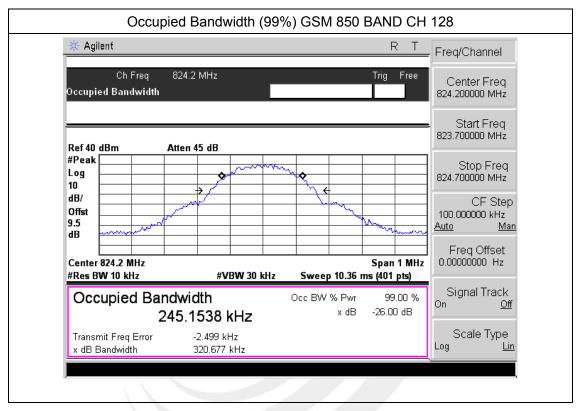


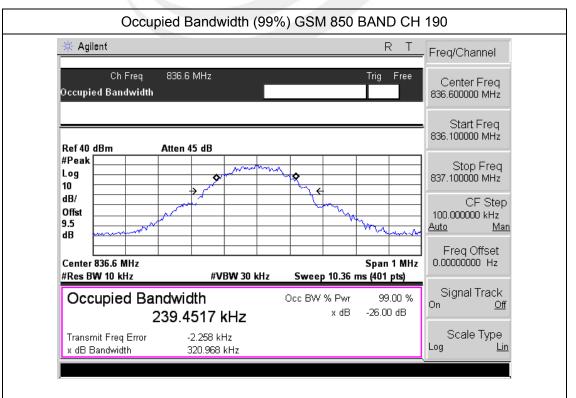
APPENDIX II

77 of 113

TEST PLOTS FOR OCCUPIED BANDWIDTH (99%)

EMISSION BANDWIDTH (-26dBC)





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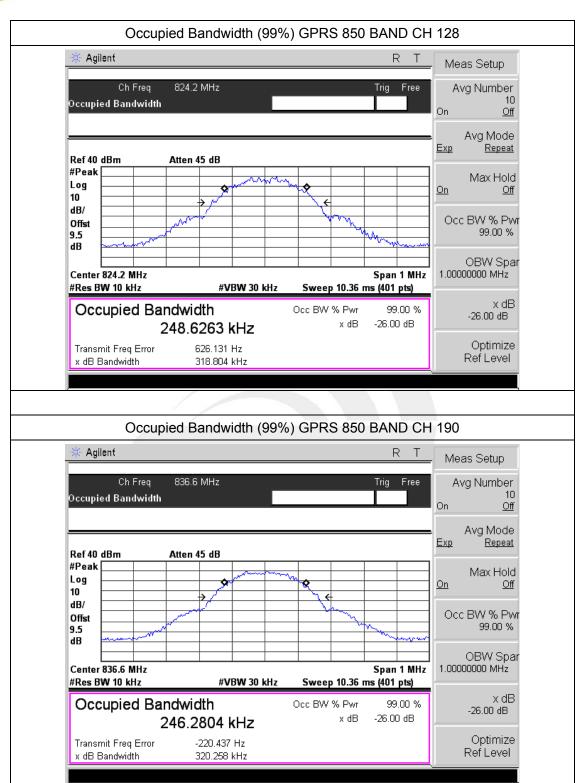


🔆 Agilent			RΤ	Freq/Channel
Ch Freq Occupied Bandwidtl	848.8 MHz I		Trig Free	Center Freq 848.800000 MHz
Ref 40 dBm	Atten 45 dB			Start Freq 848.300000 MHz
#Peak Log 10	x	Mark A		Stop Freq 849.300000 MHz
dB/ Offst 9.5 dB		- Vinne	m	CF Step 100.000000 kHz <u>Auto Mar</u>
Center 848.8 MHz #Res BW 10 kHz	#VBW 30 ki	Hz Sweep 10.36	Span 1 MHz	Freq Offset 0.00000000 Hz
Occupied Ba		Occ BW % Pwr x dB	99.00 % -26.00 dB	Signal Track On <u>Off</u>
Transmit Freq Error x dB Bandwidth	-1.002 kHz 315.490 kHz			Scale Type Log <u>Lin</u>





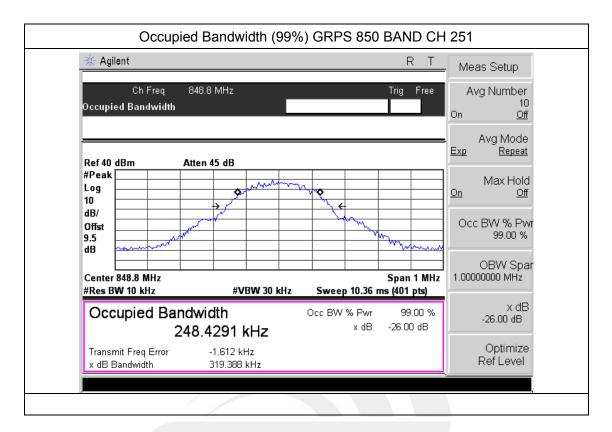




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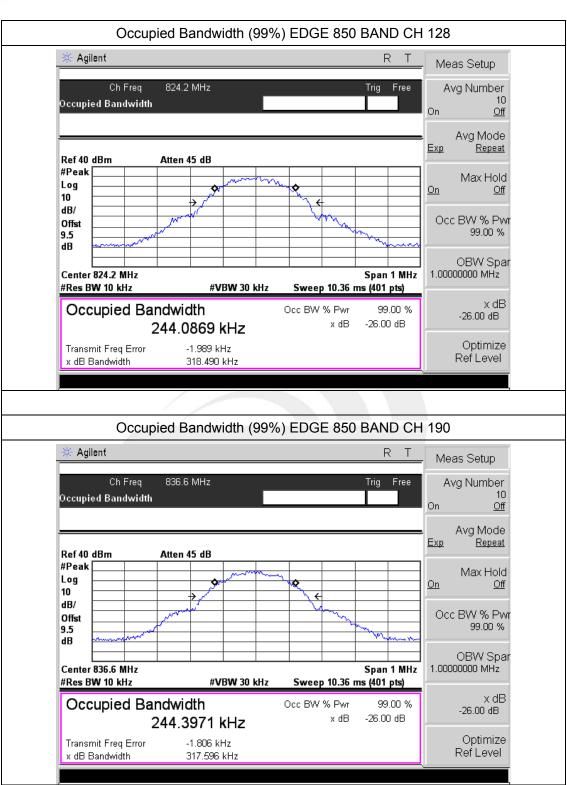










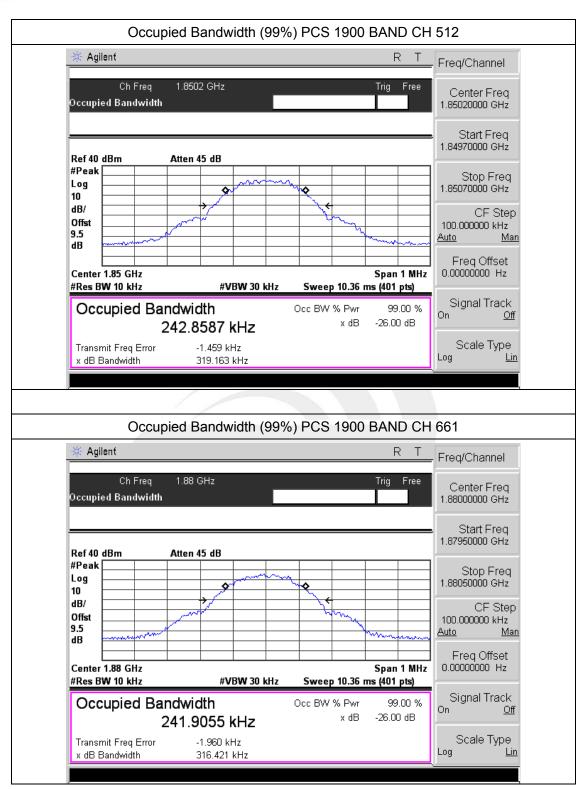


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Occupied Bandwidth (99%) EDGE 850 BAND CH	251	
🔆 Agilent R T	Meas Setup	
Ch Freq 848.8 MHz Trig Free Occupied Bandwidth	Avg Number 10 On <u>Off</u>	
Ref 40 dBm Atten 45 dB	Avg Mode <u>Exp Repeat</u>	
	Max Hold <u>On Off</u>	
dB/ Offst 9.5 dB	Occ BW % Pwr 99.00 %	
Center 848.8 MHz Span 1 MHz #Res BW 10 kHz #VBW 30 kHz Sweep 10.36 ms (401 pts)	OBW Spar 1.00000000 MHz	
Occupied Bandwidth Occ BW % Pwr 99.00 % 247.5559 kHz x dB -26.00 dB	× dB -26.00 dB	
Transmit Freq Error -699.621 Hz x dB Bandwidth 323.588 kHz	Optimize Ref Level	



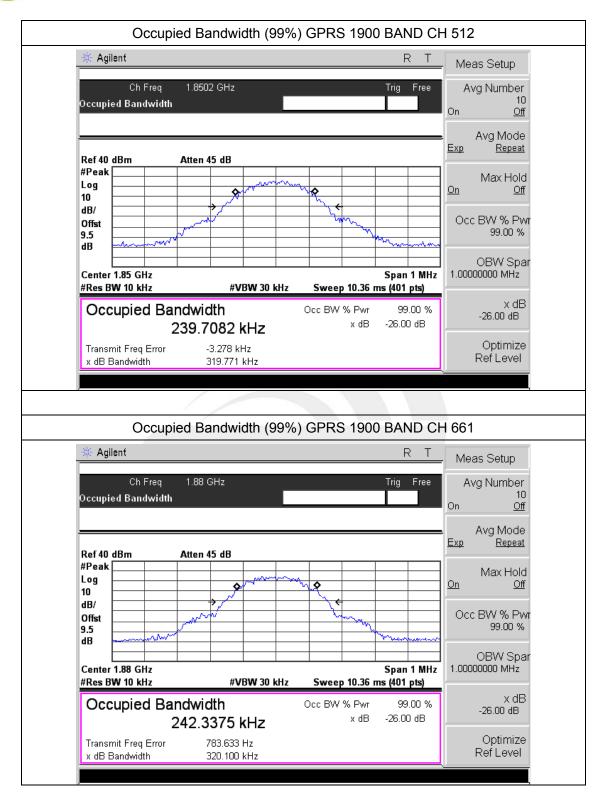




Occupied Bandwidth (99%) PCS 1900 B	AND CH	810
∦ Agilent	RT	Meas Setup
Ch Freq 1.9098 GHz	Trig Free	Avg Number 10 On <u>Off</u>
Ref 40 dBm Atten 45 dB		Avg Mode <u>Exp</u> Repeat
#Peak Log 10		Max Hold <u>On Off</u>
dB/ Offst 9.5 dB	mann n	Occ BW % Pwi 99.00 %
	Span 1 MHz	OBW Spar 1.00000000 MHz
Occupied Bandwidth Occ BW % Pwr	99.00 % 26.00 dB	x dB -26.00 dB
Transmit Freq Error -399.743 Hz x dB Bandwidth 318.368 kHz		Optimize Ref Level







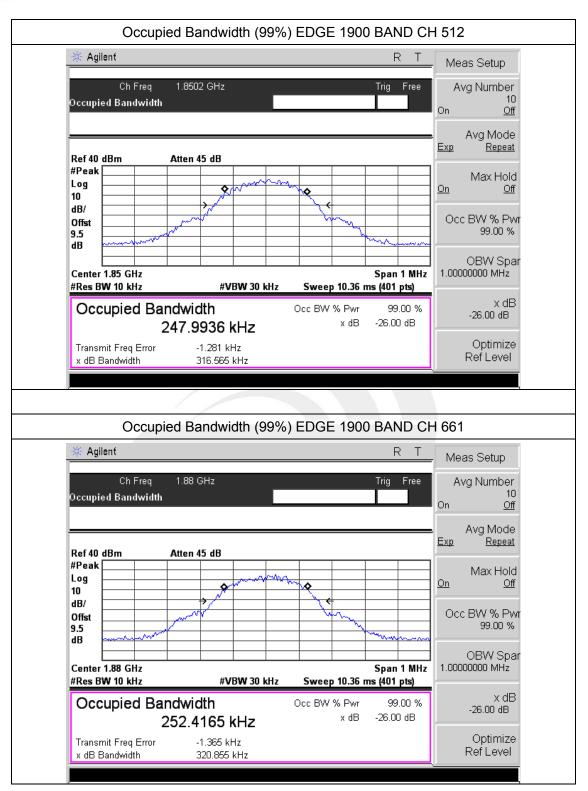


Occupied Ba	andwidth (99%) GPRS 1900	BAND CH	H 810
🔆 Agilent			RT	Meas Setup
Ch Freq 1.909 Occupied Bandwidth	8 GHz		Trig Free	Avg Number 10 On <u>Off</u>
Ref 40 dBm Atten 4	15 dB			Avg Mode <u>Exp</u> <u>Repeat</u>
#Peak Log 10	• • • • • • • • • • • • • • • • • • •	*		Max Hold <u>On Off</u>
dB/ Offst 9.5 dB			mann	Occ BW % Pwi 99.00 %
Center 1.91 GHz #Res BW 10 kHz	#VBW 30 kHz	Sweep 10.36 r	Span 1 MHz	OBW Spar 1.00000000 MHz
Occupied Bandwid		Occ BW % Pwr x dB	99.00 % -26.00 dB	x dB -26.00 dB
Transmit Freq Error -	2.450 kHz 318.995 kHz			Optimize Ref Level



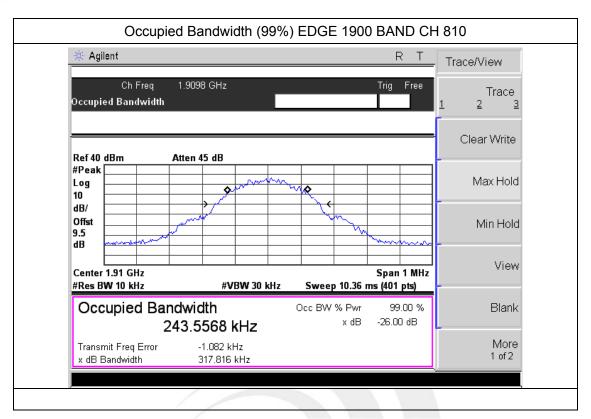






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🔆 Agilent		RT	Freq/Channel
Ch Fr Occupied Bandv		Trig Free	Center Freq 826.600000 MHz
Ref 30 dBm	Atten 35 dB		Start Freq 822.600000 MHz
#Peak Log 10			Stop Freq 830.600000 MHz
dB/ Offst 9.5 dB			CF Step 800.000000 kHz <u>Auto Mar</u>
Center 826.6 MH #Res BW 100 kH		Span 8 MH Sweep 5 ms (401 pts)	Freq Offset 0.00000000 Hz
	Bandwidth 4.1501 MHz	Occ BW % Pwr 99.00 % x dB -26.00 dB	Signal Track On <u>Off</u>
Transmit Freq E x dB Bandwidth	rror -8.833 kHz		Scale Type _{Log Lir}
0	ccupied Bandwidth (999	%) UMTS BAND V CH	1 4183
O ₩ Agilent	ccupied Bandwidth (999	%) UMTS BAND V CH	I 4183 Freq/Channel
	req 835 MHz	,	- Freq/Channel
∰ Agilent Ch Fr Occupied Bandv	req 835 MHz width	R T	Ereq/Channel
🔆 Agilent Ch Fr	req 835 MHz	R T	Center Freq 835.00000 MHz
Agilent Ch Fr Occupied Bandv Ref 30 dBm #Peak Log 10 dB/ Offst 9.5	req 835 MHz width	R T	 Freq/Channel Center Freq 835.00000 MHz Start Freq 831.00000 MHz Stop Freq
** Agilent Ch Fr Occupied Bandv Ref 30 dBm #Peak Log 10 dB/ Offst	Atten 35 dB	R T	Freq/Channel Center Freq 835.000000 MHz Start Freq 831.000000 MHz Stop Freq 839.000000 MHz CF Step 800.000000 kHz Auto Mar Freq Offset
Agilent Ch Fr Occupied Bandy Ref 30 dBm #Peak Log 10 dB/ Offst 9.5 dB Center 835 MHz #Res BW 100 kH	Atten 35 dB	R T Trig Free	Freq/Channel Center Freq 835.000000 MHz Start Freq 831.000000 MHz Stop Freq 839.000000 MHz CF Step 800.0000000 kHz Auto Mar Freq Offset 0.00000000 Hz

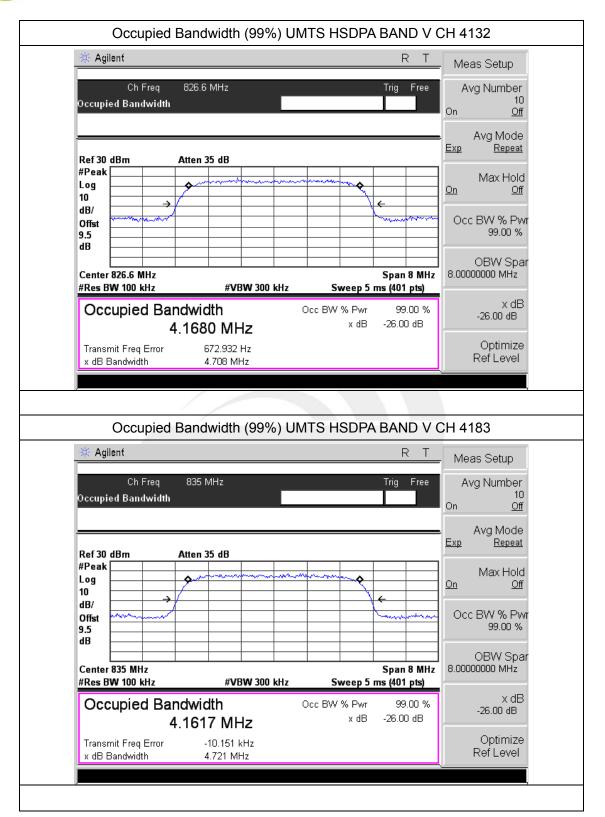
Shenzhen STS Test Services Co., Ltd.



Occu	pied Bandwidth (9	9%) UMTS BA	ND V CH 4	233
🔆 Agilent			RT	Freq/Channel
Ch Freq Occupied Bandwidth	846.4 MHz		Trig Free	Center Freq 846.400000 MHz
 Ref 30 dBm	Atten 35 dB			Start Freq 842.400000 MHz
#Peak Log 10		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	£	Stop Freq 850.400000 MHz
dB/ Offst 9.5 dB			han and and and and and and and and and a	CF Step 800.000000 kHz <u>Auto Man</u>
Center 846.4 MHz #Res BW 100 kHz	#VBW 300 kł	lz Sweep 5	Span 8 MHz ms (401 pts)	Freq Offset 0.00000000 Hz
Occupied Ba	ndwidth 4.1710 MHz	Occ BW % Pwr x dB	99.00 % -26.00 dB	Signal Track On <u>Off</u>
Transmit Freq Error x dB Bandwidth	-11.980 kHz 4.694 MHz			Scale Type Log <u>Lin</u>







Shenzhen STS Test Services Co., Ltd.

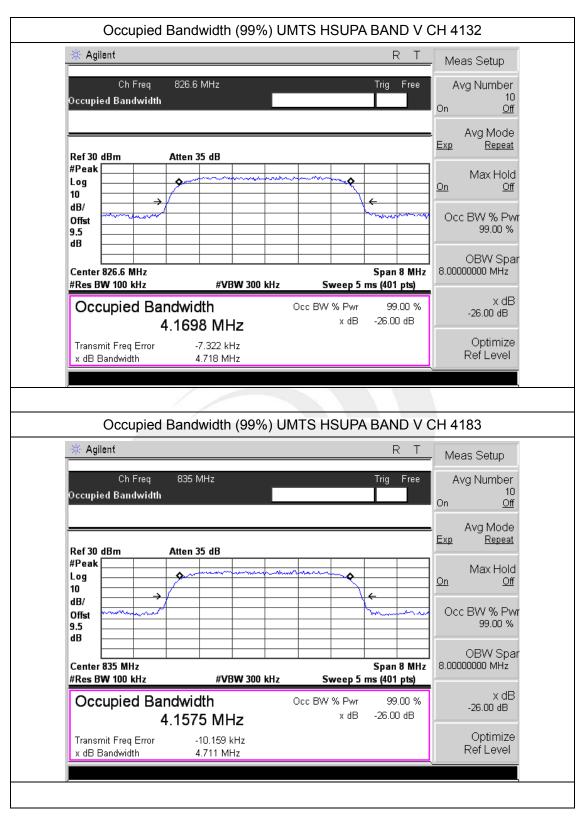


Occupied Bar	ndwidth (99%) L	JMTS HSDPA	A BAND V (CH 4233	
🔆 Agilent			RT	Meas Setup	
Ch Freq 84 Occupied Bandwidth	5.4 MHz		Trig Free	Avg Number 10 On <u>Off</u>	
Ref 30 dBm Atte	n 35 dB			Avg Mode <u>Exp</u> Repeat	
#Peak Log 10		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Max Hold On Off	
dB/ Offst 9.5 dB			housemaker	Occ BW % Pwr 99.00 %	
Center 846.4 MHz #Res BW 100 kHz	#VBW 300 kHz	Sweep 5	Span 8 MHz ms (401 pts)	OBW Spar 8.0000000 MHz	
Occupied Bandw		Occ BW % Pwr x dB	99.00 % -26.00 dB	x dB -26.00 dB	
Transmit Freq Error x dB Bandwidth	-5.551 kHz 4.724 MHz			Optimize Ref Level	





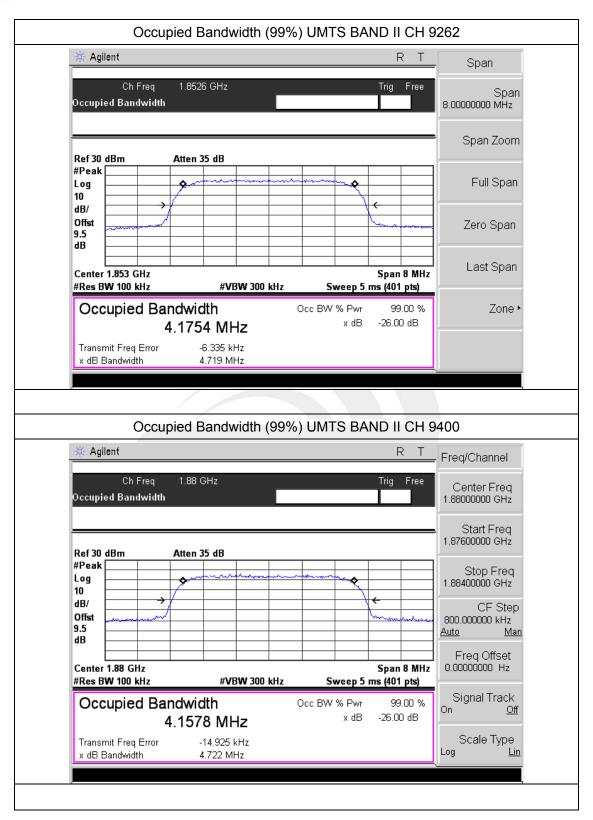






Occupied Bar	ndwidth (99%) L	JMTS HSUPA	BAND V (CH 4233	
🔆 Agilent			RT	. Meas Setup	
Ch Freq 848 Occupied Bandwidth	δ.4 MHz		Trig Free	Avg Number 10 On <u>Off</u>	
Ref 30 dBm Atte	n 35 dB			Avg Mode Exp Repeat	
#Peak Log 10		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Max Hold <u>On Off</u>	
dB/ Offst 9.5 dB			hin share	Occ BW % Pwi 99.00 %	r
Center 846.4 MHz #Res BW 100 kHz	#VBW 300 kHz	Sweep 5	Span 8 MHz ms (401 pts)	OBW Spar 8.0000000 MHz	
Occupied Bandw		Occ BW % Pwr x dB	99.00 % -26.00 dB	x dB -26.00 dB	
Transmit Freq Error x dB Bandwidth	-15.174 kHz 4.724 MHz			Optimize Ref Level	

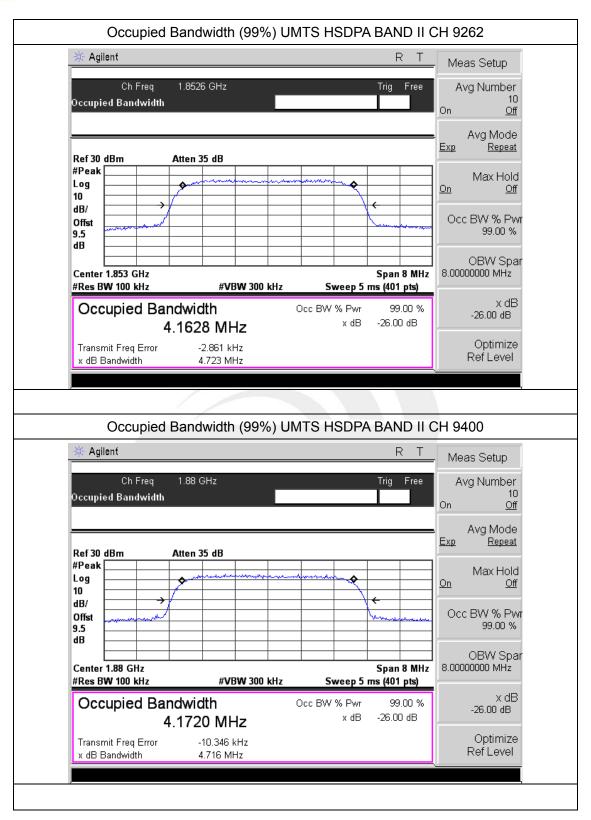






Occupied Bandwidth (99	9%) UMTS BAND II CH 95	538
来 Agilent	R T	Freq/Channel
Ch Freq 1.9074 GHz Occupied Bandwidth	Trig Free	Center Freq 1.90740000 GHz
Ref 30 dBm Atten 35 dB		Start Freq 1.90340000 GHz
#Peak Log 10		Stop Freq 1.91140000 GHz
dB/ Offst 9.5 dB		CF Step 800.00000 kHz <u>Auto Man</u>
Center 1.907 GHz #Res BW 100 kHz #VBW 300 kHz	Span 8 MHz z Sweep 5 ms (401 pts)	Freq Offset 0.00000000 Hz
Occupied Bandwidth 4.1841 MHz		Signal Track On <u>Off</u>
Transmit Freq Error -19.099 kHz x dB Bandwidth 4.733 MHz		Scale Type ^{Log <u>Lin</u>}

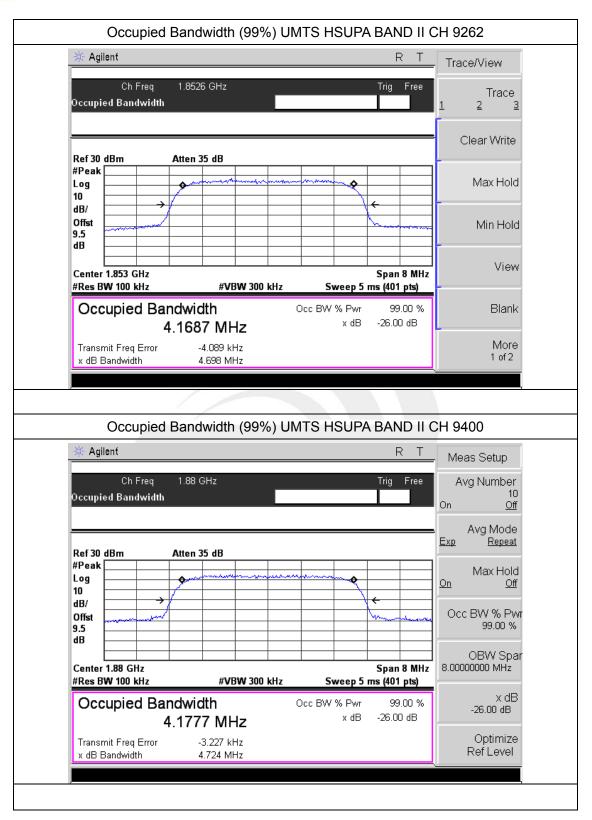






Occupied Bar	idwidth (99%) L	JMTS HSDPA	BAND II (CH 9538
🔆 Agilent			RT	Meas Setup
Ch Freq 1.9 Occupied Bandwidth	074 GHz		Trig Free	Avg Number 10 On <u>Off</u>
 Ref 30 dBm Atte	1 35 dB			Avg Mode Exp Repeat
#Peak Log 10		man a		Max Hold On Off
dB/				Occ BW % Pwr 99.00 %
Center 1.907 GHz #Res BW 100 kHz	#VBW 300 kHz	Sweep 5	Span 8 MHz ms (401 pts)	OBW Spar 8.0000000 MHz
Occupied Bandw	idth 44 MHz	Occ BW % Pwr x dB	99.00 % -26.00 dB	X dB -26.00 dB
Transmit Freq Error x dB Bandwidth	-15.972 kHz 4.779 MHz			Optimize Ref Level







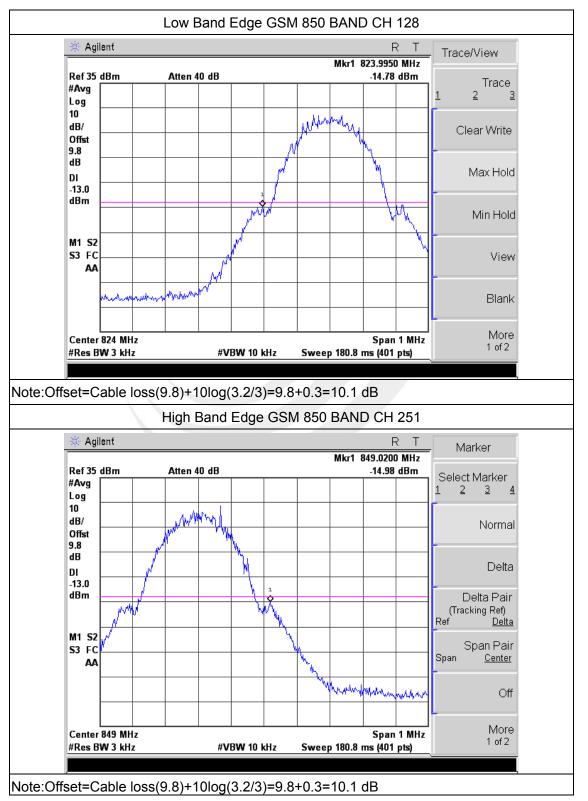
de la militaria						D T		
₩ Agilent R T						_ Trace/View		
Ch Occupied Ban		I.9074 GHz	Trig Free			1	Trace 2 3	
Ref 30 dBm	At	ten 35 dB					-	Clear Write
#Peak Log 10		•		here and the second	•			Max Hold
dB/ dffst 9.5 dB						<u> </u>		Min Hold
Center 1.907 (#Res BW 100		#VBW	300 kHz	Sw	reep 5 r	Span 8 MH ns (401 pts)	z	View
Occupied Bandwidth 4.1803 MHz				Occ BW %		99.00 % -26.00 dB		Blank
Transmit Freq Error -16.847 kHz x dB Bandwidth 4.760 MHz								More 1 of 2





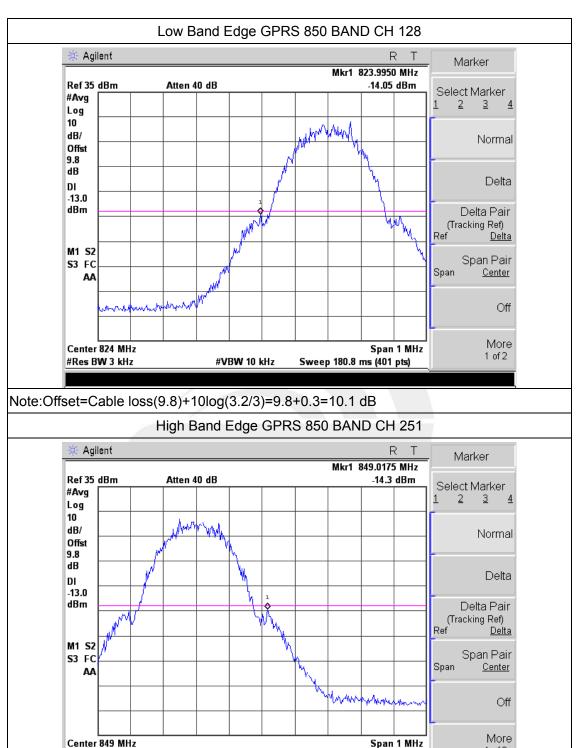
APPENDIX III

TEST PLOTS FOR BAND EDGES



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Note:Offset=Cable loss(9.8)+10log(3.2/3)=9.8+0.3=10.1 dB

#VBW 10 kHz

Sweep 180.8 ms (401 pts)

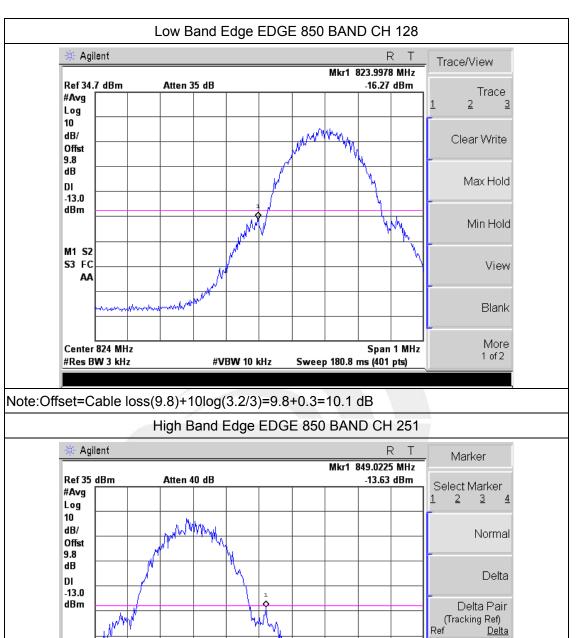
Shenzhen STS Test Services Co., Ltd.

#Res BW 3 kHz

1/F, Building B, Zhuoke Science Park, Chongqing Road, Fuyong, Bao'an District, Shenzhen, China Tel: 0755-36886288 Fax: 0755-36886277 Http://www.stsapp.com E-mail: sts@stsapp.com

1 of 2





M1 S2

S3 FC

AA

Center 849 MHz

#Res BW 3 kHz

1/F, Building B, Zhuoke Science Park, Chongqing Road, Fuyong, Bao'an District, Shenzhen, China Tel: 0755-36886288 Fax: 0755-36886277 Http://www.stsapp.com E-mail: sts@stsapp.com

Span Pair

Center

Off

More

1 of 2

Span

WMM.

Sweep 180.8 ms (401 pts)

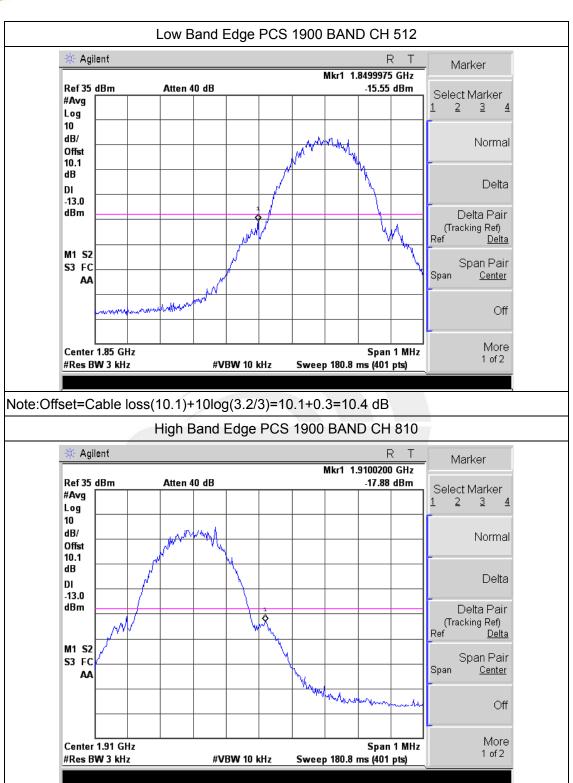
#VBW 10 kHz

Note:Offset=Cable loss(9.8)+10log(3.2/3)=9.8+0.3=10.1 dB

Alter

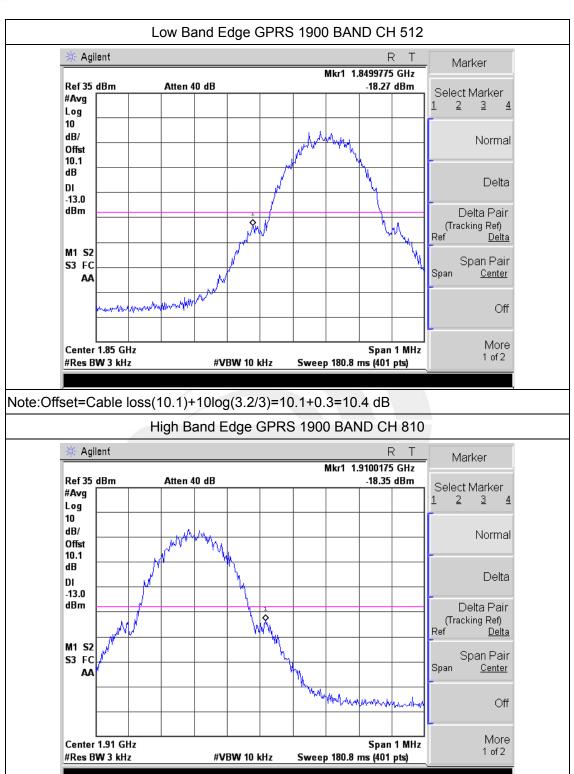
Span 1 MHz





Note:Offset=Cable loss(10.1)+10log(3.2/3)=10.1+0.3=10.4 dB

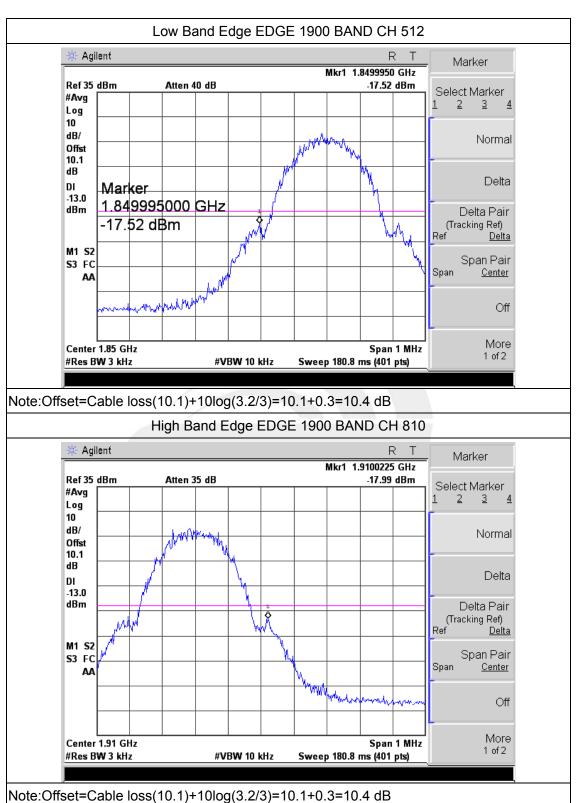




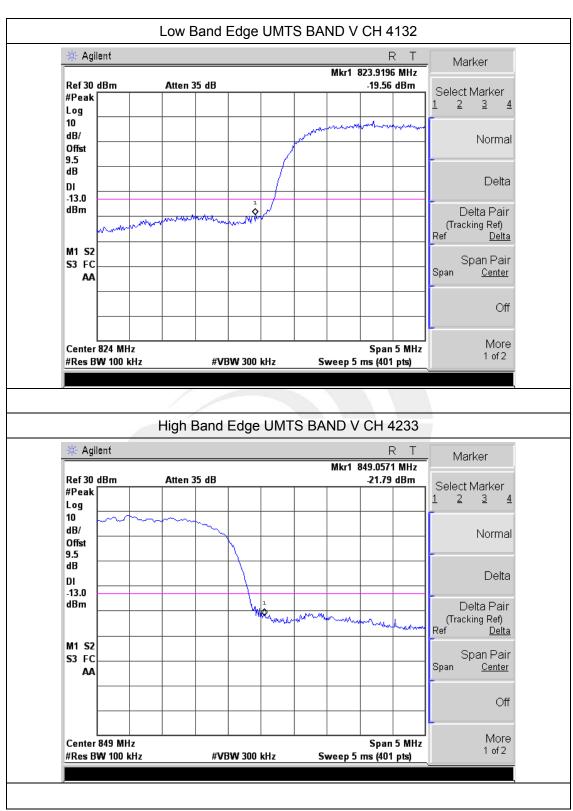
Note:Offset=Cable loss(10.1)+10log(3.2/3)=10.1+0.3=10.4 dB

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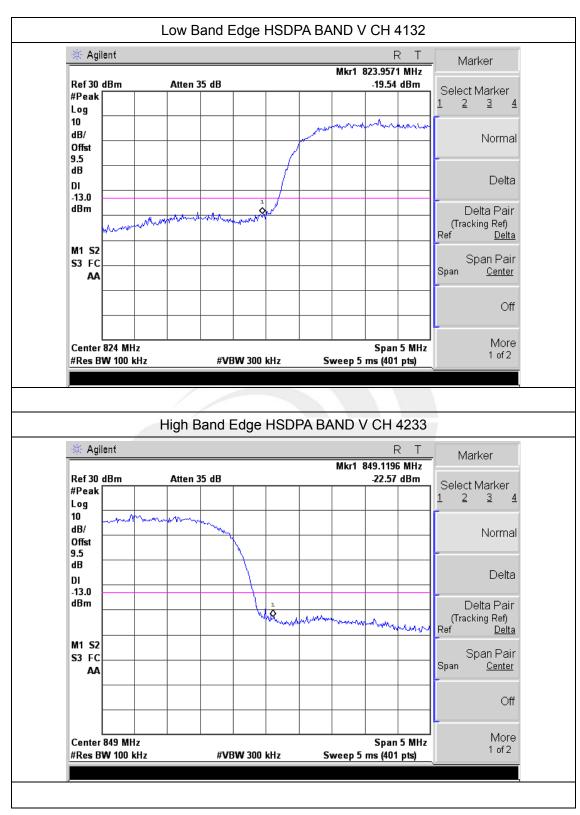




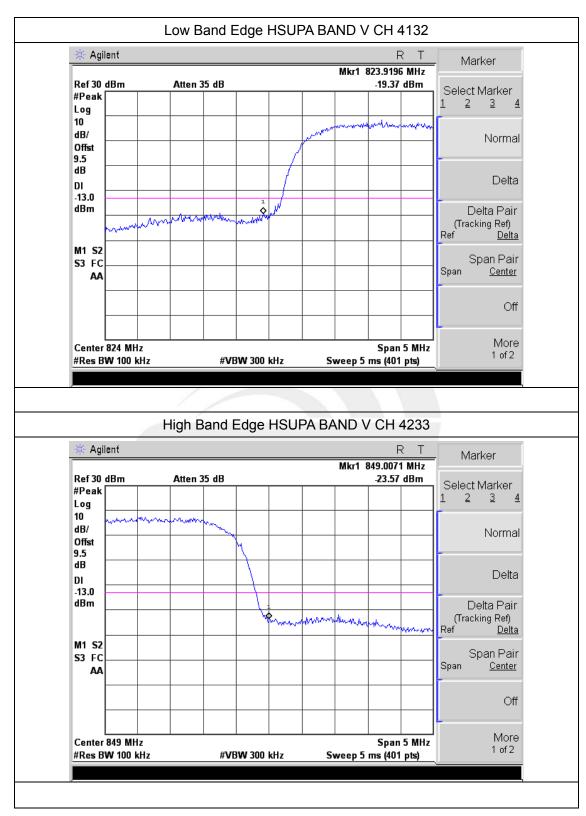






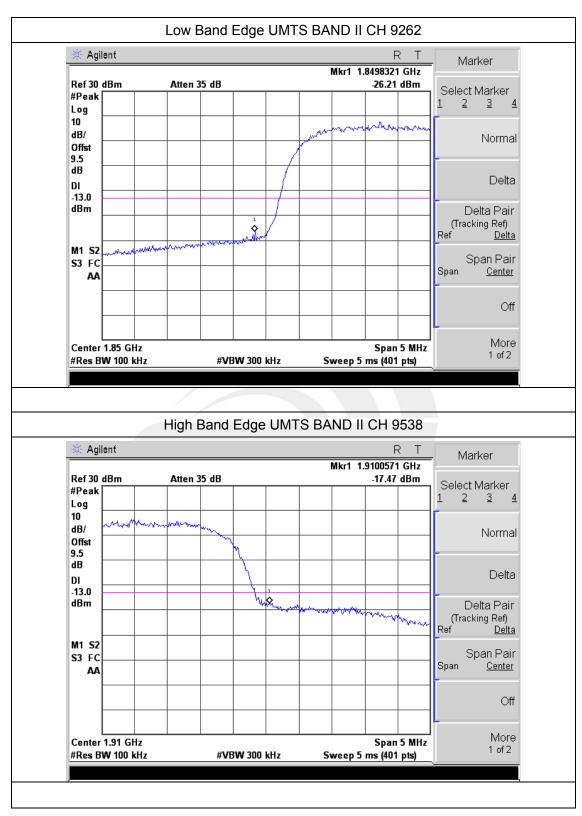




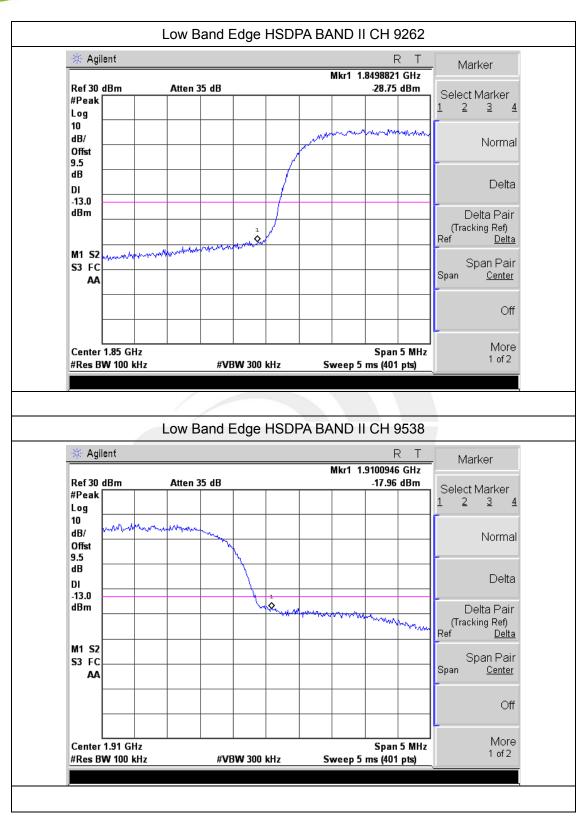


Shenzhen STS Test Services Co., Ltd.



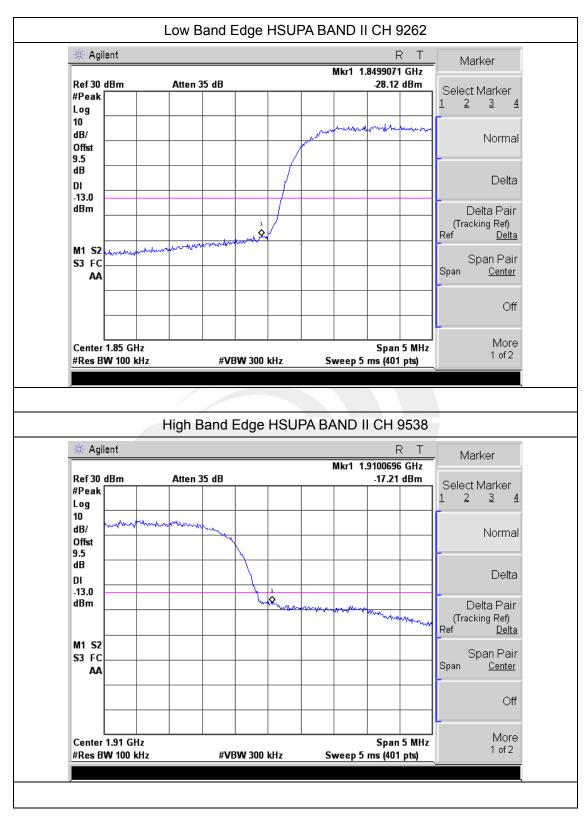


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111 of 113



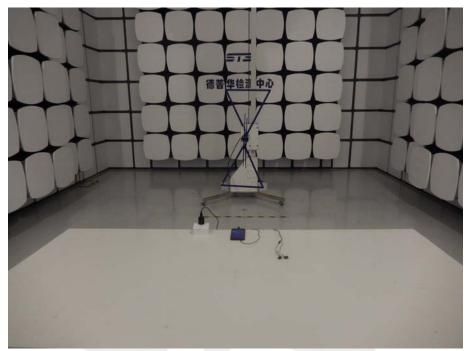


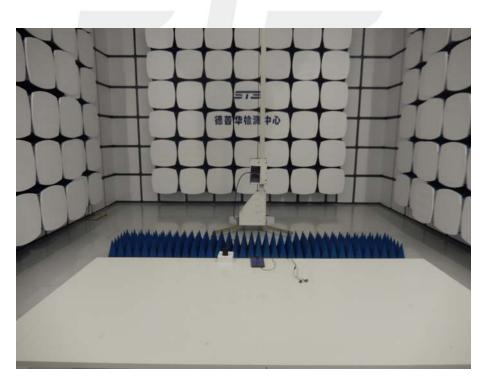


APPENDIX IV

PHOTOS OF TEST SETUP

RADIATED SPURIOUS EMISSION





----END OF REPORT----