

Test Report

Product Name: Mobile Computer

Model No. : RS36

FCC ID : Q3N-RS36

IC : 5121A-RS36

Applicant (for FCC): CipherLab Co., Ltd.

Applicant (for IC) : CIPHERLAB CO. LTD.

Address : 12F, 333, Dunhua S.Rd., Sec.2, Taipei, Taiwan

Date of Receipt : 2022/10/13

Issued Date : 2023/03/28

Report No. : 22A0299R-RFUSV22S-A

Report Version: V1.0





The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.



Test Report



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Applicant (for FCC) : CipherLab Co., Ltd.

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Address : 12F, 333, Dunhua S.Rd., Sec.2, Taipei, Taiwan

Manufacturer : CIPHERLAB CO. LTD.

Trade Name : CIPHERLAB

Model No. : RS36

EUT Rated Voltage : DC 5V (adapter or host equipment)

DC 3.85V for battery

EUT Test Voltage DC 3.85V

Measurement Standard : FCC CFR Title 47 Part 22 ; Part 24 ; Part 27

RSS-132 Issue 4, RSS-133 Issue 6+A1, RSS-139 Issue 4

Measurement Reference: FCC CFR Title 47 Part 2, TIA/EIA 603-E 2016,

KDB 971168 D01V03R01, ANSI C63.26 2015,

RSS-GEN Issue 5+A2

Test Result : Complied

Documented By : Ida Tung

(Project Specialist / Ida Tung)

Tested By Danie Wu

(Engineer / Daniel Wu)

Approved By :

(Manager / Tim Sung)



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Revision History

Report No.	Version	Description	Issued Date
22A0299R-RFUSV22S-A	V1.0	Initial issue of report.	2023/03/28



1. General Information

1.1. EUT Description

Product Name	Mobile Computer
Model No.	RS36
Trade Name	CIPHERLAB
IMEI No.	35226598
FCC ID	Q3N-RS36
IC	5121A-RS36
TX Frequency	GSM 850: 824.2 MHz ~ 848.8 MHz
	GSM 1900: 1850.2 MHz ~ 1909.8MHz
	WCDMA Band 2: 1852.4 MHz ~ 1907.6 MHz
	WCDMA Band 4: 1712.4 MHz ~ 1752.6 MHz
	WCDMA Band 5: 826.4 MHz ~ 846.6 MHz
RX Frequency	GSM 850: 869.2 MHz ~ 893.8 MHz
	GSM 1900: 1930.2 MHz ~ 1989.8 MHz
	WCDMA Band 2: 1932.4 MHz ~ 1987.6 MHz
	WCDMA Band 4: 2112.4 MHz ~ 2152.6 MHz
	WCDMA Band 5: 871.4 MHz ~ 891.6 MHz
Function	GSM / GPRS / EDGE / WCDMA / HSDPA / HSUPA
Type of Modulation	GMSK / 8PSK / QPSK
Power Cable	Trade Name: CIPHERLAB, M/N: RS35 SNAP ON, Non-shielded, 1.5m
(Optional)	
Adapter #1	Trade Name: Sunny, M/N: SYS1561-1005
(Optional)	Input: AC 100-240V~, 1.0A MAX, 50-60Hz
	Output: +5.0V-2.0A
Adapter #2	Trade Name: CWT, M/N: 2AEA010BC3D
(Optional)	Input: AC 100-240V~ 50/60Hz 0.35A
	Output: 5.0V-2.0A 10.0W

Supported Unit	
Type C Cable	Trade Name: SUNCA, M/N: 1Q11512211-XJ, Shielded, 1m



1.2. Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Auden	KZWLSLSVS0001	PIFA	0.5 dBi for GSM850
		(LTE Main, TX/RX)		2.5 dBi for GSM1900
				2.5 dBi for WCDMA Band 2
				3.1 dBi for WCDMA Band 4
				0.5 dBi for WCDMA Band 5
2	Auden	KZWLSLSVS0001	PIFA	-4.5 dBi for GSM850
		(LTE Aux, TX/RX)		-2.0 dBi for GSM1900
				-2.0 dBi for WCDMA Band 2
				-2.9 dBi for WCDMA Band 4
				-4.5 dBi for WCDMA Band 5

Note: The above EUT information is declared by the manufacturer



1.3. Operational Description

The EUT provide all functions described as above. The EUT is tested with maximum rated TX power via the Base Station simulator. DEKRA has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

	Mode 1: GSM 850
	Mode 2: GSM 1900
Test Mode	Mode 3: WCDMA Band 2
	Mode 4: WCDMA Band 4
	Mode 5: WCDMA Band 5

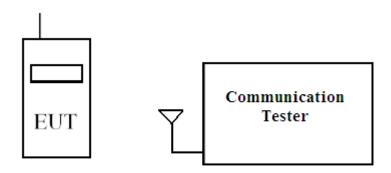
Note:

- 1. Regards to the frequency band operation; the lowest, middle and highest frequency of channel were selected to perform the test, and then shown on this report.
- 2. This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in VOICE mode for GSM, and RMC mode for WCDMA, and show the worst case in the test report.
- 3. Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
- 4. The EUT was performed at X axis, Y axis and Z axis position for radiated spurious emission tests. The worst case was found at X axis for GSM and Z axis for WCDMA, so the measurement will follow this same test configuration

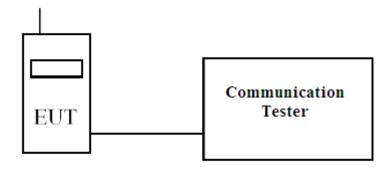


1.4. Configuration of tested System

(a) Configuration of Radiated measurement



(b) Configuration of Conducted measurement



1.5. EUT Setup Procedures

- (1) Setup the EUT and simulators as shown on 1.4
- (2) Turn on the power of all equipment.
- (3) The EUT was set to communicate with Base Station simulator.
- (4) Repeat the above procedure (3).



1.6. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Actual	Test Date
Dedicted Engineiro	Temperature (°C)	25.3 °C	
Radiated Emission	Humidity (%RH)	69.9 %	0000/40/00 0000/40/40
Conducations	Temperature (°C)	24.2 °C	2022/12/06 ~ 2022/12/16
Conductive	Humidity (%RH)	50.0 %	

USA : FCC Registration Number: TW0033

Canada : CAB Identifier Number: TW3023 / Company Number: 26930

Site Description : Accredited by TAF

Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd

Address : No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan Performed : No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan,

Location R.O.C.

Phone number : +886-3-275-7255

Fax number : +886-3-327-8031

Email address : info.tw@dekra.com

Website : http://www.dekra.com.tw



2. Technical Test

2.1. Summary of test result

Test Item	FCC Reference section	FCC Limit	Result
	§2.1046	7 Motto for \$22 042(a)	
Conducted Output Dower	§22.913(a)	<7 Watts for §22.913(a)	Pass
Conducted Output Power	§24.232(c)	<2 Watts for §24.232(c) <1 Watts for §27.50(d)	
	§27.50(d)	<1 Walls for 927.50(d)	
	§2.1049		
Occupied Dendwidth	§22.863	Mithin the frequency report	Door
Occupied Bandwidth	§24.238(b)	Within the frequency range	Pass
	§27.53(h)		
	§2.1051		
Spurious Emission at	§22.917(a)	40 dD	Pass
Antenna Terminals	§24.238(a)	<-13dBm	
	§27.53(h)		
	§2.1051		
One desired Facination	§22.917(a)	40 / 10	Pass
Conducted Emission	§24.238(a)	<-13dBm	
	§27.53(h)		
	§2.1053		
Field Strength of	§22.917(a)	40 / 10	
Spurious Radiation	§24.238(a)	<-13dBm	Pass
	§27.53(h)		
	§2.1055	0.5 (000.055	
Frequency Stability for	§22.355	<±2.5 ppm for §22.355	D
Temperature & Voltage	§24.235	Within the frequency range	Pass
	§27.54	for §24.235, §27.54	
	§22.913 (d)		
Peak to Average Ratio	§24.232 (d)	<13dB	Pass
	§27.50 (d)		



Test Item	IC Reference section	IC Limit	Result
	RSS GEN §6.12		
	RSS 132 §5.4	<11.5 Watts for RSS 132 §5.4	_
Conducted Output Power	RSS 133 §6.4	<2 Watts for RSS 133 §6.4 <1 Watts for RSS 139 §6.5	Pass
	RSS 139 §6.5	1 Walls for 135 30.5	
	RSS GEN §6.7		
O a sound and D and should the	RSS 132 §5.3	VAPOLE's the formula and a second	D
Occupied Bandwidth	RSS 133 §6.3	Within the frequency range	Pass
	RSS 139 §6.4		
	RSS GEN §6.13		
Spurious Emission at	RSS 132 §5.5	. 40 dD	Door
Antenna Terminals	RSS 133 §6.5	<-13dBm	Pass
	RSS 139 §6.6		
	RSS GEN §6.13		
Conducted Emission	RSS 132 §5.5	. 12dDm	Door
Conducted Emission	RSS 133 §6.5	<-13dBm	Pass
	RSS 139 §6.6		
	RSS GEN §6.13		
Field Strength of	RSS 132 §5.5	. 40 dD	Door
Spurious Radiation	RSS 133 §6.5	<-13dBm	Pass
	RSS 139 §6.6		
	RSS GEN §6.11	<±2.5 ppm for RSS 132 §5.3,	
Frequency Stability for	RSS 132 §5.3	RSS 133 §6.3	Door
Temperature & Voltage	RSS 133 §6.3	Within the frequency range for	Pass
	RSS 139 §6.4	RSS 139 §6.4	
	RSS 132 §5.4		
Peak to Average Ratio	RSS 133 §6.4	<13dB	Pass
	RSS 139 §6.5		



2.2. List of test Equipment

Conducted / HY-SR03

Instrument Description	Manufacturer	Model No.	Serial No.	Last	Next
instrument Description		Wiodel 140.	Scriai 140.	Calibration	Calibration
Spectrum Analyzer	Agilent	N9010A	MY51440132	2022/01/07	2023/01/06
Standard Temperature	IX CON	THE DAT 100	A.0606	2022/09/22	2022/00/22
& Humidity Chamber	K SON	THS-D4T-100	A0606	2022/08/23	2023/08/22
DC Power Supply	Keysight	E36234A	MY59001234	2022/10/31	2023/10/30
Universal Radio	D o C	CMITOOO	440574	2022/06/06	2022/06/05
communication tester	R&S	CMU200	113574	2022/06/06	2023/06/05

Radiated / HY-CB03

Instrument Description	Manufacturer	Model No.	Serial No.	Last Calibration	Next Calibration
Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-675	2021/08/11	2023/08/10
Horn Antenna	Com-Power	AH-840	101100	2021/10/04	2023/10/03
Horn Antenna	RF SPIN	DRH18-E	210508A18ES	2022/06/08	2023/06/07
Pre-Amplifier	SGH	0301	20211007-10	2022/02/22	2023/02/21
Pre-Amplifier	SGH	PRAMP118	20200701	2022/07/28	2023/07/27
Pre-Amplifier	EMCI	EMC05820SE	980310	2022/07/28	2023/07/27
Pre-Amplifier	EMCI	EMC184045SE	980369		
Coaxial Cable	EMCI	EMC102-KM-K M-600	1160314	2022/05/12	2023/05/11
Coaxial Cable	EMCI	EMC102-KM-K M-7000	170242		
Spectrum Analyzer	R&S	FSV3044	101114	2022/02/11	2023/02/10
Coaxial Cable	SGH	SGH18	2021005-1		
Coaxial Cable	SGH	SGH18	202108-4	2022/2/40	2022/02/47
Coaxial Cable	SGH	HA800	GD20110223-1	2022/3/18	2023/03/17
Coaxial Cable	SGH	HA800	GD20110222-3		
Universal Radio communication tester	R&S	CMU200	113574	2022/06/06	2023/06/05



2.3. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95 % confidence level based on a coverage factor (k=2).

Test Item	Uncertainty	
Conducted Output Power	± 1.52 dB	
Occupied Bandwidth	± 5.32 Hz	
Peak to Average Ratio	± 1.52 dB	
Conducted Band Edge	± 1.52 dB	
Conducted Spurious Emissions	± 1.52 dB	
Dadiete d Courieus Ensissieus	± 4.05 dB below 1 GHz	
Radiated Spurious Emissions	± 4.10 dB above 1 GHz	
Frequency Stability	± 220.92 Hz	

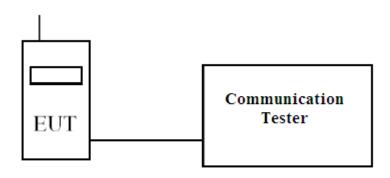


3. Conducted Output Power Measurement

3.1. Test Specification

According to Part 2.1046, 22.913, 24.232, 27.50, RSS-GEN, RSS-132, RSS-133, RSS-139.

3.2. Test Setup



3.3. Limits

Band	Limit	
850	ERP < 7 W	
1900	EIRP < 2 W	
AWS(1700)	EIRP < 1 W	

3.4. Test Procedure

The EUT is tested with maximum rated TX power via the Base Station simulator, and the output power was measured at the antenna terminals of the EUT.



3.5. Test Result of Maximum Power Output and ERP/EIRP Power

EIRP = PT + GT - LC = ERP + 2.15 dB, ERP = EIRP - 2.15 dB

PT = transmitter output power in dBm

GT = gain of the transmitting antenna in dBi

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

GSM 850						
Test Mode	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (W)	ERP Limit (W)
	824.2	32.77	0.5	31.120	1.294	7
Voice	836.6	32.79	0.5	31.140	1.300	7
	848.8	32.75	0.5	31.100	1.288	7
	824.2	32.75	0.5	31.100	1.288	7
GPRS 850 (↑)	836.6	32.78	0.5	31.130	1.297	7
	848.8	32.65	0.5	31.000	1.259	7
	824.2	31.01	0.5	29.360	0.863	7
GPRS 850 (↑↑)	836.6	31.21	0.5	29.560	0.904	7
	848.8	31.02	0.5	29.370	0.865	7
	824.2	29.66	0.5	28.010	0.632	7
GPRS 850 (↑↑↑)	836.6	29.85	0.5	28.200	0.661	7
	848.8	29.84	0.5	28.190	0.659	7
	824.2	29.59	0.5	27.940	0.622	7
GPRS 850 (↑↑↑↑)	836.6	29.61	0.5	27.960	0.625	7
	848.8	29.55	0.5	27.900	0.617	7
	824.2	25.17	0.5	23.520	0.225	7
EGPRS 850 (↑)	836.6	25.58	0.5	23.930	0.247	7
	848.8	25.39	0.5	23.740	0.237	7
	824.2	22.64	0.5	20.990	0.126	7
EGPRS 850 (↑↑)	836.6	23.23	0.5	21.580	0.144	7
	848.8	23.01	0.5	21.360	0.137	7
	824.2	19.94	0.5	18.290	0.067	7
EGPRS 850 (↑↑↑)	836.6	20.59	0.5	18.940	0.078	7
	848.8	20.27	0.5	18.620	0.073	7
	824.2	18.17	0.5	16.520	0.045	7
EGPRS 850 (↑↑↑↑)	836.6	18.73	0.5	17.080	0.051	7
	848.8	18.51	0.5	16.860	0.049	7

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GSM 1900						
Test Mode	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	EIRP Limit (W)
	1850.2	30.47	2.5	32.970	1.982	2
Voice	1880.0	30.50	2.5	33.000	1.995	2
	1909.8	30.32	2.5	32.820	1.914	2
	1850.2	30.41	2.5	32.910	1.954	2
GPRS 1900 (↑)	1880.0	30.45	2.5	32.950	1.972	2
	1909.8	30.15	2.5	32.650	1.841	2
	1850.2	29.77	2.5	32.270	1.687	2
GPRS 1900 (↑↑)	1880.0	29.84	2.5	32.340	1.714	2
	1909.8	29.78	2.5	32.280	1.690	2
	1850.2	28.23	2.5	30.730	1.183	2
GPRS 1900 (↑↑↑)	1880.0	28.32	2.5	30.820	1.208	2
	1909.8	28.21	2.5	30.710	1.178	2
	1850.2	27.37	2.5	29.870	0.971	2
GPRS 1900 (↑↑↑↑)	1880.0	27.38	2.5	29.880	0.973	2
	1909.8	27.17	2.5	29.670	0.927	2
	1850.2	23.94	2.5	26.440	0.441	2
EGPRS 1900 (↑)	1880.0	23.95	2.5	26.450	0.442	2
	1909.8	23.82	2.5	26.320	0.429	2
	1850.2	23.90	2.5	26.400	0.437	2
EGPRS 1900 (↑↑)	1880.0	23.91	2.5	26.410	0.438	2
	1909.8	23.78	2.5	26.280	0.425	2
	1850.2	22.05	2.5	24.550	0.285	2
EGPRS 1900 (↑↑↑)	1880.0	22.10	2.5	24.600	0.288	2
	1909.8	22.04	2.5	24.540	0.284	2
	1850.2	20.61	2.5	23.110	0.205	2
EGPRS 1900 (↑↑↑↑)	1880.0	20.63	2.5	23.130	0.206	2
	1909.8	20.14	2.5	22.640	0.184	2



WCDMA Bar	nd 2					
Test Mode	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	EIRP Limit (W)
	1852.4	22.31	2.5	24.810	0.303	2
Voice	1880	22.52	2.5	25.020	0.318	2
	1907.6	22.41	2.5	24.910	0.310	2
	1852.4	22.37	2.5	24.870	0.307	2
RMC	1880	22.65	2.5	25.150	0.327	2
	1907.6	22.46	2.5	24.960	0.313	2
	1852.4	20.22	2.5	22.720	0.187	2
HSUPA Subtest 1	1880	20.76	2.5	23.260	0.212	2
Sublest 1	1907.6	20.25	2.5	22.750	0.188	2
	1852.4	20.05	2.5	22.550	0.180	2
HSUPA Subtest 2	1880	20.56	2.5	23.060	0.202	2
Sublest 2	1907.6	20.31	2.5	22.810	0.191	2
	1852.4	20.28	2.5	22.780	0.190	2
HSUPA Subtest 3	1880	20.45	2.5	22.950	0.197	2
Sublest 3	1907.6	20.34	2.5	22.840	0.192	2
	1852.4	19.96	2.5	22.460	0.176	2
HSUPA Subtest 4	1880	20.69	2.5	23.190	0.208	2
Sublest 4	1907.6	20.31	2.5	22.810	0.191	2
	1852.4	20.21	2.5	22.710	0.187	2
HSUPA Subtest 5	1880	20.52	2.5	23.020	0.200	2
Sublest 5	1907.6	20.30	2.5	22.800	0.191	2
	1852.4	20.59	2.5	23.090	0.204	2
HSDPA Subtest 1	1880	21.22	2.5	23.720	0.236	2
Sublest 1	1907.6	20.90	2.5	23.400	0.219	2
	1852.4	20.60	2.5	23.100	0.204	2
HSDPA Subtest 2	1880	21.05	2.5	23.550	0.226	2
Sublest 2	1907.6	20.89	2.5	23.390	0.218	2
	1852.4	20.61	2.5	23.110	0.205	2
HSDPA Subtest 3	1880	21.05	2.5	23.550	0.226	2
Oublest 3	1907.6	20.89	2.5	23.390	0.218	2
	1852.4	20.66	2.5	23.160	0.207	2
HSDPA Subtest 4	1880	21.04	2.5	23.540	0.226	2
Subicsi 4	1907.6	20.83	2.5	23.330	0.215	2



WCDMA Bar				EIDE	F:5-5	EIDD
Test Mode	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	EIRP Limit (W)
	1712.4	18.44	3.1	21.540	0.143	1
Voice	1732.6	18.77	3.1	21.870	0.154	1
	1752.6	18.61	3.1	21.710	0.148	1
	1712.4	18.54	3.1	21.640	0.146	1
RMC	1732.6	18.83	3.1	21.930	0.156	1
•	1752.6	18.72	3.1	21.820	0.152	1
	1712.4	17.93	3.1	21.030	0.127	1
HSUPA Subtest 1	1732.6	18.30	3.1	21.400	0.138	1
Oublest 1	1752.6	18.05	3.1	21.153	0.130	1
	1712.4	17.73	3.1	20.830	0.121	1
HSUPA Subtest 2	1732.6	18.18	3.1	21.280	0.134	1
Sublest 2	1752.6	18.04	3.1	21.140	0.130	1
	1712.4	17.86	3.1	20.960	0.125	1
HSUPA Subtest 3	1732.6	18.40	3.1	21.500	0.141	1
Sublest 3	1752.6	17.99	3.1	21.090	0.129	1
	1712.4	17.77	3.1	20.870	0.122	1
HSUPA Subtest 4	1732.6	18.22	3.1	21.320	0.136	1
Sublest 4	1752.6	18.10	3.1	21.200	0.132	1
	1712.4	17.87	3.1	20.970	0.125	1
HSUPA Subtest 5	1732.6	18.30	3.1	21.400	0.138	1
Sublest 5	1752.6	18.08	3.1	21.180	0.131	1
	1712.4	18.19	3.1	21.290	0.135	1
HSDPA Subtest 1	1732.6	18.62	3.1	21.720	0.149	1
Sublest 1	1752.6	18.50	3.1	21.600	0.145	1
	1712.4	18.20	3.1	21.300	0.135	1
HSDPA Subtest 2	1732.6	18.52	3.1	21.620	0.145	1
Sublest 2	1752.6	18.40	3.1	21.500	0.141	1
	1712.4	18.21	3.1	21.310	0.135	1
HSDPA Subtest 3	1732.6	18.51	3.1	21.610	0.145	1
Subiesi 3	1752.6	18.39	3.1	21.490	0.141	1
	1712.4	18.25	3.1	21.350	0.136	1
HSDPA	1732.6	18.54	3.1	21.640	0.146	1
Subtest 4	1752.6	18.42	3.1	21.520	0.142	1



WCDMA Bar	nd 5					
Test Mode	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (W)	ERP Limit (W)
	826.4	22.57	0.5	20.920	0.124	7
Voice	836.6	22.63	0.5	20.980	0.125	7
	846.6	22.58	0.5	20.930	0.124	7
	826.4	23.03	0.5	21.380	0.137	7
RMC	836.6	23.12	0.5	21.470	0.140	7
	846.6	23.01	0.5	21.360	0.137	7
	826.4	21.01	0.5	19.360	0.086	7
HSUPA Subtest 1	836.6	21.14	0.5	19.490	0.089	7
Oublest 1	846.6	20.99	0.5	19.340	0.086	7
	826.4	20.83	0.5	19.180	0.083	7
HSUPA Subtest 2	836.6	21.12	0.5	19.470	0.089	7
Sublest 2	846.6	20.93	0.5	19.280	0.085	7
	826.4	20.90	0.5	19.250	0.084	7
HSUPA Subtest 3	836.6	21.02	0.5	19.371	0.087	7
Sublest 3	846.6	21.02	0.5	19.370	0.086	7
	826.4	20.87	0.5	19.220	0.084	7
HSUPA Subtest 4	836.6	20.99	0.5	19.340	0.086	7
Sublest 4	846.6	20.94	0.5	19.290	0.085	7
	826.4	20.64	0.5	18.990	0.079	7
HSUPA Subtest 5	836.6	21.09	0.5	19.440	0.088	7
Sublest 3	846.6	20.75	0.5	19.100	0.081	7
	826.4	21.54	0.5	19.890	0.097	7
HSDPA Subtest 1	836.6	21.60	0.5	19.950	0.099	7
Subtest 1	846.6	21.55	0.5	19.900	0.098	7
	826.4	21.50	0.5	19.850	0.097	7
HSDPA Subtest 2	836.6	21.61	0.5	19.960	0.099	7
Jubicsi Z	846.6	21.56	0.5	19.910	0.098	7
	826.4	21.48	0.5	19.830	0.096	7
HSDPA Subtest 3	836.6	21.61	0.5	19.960	0.099	7
Jubicsi J .	846.6	21.55	0.5	19.900	0.098	7
	826.4	21.48	0.5	19.830	0.096	7
HSDPA Subtest 4	836.6	21.64	0.5	19.990	0.100	7
Subicsi 4	846.6	21.43	0.5	19.780	0.095	7

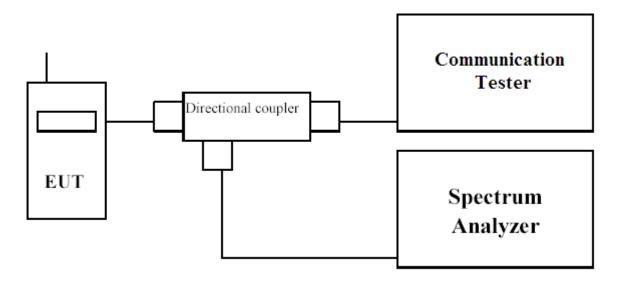


4. Occupied Bandwidth

4.1. Test Specification

According to Part 2.1049, 22.863, 24.238, 27.53, RSS-GEN, RSS-132, RSS-133, RSS-139.

4.2. Test Setup



4.3. Test Procedure

The EUT is tested with maximum rated TX power via the Base Station simulator, and the occupied bandwidth was measured at the antenna terminals of the EUT. The Resolution BW of the analyzer is set to 1 % of the emission bandwidth. The EUT's occupied bandwidth is measured as the width of the signal between two points, one below the carrier center frequency and one above the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. The plots below show the resultant display from the Spectrum Analyser.



4.4. Test Result of Occupied Bandwidth

GSM 850				
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB bandwidth (kHz)
VOICE	128	824.2	245.48	316.4
VOICE	189	836.4	244.04	318.0
VOICE	251	848.8	243.77	308.7
EGPRS	128	824.2	243.26	312.5
EGPRS	189	836.4	245.17	308.9
EGPRS	251	848.8	244.02	316.1

GSM 1900)			
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB bandwidth (kHz)
VOICE	512	1850.2	243.08	316.4
VOICE	661	1880	246.46	313.4
VOICE	810	1909.8	242.02	309.3
EGPRS	512	1850.2	243.61	305.7
EGPRS	661	1880	241.92	314.0
EGPRS	810	1909.8	242.67	308.5

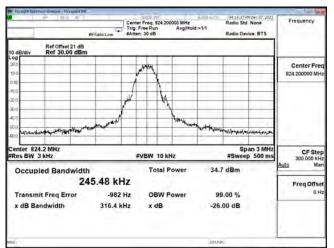


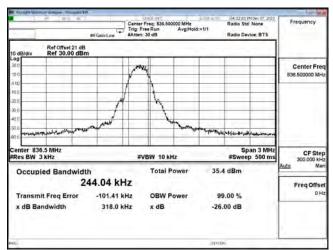
WCDMA Band2					
DW	DW Channel	Frequency	99% Occupied Bandwidth	26 dB bandwidth	
BW	Channel	(MHz)	(MHz)	(MHz)	
RMC	9262	1852.4	4.1107	4.698	
RMC	9400	1880	4.1104	4.686	
RMC	9538	1907.6	4.1118	4.679	

WCDMA Band4					
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26 dB bandwidth (MHz)	
RMC	1312	1712.4	4.1105	4.693	
RMC	1413	1732.6	4.1101	4.690	
RMC	1513	1752.6	4.1120	4.702	

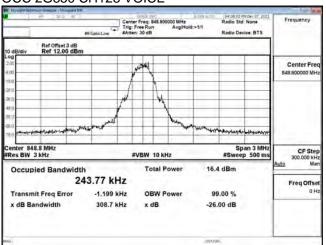
WCDMA E	WCDMA Band5					
BW	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26 dB bandwidth (MHz)		
RMC	4132	826.4	4.1116	4.703		
RMC	4183	836.6	4.1169	4.693		
RMC	4233	846.6	4.1183	4.698		

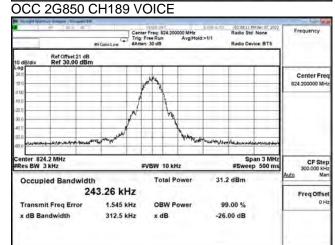




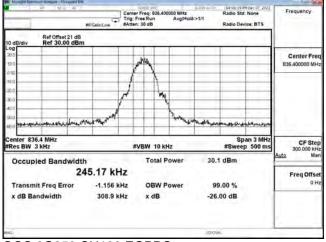


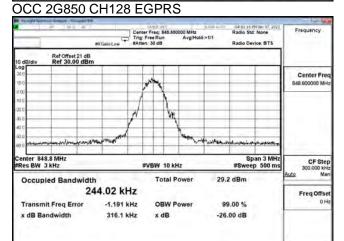
OCC 2G850 CH128 VOICE





OCC 2G850 CH251 VOICE

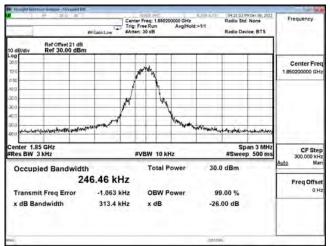


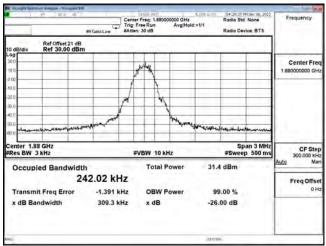


OCC 2G850 CH189 EGPRS

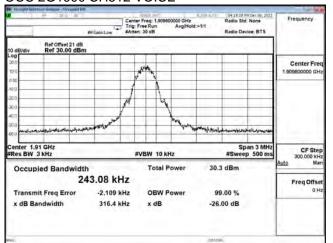
OCC 2G850 CH251 EGPRS



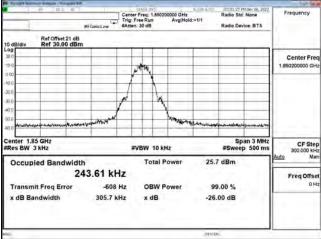




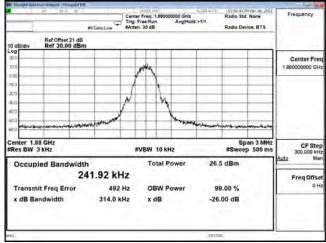
OCC 2G1900 CH512 VOICE



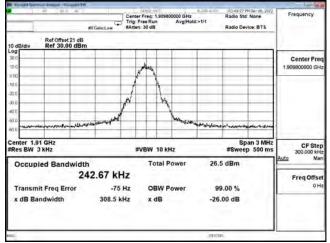
OCC 2G1900 CH661 VOICE



OCC 2G1900 CH810 VOICE



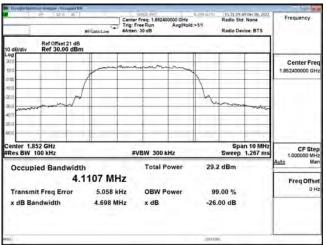
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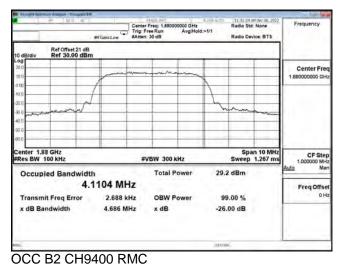


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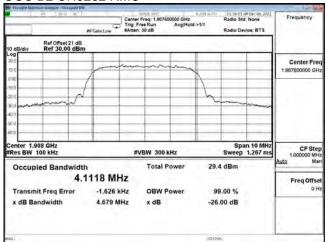
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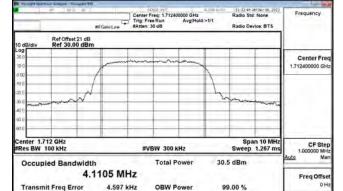






OCC B2 CH9262 RMC





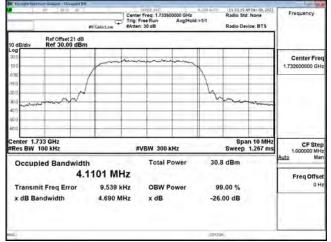
x dB

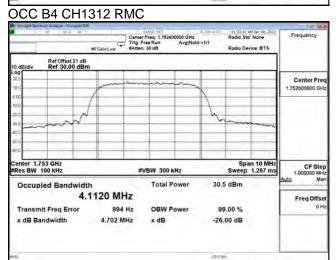
-26.00 dB

4.693 MHz

x dB Bandwidth

OCC B2 CH9538 RMC

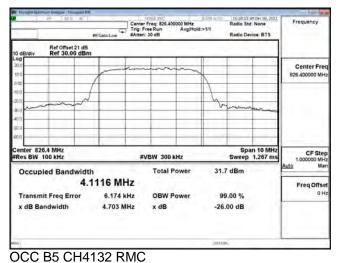


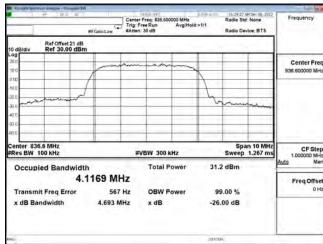


OCC B4 CH1413 RMC

OCC B4 CH1513 RMC











OCC B5 CH4233 RMC

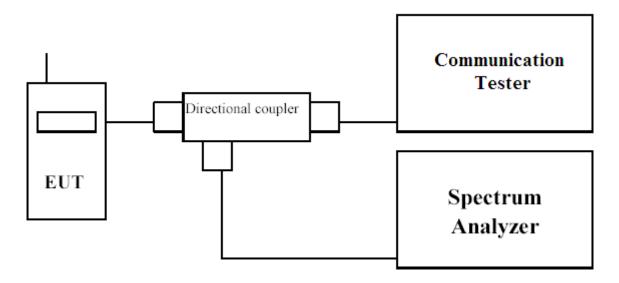


5. Spurious Emission At Antenna Terminals (+/-1MHz)

5.1. Test Specification

According to Part 2.1051, 22.917, 24.238, 27.53, RSS-GEN, RSS-132, RSS-133, RSS-139.

5.2. Setup



5.3. Limits

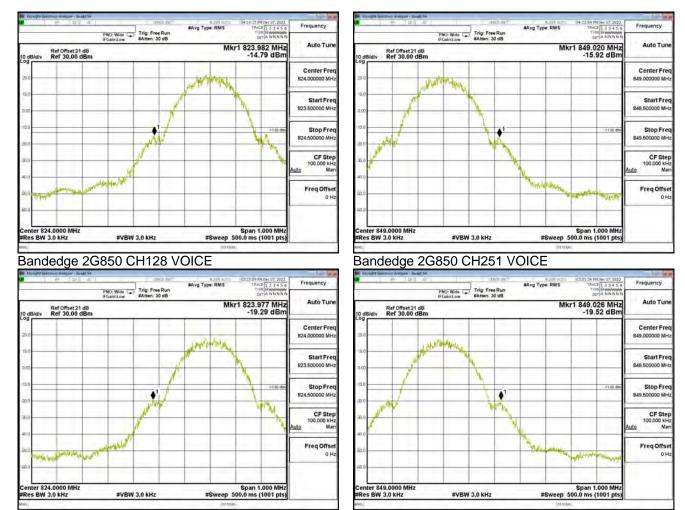
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

5.4. Test Procedure

In accordance with Part 22.917, 24.238, 27.53, at least 1% of the emission bandwidth was used for the resolution and video bandwidths up to 1MHz away from the Block Edge. At greater than 1MHz, the resolution and video bandwidth were set 3 x RBW. The reference power and path losses of all channels used for testing in each frequency block were measured.



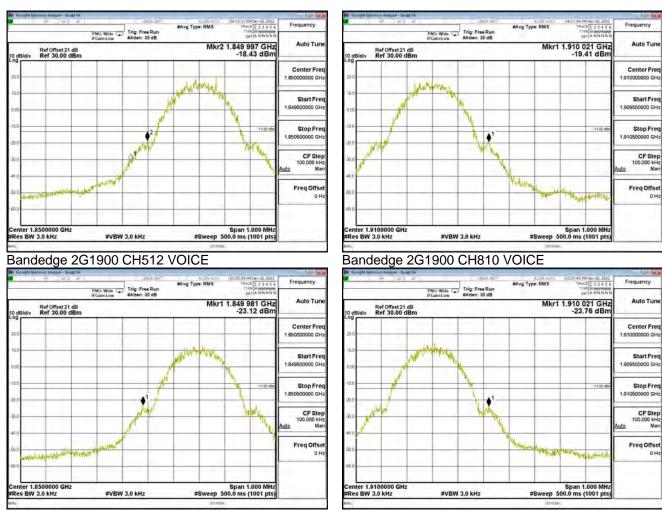
5.5. Test Result of Spurious Emission At Antenna Terminals (+/-1MHz)



Bandedge 2G850 CH128 EGPRS

Bandedge 2G850 CH251 EGPRS



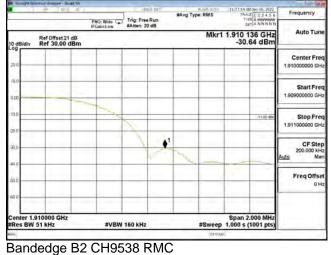


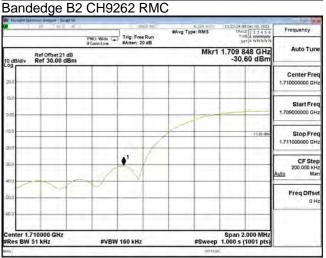
Bandedge 2G1900 CH512 EGPRS

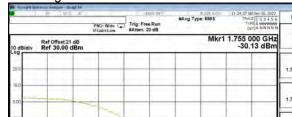
Bandedge 2G1900 CH810 EGPRS

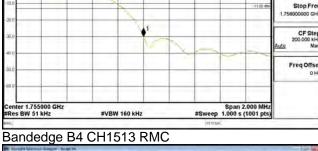


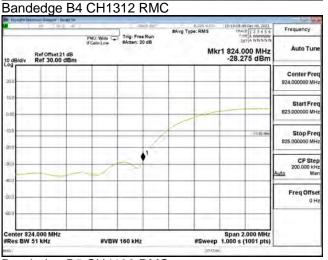














Bandedge B5 CH4132 RMC

Bandedge B5 CH4233 RMC



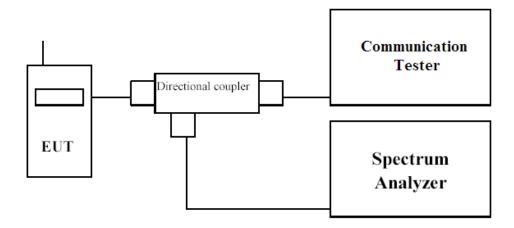
6. Spurious Emission

6.1. Test Specification

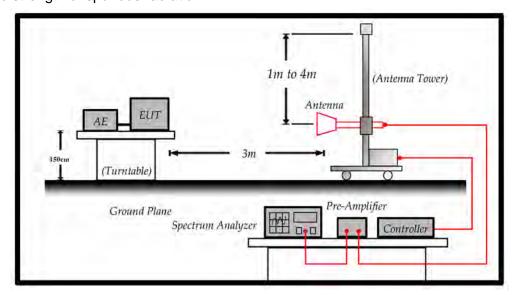
According to Part 2.1051, 2.1053, 22.917, 24.238, 27.53, RSS-GEN, RSS-132, RSS-133, RSS-139.

6.2. Test Setup

Spurious emissions at antenna terminals



Field strength of spurious radiation





6.3. Limits

Limit	. 40 dD
Limit	<-13aBm

43 + 10Log(P) down on the carrier where P is the power in Watts.

6.4. Test Procedure

In accordance with Part 2.1051/2.1053, the spurious emissions from the EUT were measured. The transmitter output power was attenuated using a combination of filters and attenuators and the frequency spectrum investigated from 30MHz to 20GHz. The EUT was set to transmit on full power. The resolution and video bandwidth was set to 1MHz and 3 x RBW. In accordance with Part 22.917 & 24.238, 27.53. The spectrum analyzer detector was set to Max Hold. In addition, measurements were made up to the 10th harmonic of the fundamental. The device was then replaced with a substitution antenna, which input signal was adjusted until the received level matched that of the previously detected emission.

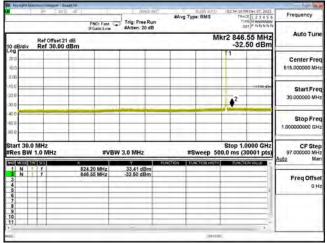
The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

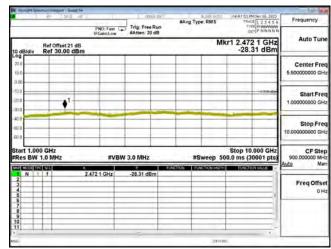
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to TIA/EIA 603-E on radiated measurement.

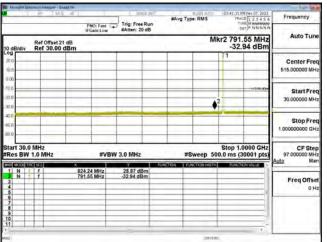


6.5. Test Result of Spurious Emission

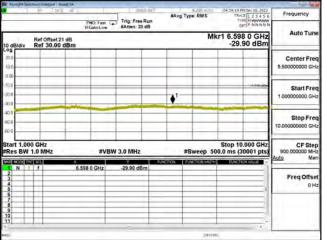




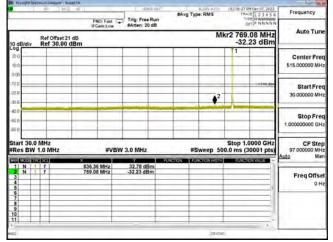
CSE 2G850 CH128 VOICE 30M-1G



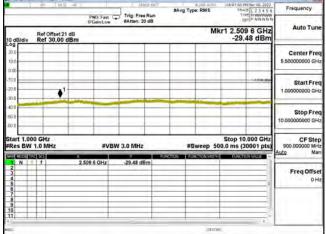
CSE 2G850 CH128 VOICE 1G-10G



CSE 2G850 CH128 EGPRS 30M-1G



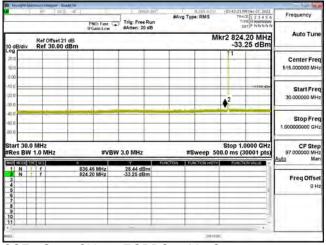
CSE 2G850 CH128 EGPRS 1G-10G

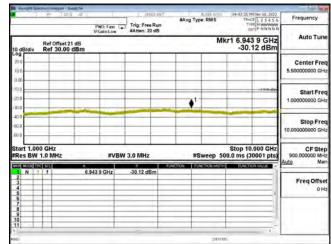


CSE 2G850 CH189 VOICE 30M-1G

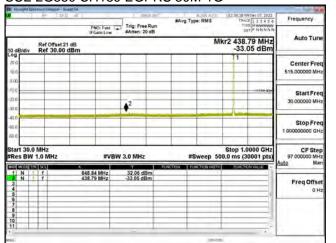
CSE 2G850 CH189 VOICE 1G-10G



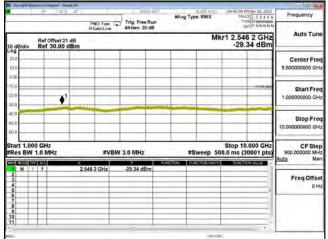




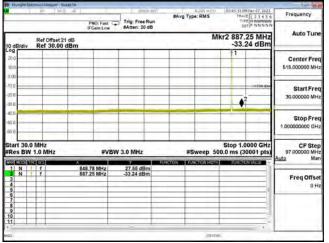
CSE 2G850 CH189 EGPRS 30M-1G



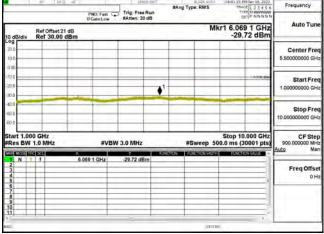
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CSE 2G850 CH251 VOICE 30M-1G



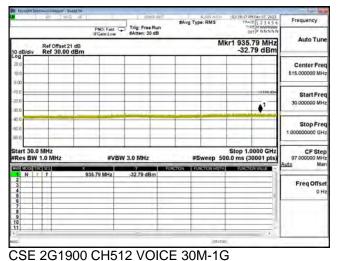
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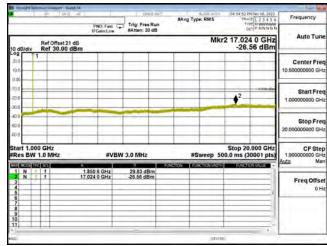


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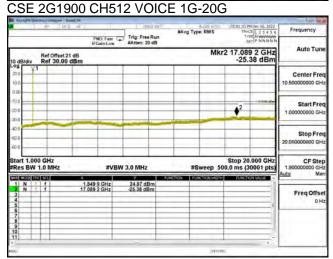
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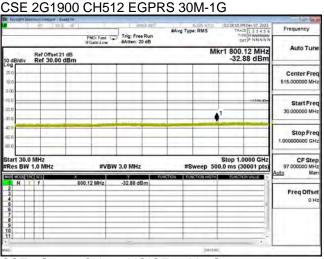


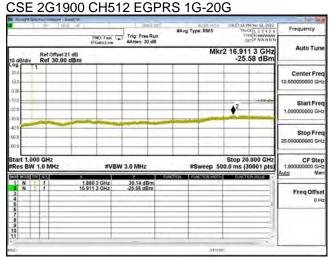




| Stop | September | September



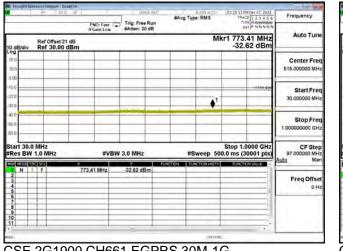


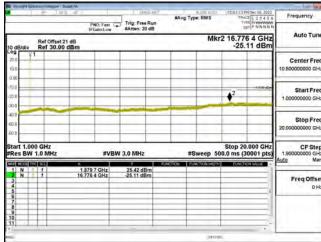


CSE 2G1900 CH661 VOICE 30M-1G

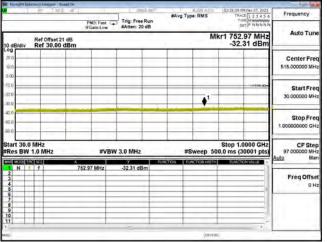
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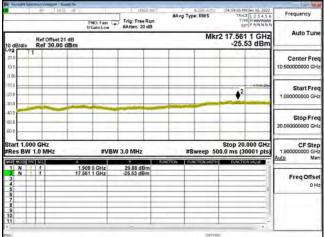




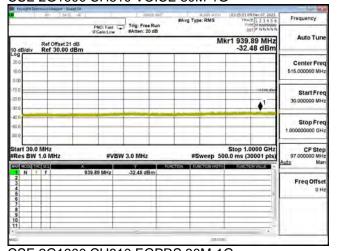
CSE 2G1900 CH661 EGPRS 30M-1G



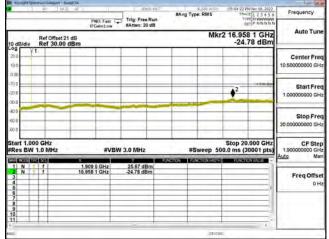
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CSE 2G1900 CH810 VOICE 30M-1G



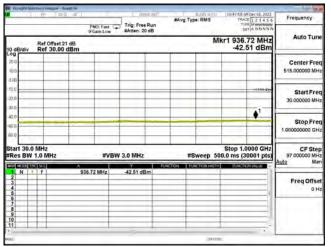
CSE 2G1900 CH810 VOICE 1G-20G

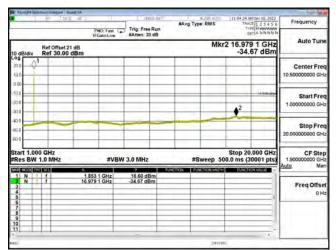


CSE 2G1900 CH810 EGPRS 30M-1G

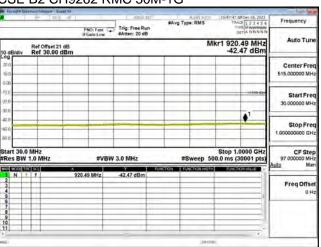
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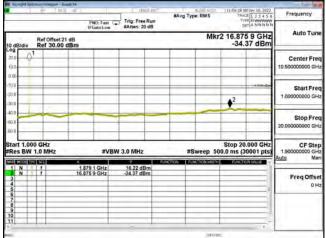




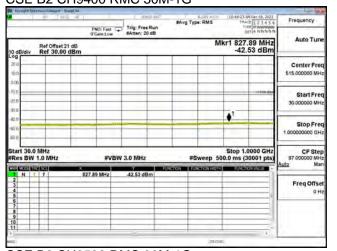
CSE B2 CH9262 RMC 30M-1G



CSE B2 CH9262 RMC 1G-20G



CSE B2 CH9400 RMC 30M-1G



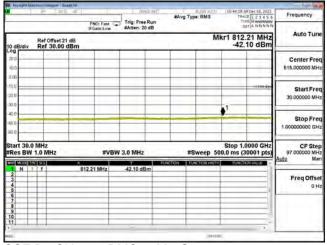
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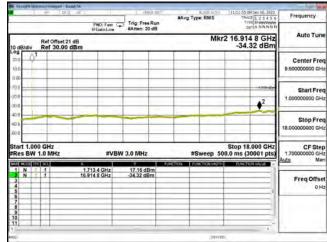


CSE B2 CH9538 RMC 30M-1G

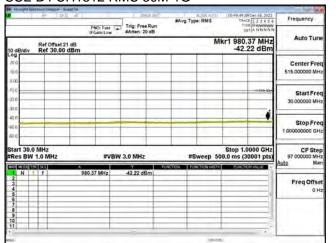
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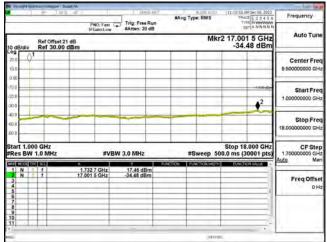




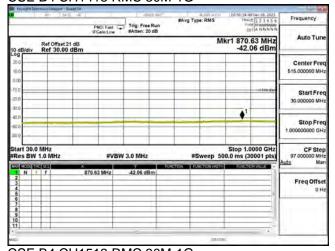
CSE B4 CH1312 RMC 30M-1G



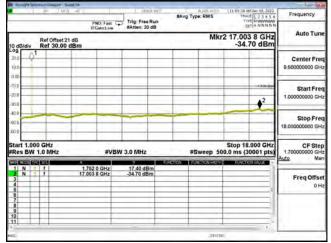
CSE B4 CH1312 RMC 1G-18G



CSE B4 CH1413 RMC 30M-1G



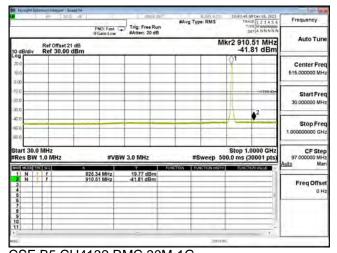
CSE B4 CH1413 RMC 1G-18G

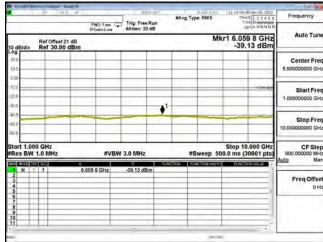


CSE B4 CH1513 RMC 30M-1G

CSE B4 CH1513 RMC 1G-18G



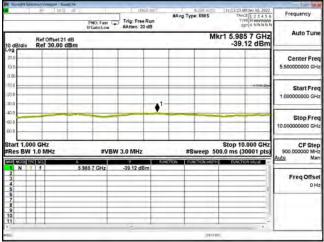




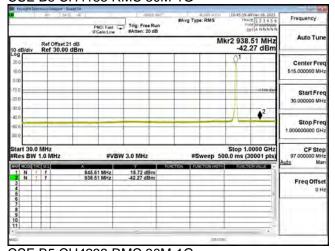
CSE B5 CH4132 RMC 30M-1G

Frequency PND: Fast Trig: Free Run Mkr2 867.51 MHz -42.05 dBm Auto Tur Ref Offset 21 dB Ref 30.00 dB Center Fred Start Fred **♦**² Stop Free Start 30.0 MHz Res BW 1.0 MHz Stop 1.0000 GHz #Sweep 500.0 ms (30001 pts 97 000000 MHz #VBW 3.0 MHz 19.69 dBm 42.05 dBm 835,59 MHz 867,51 MHz Freq Offse

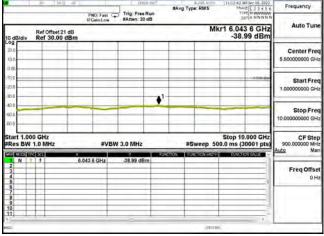
CSE B5 CH4132 RMC 1G-10G



CSE B5 CH4183 RMC 30M-1G



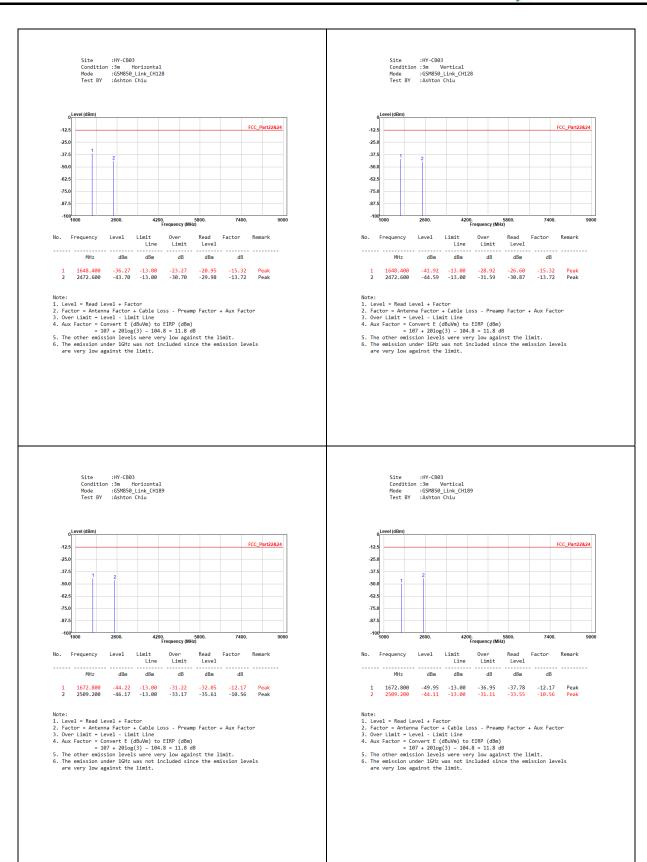
CSE B5 CH4183 RMC 1G-10G



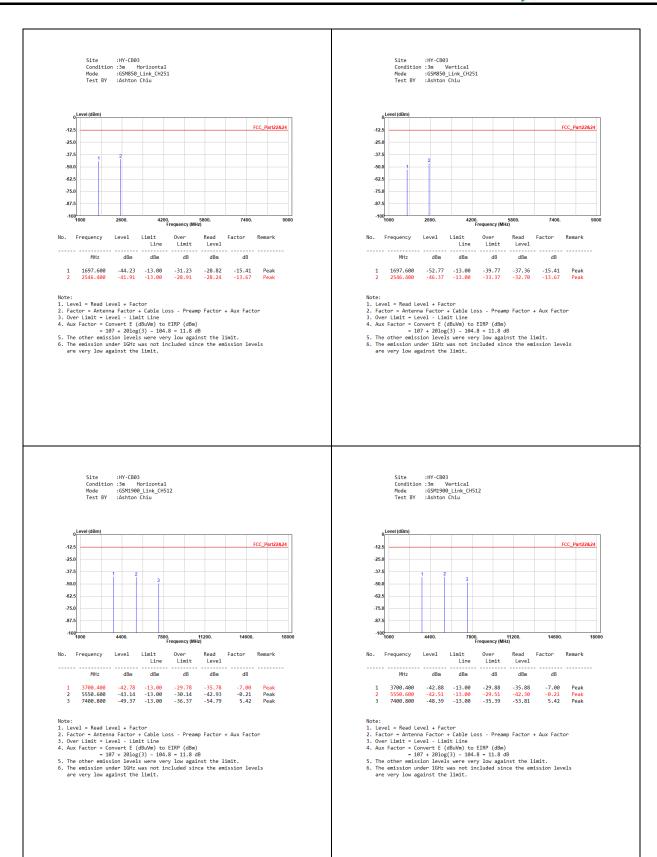
CSE B5 CH4233 RMC 30M-1G

CSE B5 CH4233 RMC 1G-10G



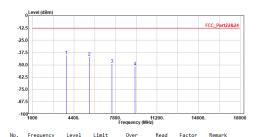












			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	3760.000	-40.22	-13.00	-27.22	-33.57	-6.65	Peak
2	5640.000	-42.04	-13.00	-29.04	-42.41	0.37	Peak
3	7520.000	-49.01	-13.00	-36.01	-54.43	5.42	Peak
4	9400.000	-51.51	-13.00	-38.51	-57.44	5.93	Peak

- Note:

 1. Level Read Level + Factor

 2. Factor = Antenna Factor Cable Loss Preamp Factor + Aux Factor

 3. Over Limit Level Limit Line

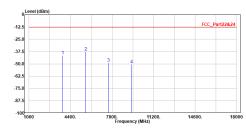
 4. Aux Factor Convert E (dBuWa) to ETRP (dBm)

 107 + 2010(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :GSM1900_Link_CH661
Test BY :Ashton Chiu



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	3760.000	-41.58	-13.00	-28.58	-34.93	-6.65	Peak
2	5640.000	-37.68	-13.00	-24.68	-38.05	0.37	Peak
3	7520.000	-49.24	-13.00	-36.24	-54.66	5.42	Peak
4	9400.000	-50.62	-13.00	-37.62	-56.55	5.93	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

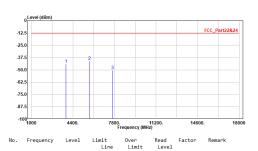
 4. Aux Factor Convert E (dBuWa) to ETRP (dBm)

 = 107 + 2010(3) 104.8 = 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Horizontal
Mode :GSM1900_Link_CH810
Test BY :Ashton Chiu



	MHz	dBm	dBm	dB	dBm	dB	
1	3819.600	-43.97	-13.00	-30.97	-37.67	-6.30	Peak
2	5729.400	-41.10	-13.00	-28.10	-41.98	0.88	Peak
3	7639.200	-50.70	-13.00	-37.70	-55.93	5.23	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

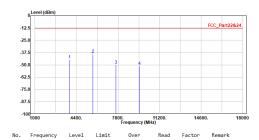
 3. Over Limit = Level Limit Line

 4. Aux Factor = Convert E (dBuWa) to ETRP (dBa)

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :GSM1900_Link_CH810
Test BY :Ashton Chiu



			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	3819.600	-44.87	-13.00	-31.87	-38.57	-6.30	Peak
2	5729.400	-39.11	-13.00	-26.11	-39.99	0.88	Peak
3	7639.200	-50.35	-13.00	-37.35	-55.58	5.23	Peak
4	9549.000	-51.37	-13.00	-38.37	-57.37	6.00	Peak

- Note:

 1. Level Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm)

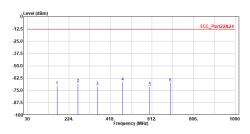
 = 107 + 2010(3) 104.8 = 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 1GHz was not included since the emission levels are very low against the limit.



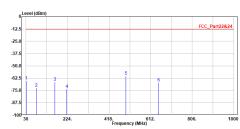
Site :HY-CB03 Condition :3m Horizontal Mode :GSM850_Link_CH128 Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark	
	MHz	dBm	dBm	dB	dBm	dB		
1	167.740	-70.66	-13.00	-57.66	-55.85	-14.81	Peak	
2	265.710	-68.01	-13.00	-55.01	-52.50	-15.51	Peak	
3	356.890	-70.90	-13.00	-57.90	-58.22	-12.68	Peak	
4	474.260	-66.37	-13.00	-53.37	-56.73	-9.64	Peak	
5	600.360	-71.46	-13.00	-58.46	-64.84	-6.62	Peak	
6	696.390	-67.20	-13.00	-54.20	-61.77	-5.43	Peak	

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor < Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor Convert E (dBuWa) to ETRP (dBm) = -107 + 2010(3) 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10f4 was not included since the emission levels are very low against the limit.

Site :HY-CB03 Condition :3m Vertical Mode :GSM850_Link_CH128 Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	31.940	-65.41	-13.00	-52.41	-49.66	-15.75	Peak
2	78.500	-72.28	-13.00	-59.28	-53.13	-19.15	Peak
3	165.800	-66.41	-13.00	-53.41	-51.70	-14.71	Peak
4	221.090	-73.61	-13.00	-60.61	-56.25	-17.36	Peak
5	497.540	-60.40	-13.00	-47.40	-51.32	-9.08	Peak
6	648.860	-67.20	-13.00	-54.20	-61.18	-6.02	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

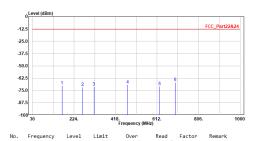
 4. Aux Factor Convert E (dBuVm) to EIRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Horizontal
Mode :GSM850_Link_CH189
Test BY :Jing Chang



			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	167.740	-70.32	-13.00	-57.32	-55.51	-14.81	Peak
2	263.770	-71.68	-13.00	-58.68	-56.06	-15.62	Peak
3	317.120	-71.22	-13.00	-58.22	-57.66	-13.56	Peak
4	474.260	-69.02	-13.00	-56.02	-59.38	-9.64	Peak
5	623.640	-70.81	-13.00	-57.81	-64.23	-6.58	Peak
6	696 390	-66 88	-13 00	-53.88	-61 45	-5.43	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

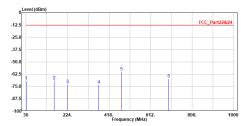
 4. Aux Factor Convert E (dBuVm) to ETRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under loffz was not included since the emission levels are very low against the limit.

Site :HY-CB03 Condition :3m Vertical Mode :GSM850_Link_CH189 Test BY :Jing Chang

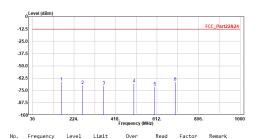


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	30,970	-69.35	-13.00	-56.35	-53.33	-16.02	Peak
2	161.920	-69.07	-13.00	-56.07	-54.54	-14.53	Peak
3	224.000	-72.83	-13.00	-59.83	-55.56	-17.27	Peak
4	370.470	-73.10	-13.00	-60.10	-60.81	-12.29	Peak
5	476.200	-59.98	-13.00	-46.98	-50.34	-9.64	Peak
6	696.390	-67.08	-13.00	-54.08	-61.65	-5.43	Peak

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10ft was not included since the emission levels are very low against the limit.



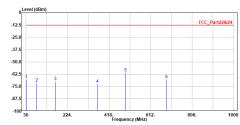
Site :HY-CB03 Condition :3m Horizontal Mode :GSM850_Link_CH251 Test BY :Jing Chang



			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	165.800	-66.47	-13.00	-53.47	-51.76	-14.71	Peak
2	263.770	-69.90	-13.00	-56.90	-54.28	-15.62	Peak
3	362.710	-70.14	-13.00	-57.14	-57.67	-12.47	Peak
4	504.330	-67.95	-13.00	-54.95	-58.92	-9.03	Peak
5	600.360	-71.38	-13.00	-58.38	-64.76	-6.62	Peak
6	696.390	-66.57	-13.00	-53.57	-61.14	-5.43	Peak

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor < Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor Convert E (dBuWa) to ETRP (dBm) = -107 + 2010(3) 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10f4 was not included since the emission levels are very low against the limit.

Site :HY-CB03 Condition :3m Vertical Mode :GSM850_Link_CH251 Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	31.940	-67.90	-13.00	-54.90	-52.15	-15.75	Peak
2	79.470	-71.33	-13.00	-58.33	-51.96	-19.37	Peak
3	167.740	-69.84	-13.00	-56.84	-55.03	-14.81	Peak
4	363.680	-72.47	-13.00	-59.47	-60.03	-12.44	Peak
5	494.630	-61.29	-13.00	-48.29	-51.99	-9.30	Peak
6	686.690	-68.01	-13.00	-55.01	-62.42	-5.59	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

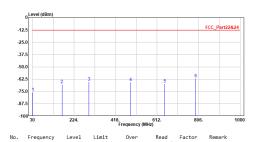
 4. Aux Factor Convert E (dBuVm) to EIRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Horizontal
Mode :GSM1900_Link_CH512
Test BY :Jing Chang



			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	30.970	-75.67	-13.00	-62.67	-61.80	-13.87	Peak
2	167.740	-67.98	-13.00	-54.98	-55.32	-12.66	Peak
3	293.840	-65.14	-13.00	-52.14	-52.94	-12.20	Peak
4	487.840	-65.50	-13.00	-52.50	-58.20	-7.30	Peak
5	647.890	-67.05	-13.00	-54.05	-63.18	-3.87	Peak
6	792.420	-61.75	-13.00	-48.75	-60.01	-1.74	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

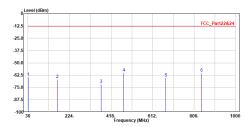
 4. Aux Factor Convert E (dBuWa) to ETRP (dBm)

 187 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 10ffz was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :GSM1900_Link_CH512
Test BY :Jing Chang

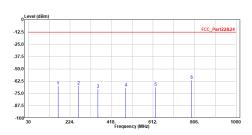


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	31.940	-64.38	-13.00	-51.38	-50.78	-13.60	Peak
2	167.740	-66.68	-13.00	-53.68	-54.02	-12.66	Peak
3	371.440	-71.55	-13.00	-58.55	-61.43	-10.12	Peak
4	477.170	-60.08	-13.00	-47.08	-52.59	-7.49	Peak
5	673.110	-65.33	-13.00	-52.33	-61.62	-3.71	Peak
6	839.950	-60.33	-13.00	-47.33	-58.99	-1.34	Peak

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10ft was not included since the emission levels are very low against the limit.



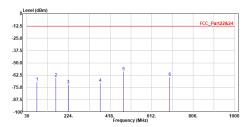
Site :HY-CB03 Condition :3m Horizontal Mode :GSM1900_Link_CH661 Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark	
	MHz	dBm	dBm	dB	dBm	dB		
1	167.740	-67.38	-13.00	-54.38	-54.72	-12.66	Peak	
2	263.770	-67.25	-13.00	-54.25	-53.78	-13.47	Peak	
3	354.950	-70.64	-13.00	-57.64	-60.02	-10.62	Peak	
4	484.930	-69.23	-13.00	-56.23	-61.86	-7.37	Peak	
5	623.640	-68.83	-13.00	-55.83	-64.40	-4.43	Peak	
-	702 420	61 61	12 00	40 01	EQ 77	1.74	Dook	

- Note:
 1. Level Read Level + Factor
 2. Factor Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor Convert E (dBu/m) to EIRP (dBm) 107 + 2010(3) 104.8 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :GSM1900_Link_CH661
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	76.560	-69.49	-13.00	-56.49	-53.04	-16.45	Peak
2	165.800	-65.15	-13.00	-52.15	-52.59	-12.56	Peak
3	222.060	-72.03	-13.00	-59.03	-56.85	-15.18	Peak
4	371.440	-70.51	-13.00	-57.51	-60.39	-10.12	Peak
5	481.050	-58.69	-13.00	-45.69	-51.23	-7.46	Peak
6	696.390	-64.45	-13.00	-51.45	-61.17	-3.28	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

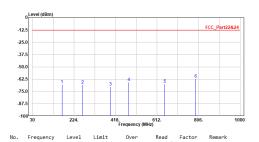
 4. Aux Factor Convert E (dBuVm) to EIRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.

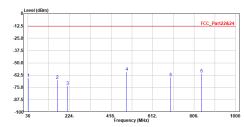
Site :HY-CB03
Condition :3m Horizontal
Mode :GSM1900_Link_CH810
Test BY :Jing Chang



			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	167.740	-67.89	-13.00	-54.89	-55.23	-12.66	Peak
2	263.770	-68.35	-13.00	-55.35	-54.88	-13.47	Peak
3	394.720	-70.10	-13.00	-57.10	-60.55	-9.55	Peak
4	480.080	-65.72	-13.00	-52.72	-58.24	-7.48	Peak
5	647.890	-67.39	-13.00	-54.39	-63.52	-3.87	Peak
	702 420	62 10	12 00	40 10	CO AE	1 7/	Dook

- Note:
 1. Level = Read Level + Factor
 2. Factor Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor Convert E (dBuVm) to EIRP (dBm)
 107 + 2010(3) 104.8 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10ft was not included since the emission levels are very low against the limit.

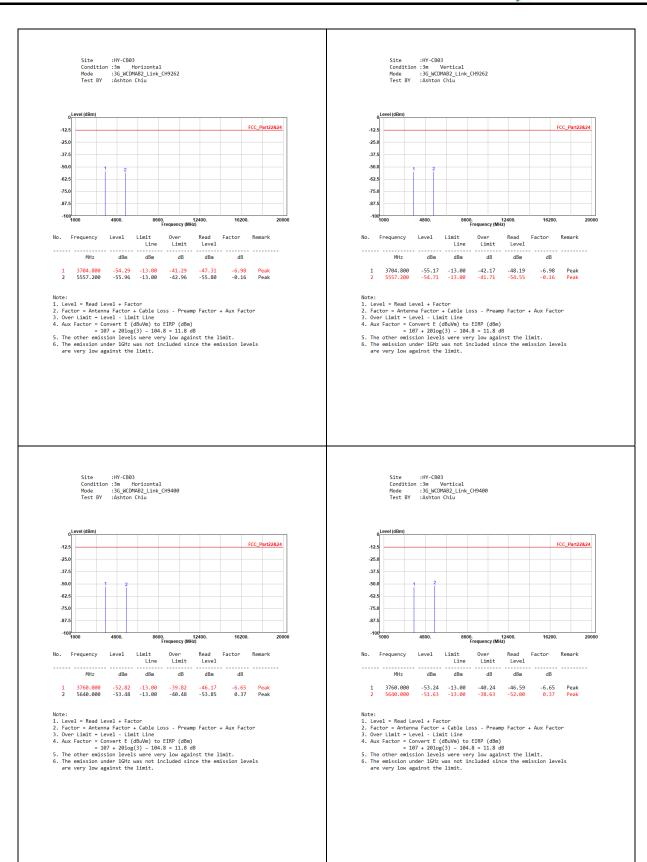
Site :HY-CB03
Condition :3m Vertical
Mode :GSM1900_Link_CH810
Test BY :Jing Chang



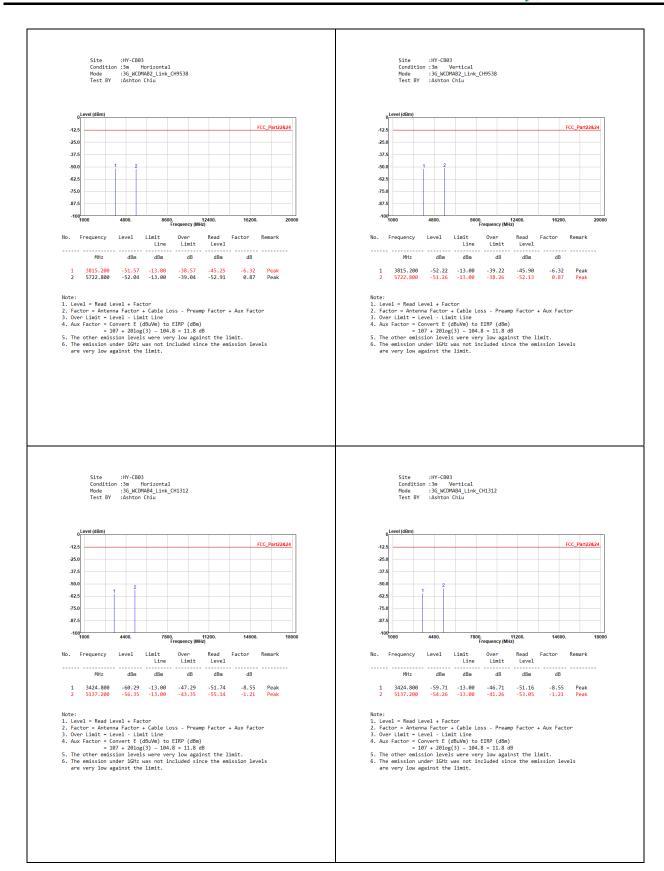
No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	31.940	-65.66	-13.00	-52.66	-52.06	-13.60	Peak
2	167.740	-67.60	-13.00	-54.60	-54.94	-12.66	Peak
3	215.270	-73.42	-13.00	-60.42	-58.17	-15.25	Peak
4	491.720	-59.26	-13.00	-46.26	-52.03	-7.23	Peak
5	696.390	-64.88	-13.00	-51.88	-61.60	-3.28	Peak
6	839.950	-60.96	-13.00	-47.96	-59.62	-1.34	Peak

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10ft was not included since the emission levels are very low against the limit.

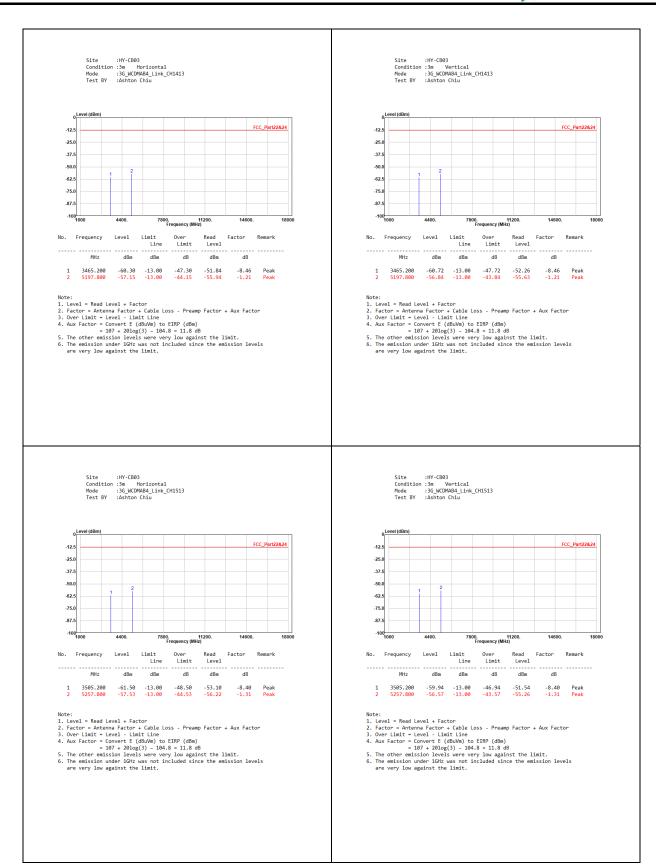




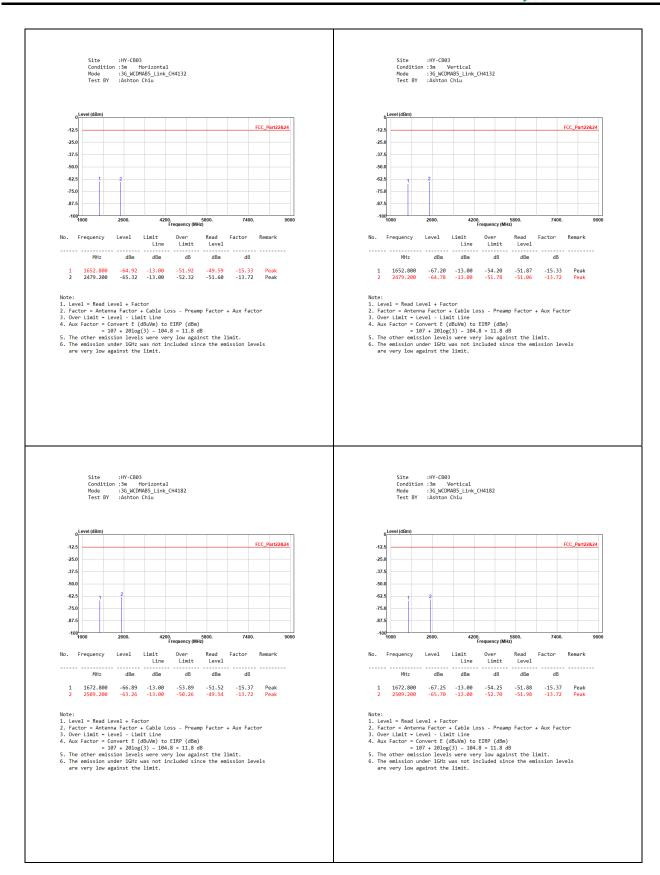






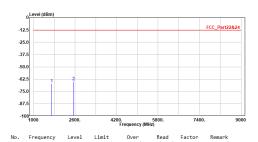








Site :HY-CB03
Condition :3m Horizontal
Mode :3G_WCDMAB5_Link_CH4233
Test BY :Ashton Chiu



			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	1693.200	-67.17	-13.00	-54.17	-51.76	-15.41	Peak
2	2539.800	-64.94	-13.00	-51.94	-51.27	-13.67	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor Cable Loss Preamp Factor + Aux Factor

 3. Over Limit Level Limit Line

 4. Aux Factor = Convert E (dBuWn) to ETRP (dBm) 187 + 2016(3) 184.8 11.8 dB

 5. The other emission levels were very low against the limit.

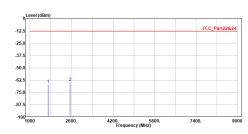
 6. The emission under 16ft was not included since the emission levels are very low against the limit.

 Site
 :HY-CB03

 Condition
 :3m
 Vertical

 Mode
 :3G_WCDMAB5_Link_CH4233

 Test BY
 :Ashton Chiu



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	1693.200	-66.66	-13.00	-53.66	-51.25	-15.41	Peak
2	2530 888	64 46	13 00	51 46	50 70	13 67	Poak

- Note:

 1. Level Read Level + Factor

 2. Factor Antenna Factor + Cable Loss Preamp Factor + Aux Factor

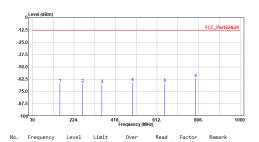
 3. Over Limit Level Limit Line

 4. Aux Factor Convert E (dBuWn) to ETRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.



			Line	Limit	Level			
	MHz	dBm	dBm	dB	dBm	dB		
1	158.040	-66.69	-13.00	-53.69	-54.20	-12.49	Peak	
2	263.770	-67.21	-13.00	-54.21	-53.74	-13.47	Peak	
3	354.950	-67.77	-13.00	-54.77	-57.15	-10.62	Peak	
4	497.540	-65.80	-13.00	-52.80	-58.87	-6.93	Peak	
5	647.890	-66.83	-13.00	-53.83	-62.96	-3.87	Peak	
- 6	702 420	61 01	12 00	49 01	60 17	1.74	Dook	

- Note:

 1. Level = Read Level + Factor

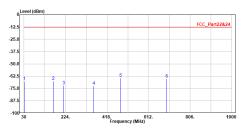
 2. Factor = Antenna Factor + Cabe Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 20[0(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under IGHz was not included since the emission levels are very low against the limit.

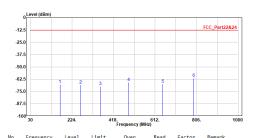


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	31.940	-68.06	-13.00	-55.06	-54.46	-13.60	Peak
2	167.740	-67.41	-13.00	-54.41	-54.75	-12.66	Peak
3	215.270	-72.25	-13.00	-59.25	-57.00	-15.25	Peak
4	356.890	-72.64	-13.00	-59.64	-62.11	-10.53	Peak
5	481.050	-64.57	-13.00	-51.57	-57.11	-7.46	Peak
6	696.390	-65.28	-13.00	-52.28	-62.00	-3.28	Peak

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10ft was not included since the emission levels are very low against the limit.



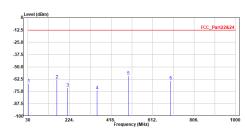
Site :HY-CB03
Condition :3m Horizontal
Mode :3G_MCDMAB2_Link_CH9400
Test BY :Jing Chang



110.	rrequency	rever	Line	Limit	Level	i ac coi	iteliidi K	
	MHz	dBm	dBm	dB	dBm	dB		
1	167.740	-67.98	-13.00	-54.98	-55.32	-12.66	Peak	
2	263.770	-68.27	-13.00	-55.27	-54.80	-13.47	Peak	
3	356.890	-69.87	-13.00	-56.87	-59.34	-10.53	Peak	
4	488.810	-65.58	-13.00	-52.58	-58.30	-7.28	Peak	
5	647.890	-67.65	-13.00	-54.65	-63.78	-3.87	Peak	
6	702 /20	-61 57	-13 00	-48 57	-50 83	-1 7/	Dook	

- Note:
 1. Level Read Level + Factor
 2. Factor Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor Convert E (dBu/m) to EIRP (dBm) 107 + 2010(3) 104.8 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :3G_WCDMAB2_Link_CH9400
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	32.910	-67.28	-13.00	-54.28	-53.60	-13.68	Peak
2	165.800	-63.10	-13.00	-50.10	-50.54	-12.56	Peak
3	215.270	-71.38	-13.00	-58.38	-56.13	-15.25	Peak
4	352.040	-73.78	-13.00	-60.78	-63.03	-10.75	Peak
5	498.510	-59.43	-13.00	-46.43	-52.58	-6.85	Peak
6	696.390	-64.33	-13.00	-51.33	-61.05	-3.28	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

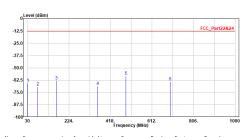
 4. Aux Factor Convert E (dBuVm) to EIRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.

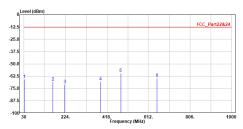
Site :HY-CB03
Condition :3m Horizontal
Mode :3G_WCDMAB2_Link_CH9538
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	30.970	-65.66	-13.00	-52.66	-51.79	-13.87	Peak
2	78.500	-69.50	-13.00	-56.50	-52.50	-17.00	Peak
3	165.800	-63.10	-13.00	-50.10	-50.54	-12.56	Peak
4	357.860	-68.73	-13.00	-55.73	-58.24	-10.49	Peak
5	489.780	-58.67	-13.00	-45.67	-51.41	-7.26	Peak
6	696.390	-64.33	-13.00	-51.33	-61.05	-3.28	Peak

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under [dift was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :3G_WCDMAB2_Link_CH9538
Test BY :Jing Chang

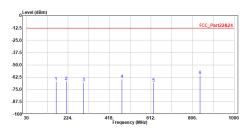


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	30.970	-65.52	-13.00	-52.52	-51.65	-13.87	Peak
2	165.800	-68.27	-13.00	-55.27	-55.71	-12.56	Peak
3	221.090	-70.88	-13.00	-57.88	-55.67	-15.21	Peak
4	386.960	-67.76	-13.00	-54.76	-58.03	-9.73	Peak
5	482.020	-59.57	-13.00	-46.57	-52.13	-7.44	Peak
6	650.800	-64.66	-13.00	-51.66	-60.82	-3.84	Peak

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10ft was not included since the emission levels are very low against the limit.



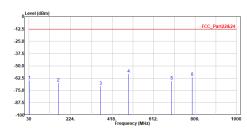
Site :HY-CB03
Condition :3m Horizontal
Mode :3G_WCDMAB4_Link_CH1312
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	167.740	-67.34	-13.00	-54.34	-54.68	-12.66	Peak
2	215.270	-66.80	-13.00	-53.80	-51.55	-15.25	Peak
3	297.720	-67.78	-13.00	-54.78	-55.66	-12.12	Peak
4	476.200	-64.50	-13.00	-51.50	-57.01	-7.49	Peak
5	623.640	-68.21	-13.00	-55.21	-63.78	-4.43	Peak
-	920 050	CO 00	12.00	47 00	EO 40	4.24	Death

- Note:
 1. Level Read Level + Factor
 2. Factor Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor Convert E (dBu/m) to EIRP (dBm) 107 + 2010(3) 104.8 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :3G_WCDMAB4_Link_CH1312
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	31.940	-64.87	-13.00	-51.87	-51.27	-13.60	Peak
2	167.740	-67.18	-13.00	-54.18	-54.52	-12.66	Peak
3	364.650	-70.40	-13.00	-57.40	-60.13	-10.27	Peak
4	494.630	-58.01	-13.00	-45.01	-50.86	-7.15	Peak
5	696.390	-65.41	-13.00	-52.41	-62.13	-3.28	Peak
6	792.420	-61.54	-13.00	-48.54	-59.80	-1.74	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

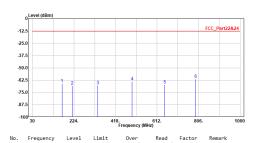
 4. Aux Factor Convert E (dBuVm) to EIRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Horizontal
Mode :3G_WCDMAB4_Link_CH1413
Test BY :Jing Chang



			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	167.740	-65.92	-13.00	-52.92	-53.26	-12.66	Peak
2	215.270	-68.18	-13.00	-55.18	-52.93	-15.25	Peak
3	335.550	-67.75	-13.00	-54.75	-56.86	-10.89	Peak
4	495.600	-63.72	-13.00	-50.72	-56.63	-7.09	Peak
5	647.890	-67.30	-13.00	-54.30	-63.43	-3.87	Peak
6	792 420	-61 69	-13 00	-48 69	-59 95	-1 74	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

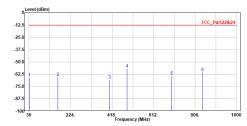
 4. Aux Factor Convert E (dBuVm) to ETRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under loffz was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :3G_WCDMAB4_Link_CH1413
Test BY :Jing Chang

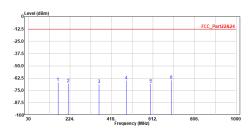


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	31.940	-66.28	-13.00	-53.28	-52.68	-13.60	Peak
2	164.830	-65.60	-13.00	-52.60	-53.13	-12.47	Peak
3	407.330	-68.39	-13.00	-55.39	-59.10	-9.29	Peak
4	488.810	-56.96	-13.00	-43.96	-49.68	-7.28	Peak
5	696.390	-64.48	-13.00	-51.48	-61.20	-3.28	Peak
6	839.950	-60.67	-13.00	-47.67	-59.33	-1.34	Peak

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10ft was not included since the emission levels are very low against the limit.



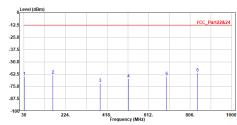
Site :HY-CB03
Condition :3m Horizontal
Mode :3G_WCDMAB4_Link_CH1513
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	167.740	-66.84	-13.00	-53.84	-54.18	-12.66	Peak
2	215.270	-67.90	-13.00	-54.90	-52.65	-15.25	Peak
3	359.800	-68.50	-13.00	-55.50	-58.11	-10.39	Peak
4	485.900	-65.06	-13.00	-52.06	-57.71	-7.35	Peak
5	600.360	-68.45	-13.00	-55.45	-63.98	-4.47	Peak
6	696.390	-64.34	-13.00	-51.34	-61.06	-3.28	Peak

- Note:
 1. Level Read Level + Factor
 2. Factor Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor Convert E (dBu/m) to EIRP (dBm) 107 + 2010(3) 104.8 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :3G_WCDMAB4_Link_CH1513
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	31.940	-65.06	-13.00	-52.06	-51.46	-13.60	Peak
2	165.800	-63.32	-13.00	-50.32	-50.76	-12.56	Peak
3	385.020	-71.52	-13.00	-58.52	-61.75	-9.77	Peak
4	516.940	-67.05	-13.00	-54.05	-60.41	-6.64	Peak
5	696.390	-65.04	-13.00	-52.04	-61.76	-3.28	Peak
6	839.950	-61.02	-13.00	-48.02	-59.68	-1.34	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

 3. Over Limit = Level Limit Line

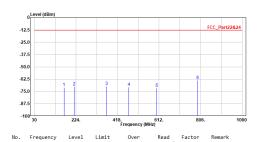
 4. Aux Factor Convert E (dBuVm) to EIRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Horizontal
Mode :3G_WCDMAB5_Link_CH4132
Test BY :Jing Chang



			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	167.740	-70.85	-13.00	-57.85	-56.04	-14.81	Peak
2	215.270	-70.04	-13.00	-57.04	-52.64	-17.40	Peak
3	366.590	-69.94	-13.00	-56.94	-57.56	-12.38	Peak
4	471.350	-70.49	-13.00	-57.49	-60.84	-9.65	Peak
5	600.360	-71.52	-13.00	-58.52	-64.90	-6.62	Peak
6	792 420	-63 90	-13 00	-50 90	-60 01	-3.89	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

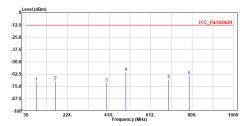
 3. Over Limit = Level Limit Line

 4. Aux Factor Convert E (dBuVm) to ETRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

 6. The emission under loffz was not included since the emission levels are very low against the limit.

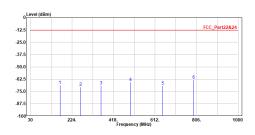


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	78.500	-70.48	-13.00	-57.48	-51.33	-19.15	Peak
2	167.740	-68.94	-13.00	-55.94	-54.13	-14.81	Peak
3	406.360	-71.21	-13.00	-58.21	-59.77	-11.44	Peak
4	496.570	-60.35	-13.00	-47.35	-51.20	-9.15	Peak
5	696.390	-67.92	-13.00	-54.92	-62.49	-5.43	Peak
6	792.420	-63.92	-13.00	-50.92	-60.03	-3.89	Peak

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10ft was not included since the emission levels are very low against the limit.



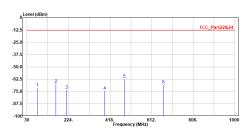
Site :HY-CB03
Condition :3m Horizontal
Mode :3G_WCDMAB5_Link_CH4183
Test BY :Jing Chang



NO.	rrequency	rever	Line	Limit	Level	ractor	Kellark
	MHz	dBm	dBm	dB	dBm	dB	
1	167.740	-68.52	-13.00	-55.52	-53.71	-14.81	Peak
2	263.770	-70.46	-13.00	-57.46	-54.84	-15.62	Peak
3	359.800	-69.12	-13.00	-56.12	-56.58	-12.54	Peak
4	497.540	-65.71	-13.00	-52.71	-56.63	-9.08	Peak
5	647.890	-69.33	-13.00	-56.33	-63.31	-6.02	Peak
6	792 420	-63 35	-13 00	-50 35	-59 46	-3.89	Peak

- Note:
 1. Level Read Level + Factor
 2. Factor Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor Convert E (dBu/m) to EIRP (dBm) 107 + 2010(3) 104.8 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 16ft was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :3G_WCDMAB5_Link_CH4183
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	78.500	-71.43	-13.00	-58.43	-52.28	-19.15	Peak
2	165.800	-67.42	-13.00	-54.42	-52.71	-14.71	Peak
3	215.270	-73.54	-13.00	-60.54	-56.14	-17.40	Peak
4	392.780	-74.31	-13.00	-61.31	-62.57	-11.74	Peak
5	483.960	-62.15	-13.00	-49.15	-52.61	-9.54	Peak
6	666.320	-68.44	-13.00	-55.44	-62.50	-5.94	Peak

- Note:

 1. Level = Read Level + Factor

 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor

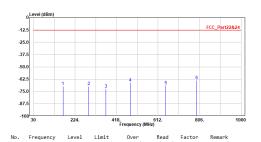
 3. Over Limit = Level Limit Line

 4. Aux Factor Convert E (dBuVm) to EIRP (dBm)

 107 + 2010g(3) 104.8 11.8 dB

 5. The other emission levels were very low against the limit.

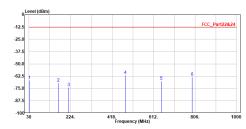
 6. The emission under 16ft was not included since the emission levels are very low against the limit.



			Line	Limit	Level		
	MHz	dBm	dBm	dB	dBm	dB	
1	167.740	-69.82	-13.00	-56.82	-55.01	-14.81	Peak
2	288.990	-69.90	-13.00	-56.90	-55.42	-14.48	Peak
3	368.530	-72.33	-13.00	-59.33	-60.00	-12.33	Peak
4	482.020	-66.18	-13.00	-53.18	-56.59	-9.59	Peak
5	647.890	-69.14	-13.00	-56.14	-63.12	-6.02	Peak
	702 420	62 07	12 00	EQ 97	E0 00	2 90	Dook

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under [dift was not included since the emission levels are very low against the limit.

Site :HY-CB03
Condition :3m Vertical
Mode :3G_WCDMAB5_Link_CH4233
Test BY :Jing Chang



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBm	dBm	dB	dBm	dB	
1	31.940	-66.83	-13.00	-53.83	-51.08	-15.75	Peak
2	167.740	-69.53	-13.00	-56.53	-54.72	-14.81	Peak
3	215.270	-73.87	-13.00	-60.87	-56.47	-17.40	Peak
4	479.110	-61.41	-13.00	-48.41	-51.77	-9.64	Peak
5	647.890	-67.55	-13.00	-54.55	-61.53	-6.02	Peak
6	792 420	-63 43	-13 00	-50 43	-59 54	-3.89	Peak

Note:

- Note:
 1. Level = Read Level + Factor
 2. Factor = Antenna Factor + Cable Loss Preamp Factor + Aux Factor
 3. Over Limit = Level Limit Line
 4. Aux Factor = Convert E (dBuVm) to EIRP (dBm) = 107 + 2010(3) = 104.8 = 11.8 dB
 5. The other emission levels were very low against the limit.
 6. The emission under 10ft was not included since the emission levels are very low against the limit.

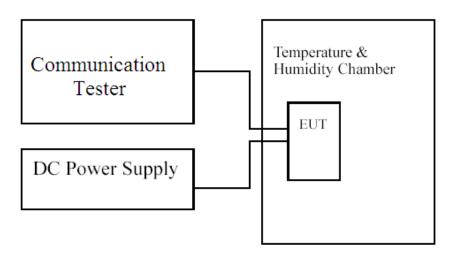


7. Frequency Stability Under Temperature & Voltage Variations

7.1. Test Specification

According to Part 2.1055, 22.355, 24.235, 27.54, RSS-GEN, RSS-132, RSS-133, RSS-139.

7.2. Test Setup



7.3. Limits

7.4. Test Procedure

The frequency stability of transmitter is measured by:

- (a) Temperature: The temperature is varied from -30 °C to 50 °C in 10 °C increment using a standard temperature & Humidity chamber.
- (b) Primary Supply Voltage: The primary supply voltage is varied 85 % to 115 % of the nominal value for non-hand-carried equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating endpoint which shall be specified by the manufacturer.

The EUT was connected via the base station simulator. Universal Radio Communication Tester, was used to measure The Frequency Error. The maximum result of measurements was recorded.



7.5. Test Result of Frequency Stability Under Temperature Variations

GSM 850 Temperature Variations

Temperature	Test	Deviation	on (kHz)	Limit
Interval(°C)	Channel	VOICE	EGPRS	(kHz)
-30	Low	0.008	0.015	±2.09
-20	Low	0.009	0.015	±2.09
-10	Low	0.009	0.015	±2.09
0	Low	-0.010	0.014	±2.09
10	Low	0.008	0.016	±2.09
20	Low	0.012	0.016	±2.09
30	Low	0.011	0.017	±2.09
40	Low	-0.011	0.016	±2.09
50	Low	-0.010	0.018	±2.09
-30	High	-0.007	0.014	±2.09
-20	High	-0.007	0.015	±2.09
-10	High	-0.009	0.014	±2.09
0	High	0.008	0.015	±2.09
10	High	0.009	0.014	±2.09
20	High	0.009	0.014	±2.09
30	High	-0.008	0.015	±2.09
40	High	0.007	0.017	±2.09
50	High	0.009	0.016	±2.09

Voltage Variations

DC Voltage	Test	Deviation	on (kHz)	Limit (kHz)
(V)	Channel	VOICE	EGPRS	
4.40	Low	0.008	0.017	±2.09
3.85	Low	0.012	0.016	±2.09
3.60	Low	0.011	0.015	±2.09
4.40	High	-0.009	0.016	±2.09
3.85	High	0.009	0.014	±2.09
3.60	High	0.009	0.015	±2.09

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GSM 1900

Temperature Variations

Temperature	Test	Deviatio	on (kHz)	Limit
-		Doviano	711 (KI 12)	(kHz)
Interval(°C)	Channel	VOICE	EGPRS	
-30	Low	-0.023	-0.02	±4.77
-20	Low	-0.021	-0.018	±4.77
-10	Low	-0.022	-0.019	±4.77
0	Low	-0.023	-0.017	±4.77
10	Low	-0.02	-0.015	±4.77
20	Low	-0.022	-0.013	±4.77
30	Low	-0.021	-0.014	±4.77
40	Low	-0.021	-0.015	±4.77
50	Low	-0.022	-0.013	±4.77
-30	High	-0.022	-0.023	±4.77
-20	High	-0.023	-0.025	±4.77
-10	High	-0.021	-0.024	±4.77
0	High	-0.019	-0.021	±4.77
10	High	-0.02	-0.022	±4.77
20	High	-0.02	-0.021	±4.77
30	High	-0.023	-0.02	±4.77
40	High	-0.025	-0.02	±4.77
50	High	-0.024	-0.019	±4.77

DC Voltage	Test	Doviction	on (k∐-z)	Limit
DC Voltage		Deviano	on (kHz)	(kHz)
(V)	Channel	VOICE	EGPRS	,
4.40	Low	-0.023	-0.016	±4.77
3.85	Low	-0.022	-0.013	±4.77
3.60	Low	-0.018	-0.014	±4.77
4.40	High	-0.025	-0.019	±4.77
3.85	High	-0.02	-0.021	±4.77
3.60	High	-0.027	-0.021	±4.77



WCDMA Band 2

Temperature Variations

Temperature	Test	Deviation (kHz)	Limit
Interval(°C)	Channel	RMC	(kHz)
-30	Low	0.006	±4.71
-20	Low	0.006	±4.71
-10	Low	-0.006	±4.71
0	Low	-0.005	±4.71
10	Low	-0.006	±4.71
20	Low	0.005	±4.71
30	Low	-0.007	±4.71
40	Low	-0.008	±4.71
50	Low	0.007	±4.71
-30	High	-0.008	±4.71
-20	High	-0.008	±4.71
-10	High	0.007	±4.71
0	High	-0.007	±4.71
10	High	0.008	±4.71
20	High	-0.006	±4.71
30	High	-0.009	±4.71
40	High	0.009	±4.71
50	High	-0.010	±4.71

DC Voltage	Test	Deviation (kHz)	Limit
(V)	Channel	RMC	(kHz)
4.40	Low	-0.005	±4.71
3.85	Low	0.005	±4.71
3.60	Low	-0.004	±4.71
4.40	High	-0.008	±4.71
3.85	High	-0.006	±4.71
3.60	High	-0.010	±4.71



WCDMA Band 4

Temperature Variations

Temperature	Test	Deviation (kHz)	Limit
Interval(°C)	Channel	RMC	(kHz)
-30	Low	0.013	±4.33
-20	Low	0.014	±4.33
-10	Low	-0.013	±4.33
0	Low	-0.012	±4.33
10	Low	0.012	±4.33
20	Low	0.013	±4.33
30	Low	-0.015	±4.33
40	Low	0.018	±4.33
50	Low	0.021	±4.33
-30	High	-0.014	±4.33
-20	High	-0.014	±4.33
-10	High	0.013	±4.33
0	High	-0.014	±4.33
10	High	0.013	±4.33
20	High	-0.012	±4.33
30	High	-0.016	±4.33
40	High	0.020	±4.33
50	High	-0.022	±4.33

DC Voltage	Test	Deviation (kHz)	Limit
(V)	Channel	RMC	(kHz)
4.40	Low	0.012	±4.33
3.85	Low	0.013	±4.33
3.60	Low	0.014	±4.33
4.40	High	-0.012	±4.33
3.85	High	-0.012	±4.33
3.60	High	-0.013	±4.33



WCDMA Band 5

Temperature Variations

Temperature	Test	Deviation (kHz)	Limit
Interval(°C)	Channel	RMC	(kHz)
-30	Low	0.005	±2.09
-20	Low	-0.005	±2.09
-10	Low	0.004	±2.09
0	Low	0.006	±2.09
10	Low	-0.004	±2.09
20	Low	0.004	±2.09
30	Low	0.005	±2.09
40	Low	0.006	±2.09
50	Low	0.006	±2.09
-30	High	-0.005	±2.09
-20	High	0.005	±2.09
-10	High	-0.004	±2.09
0	High	-0.005	±2.09
10	High	-0.005	±2.09
20	High	-0.004	±2.09
30	High	0.005	±2.09
40	High	-0.005	±2.09
50	High	-0.006	±2.09

DC Voltage	Test	Deviation (kHz)	Limit
(V)	Channel	RMC	(kHz)
4.40	Low	0.005	±2.09
3.85	Low	0.004	±2.09
3.60	Low	0.004	±2.09
4.40	High	-0.004	±2.09
3.85	High	-0.004	±2.09
3.60	High	-0.005	±2.09

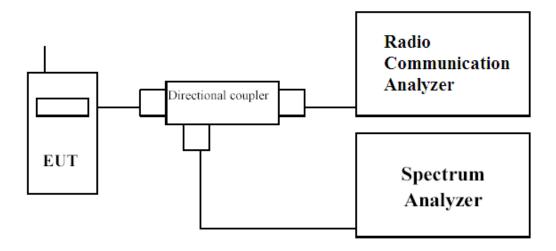


8. Peak to Average Ratio

8.1. Test Specification

According to Part 22.913, 24.232, 27.50, RSS-GEN, RSS-132, RSS-133, RSS-139.

8.2. Test Setup



8.3. Limits

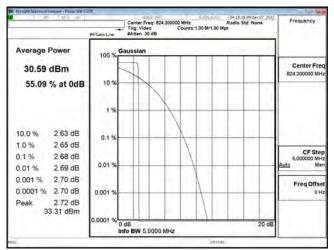
The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure.

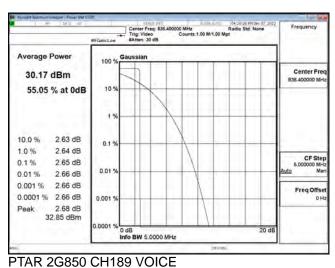
8.4. Test Procedure

- a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
- b) Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
- c) Set the number of counts to a value that stabilizes the measured CCDF curve;
- d) Set the measurement interval as follows:
 - 1) for continuous transmissions, set to 1 ms,
 - 2) for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
- e) Record the maximum PAPR level associated with a probability of 0.1 %.

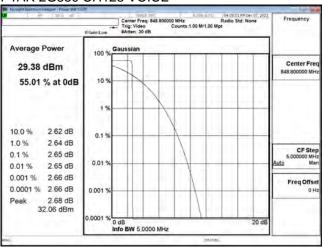


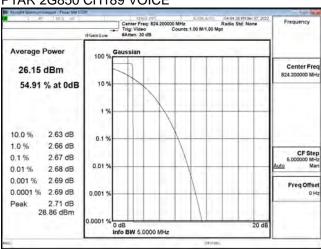
8.5. Test Result of Peak to Average Ratio



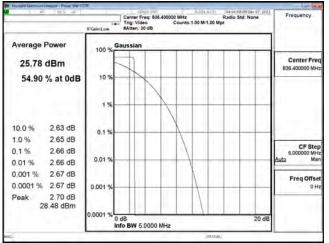


PTAR 2G850 CH128 VOICE





PTAR 2G850 CH251 VOICE

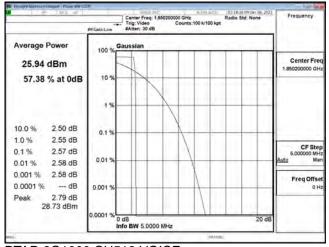


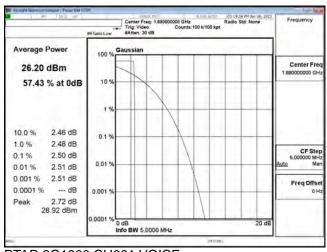
PTAR 2G850 CH128 EGPRS Center Freq. 945,900000 MHz Radio Std. None
Tign-Video Counts: 1,00 MH 1,00 Mpc
Aften: 30 EB Average Power Center Free 24.90 dBm 10% 54.90 % at 0dB 10.0 % 2.63 dB 1.0 % 2.66 dB CF Step 5.000000 MH 0.1% 2.67 dB 0.01 % 0.01 % 2.68 dB 0.001 % 2.69 dB Freq Offse 0.0001 % 2.69 dB 0.001 9 OH Peak 2.72 02 27.62 dBm 0 dB Info BW 5.0000 MHz

PTAR 2G850 CH189 EGPRS

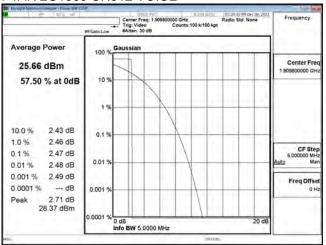
PTAR 2G850 CH251 EGPRS

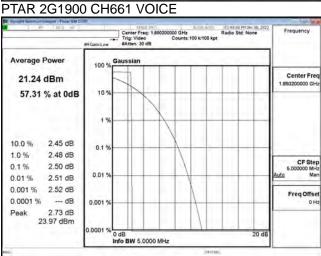




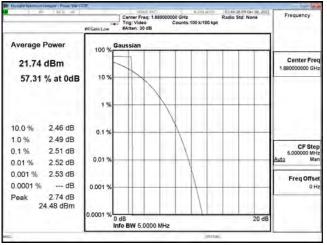


PTAR 2G1900 CH512 VOICE

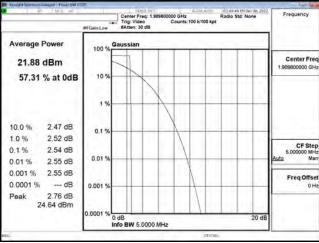




PTAR 2G1900 CH810 VOICE



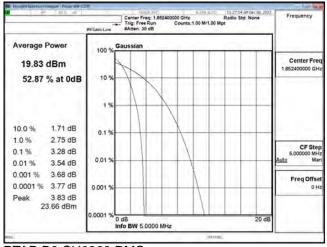
PTAR 2G1900 CH512 EGPRS

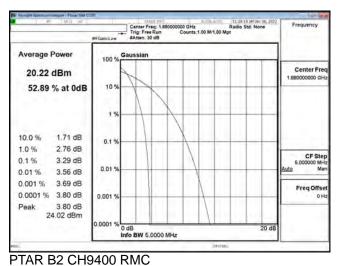


PTAR 2G1900 CH661 EGPRS

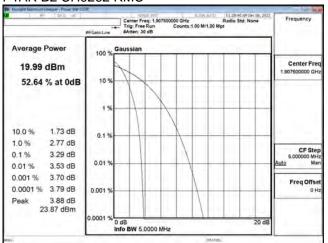
PTAR 2G1900 CH810 EGPRS



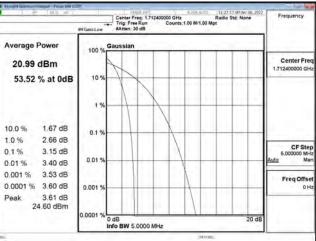




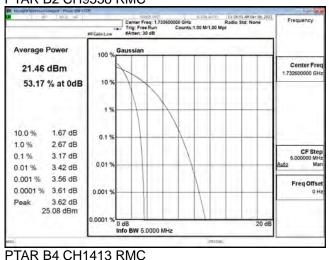
PTAR B2 CH9262 RMC



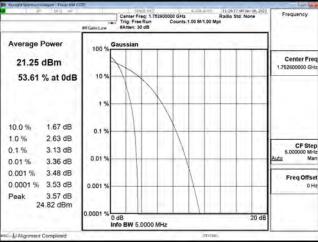




PTAR B2 CH9538 RMC

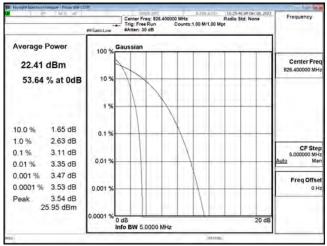


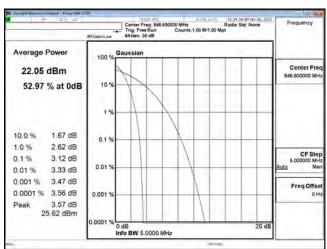
PTAR B4 CH1312 RMC



PTAR B4 CH1513 RMC

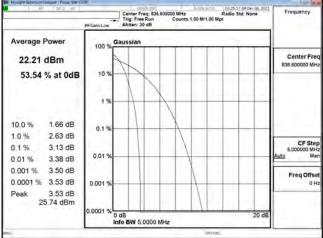






PTAR B5 CH4233 RMC





PTAR B5 CH4183 RMC