




FCC PART 90 TEST REPORT

FCC Part 90

Report Reference No......: **WE11030071**
FCC ID.....: **YAMPD70XU2**
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 Date of issue.....: Mar 26, 2011
Testing Laboratory Name.....: **Shenzhen Huatongwei International Inspection Co., Ltd**
 Address: Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Applicant's name.....: **Hytera Communications Corporation Ltd.**
 Address: HYT Tower, Hi-Tech Industrial Park North, Nanshan District, Shenzhen China. 518057

Test specification:
 Standard.....: **FCC Part 90: PRIVATE LAND MOBILE RADIO SERVICES**
 TRF Originator.....: Shenzhen Huatongwei International Inspection CO., Ltd
 Master TRF.....: Dated 2006-06

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Test item description: Digital Portable Radio
 Trade Mark: 
 Manufacturer: **Hytera Communications Corporation Ltd.**
 Model/Type reference.....: PD702 U(2)/ PD705 U(2)/ PD706 U(2)/ PD708 U(2)/HD705 U(2)
 Listed Models: /
 Ratings: DC 7.40 V
 Modulation: FM&4FSK
 Channel Separation.....: 12.5KHz
 Rated Power: 4 Watts(36.02dBm)/1 Watts(30.00dBm)
 Operation Frequency Range.....: From 450 MHz to 520 MHz
 Result.....: **Positive**

TEST REPORT

Test Report No. :	WE11030071	Mar 26, 2011
		Date of issue

Equipment under Test : Digital Portable Radio

Model /Type : PD702 U(2)/ PD705 U(2)/ PD706 U(2)/ PD708 U(2)
/HD705 U(2)

Listed Models : /

Applicant : **Hytera Communications Corporation Ltd.**

Address : HYT Tower,Hi-Tech Industrial Park North,Nanshan District,Shenzhen China.518057

Manufacturer : **Hytera Communications Corporation Ltd.**

Address : HYT Tower,Hi-Tech Industrial Park North,Nanshan District,Shenzhen China.518057

Test Result according to the standards on page 10:	Positive
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The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. TEST STANDARDS

The tests were performed according to following standards:

[FCC Rules Part 90](#): PRIVATE LAND MOBILE RADIO SERVICES.

[TIA/EIA 603](#): Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

[ANSI C63.4-2009](#): American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

2. SUMMARY

2.1. General Remarks

Date of receipt of test sample	:	Mar 03, 2011
Testing commenced on	:	Mar 03, 2011
Testing concluded on	:	Mar 26, 2011

Note: The Test Report Redoes the Transmitter Radiated Spurious Emission based on the Test Report No.:WE11030001 Test Report

2.2. Product Description

The Hytera Communications Corporation Ltd.'s Model: PD702 U(2)/ PD705 U(2)/ PD706 U(2)/ PD708 U(2)/HD705 U(2) or the "EUT" as referred to in this report; more general information as follows, for more details, refer to the user's manual of the EUT.

Name of EUT	Digital Portable Radio	
Model Number	PD702 U(2)/ PD705 U(2)/ PD706 U(2)/ PD708 U(2)/HD705 U(2)	
FCC ID	YAMPD70XU2	
Rated Output Power	4 Watts(36.02 dBm)/1 Watts(30.00 dBm)	
Support data rate	9.6kbps	
Modulation Type	FM for Analog Voice	
	4FSK for Digital Voice/Digital Data	
	4FSK for Digital Data	
	Analog	11K0F3E for 12.5KHz Channel Separation
	Digital	7K60FXD for Digital Data only 7K60FXW for Digital Data & Digital Voice
Channel Separation	Analog Voice	12.5KHz
	Digital Voice/Data	12.5KHz
	Digital Data	12.5KHz
Antenna Type	External	
Frequency Range	From 450 MHz to 520 MHz	
	Analog	4.04 W for 12.5 KHz Channel Separation
	Digital	3.97 W for 12.5 KHz Channel Separation

Note: The product has the same digital working characters when operating in both two digitized voice/data mode (7K60FXD and 7K60FXW). So only one set of test results for digital modulation modes are provided in this test report.

2.3. Equipment under Test

Power supply system utilised

Power supply voltage	:	<input type="radio"/> 120V / 60 Hz	<input type="radio"/> 115V / 60Hz
		<input type="radio"/> 12 V DC	<input type="radio"/> 24 V DC
		<input checked="" type="radio"/> Other (specified in blank below)	

DC 7.40V from battery

Test frequency list

Modulation Type	Test Channel	Test Frequency
Analog/FM	Low Channel	450.5000 MHz
	Low Channel	467.5000 MHz
	Middle Channel	485.0000 MHz
	High Channel	502.5000 MHz
	High Channel	519.5000 MHz
Digital/4FSK	Low Channel	450.5000 MHz
	Low Channel	467.5000 MHz
	Middle Channel	485.0000 MHz
	High Channel	502.5000 MHz
	High Channel	519.5000 MHz

2.4. Short description of the Equipment under Test (EUT)

450-520 MHz U frequency band Digital Portable Radio (PD702 U(2)/ PD705 U(2)/ PD706 U(2)/ PD708 U(2)/HD705 U(2)).

For more details, refer to the user's manual of the EUT.

Serial number: Prototype

2.5. EUT Configuration

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

2.6. EUT operation mode

The EUT has been tested under typical operating condition and The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

2.7. EUT configuration

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

● - supplied by the manufacturer

○ - supplied by the lab

<input type="radio"/>	Power Cable	Length (m) :	/
		Shield :	/
		Detachable :	/
<input type="radio"/>	Multimeter	Manufacturer :	/
		Model No. :	/

2.8. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **YAMPD70XU2** filing to comply with FCC Part 90 Rules

2.9. Modifications

No modifications were implemented to meet testing criteria.

2.10. Note

1. The EUT is a U frequency band (450-520MHz) Digital Portable Radio, The functions of the EUT listed as below:
- 2.

	Test Standards	Reference Report
Radio	FCC Part 90	WE11030071 WE11030001

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Shenzhen Huatongwei International Inspection Co., Ltd
Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Phone: 86-755-26715686 Fax: 86-755-26748089

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 (2009) and CISPR Publication 22.

3.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories, Date of Registration: August 02, 2007. Valid time is until March 29, 2012.

A2LA-Lab Cert. No. 2243.01

Shenzhen Huatongwei International Inspection Co., Ltd, EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. Valid time to Sep 30, 2011.

FCC-Registration No.: 662850

Shenzhen Huatongwei International Inspection Co., Ltd, EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 662850, Renewal date July 01, 2009.

IC-Registration No.: 5377

The 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377 on Jan 24th, 2014.

ACA

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

NEMKO-Aut. No.: ELA125

Shenzhen Huatongwei International Inspection Co., Ltd has been assessed the quality assurance system, the testing facilities, qualifications and testing practices of the relevant parts of the organization. The quality assurance system of the Laboratory has been validated against ISO/IEC 17025:2005 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA-10; the Authorization is valid through July 07, 2011.

VCCI

The 3m Semi-anechoic chamber (12.2m×7.95m×6.7m) and Shielded Room (8m×4m×3m) of Shenzhen Huatongwei International Inspection Co., Ltd has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2484. Date of Registration: December 20, 2009. Valid time is until December 19, 2012.

Main Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: C-2726. Date of Registration: December 20, 2009. Valid time is until December 19, 2012.

DNV

Shenzhen Huatongwei International Inspection Co Ltd has been found to comply with the requirements of DNV towards subcontractor of EMC and safety testing services in conjunction with the EMC and Low voltage Directives and in the voluntary field. The acceptance is based on a formal quality Audit and follow-ups according to relevant parts of ISO/IEC Guide 17025(2005), in accordance with the requirements of the DNV Laboratory Quality Manual towards subcontractors. Valid time is until 24 August, 2013.

3.3. Environmental conditions

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

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

3.4. Configuration of Tested System

Fig. 2-1 Configuration of Tested System

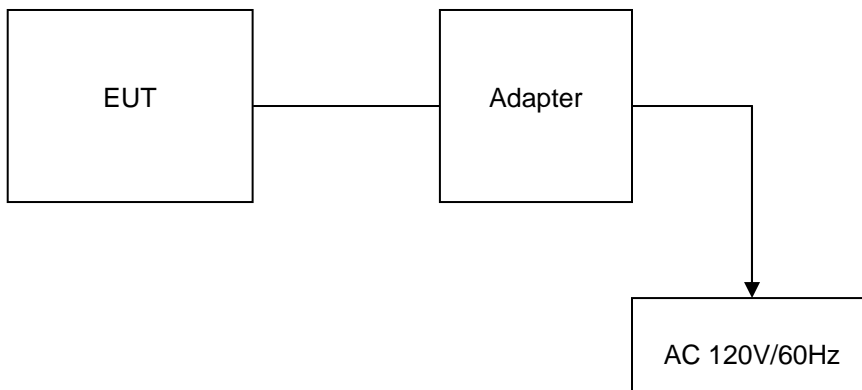


Table 2-1 Equipment Used in Tested System

Adapter: P/N: PS1014
 Model: DSA-15P-12 US 120120
 Input:100-240V~50/60Hz 0.5A
 Output: +12V DC 1A
 Power Cable: 180cm
 ◇ Shielded ◆ Unshielded

3.5. Discription of Tested Modes

The EUT (Didital Portable Radio) has been tested under normal operating condition. Five channels (the high, the middle and the low) are chosen for testing at each channel separation (12.5 KHz).

3.6. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

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

Test Items	Measurement Uncertainty	Notes
Frequency stability	150 Hz	(1)
Transmitter power conducted	0.30 dB	(1)
Transmitter power Radiated	2.20 dB	(1)
Conducted spurious emission 9KHz-12.75 GHz	1.60 dB	(1)
Radiated spurious emission 9KHz-12.75 GHz	2.20 dB	(1)
Conducted Emission 9KHz-30MHz	3.39 dB	(1)
Radiated Emission 30~1000MHz	4.24 dB	(1)
Radiated Emissio 1~18GHz	5.16 dB	(1)
Radiated Emissio 18-40GHz	5.54 dB	(1)
Occupied Bandwidth	-----	(1)
Emission Mask	-----	(1)
Modulation Characteristic	-----	(1)
Transmitter Frequency Behavior	-----	(1)

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

3.7. Test Description

FCC Rules	Description of Test	Test Result
§ 90.210	Transmitter Radiated Spurious Emssion	Complies

3.8. Equipments Used during the Test

Transmitter Radiated Spurious Emssion & Occupied Bandwidth & Emission Mask & Receiver Radiated Spurious Emssion				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Ultra-Broadband Antenna	Rohde&Schwarz	HL562	100015	11/2011
EMI Test Receiver	Rohde&Schwarz	ESI 26	100009	11/2011
RF Test Panel	Rohde&Schwarz	TS / RSP	335015/ 0017	N/A
HORN ANTENNA	Rohde&Schwarz	HF906	100039	11/2011
Turntable	ETS	2088	2149	N/A
Antenna Mast	ETS	2075	2346	N/A
EMI Test Software	Rohde&Schwarz	ES-K1 V1.71	N/A	11/2011
RF COMMUNICATION TEST SET	HP	8920A	3813A10206	11/2011

4. TEST CONDITIONS AND RESULTS

4.1. Transmitter Radiated Spurious Emission

TEST APPLICABLE

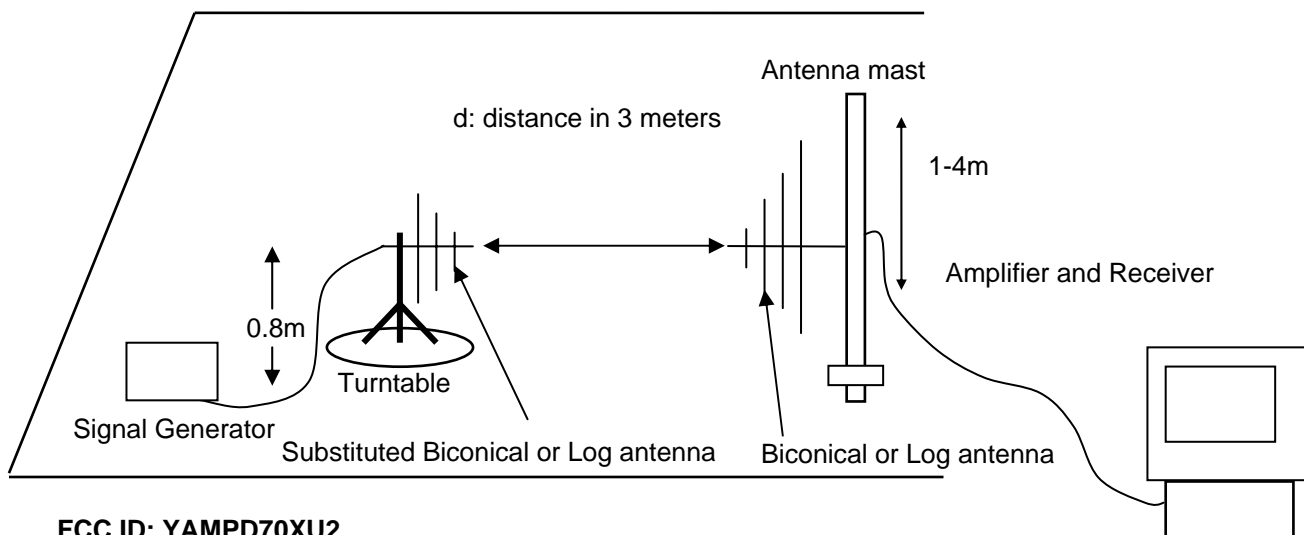
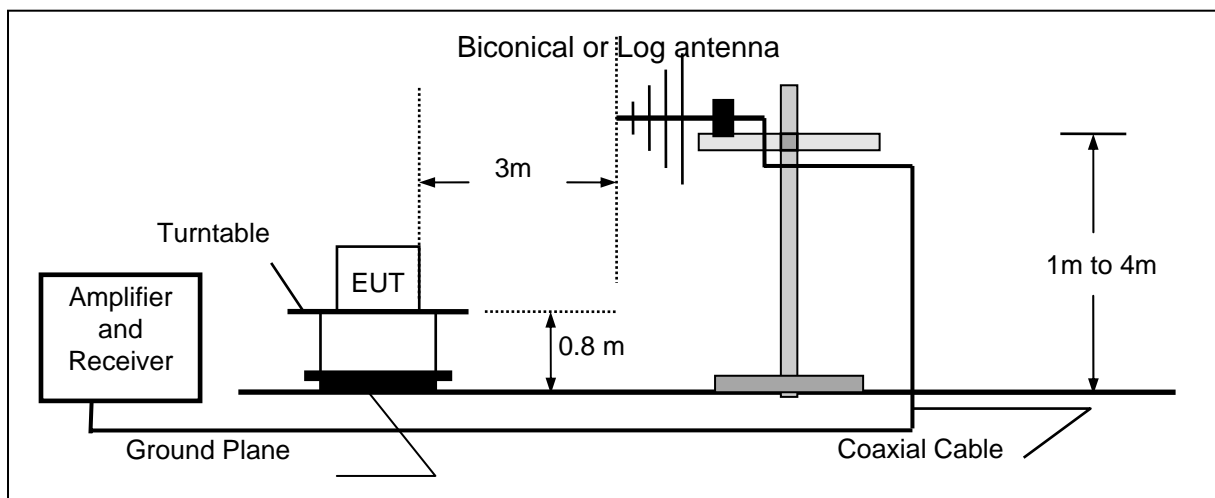
According to the TIA/EIA 603 test method, and according to Section 90.210, the power of each unwanted emission shall be less than Transmitted Power as specified below for transmitters designed to operate with 12.5 KHz channel bandwidth:

- 1 On any frequency removed from the center of the authorized bandwidth f_0 to 5.625 KHz removed from f_0 : Zero dB
 - 2 On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in KHz) f_0 of more than 5.625 KHz but no more than 12.5 KHz: At least 7.27dB
 - 3 On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in KHz) f_0 of more than 12.5 KHz: At least $50+10 \log (P)$ dB or 70 dB, which ever is lesser attenuation.
- For transmitters designed to transmit with 25 KHz channel separation and equipped with an audio low-pass filter, the power of any emission must be attenuated below the unmodulated carrier power (P) as following:

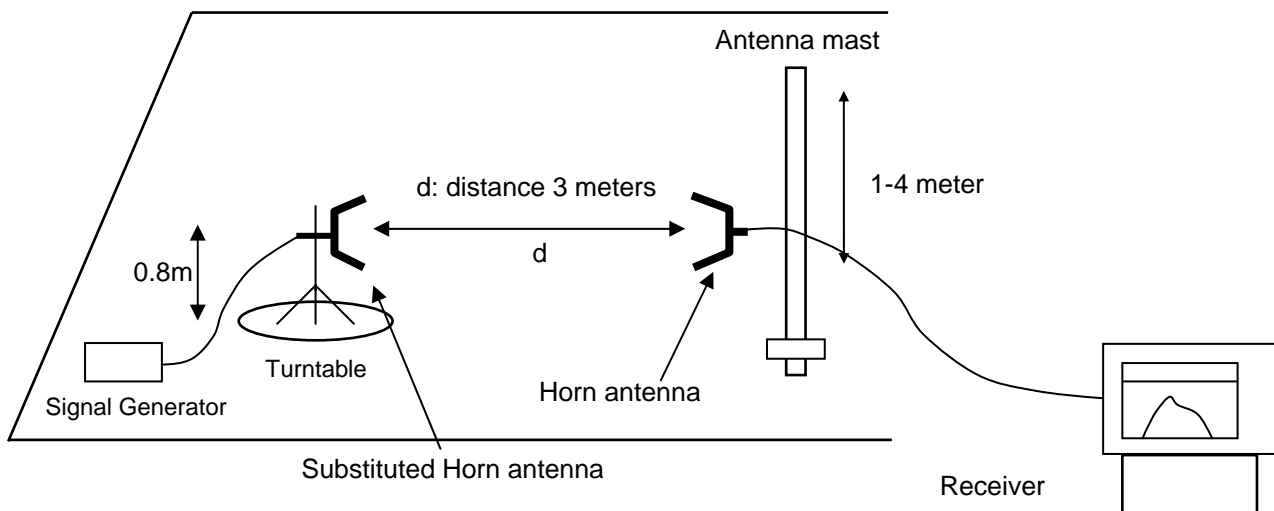
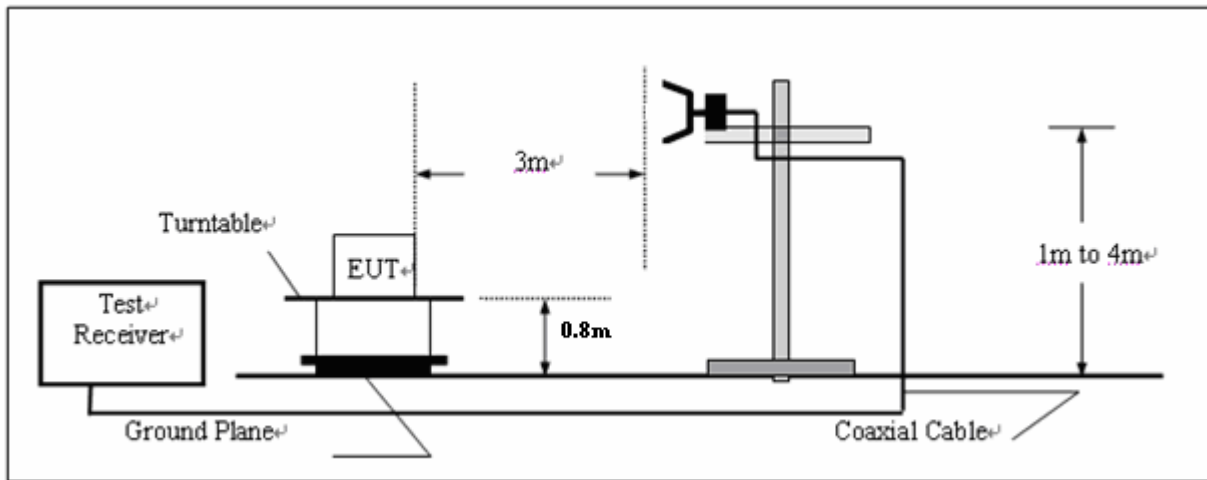
- 1 On any frequency removed from the assigned frequency by more than 50 percent, but no more than 100 percent of the authorized bandwidth: At least 25 dB.
- 2 On any frequency removed from the assigned frequency by more than 100 percent, but no more than 250 percent of the authorized bandwidth: At least 35 dB.
- 3 On any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth: At least $43+10\log (P)$ dB.

TEST CONFIGURATION

Below 1GHz



Above 1GHz

**TEST PROCEDURE**

- 1 Set the EMI Receiver (for measuring E-Field) and Receiver (for measuring EIRP) as follows:
 Center Frequency: equal to the signal source
 Resolution BW: 100 KHz
 Video BW: VBW > RBW
 Detector Mode: positive
 Average: off
 Span: 3 x the signal bandwidth
- 2 Load an appropriate correction factors file in EMI Receiver for correcting the field strength reading level
 Total Correction Factor recorded in the EMI Receiver = Cable Loss + Antenna Factor + Amplifier Gain
 $E \text{ (dBuV/m)} = \text{Reading (dBuV)} + \text{Total Correction Factor (dB)}$
- 3 The transmitter under test was placed at the specified height on a non-conducting turntable (80 cm height)
- 4 Substitute the EUT by a signal generator and one of the following transmitting antenna (substitution antenna):
 DIPOLE antenna for frequency from 30-1000 MHz or
 HORN antenna for frequency above 1 GHz}.
- 5 Mount the transmitting antenna at 1.0 meter high from the ground plane.
- 6 Use one of the following antenna as a receiving antenna:
 DIPOLE antenna for frequency from 30-1000 MHz or
 HORN antenna for frequency above 1 GHz}.
- 7 If the DIPOLE antenna is used, tune it's elements to the frequency as specified in the calibration manual.
- 8 Adjust both transmitting and receiving antenna in a VERTICAL polarization.
- 9 Tune the EMI Receivers to the test frequency.
- 10 Lower or raise the test antenna from 1 to 4 meters until the maximum signal level was detected.

- 11 The transmitter was rotated through 360 degree about a vertical axis until a higher maximum signal was received.
 - 12 Lower or raise the test antenna from 1 to 4 meters until the maximum signal level was detected.
 - 13 Adjust input signal to the substitution antenna until an equal or a known related level to that detected from the transmitter was obtained in the test receiver.
 - 14 Record the power level read from the Average Power Meter and calculate the ERP/EIRP as follows:

$$P = P_1 - L_1 = (P_2 + L_2) - L_1 = P_3 + A + L_2 - L_1$$

$$\text{EIRP} = P + G_1 = P_3 + L_2 - L_1 + A + G_1$$

$$\text{ERP} = \text{EIRP} - 2.15 \text{ dB}$$

$$\text{Total Correction factor in EMI Receiver} = L_2 - L_1 + G_1$$
- Where:
- P: Actual RF Power fed into the substitution antenna port after corrected.
 - P₁: Power output from the signal generator
 - P₂: Power measured at attenuator A input
 - P₃: Power reading on the Average Power Meter
 - EIRP: EIRP after correction
 - ERP: ERP after correction
- 15 Adjust both transmitting and receiving antenna in a Horizontal polarization, then repeat step (11) to (14).
 - 16 Repeat step (4) to (16) for different test frequency
 - 17 Repeat steps (3) to (12) with the substitution antenna oriented in horizontal polarization.
 - 18 Actual gain of the EUT's antenna is the difference of the measured EIRP and measured RF power at the RF port. Correct the antenna gain if necessary.

TEST RESULTS

The Transmitter Radiated Spurious Emssion was performed to the Rated high power (4Watt) and Rated low power (1Watt) the datum that reported below is the worst case (Rated high power) of the two rated power conditions.

Modulation Type: FM

FCC Part 22.359, 74.462, 80.211 and 90.210 and RSS Gen, RSS 119 Issue 9 (12.5 kHz bandwidth only): On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f d in kHz) of more than 12.5 kHz at least:

Low: $50 + 10 \log (\text{Pwatts}) = 50 + 10 \log (3.92) = 55.93 \text{ dB}$

High: $50 + 10 \log (\text{Pwatts}) = 50 + 10 \log (4.04) = 56.06 \text{ dB}$

Note: In general, the worse case attenuation requirement shown above was applied.

Calculation: Limit (dBm) = EL-50-10log₁₀ (TP)

Notes: EL is the emission level of the Output Power expressed in dBm,
 In this application, the EL is 36.02 dBm.
 Limit (dBm) = 36.02-50-10log₁₀ (4.04) = -20 dBm

Modulation Type: 4FSK

FCC Part 22.359, 74.462, 80.211 and 90.210 and RSS Gen, RSS 119 Issue 9 (12.5 kHz Bandwidth only): On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f d in kHz) of more than 12.5 kHz at least:

Low: $50 + 10 \log (\text{Pwatts}) = 50 + 10 \log (3.85) = 55.86 \text{ dB}$

High: $50 + 10 \log (\text{Pwatts}) = 50 + 10 \log (3.97) = 55.99 \text{ dB}$

Note: In general, the worse case attenuation requirement shown above was applied.

Calculation: Limit (dBm) = EL-50-10log₁₀ (TP)

Notes: EL is the emission level of the Output Power expressed in dBm,
 In this application, the EL is 36.02 dBm.
 Limit (dBm) = 36.02-50-10log₁₀ (3.97) = -20 dBm

Note: 1. In general, the worse case attenuation requirement shown above was applied.

2. The measurement frequency range from 30 MHz to 6 GHz.

3. *** means that the emission level is too low to be measured or at least 20 dB down than the limit.

Modulation		FM		Channel Separation		12.5KHz		
Test Channel		Low Channel		Test Frequency		450.5000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
901.00	51.88	Peak	H	345	122	-44.01	-20	24.01
1351.50	41.56	Peak	H	300	360	-55.44	-20	35.44
2703.00	42.01	Peak	H	150	26	-54.55	-20	34.55
...	...		H					
901.00	52.00	Peak	V	108	244	-45.00	-20	25.00
1351.50	43.69	Peak	V	100	222	-52.28	-20	32.48
2703.00	42.93	Peak	V	150	128	-54.12	-20	34.12
...	...		V					

Modulation		FM		Channel Separation		12.5KHz		
Test Channel		Low Channel		Test Frequency		467.5000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
935.00	51.67	Peak	H	100	26	-44.33	-20	24.33
1402.50	49.42	Peak	H	300	127	-47.61	-20	27.61
1870.00	41.30	Peak	H	350	255	-54.98	-20	34.98
...	...		H					
935.00	52.12	Peak	V	124	360	-44.05	-20	24.05
1402.50	44.70	Peak	V	108	222	-51.08	-20	31.08
1870.00	42.21	Peak	V	100	102	-55.02	-20	35.02
...	...		V					

Modulation		FM		Channel Separation		12.5KHz		
Test Channel		Middle Channel		Test Frequency		485.0000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
970.00	53.66	Peak	H	255	360	-43.45	-20	23.45
1455.00	34.93	Peak	H	136	125	-61.65	-20	41.65
2425.00	40.68	Peak	H	300	100	-56.35	-20	36.35
...	...		H					
970.00	51.29	Peak	V	108	189	-44.93	-20	24.93
1455.00	38.41	Peak	V	128	222	-58.76	-20	38.76
2425.00	41.12	Peak	V	150	330	-55.12	-20	35.12
...	...		V					

Modulation		FM		Channel Separation		12.5KHz		
Test Channel		High Channel		Test Frequency		502.5000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
1507.50	41.03	Peak	H	300	256	-56.22	-20	36.22
2010.00	44.86	Peak	H	346	100	-52.14	-20	32.14
2512.50	43.36	Peak	H	300	108	-53.32	-20	33.32
...	...		H					
1005.00	38.24	Peak	V	150	355	-58.54	-20	38.54
2010.00	41.12	Peak	V	100	360	-55.44	-20	35.44
2512.50	43.20	Peak	V	100	125	-53.18	-20	33.18
...	...		V					

Modulation		FM		Channel Separation		12.5KHz		
Test Channel		High Channel		Test Frequency		519.5000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
1039.00	37.98	Peak	H	250	125	-59.15	-20	39.15
1558.50	35.05	Peak	H	200	100	-61.98	-20	41.98
2078.00	39.87	Peak	H	100	89	-57.23	-20	37.23
...	...		H					
1039.00	40.24	Peak	V	125	360	-56.39	-20	36.39
1558.50	38.80	Peak	V	100	125	-58.18	-20	38.18
2078.00	37.69	Peak	V	100	222	-58.88	-20	38.88
...	...		V					

Modulation		4FSK		Channel Separation		12.5KHz		
Test Channel		Low Channel		Test Frequency		450.5000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
901.00	51.59	Peak	H	300	122	-45.24	-20	25.24
1351.50	42.37	Peak	H	300	226	-54.63	-20	34.63
2703.00	38.14	Peak	H	300	26	-59.00	-20	39.00
...	...		H					
900.10	50.81	Peak	V	102	360	-46.11	-20	26.11
1351.50	38.17	Peak	V	125	125	-58.16	-20	38.16
2703.00	40.06	Peak	V	128	125	-56.82	-20	36.82
...	...		V					

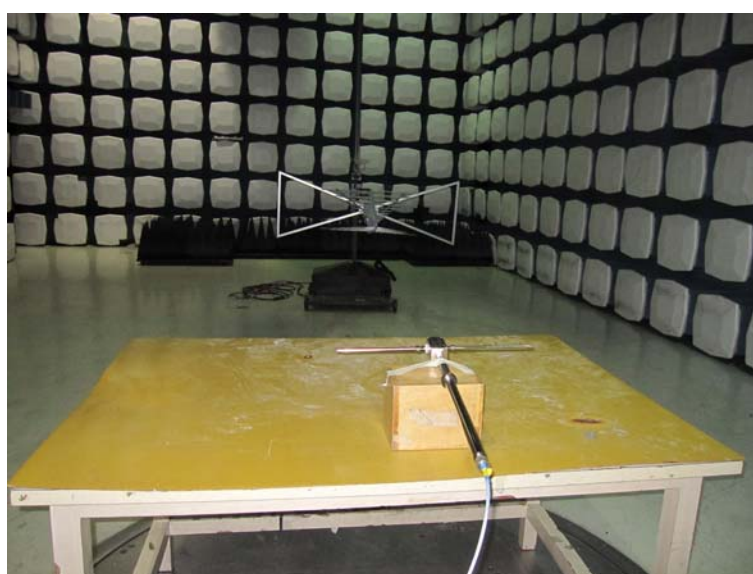
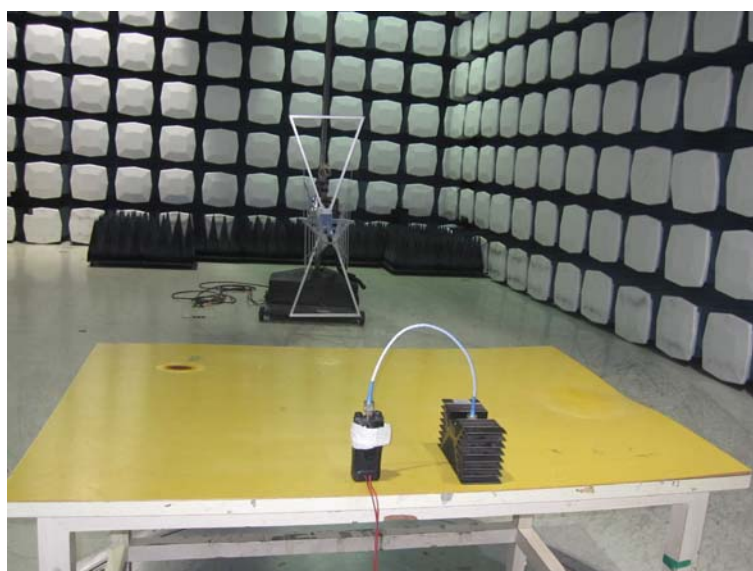
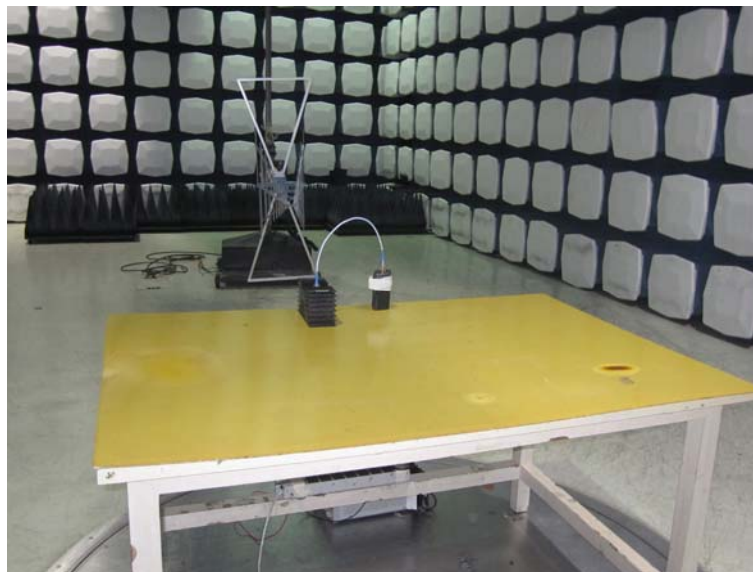
Modulation		4FSK		Channel Separation		12.5KHz		
Test Channel		Low Channel		Test Frequency		467.5000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
935.00	52.34	Peak	H	289	125	-44.30	-20	24.30
1402.50	44.46	Peak	H	200	360	-51.90	-20	31.90
1870.00	43.18	Peak	H	150	89	-53.91	-20	33.91
...	...		H					
935.00	52.45	Peak	V	156	255	-44.33	-20	24.33
1402.50	45.54	Peak	V	178	300	-51.01	-20	31.01
1870.00	38.21	Peak	V	100	312	-58.28	-20	38.28
...	...		V					

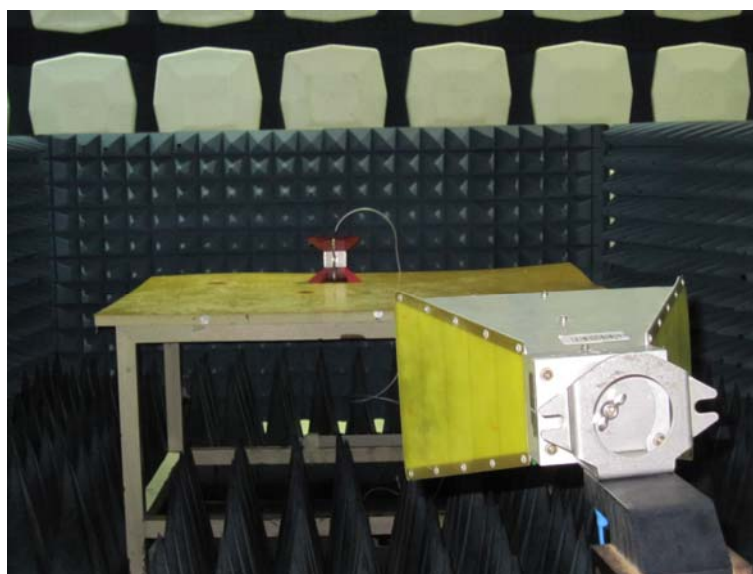
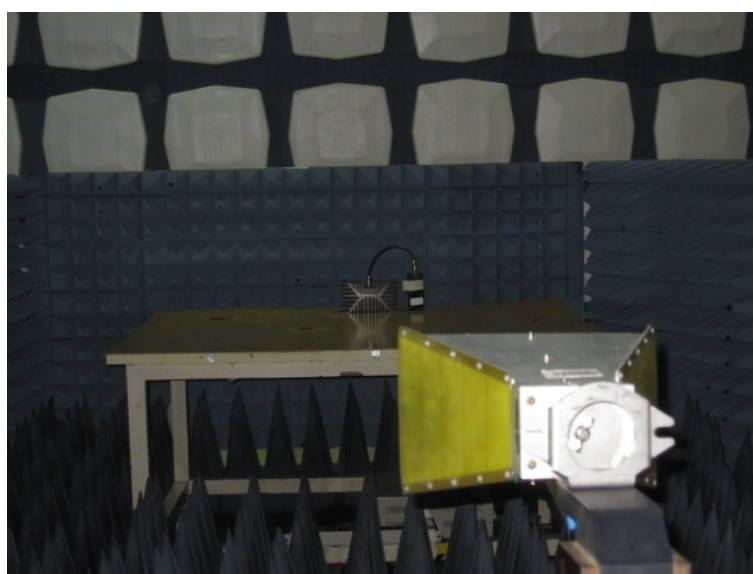
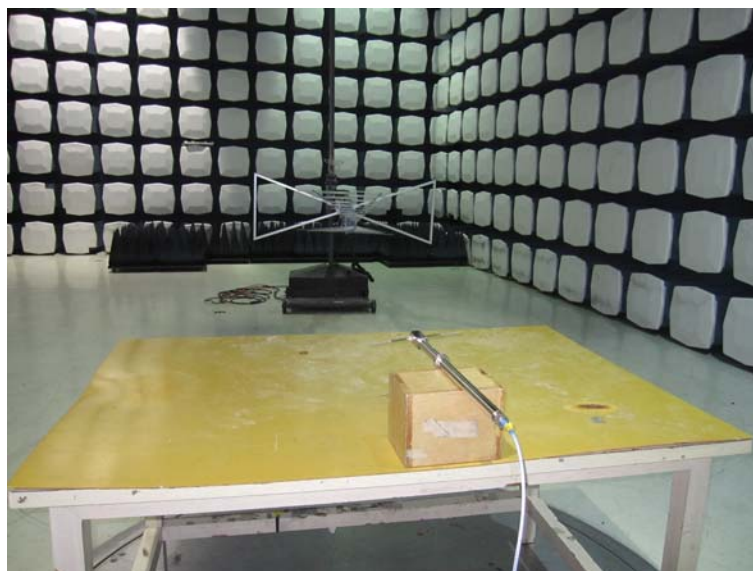
Modulation		4FSK		Channel Separation		12.5KHz		
Test Channel		Middle Channel		Test Frequency		485.0000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
970.00	52.45	Peak	H	108	180	-44.55	-20	24.55
1455.00	37.95	Peak	H	194	225	-58.87	-20	38.87
2425.00	39.94	Peak	H	289	78	-56.39	-20	36.39
...	...		H					
970.00	52.73	Peak	V	108	360	-44.30	-20	24.30
1455.00	38.47	Peak	V	112	125	-58.19	-20	38.19
2425.00	36.98	Peak	V	150	88	-59.33	-20	39.33
...	...		V					

Modulation		4FSK		Channel Separation		12.5KHz		
Test Channel		High Channel		Test Frequency		502.5000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
1005.00	34.75	Peak	H	350	127	-62.33	-20	42.33
1507.50	38.35	Peak	H	400	150	-58.23	-20	38.23
2010.00	43.43	Peak	H	255	331	-53.45	-20	33.45
...	...		H					
1005.00	39.67	Peak	V	122	289	-57.12	-20	37.12
1507.50	41.56	Peak	V	108	8	-54.69	-20	34.69
2010.00	39.98	Peak	V	100	127	-56.02	-20	36.02
...	...		V					

Modulation		4FSK		Channel Separation		12.5KHz		
Test Channel		High Channel		Test Frequency		519.5000 MHz		
Frequency (MHz)	E-Field Level (dBuV/m)	EMI Detector (Peak/QP)	Antenna Polarization	Antenna Height (cm)	Table Angle (Degree)	ERP measured by Substitution Method (dBm)	Limit (dBm)	Margin (dB)
1039.00	36.92	Peak	H	300	278	-59.77	-20	39.77
1588.50	37.52	Peak	H	288	127	-58.55	-20	38.55
2078.00	42.96	Peak	H	125	355	-54.10	-20	34.10
...	...		H					
1039.00	40.55	Peak	V	108	360	-56.00	-20	36.00
1588.50	38.88	Peak	V	100	12	-57.56	-20	37.56
2078.00	39.31	Peak	V	124	167	-57.78	-20	37.78
...	...		V					

5. Test Setup Photos of the EUT





6. External and Internal Photos of the EUT

External Photos



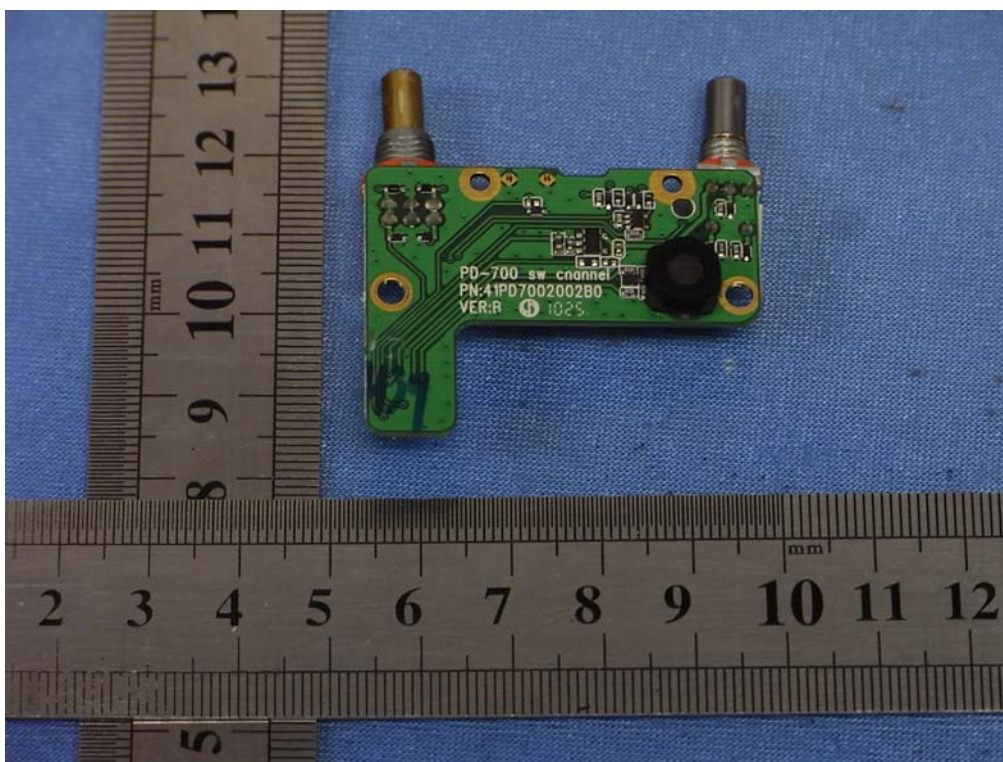


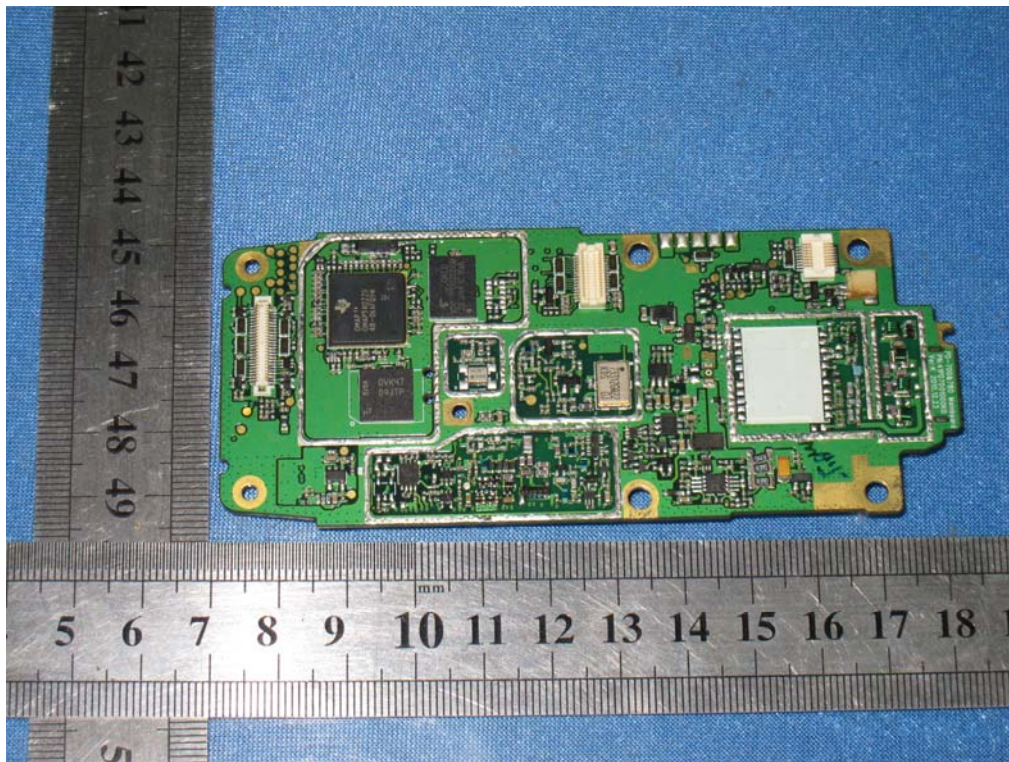


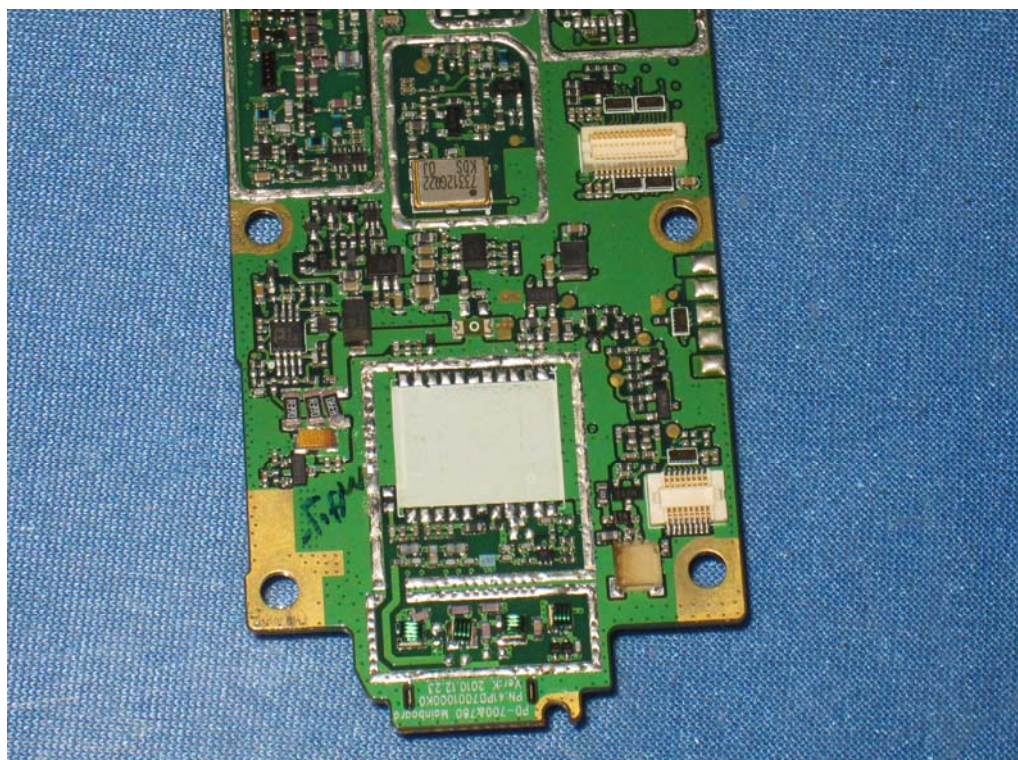
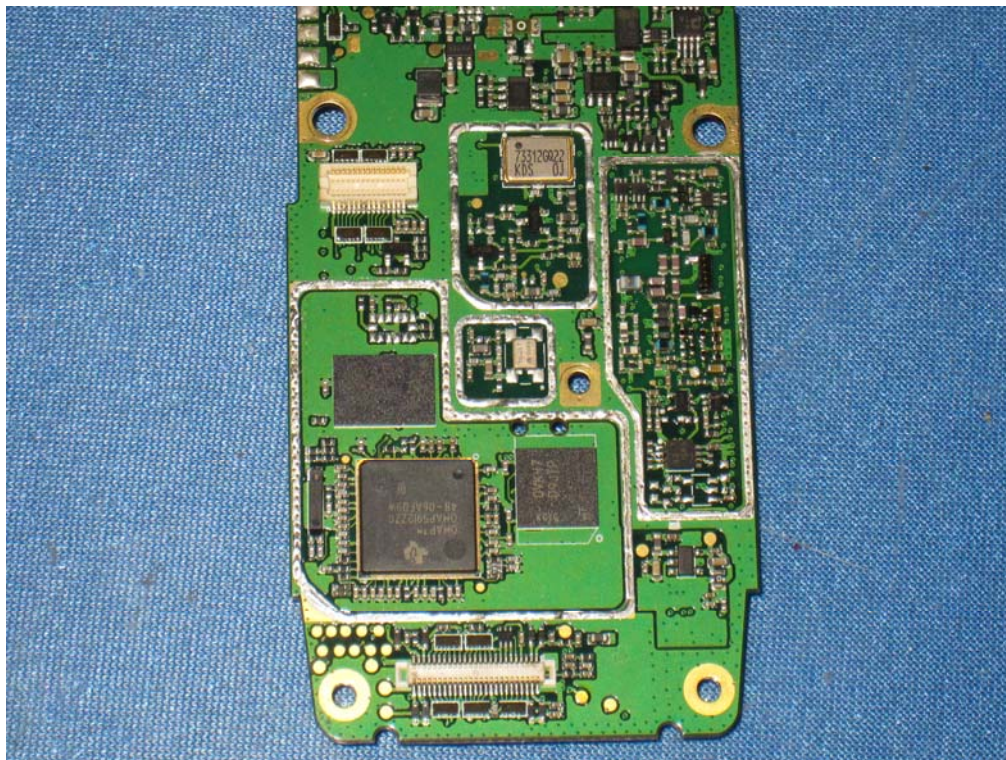


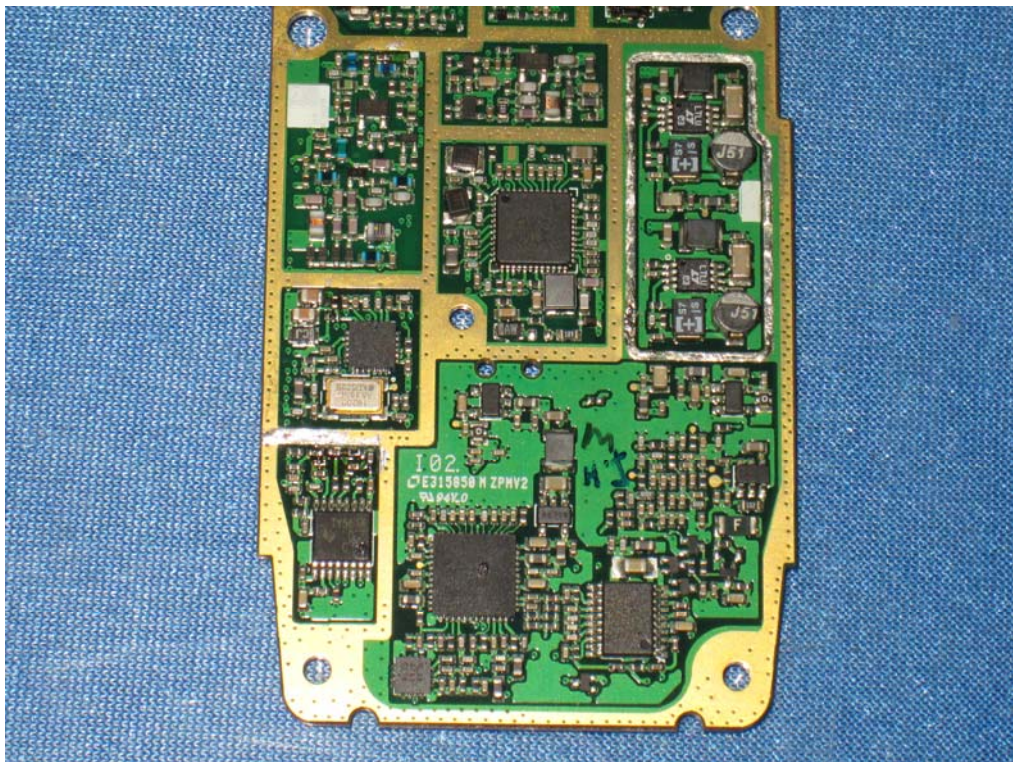
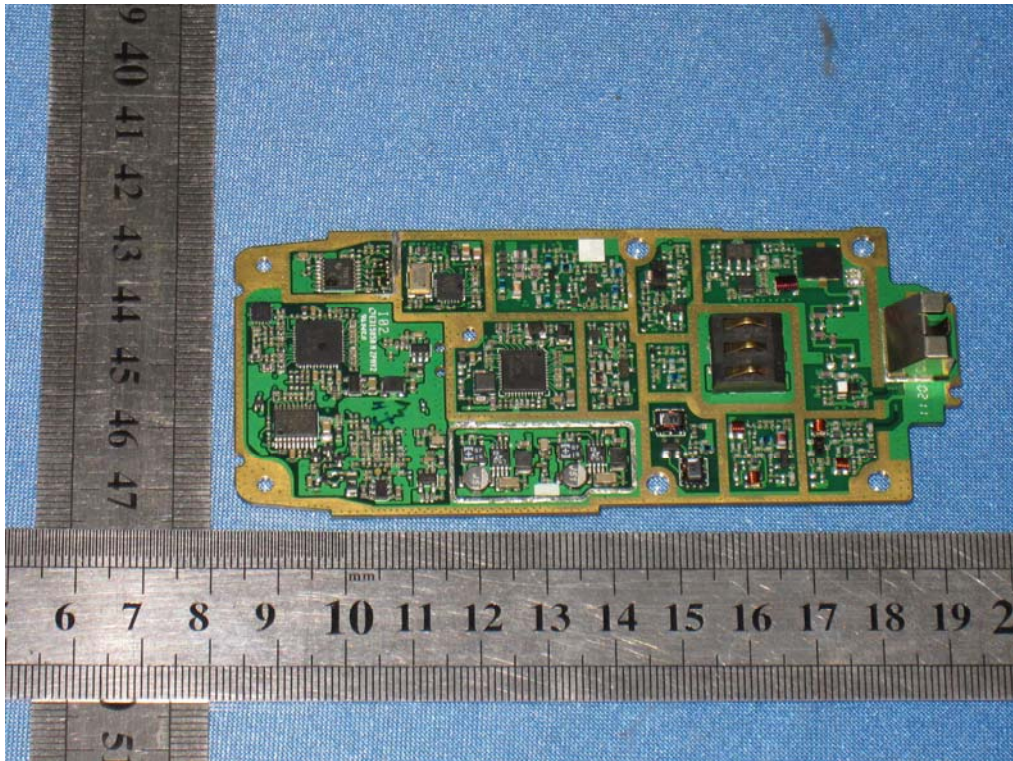
Internal Photos

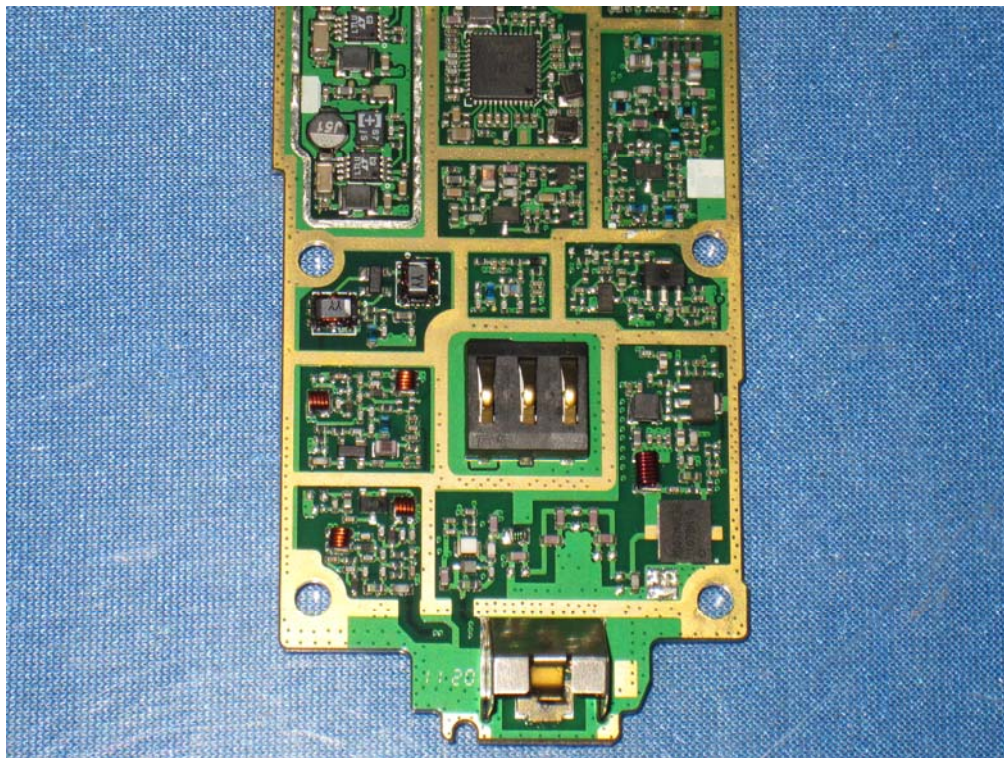












.....End of Report.....