

FCC Test Report

(PART 24)

Report No.: RF151026C18-1

FCC ID: YA7-ATVT-1543

Test Model: AL7

Received Date: Oct. 26, 2015

Test Date: Nov. 02, 2015 ~ Dec. 08, 2015

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Release Control Record

Issue No.	Description	Date Issued
RF151026C18-1	Original Release	Dec. 08, 2015



1 Certificate of Conformity

Product: Tracker
Brand: ATrack Technology Inc.
Test Model: AL7
Sample Status: Identical Prototype
Applicant: Atrack Technology Inc.
Test Date: Nov. 02, 2015 ~ Dec. 08, 2015
Standards: FCC Part 24, Subpart E

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Rona Chen , **Date:** Dec. 08, 2015
Rona Chen / Specialist

Approved by : David Huang , **Date:** Dec. 08, 2015
David Huang / Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 24 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 24.232	Effective Isotropic Radiated Power	Pass	Meet the requirement of limit.
2.1046 24.232(d)	Peak to Average Ratio	Pass	Meet the requirement of limit.
2.1055 24.235	Frequency Stability	Pass	Meet the requirement of limit.
2.1049 24.238(b)	Occupied Bandwidth	Pass	Meet the requirement of limit.
24.238(b)	Band Edge Measurements	Pass	Meet the requirement of limit.
2.1051 24.238	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 24.238	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -30.38 dB at 5640.00 MHz.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~ 1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB



2.2 Test Site And Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent	N9038A	MY51210203	Jan. 21, 2015	Jan. 21, 2016
Spectrum Analyzer Agilent	N9010A	MY52220314	Sep. 03, 2015	Sep. 02, 2016
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 10, 2014	Dec. 09, 2015
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Feb. 04, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Feb. 09, 2015	Feb. 09, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Feb. 04, 2015	Feb. 04, 2016
Loop Antenna	EM-6879	269	Jul. 31, 2015	Jul. 30, 2016
Preamplifier EMCI	EMC 012645	980115	Dec. 12, 2014	Dec. 11, 2015
Preamplifier EMCI	EMC 184045	980116	Jan. 09, 2015	Jan. 08, 2016
Preamplifier EMCI	EMC 330H	980112	Dec. 27, 2014	Dec. 26, 2015
Power Meter Anritsu	ML2495A	1232002	Sep. 21, 2015	Sep. 20, 2016
Power Sensor Anritsu	MA2411B	1207325	Sep. 21, 2015	Sep. 20, 2016
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4 2950114	Oct. 12, 2015	Oct. 11, 2016
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 12, 2015	Oct. 11, 2016
RF Coaxial Cable Worken	8D-FB	Cable-Ch10-01	Oct. 12, 2015	Oct. 11, 2016
Software BV ADT	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA
Radio Communication Analyzer	MT8820C	6201300640	Aug. 10, 2015	Aug. 09, 2017

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 10.
3. The horn antenna and preamplifier (model: EMC 184045) are used only for the measurement of emission frequency above 1 GHz if tested.
4. The FCC Site Registration No. is 690701.
5. The IC Site Registration No. is IC7450F-10.

3 General Information

3.1 General Description of EUT

Product	Tracker	
Brand	ATrack Technology Inc.	
Test Model	AL7	
Status of EUT	Identical Prototype	
Power Supply Rating	5.0Vdc (Host equipment) 3.7Vdc (Li-ion battery) 12 or 24Vdc (Car Battery / DC Power Supply)	
Modulation Type	GSM/GPRS	GMSK
	EDGE	GMSK, 8PSK
	WCDMA	BPSK
Frequency Range	GSM/GPRS/EDGE	1850.2 ~ 1909.8 MHz
	WCDMA	1852.4 ~ 1907.6 MHz
Max. EIRP Power	GSM/GPRS	451.23 mW
	EDGE	181.72 mW
	WCDMA	89.99 mW
Emission Designator	GSM/GPRS	245KGXW
	EDGE	244KG7W
	WCDMA	4M08F9W
Antenna Type	Fixed Internal Antenna	
Accessory Device	Refer to Note as below	
Data Cable Supplied	Refer to Note as below	

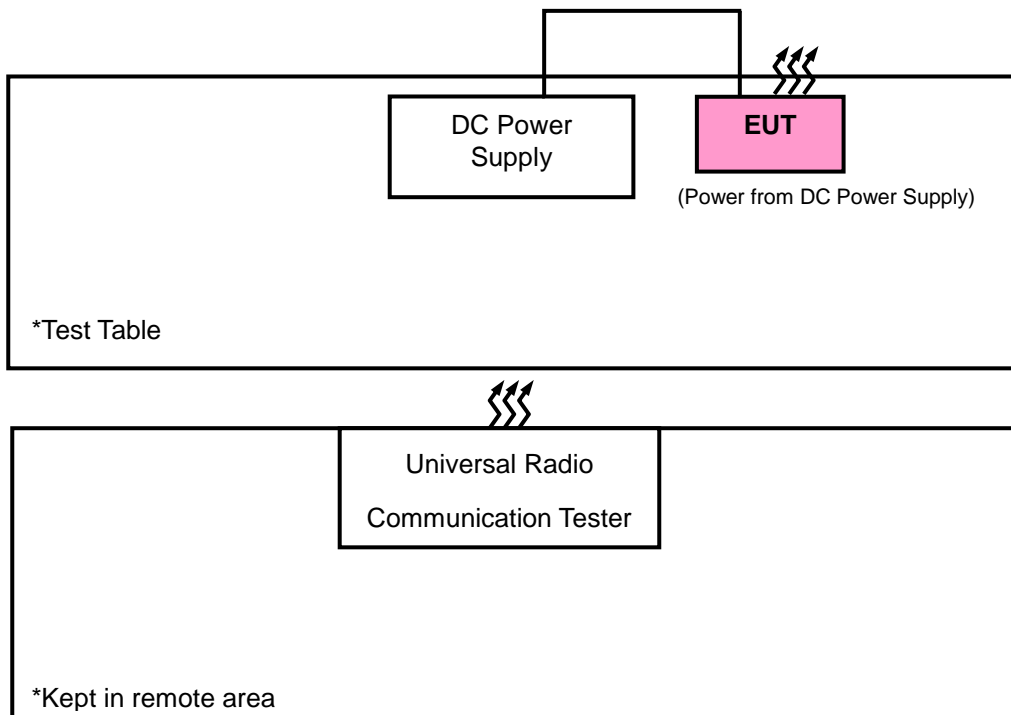
Note:

- The EUT contains following accessory devices.

Product	Brand	Model	Description
Battery	JOULES MILES CO., LTD.	AT-01	3.7Vdc, 920mAh
USB Cable	Kaen Technology Co., LTD.	N/A	1.2m non-shielded cable w/o core

- The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Configuration of System under Test



3.2.1 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	Communications Tester-Wireless	Agilent	8960 Series 10	MY53201073	NA
2.	DC Power Supply	Topward	33010D	807748	N/A

No.	Signal Cable Description Of The Above Support Units
1.	N/A
2.	1.2m non-shielded cable w/o core

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Items 1 acted as communication partners to transfer data.

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis, and antenna ports.

The worst case was found when positioned as the table below. Following channel(s) was (were) selected for the final test as listed below:

Band	EIRP	Radiated Emission
GSM	Z-plane	Z-axis
EDGE	Z-plane	Z-axis
WCDMA	Z-plane	Z-axis

GSM

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
-	EIRP	512 to 810	512, 661, 810	GSM, EDGE
-	Frequency Stability	512 to 810	661	GSM, EDGE
-	Occupied Bandwidth	512 to 810	512, 661, 810	GSM, EDGE
-	Band Edge	512 to 810	512, 810	GSM, EDGE
-	Peak to Average Ratio	512 to 810	512, 661, 810	GSM, EDGE
-	Condcudeted Emission	512 to 810	661	GSM, EDGE
-	Radiated Emission	512 to 810	661	GSM, EDGE

WCDMA

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
-	EIRP	9262 to 9538	9262, 9400, 9538	WCDMA
-	Frequency Stability	9262 to 9538	9400	WCDMA
-	Occupied Bandwidth	9262 to 9538	9262, 9400, 9538	WCDMA
-	Band Edge	9262 to 9538	9262, 9538	WCDMA
-	Peak to Average Ratio	9262 to 9538	9262, 9400, 9538	WCDMA
-	Condcudeted Emission	9262 to 9538	9262, 9400, 9538	WCDMA
-	Radiated Emission	9262 to 9538	9400	WCDMA

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	26 deg. C, 58 % RH	12 Vdc	Anson Lin
Frequency Stability	26 deg. C, 58 % RH	12 Vdc	Carlos Chen
Occupied Bandwidth	26 deg. C, 58 % RH	12 Vdc	Carlos Chen
Band Edge	26 deg. C, 58 % RH	12 Vdc	Carlos Chen
Peak to Average Ratio	26 deg. C, 58 % RH	12 Vdc	Carlos Chen
Conducuted Emission	26 deg. C, 58 % RH	12 Vdc	Carlos Chen
Radiated Emission	25 deg. C, 65 % RH	12 Vdc	Gavin Wu

3.4 EUT Operating Conditions

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 24

ANSI/TIA/EIA-603-C 2004

NOTE: All test items have been performed and recorded as per the above standards.

4 Test Types and Results

4.1 Output Power Measurement

4.1.1 Limits of Output Power Measurement

Mobile / Portable station are limited to 2 watts e.i.r.p.

4.1.2 Test Procedures

EIRP / ERP Measurement:

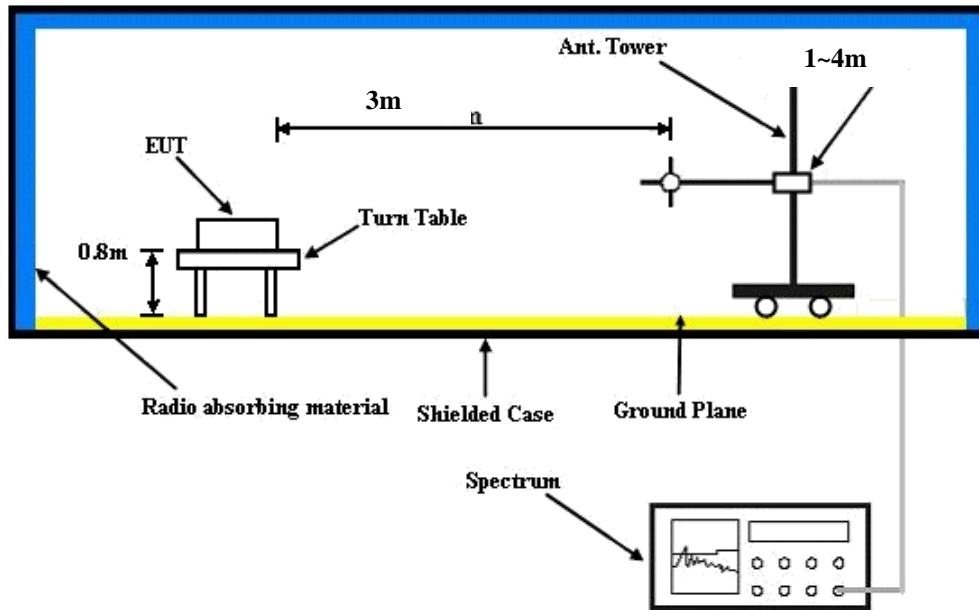
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 1 MHz for GSM, GPRS & EDGE, 5 MHz for WCDMA and CDMA, and 10 MHz for LTE mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step b. Record the power level of S.G.
- d. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15 \text{ dBi}$.

Conducted Power Measurement:

The EUT was set up for the maximum power with GSM, GPRS, EDGE, WCDMA, CDMA, and LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

4.1.3 Test Setup

EIRP Measurement:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

Conducted Power Measurement:



4.1.4 Test Results

Conducted Output Power (dBm)

Band	GSM1900		
Channel	512	661	810
Frequency (MHz)	1850.2	1880.0	1909.8
GPRS 8	29.81	29.63	29.48
GPRS 10	29.77	29.62	29.43
GPRS 11	28.95	28.83	28.66
GPRS 12	27.75	27.66	27.51
EDGE 8	26.33	26.27	26.13
EDGE 10	26.32	26.26	26.10
EDGE 11	26.30	26.23	26.08
EDGE 12	26.22	26.17	26.03

Band	WCDMA II		
Channel	9262	9400	9538
Frequency (MHz)	1852.4	1880.0	1907.6
RMC 12.2K	22.18	22.47	22.56

EIRP Power (dBm)

GSM							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	512	1850.2	-10.26	36.57	26.31	427.76	H
	661	1880.0	-10.68	37.22	26.54	451.23	
	810	1909.8	-10.92	37.18	26.26	422.86	
	512	1850.2	-15.51	37.65	22.14	163.72	V
	661	1880.0	-15.26	37.58	22.32	170.73	
	810	1909.8	-15.33	37.48	22.15	164.06	

EDGE							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	512	1850.2	-14.09	36.57	22.48	177.09	H
	661	1880.0	-14.63	37.22	22.59	181.72	
	810	1909.8	-14.87	37.18	22.31	170.29	
	512	1850.2	-19.58	37.65	18.07	64.14	V
	661	1880.0	-19.03	37.58	18.55	71.66	
	810	1909.8	-19.11	37.48	18.37	68.71	

WCDMA							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	9262	1852.4	-17.03	36.57	19.54	89.99	H
	9400	1880.0	-17.92	37.22	19.30	85.19	
	9538	1907.6	-17.85	37.18	19.33	85.74	
	9262	1852.4	-22.68	37.65	14.97	31.41	V
	9400	1880.0	-22.97	37.58	14.61	28.93	
	9538	1907.6	-22.54	37.48	14.94	31.19	

4.2 Frequency Stability Measurement

4.2.1 Limits of Frequency Stability Measurement

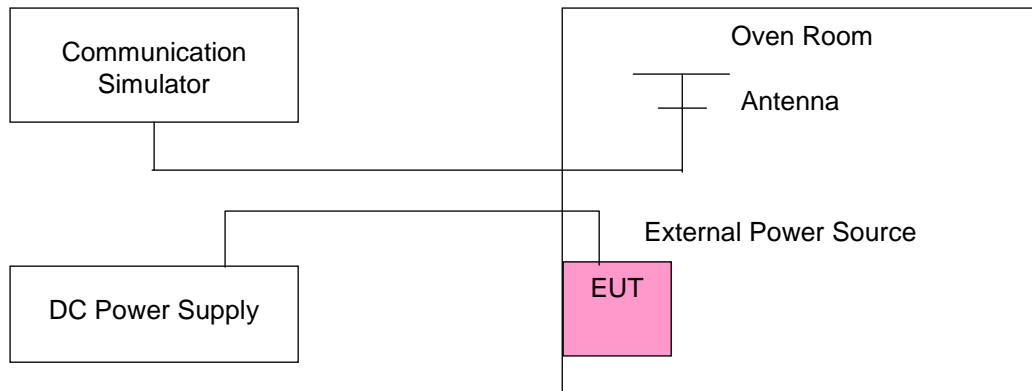
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

4.2.2 Test Procedure

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ± 0.5 °C during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

4.2.3 Test Setup



4.2.4 Test Results

Frequency Error vs. Voltage

Voltage (Volts)	Frequency Error (ppm)			Limit (ppm)
	GSM	EDGE	WCDMA	
12	0.001	0.000	0.001	2.5
6	0.001	0.001	0.001	2.5
30	0.000	0.001	0.002	2.5

NOTE: The applicant defined the normal working voltage of the battery is from 6 Vdc to 30 Vdc.

Frequency Error vs. Temperature

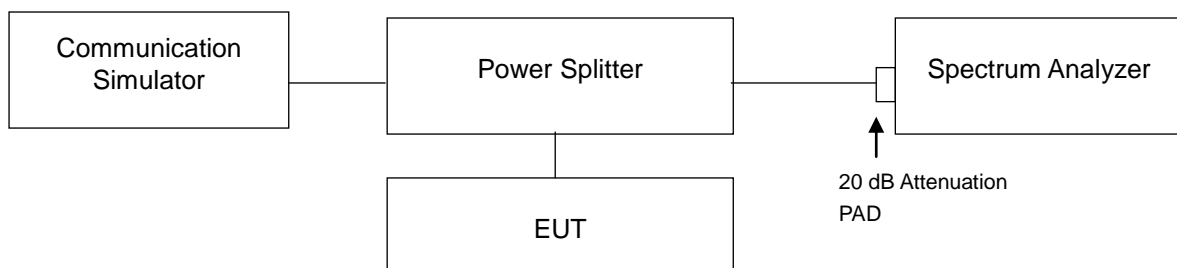
Temp. (°C)	Frequency Error (ppm)			Limit (ppm)
	GSM	EDGE	WCDMA	
-30	0.001	0.002	0.001	2.5
-20	0.001	0.001	0.001	2.5
-10	0.001	0.001	0.001	2.5
0	0.000	0.000	0.000	2.5
10	0.002	0.001	0.000	2.5
20	0.002	0.001	0.002	2.5
30	-0.002	-0.002	-0.002	2.5
40	-0.001	-0.001	-0.002	2.5
50	-0.001	0.000	0.000	2.5
60	-0.002	-0.001	-0.001	2.5

4.3 Occupied Bandwidth Measurement

4.3.1 Test Procedure

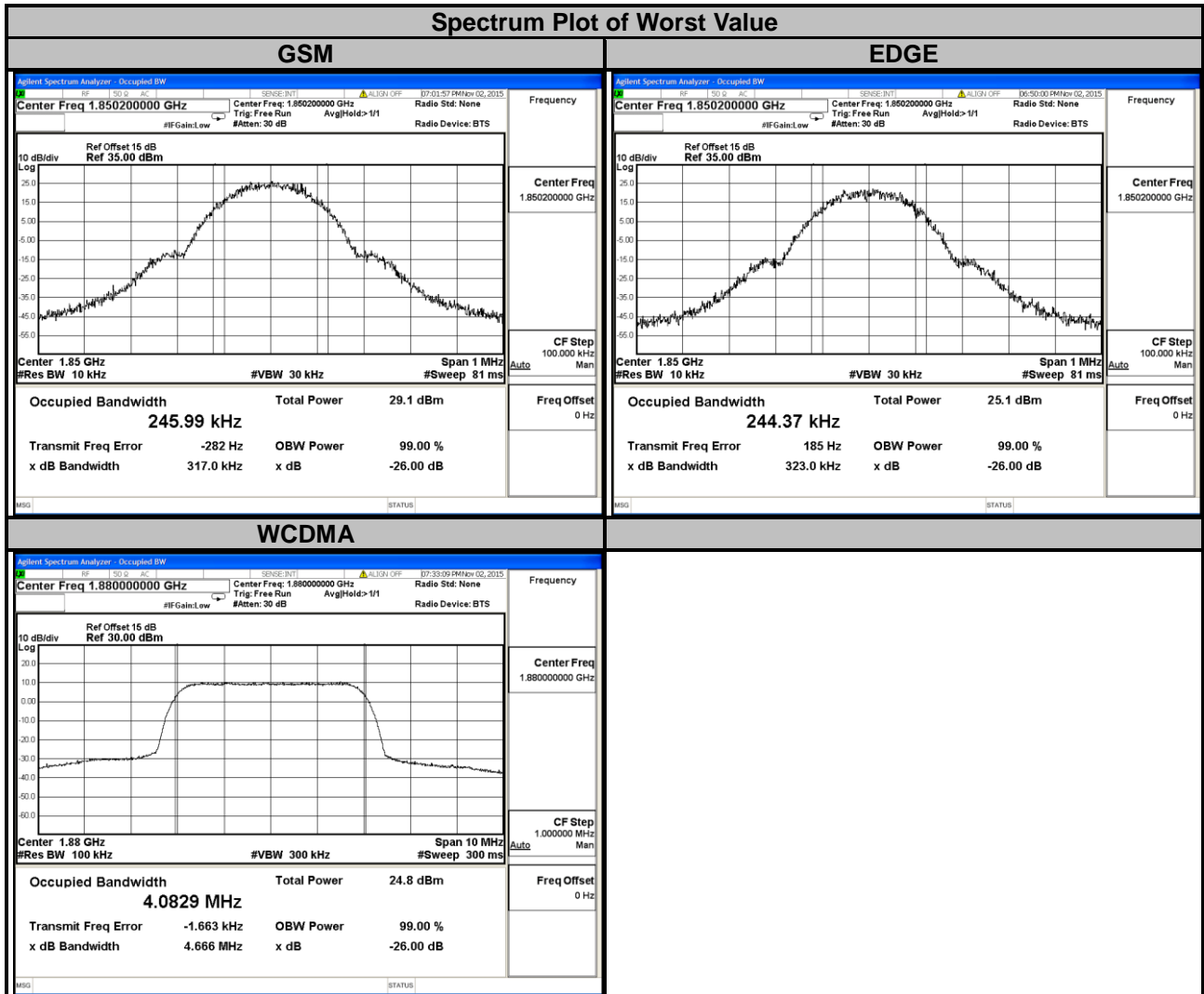
The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

4.3.2 Test Setup



4.3.3 Test Result

Channel	Frequency (MHz)	99 % Occupied Bandwidth (kHz)		Channel	Frequency (MHz)	99 % Occupied Bandwidth (MHz)
		GSM	EDGE			WCDMA
512	1850.2	245.99	244.37	9262	1852.4	4.0800
661	1880.0	245.94	243.45	9400	1880.0	4.0829
810	1909.8	247.15	241.94	9538	1907.6	4.0799

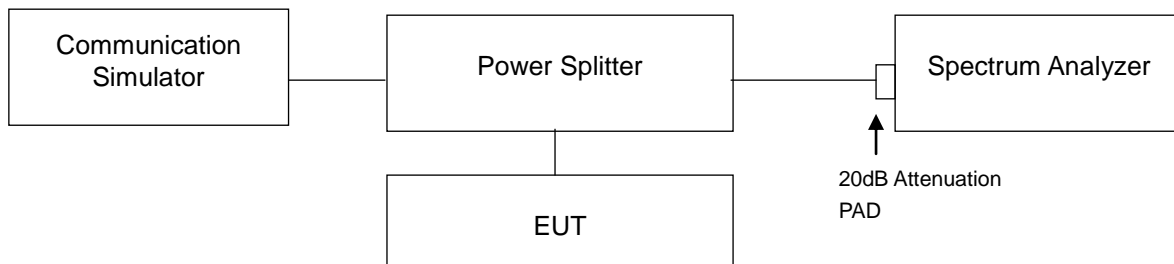


4.4 Band Edge Measurement

4.4.1 Limits of Band Edge Measurement

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. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

4.4.2 Test Setup



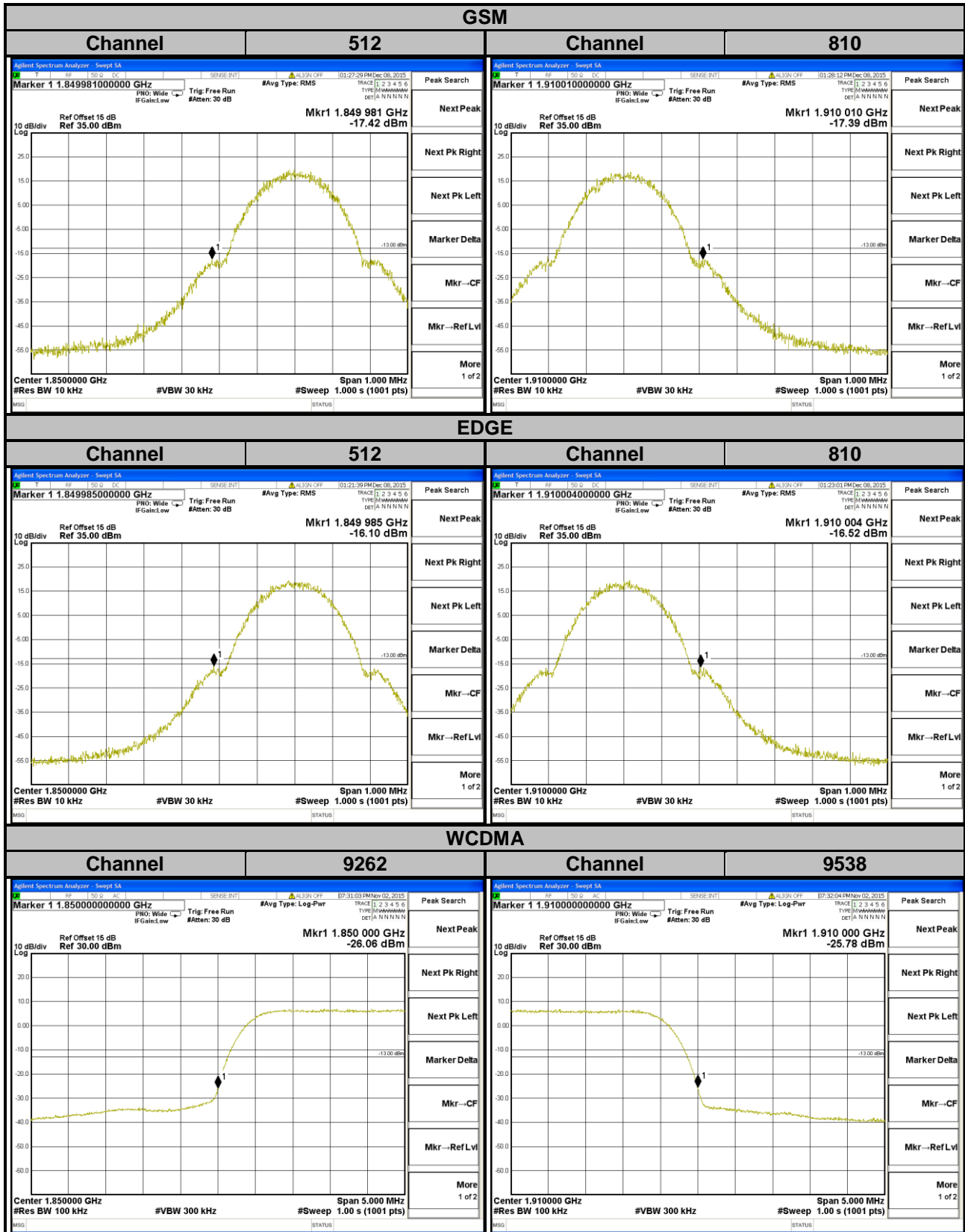
4.4.3 Test Procedures

- All measurements were done at low and high operational frequency range.
- The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 3.9 kHz and VB of the spectrum is 12 kHz (GSM/GPRS/EDGE).
- The center frequency of spectrum is the band edge frequency and span is 5 MHz. RB of the spectrum is 100 kHz and VB of the spectrum is 300 kHz (WCDMA).
- Record the max trace plot into the test report.



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4.4.4 Test Results

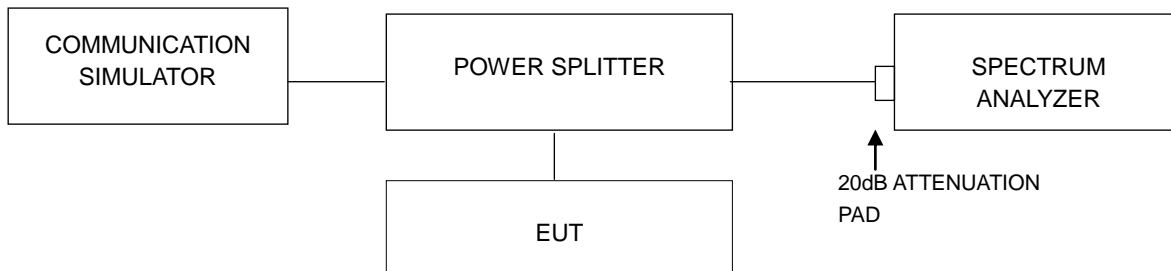


4.5 Peak to Average Ratio

4.5.1 Limits of Peak to Average Ratio Measurement

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.

4.5.2 Test Setup

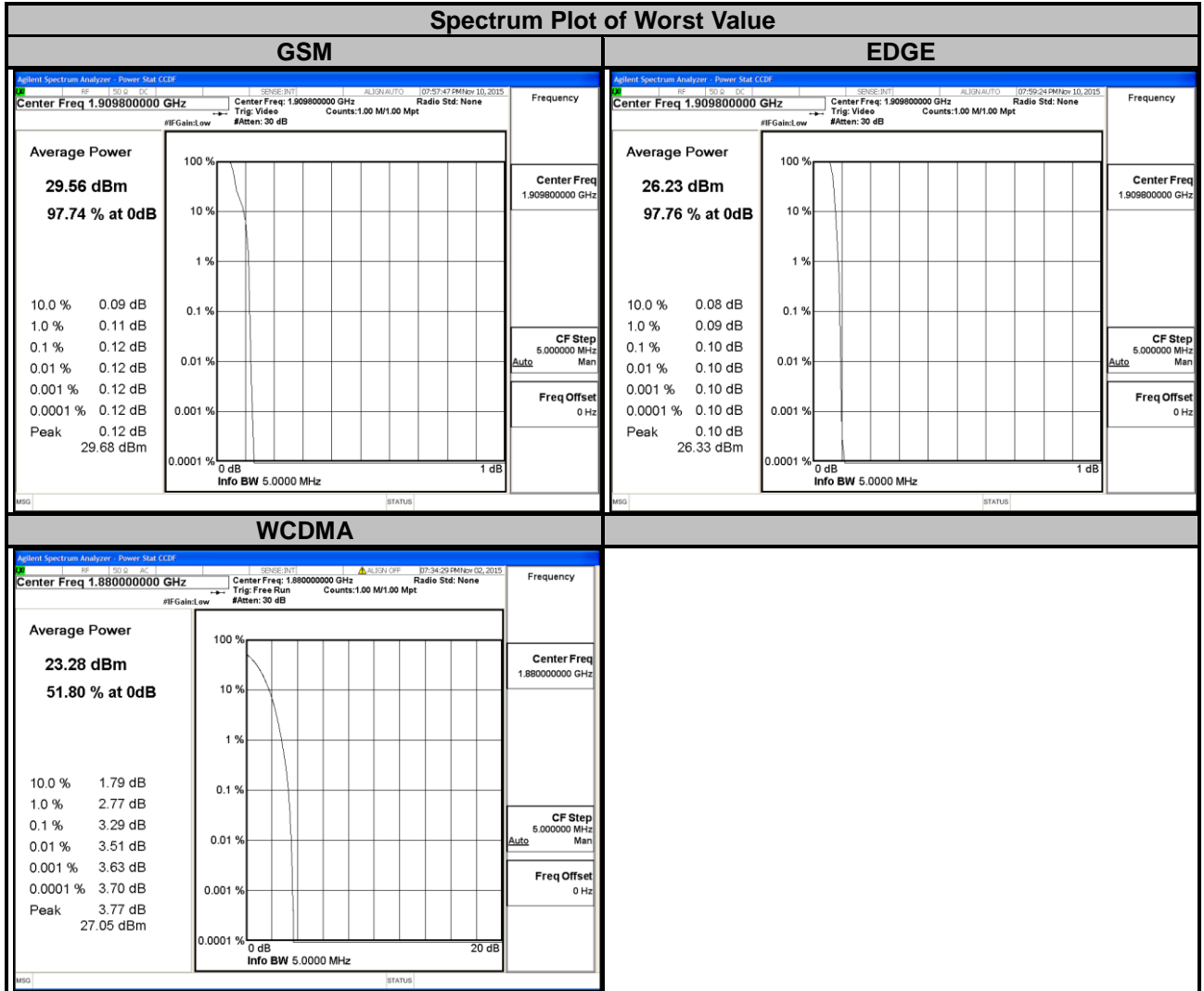


4.5.3 Test Procedures

1. Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1 %.

4.5.4 Test Results

Channel	Frequency (MHz)	Peak to Average Ratio (dB)		Channel	Frequency (MHz)	Peak to Average Ratio (dB)
		GSM	EDGE			
512	1850.2	0.10	0.09	9262	1852.4	3.21
661	1880.0	0.11	0.09	9400	1880.0	3.29
810	1909.8	0.12	0.10	9538	1907.6	3.12

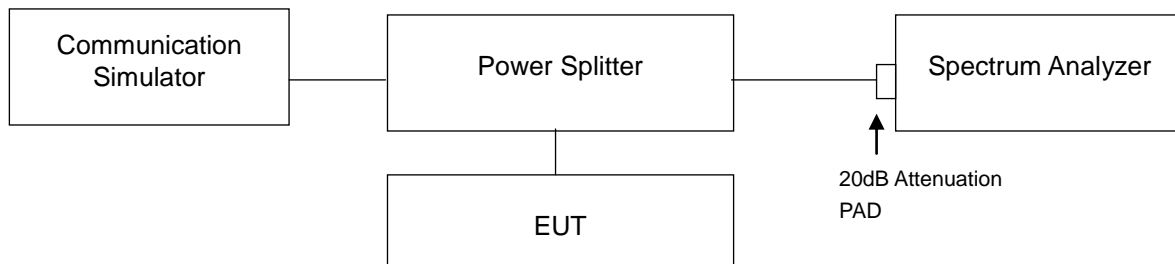


4.6 Conducted Spurious Emissions

4.6.1 Limits of Conducted Spurious Emissions Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

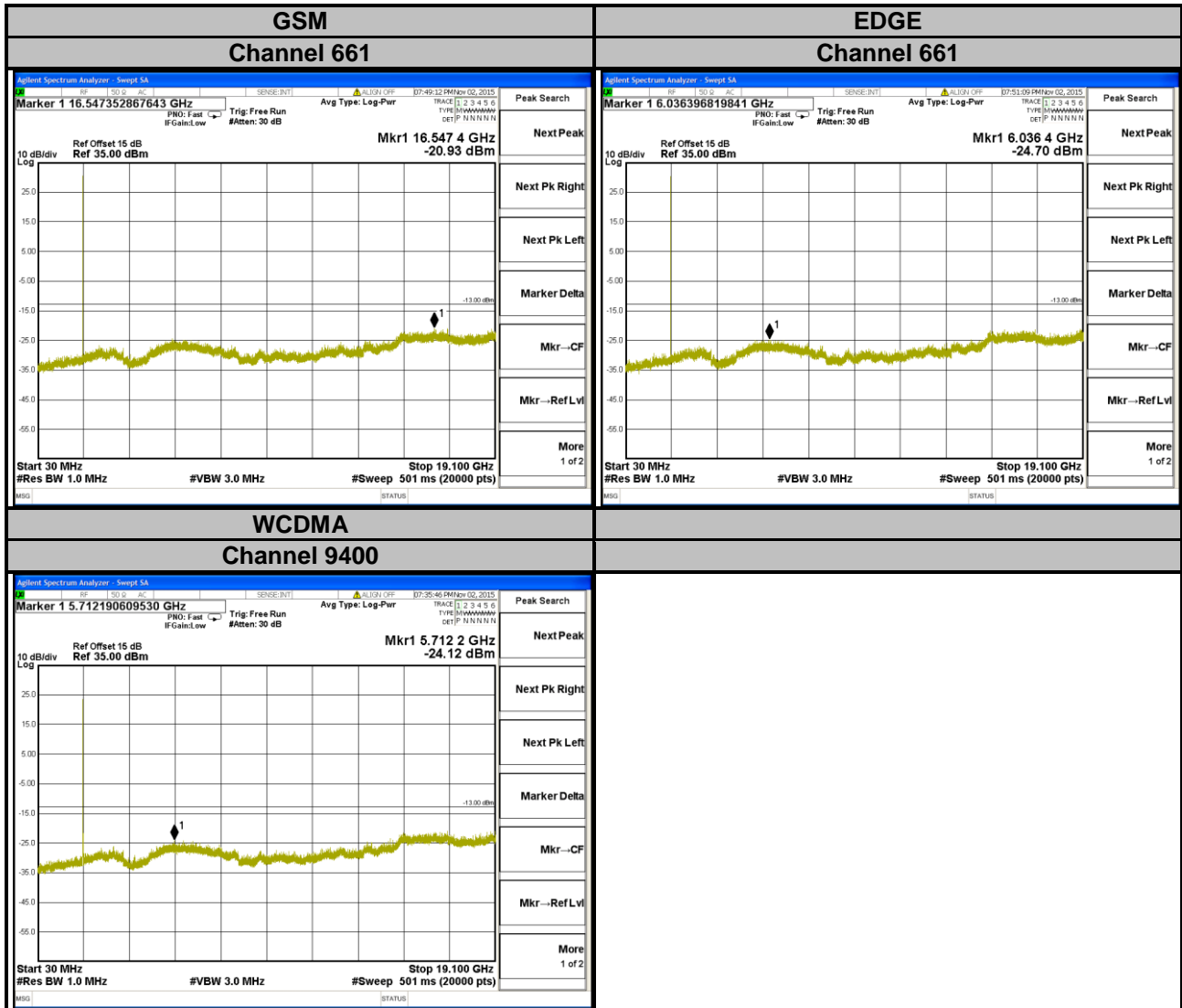
4.6.2 Test Setup



4.6.3 Test Procedure

- The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- Measuring frequency range is from 9 kHz to 9 GHz. 20 dB attenuation pad is connected with spectrum. RBW=1 MHz and VBW=3 MHz is used for conducted emission measurement.

4.6.4 Test Results



4.7 Radiated Emission Measurement

4.7.1 Limits of Radiated Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit is equal to -13 dBm.

4.7.2 Test Procedure

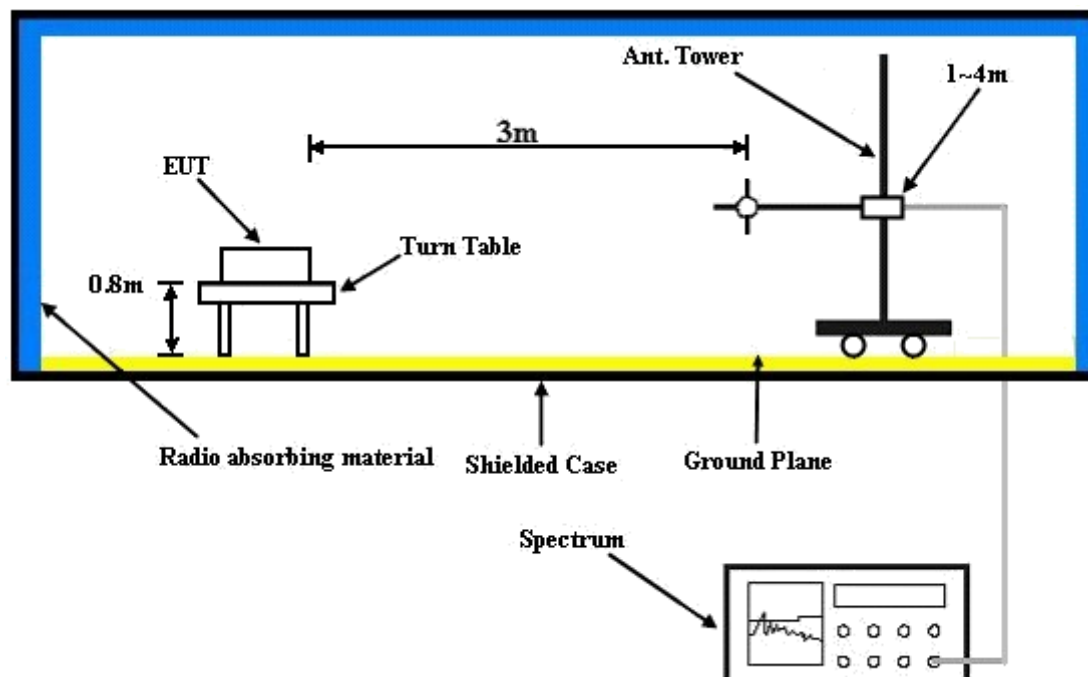
- Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G.
- $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$.
- E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15 \text{ dBi}$.

NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz.

4.7.3 Deviation from Test Standard

No deviation.

4.7.4 Test Setup



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.7.5 Test Results

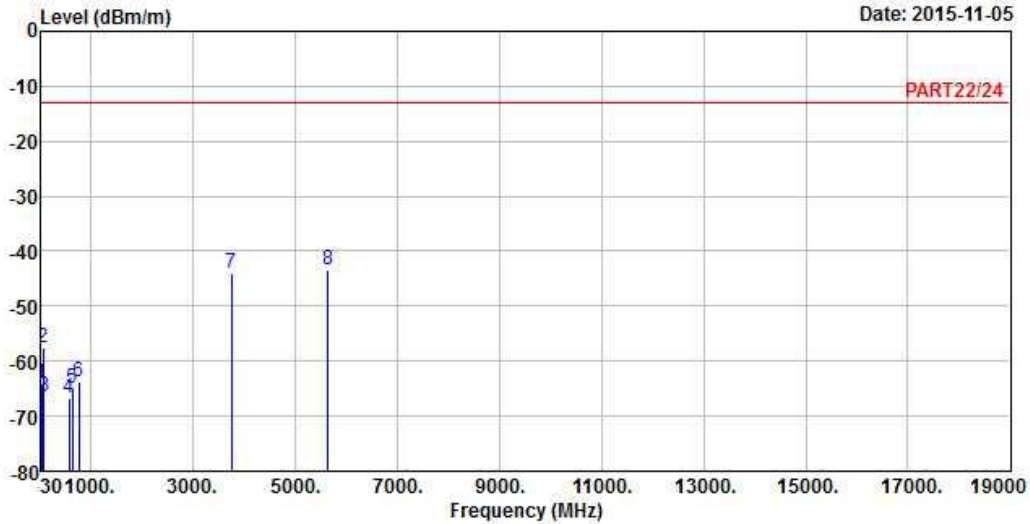
GSM:



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A D T

Data: 9



Site : 966 Chamber 5
 Condition: PART22/24 3m HORIZONTAL
 Remark : GPRS 1900
 Tested by: Gavin Wu
 Plane : Z

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	30.00	-63.95	-64.33	-13.00	-50.95	0.38	Peak
2	61.32	-57.45	-49.71	-13.00	-44.45	-7.74	Peak
3	76.98	-66.38	-56.40	-13.00	-53.38	-9.98	Peak
4	569.50	-66.67	-64.63	-13.00	-53.67	-2.04	Peak
5	643.00	-64.88	-64.01	-13.00	-51.88	-0.87	Peak
6	771.80	-63.68	-64.50	-13.00	-50.68	0.82	Peak
7	3760.00	-44.09	-36.03	-13.00	-31.09	-8.06	Peak
8 pp	5640.00	-43.38	-41.44	-13.00	-30.38	-1.94	Peak

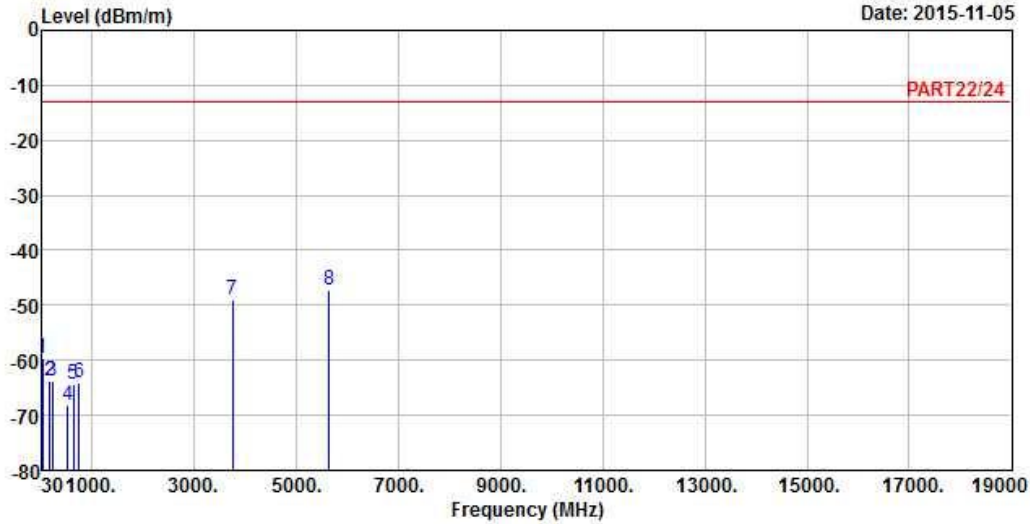


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A D T

Data: 10

Date: 2015-11-05



Site : 966 Chamber 5
 Condition: PART22/24 3m VERTICAL
 Remark : GPRS 1900
 Tested by: Gavin Wu
 Plane : Z

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	30.81	-59.54	-59.43	-13.00	-46.54	-0.11	Peak
2	181.74	-63.81	-56.44	-13.00	-50.81	-7.37	Peak
3	229.26	-63.89	-57.04	-13.00	-50.89	-6.85	Peak
4	526.10	-68.17	-64.46	-13.00	-55.17	-3.71	Peak
5	631.10	-64.46	-63.62	-13.00	-51.46	-0.84	Peak
6	743.80	-64.16	-64.92	-13.00	-51.16	0.76	Peak
7	3760.00	-48.87	-40.81	-13.00	-35.87	-8.06	Peak
8 pp	5640.00	-47.36	-45.42	-13.00	-34.36	-1.94	Peak

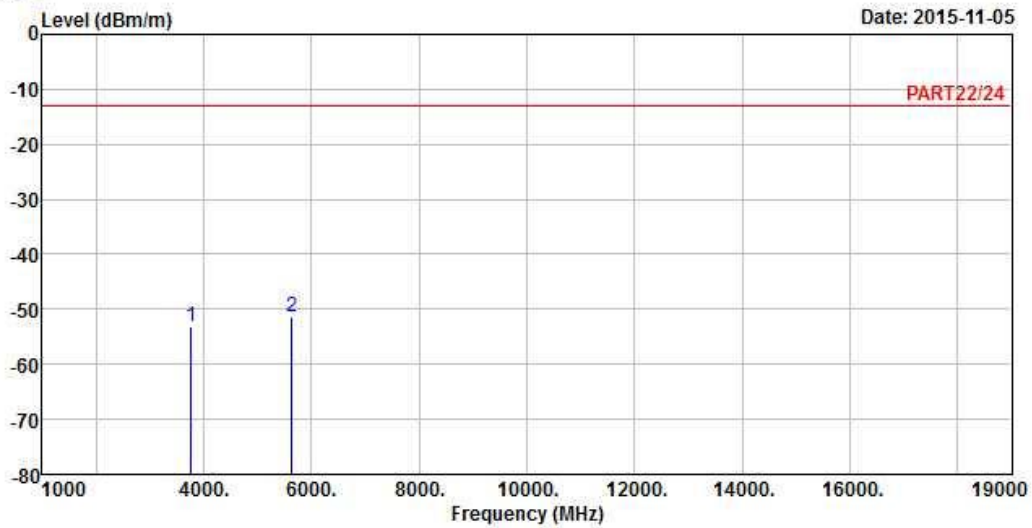
EDGE:



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A D T

Data: 5



Site : 966 Chamber 5
 Condition: PART22/24 3m HORIZONTAL
 Remark : EDGE 1900
 Tested by: Gavin Wu
 Plane : Z

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	3760.00	-53.26	-45.20	-13.00	-40.26	-8.06	Peak
2 pp	5640.00	-51.44	-49.50	-13.00	-38.44	-1.94	Peak



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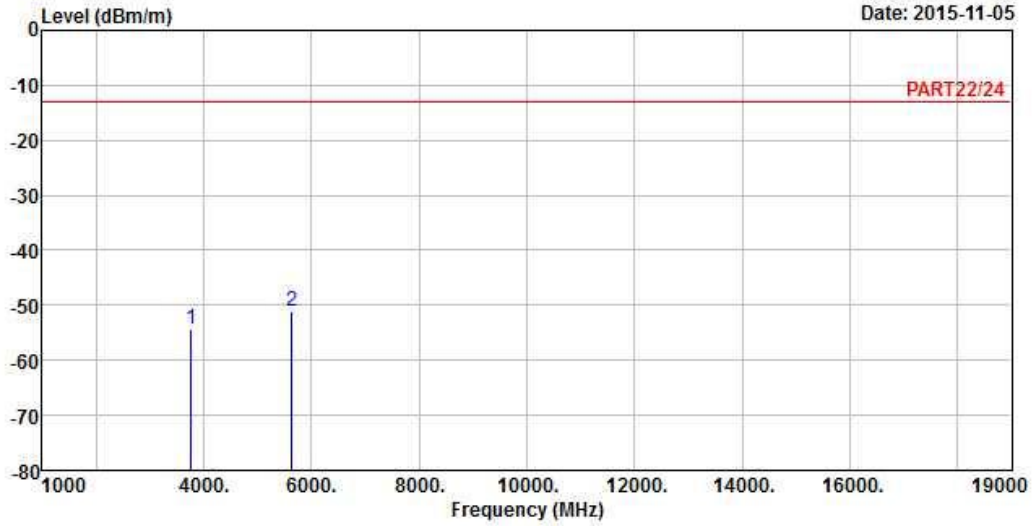


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2015-11-05



Site : 966 Chamber 5
 Condition: PART22/24 3m VERTICAL
 Remark : EDGE 1900
 Tested by: Gavin Wu
 Plane : Z

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	3760.00	-54.41	-46.35	-13.00	-41.41	-8.06	Peak
2 pp	5640.00	-51.07	-49.13	-13.00	-38.07	-1.94	Peak

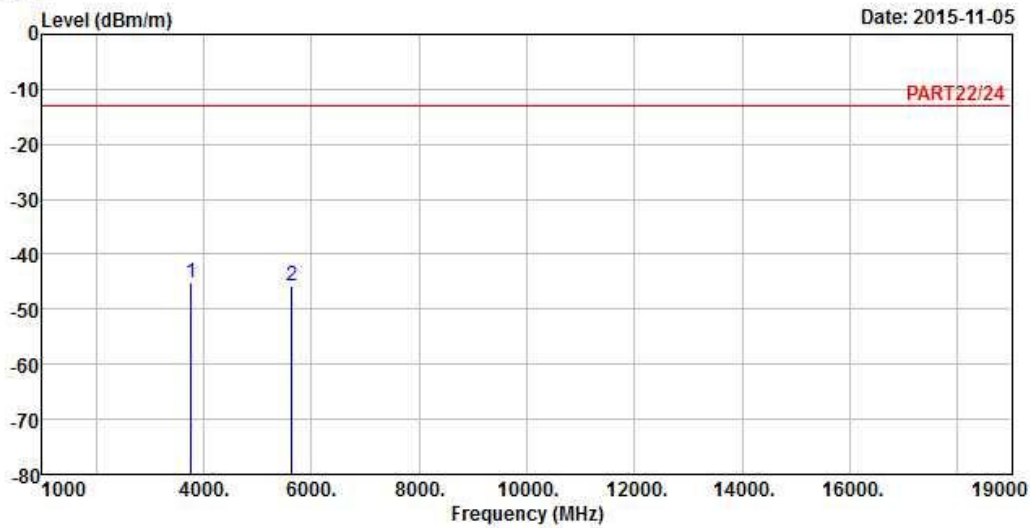
WCDMA:



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 Chamber 5
 Condition: PART22/24 3m HORIZONTAL
 Remark : WCDMA Band II
 Tested by: Gavin Wu
 Plane : Z

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	pp 3760.00	-45.13	-37.07	-13.00	-32.13	-8.06	Peak
2	5640.00	-45.76	-43.82	-13.00	-32.76	-1.94	Peak



A D T

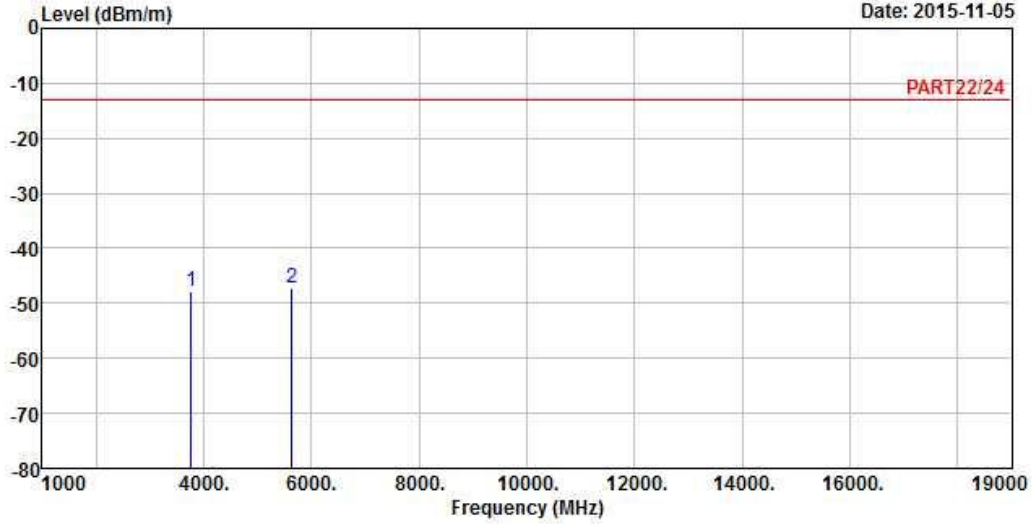


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6

Date: 2015-11-05



Site : 966 Chamber 5
 Condition: PART22/24 3m VERTICAL
 Remark : WCDMA Band II
 Tested by: Gavin Wu
 Plane : Z

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	3760.00	-47.89	-39.83	-13.00	-34.89	-8.06	Peak
2 pp	5640.00	-47.28	-45.34	-13.00	-34.28	-1.94	Peak



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).



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Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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