

Produkte
Products

Prüfbericht - Nr.: 17031716 001			Seite 1 von 57		
<i>Test Report No.:</i>			<i>Page 1 of 57</i>		
Auftraggeber:		TOMY International Inc.			
<i>Client:</i>		1111 W. 22nd Street, Suite 320, Oak Brook, Illinois, United States			
Gegenstand der Prüfung: BATTROBORG					
<i>Test item:</i>					
Bezeichnung:		T60810B		Serien-Nr.: n.a.	
<i>Identification:</i>				<i>Serial No.:</i>	
Wareneingangs-Nr.:		164002236		Eingangsdatum: 04.01.2013	
<i>Receipt No.:</i>				<i>Date of receipt:</i>	
Zustand des Prüfgegenstandes bei Anlieferung:			Test samples received are sufficient for testing and not damaged.		
<i>Condition of test item at delivery:</i>					
Prüfört:		Accurate Technology Co., Ltd.			
<i>Testing location:</i>		F1, Bldg. A, Changyuan New Material Port Keyuan Rd., Science & Industry Park, Nanshan Shenzhen, P.R. China FCC Registration No.: 752051 Test site Industry Canada No.: 5077A-2			
Prüfgrundlage:		FCC CFR47 Part 15: Subpart C Section 15.249			
<i>Test specification:</i>		FCC CFR47 Part 15: Subpart C Section 15.209 FCC CFR47 Part 15: Subpart B Section 15.109 FCC KDB Publication 447498 v05 RSS-210 Issue 8 December 2010 RSS-Gen Issue 3 December 2010 ICES-003 Issue 4 February 2004 RSS-102 Issue 4 March 2010			
Prüfergebnis:		Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).			
<i>Test Result:</i>		<i>The test item passed the test specification(s).</i>			
Prüflaboratorium:		TÜV Rheinland (Shenzhen) Co., Ltd.			
<i>Testing Laboratory:</i>					
geprüft/ tested by:			kontrolliert/ reviewed by:		
					
10.05.2013 Owen Tian/Project Manager			10.05.2013 Sam Lin/Technical Certifier		
Datum	Name/Stellung	Unterschrift	Datum	Name/Stellung	Unterschrift
<i>Date</i>	<i>Name/Position</i>	<i>Signature</i>	<i>Date</i>	<i>Name/Position</i>	<i>Signature</i>
Sonstiges/ Other Aspects:					
Abkürzungen: P(ass) = entspricht Prüfgrundlage F(ail) = entspricht nicht Prüfgrundlage N/A = nicht anwendbar N/T = nicht getestet			Abbreviations: P(ass) = passed F(ail) = failed N/A = not applicable N/T = not tested		
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i>					

Prüfbericht - Nr.: 17031716 001
Test Report No.

Seite 2 von 57
Page 2 of 57

TEST SUMMARY

5.1.1 20dB BANDWIDTH AND 99% BANDWIDTH

RESULT: Pass

5.1.2 FUNDAMENTAL & HARMONICS RADIATED EMISSION

RESULT: Pass

5.1.3 RADIATED EMISSIONS FOR TRANSMITTING MODE

RESULT: Pass

5.1.4 RADIATED EMISSIONS FOR RECEIVING MODE

RESULT: Pass

6.1.1 ELECTROMAGNETIC FIELDS

RESULT: Pass

Contents

1.	GENERAL REMARKS	4
1.1	COMPLEMENTARY MATERIALS	4
2.	TEST SITES	4
2.1	TEST FACILITIES	4
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	5
2.3	TRACEABILITY	5
2.4	CALIBRATION	6
2.5	MEASUREMENT UNCERTAINTY.....	6
2.6	LOCATION OF ORIGINAL DATA.....	6
2.7	STATUS OF FACILITY USED FOR TESTING.....	6
3.	GENERAL PRODUCT INFORMATION	7
3.1	PRODUCT FUNCTION AND INTENDED USE.....	7
3.2	RATINGS AND SYSTEM DETAILS	7
3.3	INDEPENDENT OPERATION MODES	7
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS	7
3.5	SUBMITTED DOCUMENTS	8
4.	TEST SET-UP AND OPERATION MODES	9
4.1	PRINCIPLE OF CONFIGURATION SELECTION.....	9
4.2	TEST OPERATION AND TEST SOFTWARE	9
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	9
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE.....	9
4.5	TEST SETUP DIAGRAM	10
5.	TEST RESULTS	12
5.1	TRANSMITTER REQUIREMENT & TEST SUITES	12
5.1.1	20dB Bandwidth and 99% Bandwidth.....	12
5.1.2	Fundamental & Harmonics Radiated Emission	16
5.1.3	Radiated emissions for transmitting mode.....	35
5.1.4	Radiated emissions for receiving mode	36
6.	SAFETY HUMAN EXPOSURE	55
6.1	RADIO FREQUENCY EXPOSURE COMPLIANCE.....	55
6.1.1	Electromagnetic Fields.....	55
7.	PHOTOGRAPHS OF THE TEST SET-UP	56
8.	LIST OF TABLES	57
9.	LIST OF PHOTOGRAPHS	57

Prüfbericht - Nr.: 17031716 001
*Test Report No.***Seite 4 von 57**
Page 4 of 57

1. General Remarks

1.1 Complementary Materials

None.

2. Test Sites

2.1 Test Facilities

Accurate Technology Co., Ltd.

(FCC Registration No.: 752051)

(Test site Industry Canada No.: 5077A-2)

F1, Bldg. A, Changyuan New Material Port
Keyuan Rd., Science & Industry Park, Nanshan
Shenzhen, P.R. China

The tests at the test site have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
Transmitter spurious emissions & Receiver spurious emissions				
Spectrum Analyzer	Agilent	E7405A	MY45115511	2014-01-07
Test Receiver	Rohde & Schwarz	ESCS30	100307	2014-01-07
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	2014-01-07
Loop Antenna	Schwarzbeck	FMZB1516	1516131	2014-01-07
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	2014-01-07
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	2014-01-07
50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	2014-01-07
RF Coaxial Cable	SUHNER	N-3m	No.8	2014-01-07
RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	2014-01-07
RF Coaxial Cable	SUHNER	N-6m	No.10	2014-01-07
RF Coaxial Cable	RESENBERGER	N-12m	No.11	2014-01-07
RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	2014-01-07
Pre-Amplifier	Rohde & Schwarz	CBLU118354 0-01	3791	2014-01-07
Radio Spectrum Test				
Spectrum Analyzer	Rohde & Schwarz	ESPI3	100396/003	2014-01-07
Temp. & Humid. Chamber	Gongwen	HSD-500	0109	2014-01-07
Radiated Emission				
Spectrum Analyzer	Agilent	E7405A	MY45115511	2014-01-07
Test Receiver	Rohde & Schwarz	ESCS30	100307	2014-01-07
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	2014-01-07
Loop Antenna	Schwarzbeck	FMZB1516	1516131	2014-01-07
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	2014-01-07
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	2014-01-07
50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	2014-01-07
RF Coaxial Cable	SUHNER	N-3m	No.8	2014-01-07
RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	2014-01-07
RF Coaxial Cable	SUHNER	N-6m	No.10	2014-01-07
RF Coaxial Cable	RESENBERGER	N-12m	No.11	2014-01-07
RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	2014-01-07
Pre-Amplifier	Rohde & Schwarz	CBLU118354 0-01	3791	2014-01-07

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

Table 2: Measurement Uncertainty

Parameter	Uncertainty
Radio Spectrum	$< \pm 0.60 \text{ dB}$
Radiated emission of transmitter, valid up to 12.75 GHz	$< \pm 4.42 \text{ dB}$
Radiated emission of receiver, valid up to 12.75 GHz	$< \pm 4.42 \text{ dB}$
Conducted Emission	$< \pm 2.23 \text{ dB}$
Radiated Emission	$< \pm 4.42 \text{ dB}$

2.6 Location of Original Data

The original copies of all test data taken during actual testing were retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

Accurate Technology Co., Ltd. test facility located at F1, Bldg. A, Changyuan New Material Port Keyuan Rd., Science & Industry Park, Nanshan, Shenzhen, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a controller used for robot system, there are two component of this system: a controller and a robot, each model is a transceiver, it operates at 2.4GHz ISM frequency band.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

Technical Specification	Value
Kind of Equipment	BATTROBORG
Type Designation	T60800B
FCC ID	BMW-TBC
IC ID	8195A-TBC
Operating Frequency	2411MHz - 2478MHz
Channel Frequency	2411, 2413, 2415, 2417, 2419, 2421, 2423, 2425, 2427, 2429, 2431, 2433, 2435, 2437, 2439, 2441, 2443, 2445, 2447, 2449, 2451, 2453, 2455, 2457, 2459, 2461, 2463, 2465, 2467, 2469, 2471, 2473, 2475, 2477, 2478MHz
Channel Bandwidth	1MHz
Channel Separation	2MHz
Extreme Temperature Range	0~+40°C
Operation Voltage	DC 6V (4 x 'AA' size battery)
Modulation	GFSK
Antenna Gain	0dBi

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, wireless mode
 - 1. Transmitting
 - 2. Receiving
- B. Standby
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

Prüfbericht - Nr.: 17031716 001*Test Report No.***Seite 8 von 57***Page 8 of 57*

3.5 Submitted Documents

- Bill of Material
- PCB Layout
- Photo Document
- Circuit Diagram
- Instruction Manual
- Rating Label

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.4: 2003.

4.3 Special Accessories and Auxiliary Equipment

None.

4.4 Countermeasures to achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test

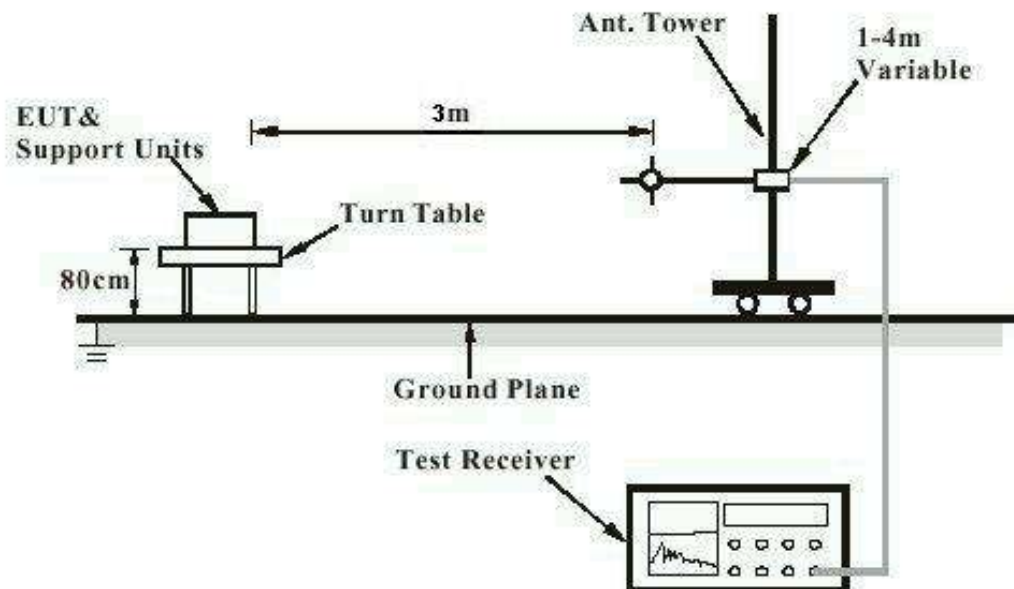


Diagram of Measurement Equipment Configuration for Conduction Measurement

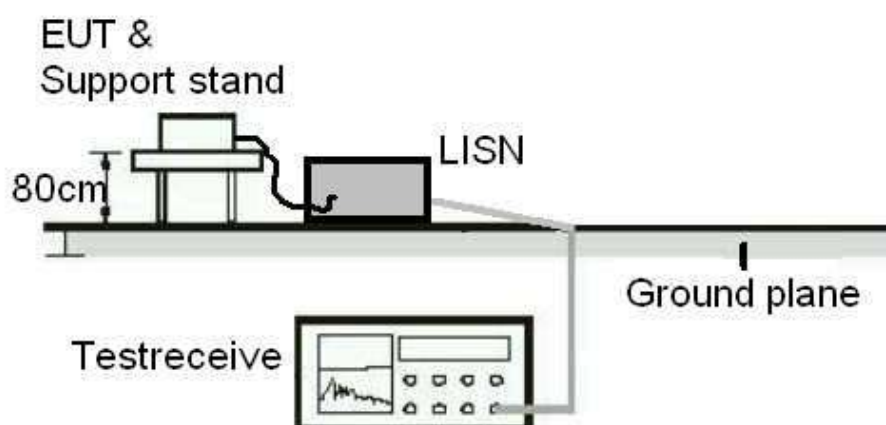
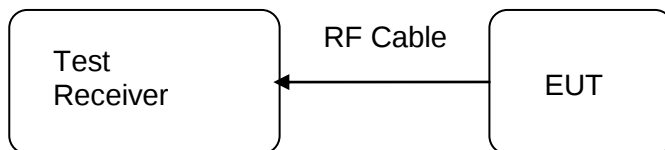


Diagram of Measurement Equipment Configuration for Transmitter Measurement



5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 20dB Bandwidth and 99% Bandwidth

RESULT:**Pass**

Date of testing : 2013-03-02
Test standard : Clause 4.6.1 & 4.6.3 of RSS-Gen
Basic standard : ANSI C63.4: 2003
Kind of test site : Shielded room

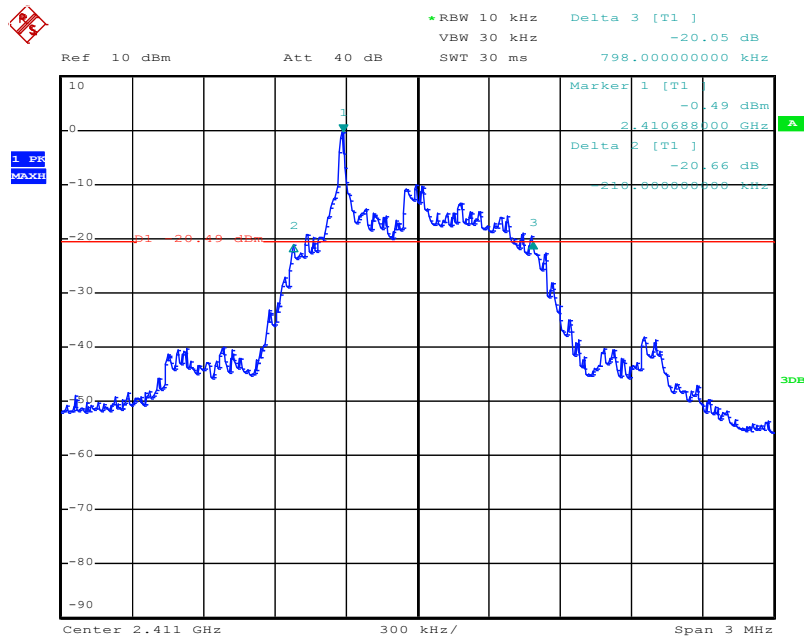
Test setup

Test Channel : Low/ Middle/ High
Operation Mode : A.1
Ambient temperature : 25°C
Relative humidity : 52%
Atmospheric pressure : 101kPa

Table 4: Test result of 20dB & 99% Bandwidth

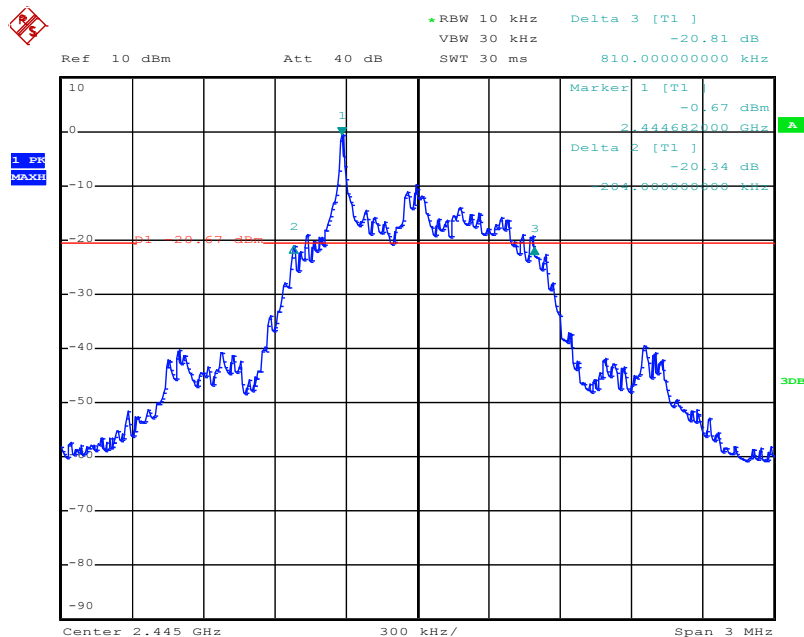
Channel	Channel Frequency (MHz)	20dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low Channel	2411	1.008	0.858
Mid Channel	2445	1.014	0.864
High Channel	2478	1.020	0.852

Test Plot of 20dB Bandwidth Low Channel



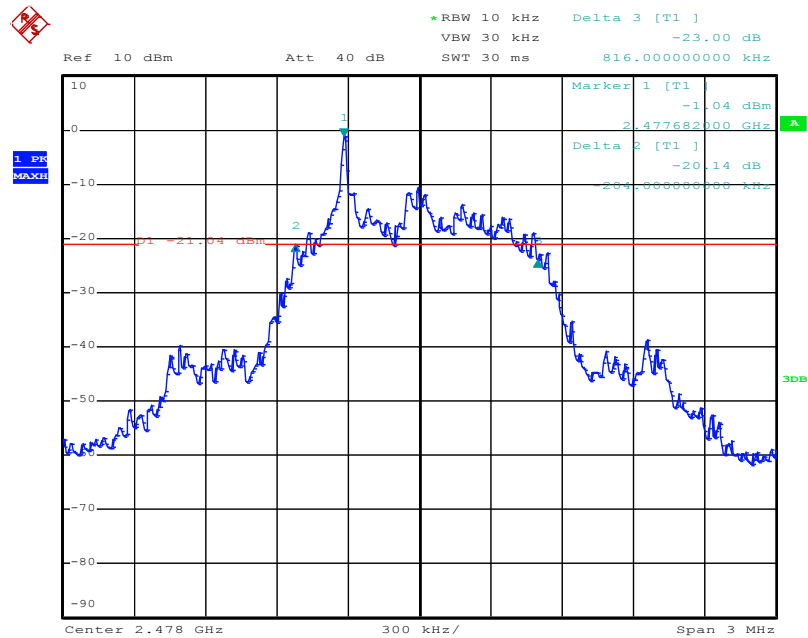
Date: 2.MAR.2013 09:49:54

Middle Channel



Date: 2.MAR.2013 09:47:08

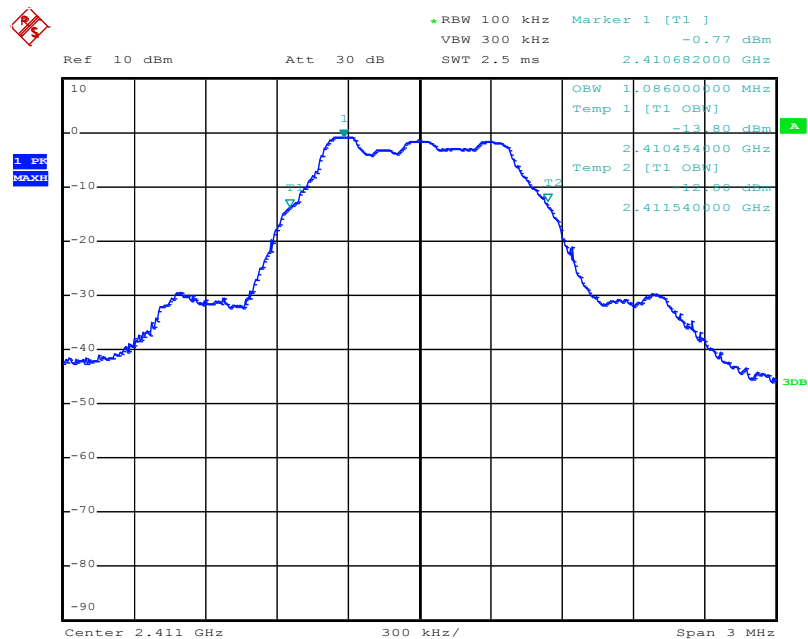
High Channel



Date: 2.MAR.2013 09:41:51

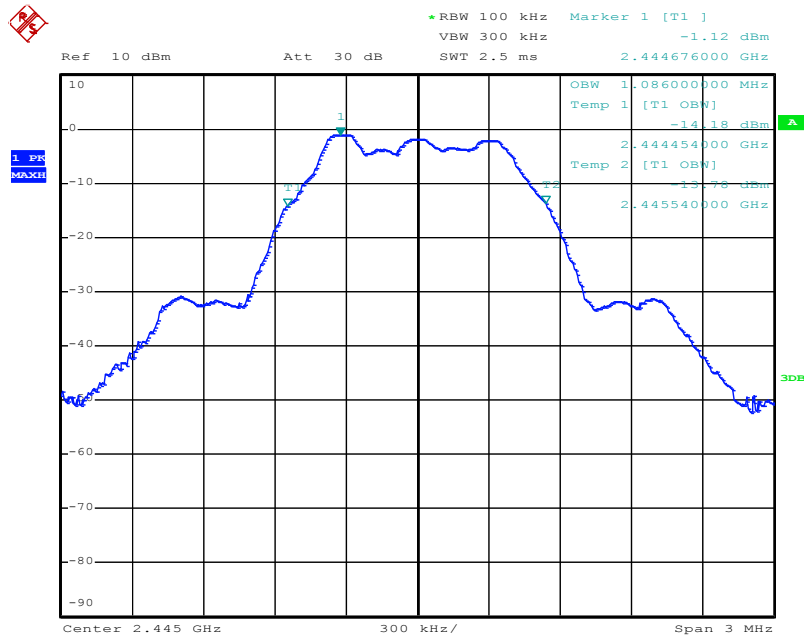
Test Plot of 99% Bandwidth

Low Channel



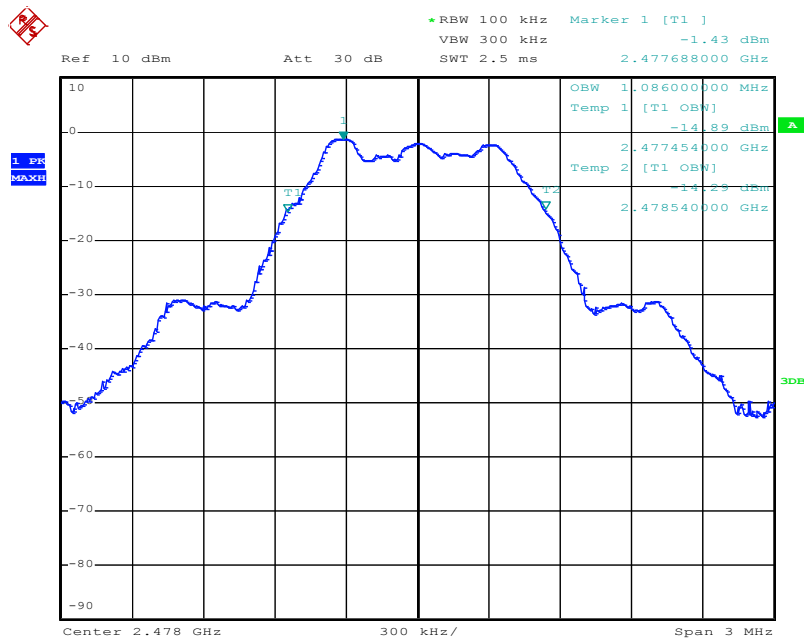
Date: 2.MAR.2013 09:52:31

Middle Channel



Date: 2.MAR.2013 10:03:45

High Channel



Date: 2.MAR.2013 09:54:38

5.1.2 Fundamental & Harmonics Radiated Emission

RESULT:

Pass

Date of testing	:	2013-03-03
Test standard	:	FCC part 15.249(a) RSS-210 Clause 2.2
Basic standard	:	ANSI C63.4: 2003
Limits	:	FCC part 15.249(a) A 2.9(a) of RSS-210
Kind of test site	:	3m Semi-Anechoic Chamber

Test setup

Test Channel	:	Low/ Middle/ High
Operation mode	:	A.1
Ambient temperature	:	25°C
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 5: Polarization of the measurement for the larger power level channel 2411MHz: Horizontal

Test conditions		Fundamental Frequency		2 nd Harmonic Frequency	
		2411MHz		4956MHz	
T _{nom} (25°C)	Unit	(dBμV/m)	(mV/m)	(dBμV/m)	(μV/m)
	Horizontal	89.65	30.4	49.58	301.3
	Vertical	88.20	25.7	50.85	348.7
Limit		94	50	54	500

The final measurement for frequencies below 1000MHz is performed with Quasi Peak detector; the final measurement for frequencies above 1000MHz is performed with Average detector.

The worst case was shown in above Table 5.

Disturbance other than those mentioned are small or not detectable.

For details refer to following test plot.

Prüfbericht - Nr.: 17031716 001
Test Report No.
Seite 17 von 57
Page 17 of 57

Test Plot of Radiated emissions


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

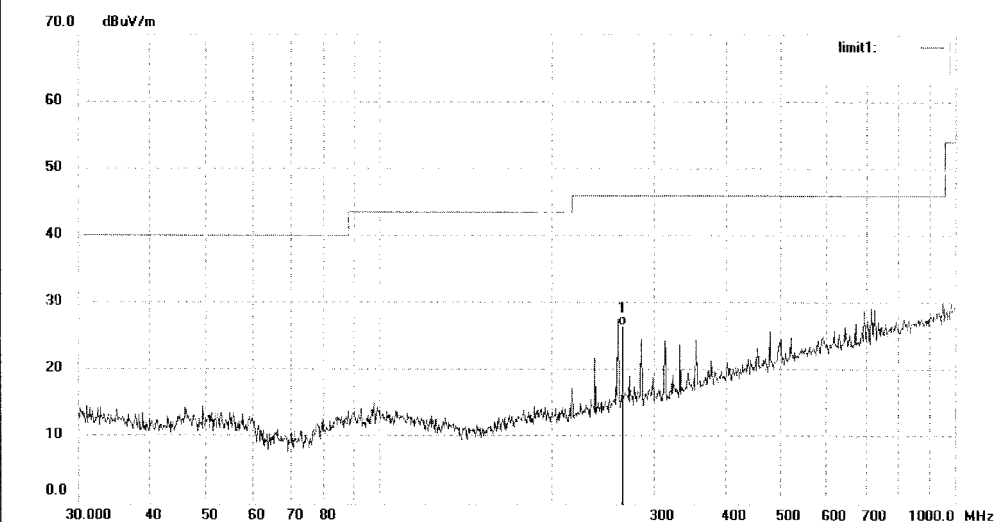
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #974
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 26 C / 55 %
EUT: Battroborg Assortment
Mode: TX 2411MHz
Model: T60800-TX, T60801-TX
Manufacturer: TOMY International Inc.

Polarization: Horizontal
Power Source: DC 6V
Date: 13/03/02/
Time: 9/26/02
Engineer Signature: PEI
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	264.0020	37.02	-10.48	26.54	46.00	-19.46	QP			


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #973

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2411MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

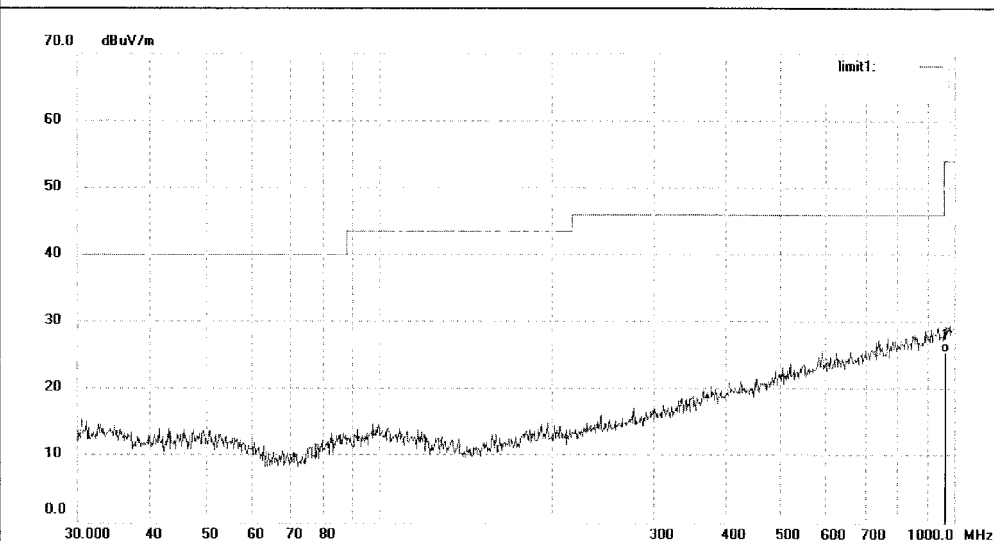
Date: 13/03/02/

Time: 9/19/00

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	960.0000	23.13	2.37	25.50	46.00	-20.50	QP			


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

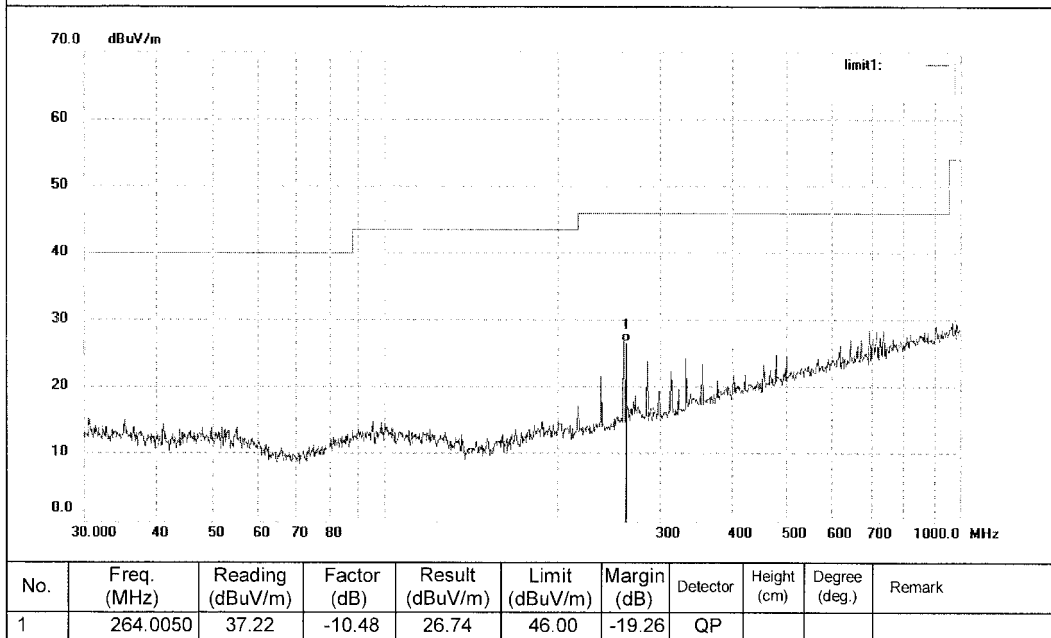
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #975
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 26 C / 55 %
EUT: Battroborg Assortment
Mode: TX 2445MHz
Model: T60800-TX, T60801-TX
Manufacturer: TOMY International Inc.

Polarization: Horizontal
Power Source: DC 6V
Date: 13/03/02/
Time: 9/35/44
Engineer Signature: PEI
Distance: 3m

Note:




ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #976

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2445MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

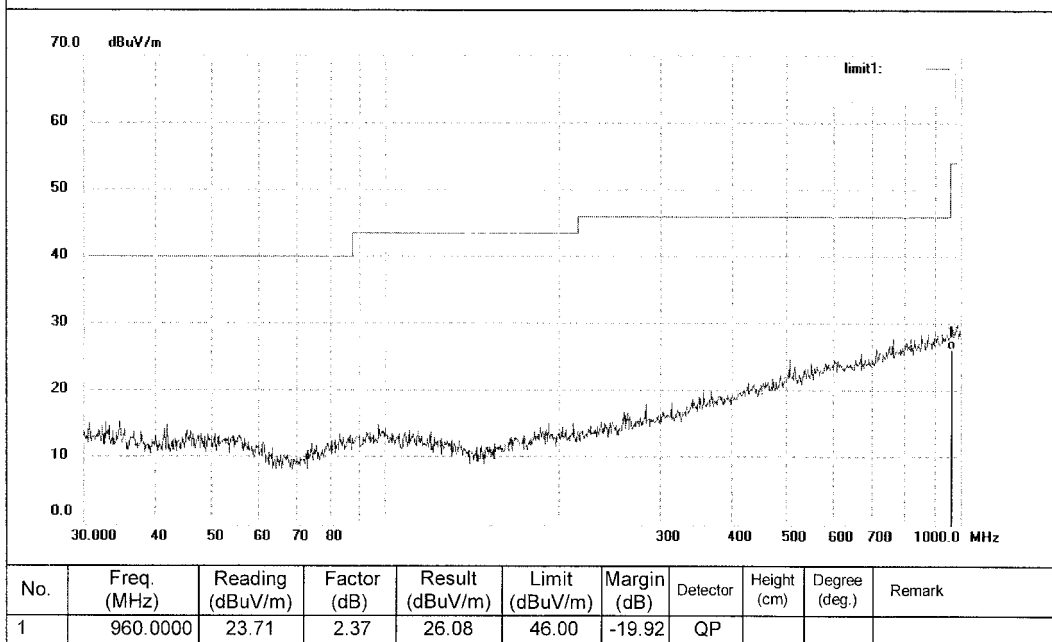
Date: 13/03/02/

Time: 9/43/30

Engineer Signature: PEI

Distance: 3m

Note:




ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

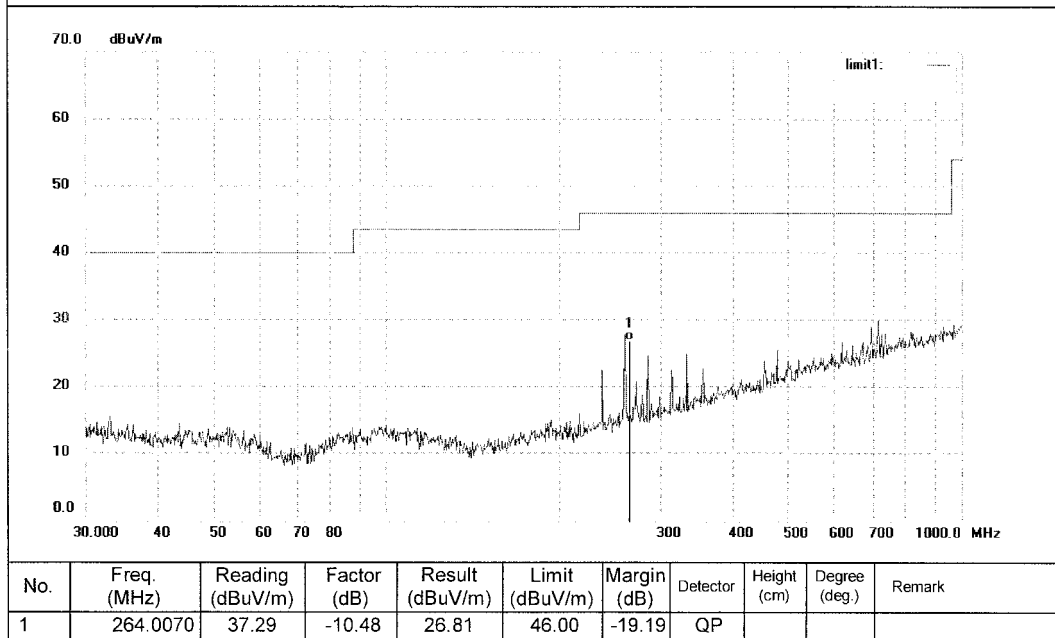
Tel: +86-0755-26503290

Fax: +86-0755-26503396

Job No.: PYH #978
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 26 C / 55 %
EUT: Battroborg Assortment
Mode: TX 2478MHz
Model: T60800-TX, T60801-TX
Manufacturer: TOMY International Inc.

Polarization: Horizontal
Power Source: DC 6V
Date: 13/03/02/
Time: 10/04/40
Engineer Signature: PEI
Distance: 3m

Note:



Prüfbericht - Nr.: 17031716 001
Test Report No.
Seite 22 von 57
Page 22 of 57

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #977

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2478MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

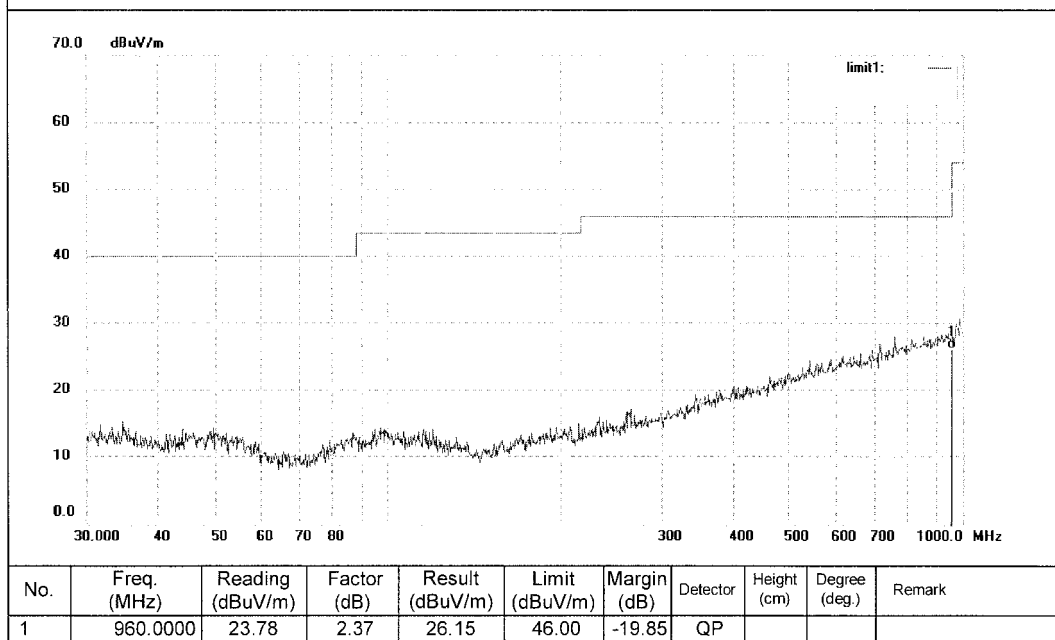
Date: 13/03/02/

Time: 9/52/50

Engineer Signature: PEI

Distance: 3m

Note:




ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1010

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2411MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

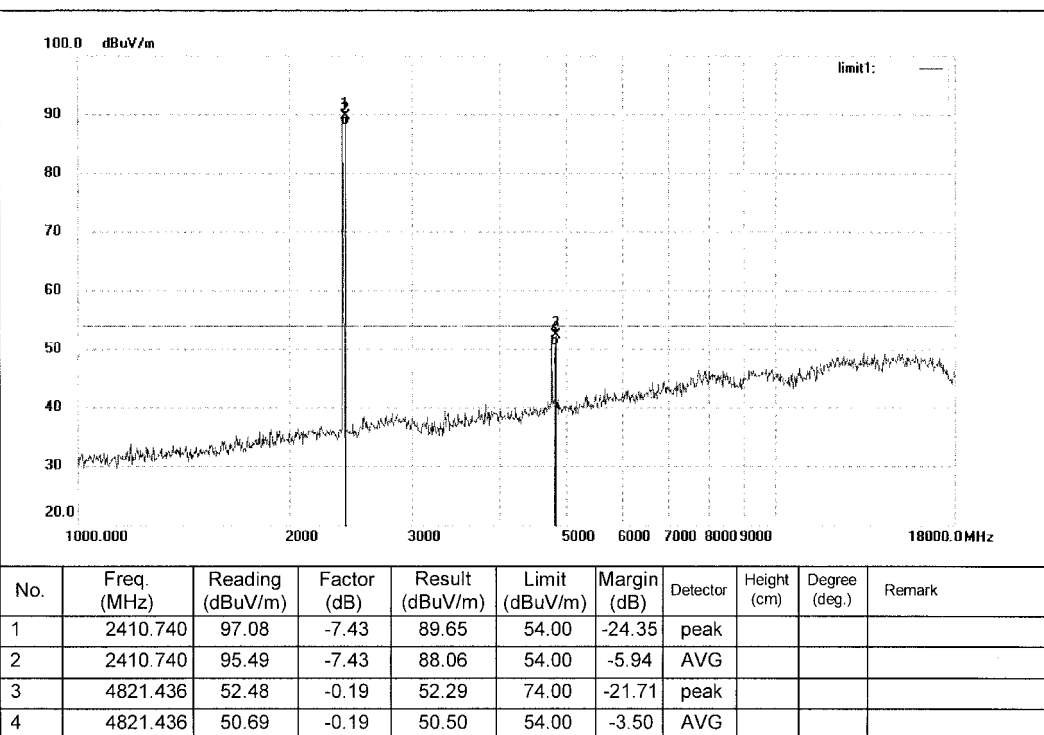
Date: 13/03/03/

Time: 11/08/08

Engineer Signature: PEI

Distance: 3m

Note:




ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1009

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2411MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

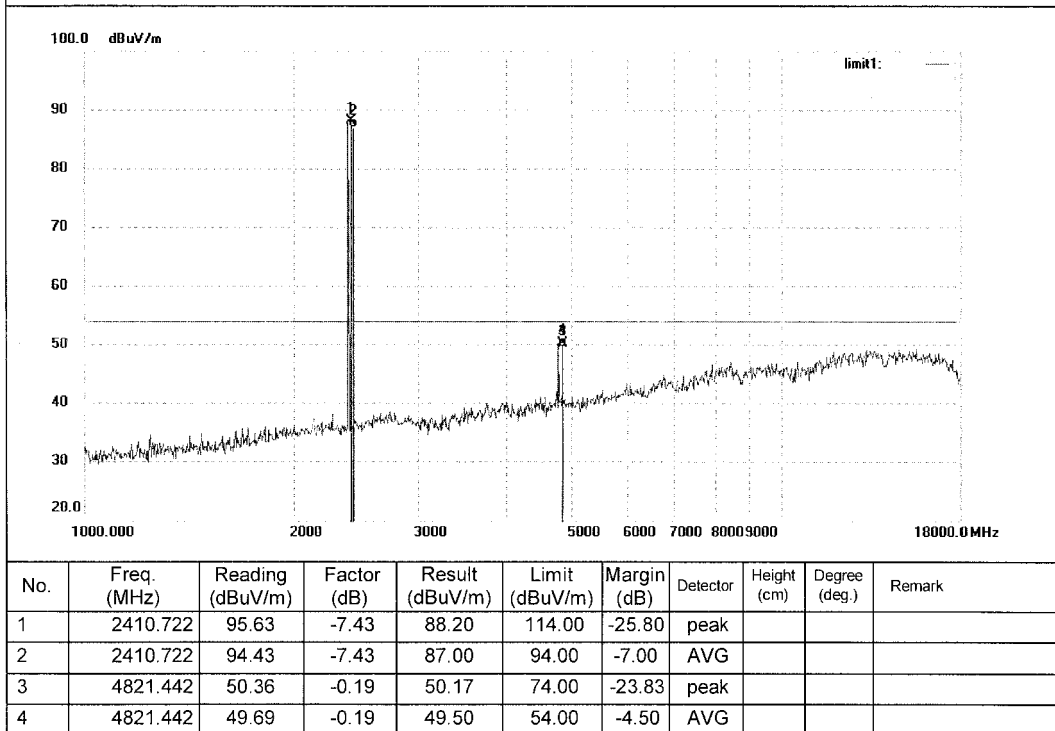
Date: 13/03/03/

Time: 10/55/20

Engineer Signature: PEI

Distance: 3m

Note:




ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1014

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2445MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

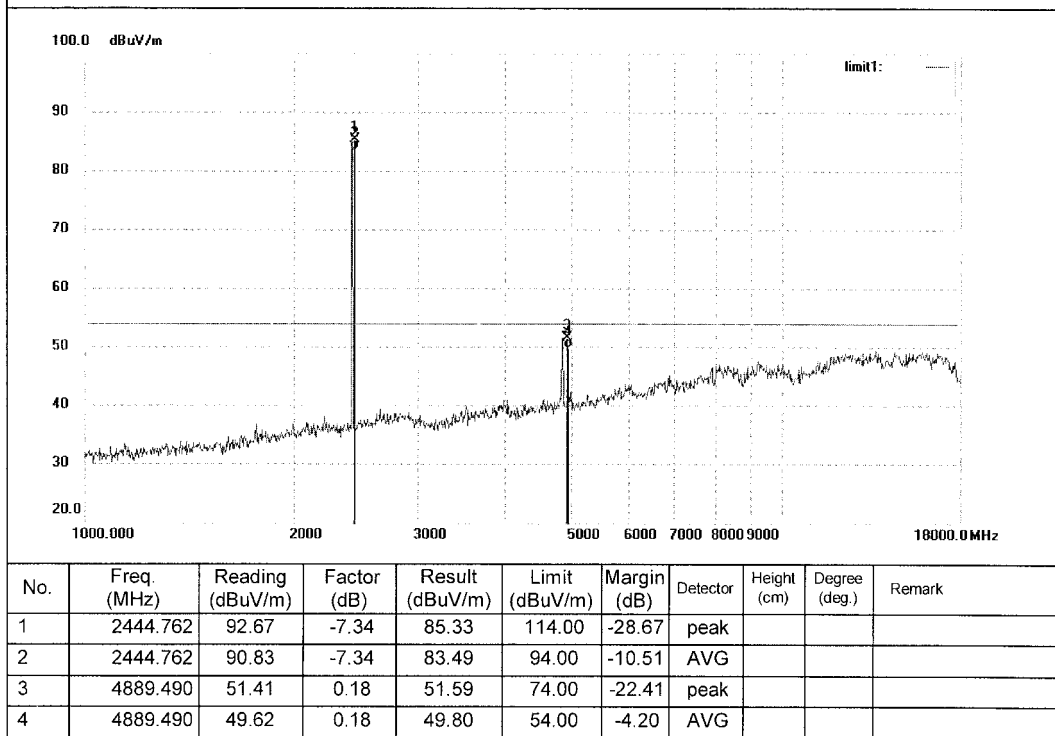
Date: 13/03/03/

Time: 11/56/16

Engineer Signature: PEI

Distance: 3m

Note:




ACCURATE TECHNOLOGY CO., LTD.

 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1013

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2445MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

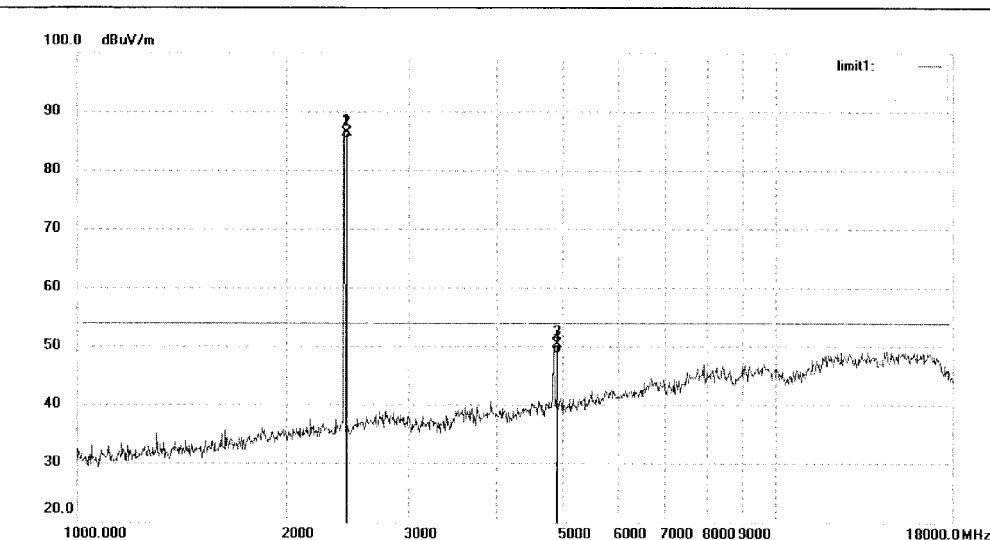
Date: 13/03/03/

Time: 11/43/55

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2444.763	93.66	-7.34	86.32	114.00	-27.68	peak			
2	2444.763	92.64	-7.34	85.30	94.00	-8.70	AVG			
3	4889.472	50.22	0.18	50.40	74.00	-23.60	peak			
4	4889.472	48.62	0.18	48.80	54.00	-5.20	AVG			


ACCURATE TECHNOLOGY CO., LTD.

 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1015

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2478MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

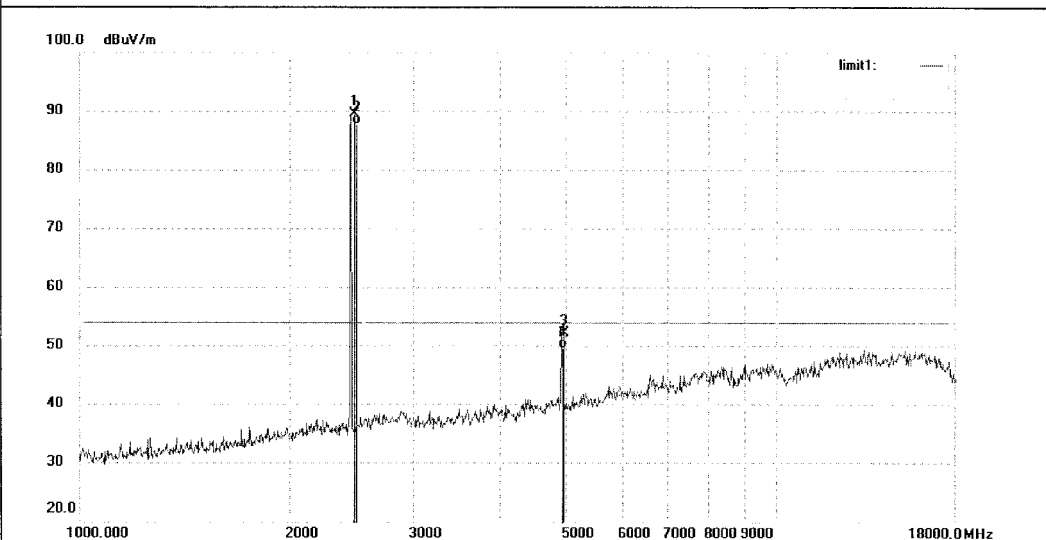
Date: 13/03/03/

Time: 12/07/32

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2477.741	96.87	-7.37	89.50	114.00	-24.50	peak			
2	2477.741	95.01	-7.37	87.64	94.00	-6.36	AVG			
3	4955.450	51.68	0.50	52.18	74.00	-21.82	peak			
4	4955.450	49.08	0.50	49.58	54.00	-4.42	AVG			


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1016

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2478MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

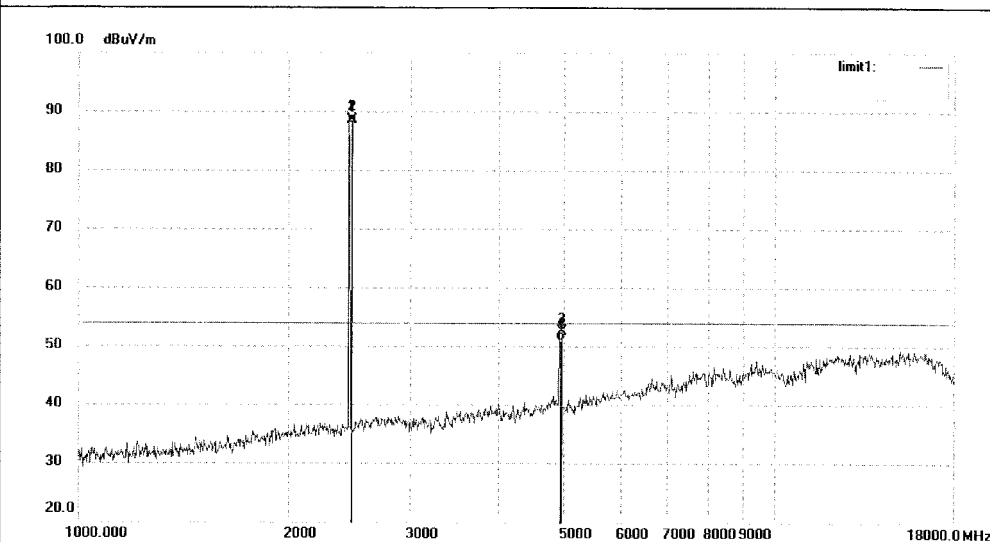
Date: 13/03/03/

Time: 12/19/36

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2477.750	95.85	-7.37	88.48	114.00	-25.52	peak			
2	2477.750	95.37	-7.37	88.00	94.00	-6.00	AVG			
3	4955.453	51.93	0.50	52.43	74.00	-21.57	peak			
4	4955.453	50.35	0.50	50.85	54.00	-3.15	AVG			


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1038

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2411MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

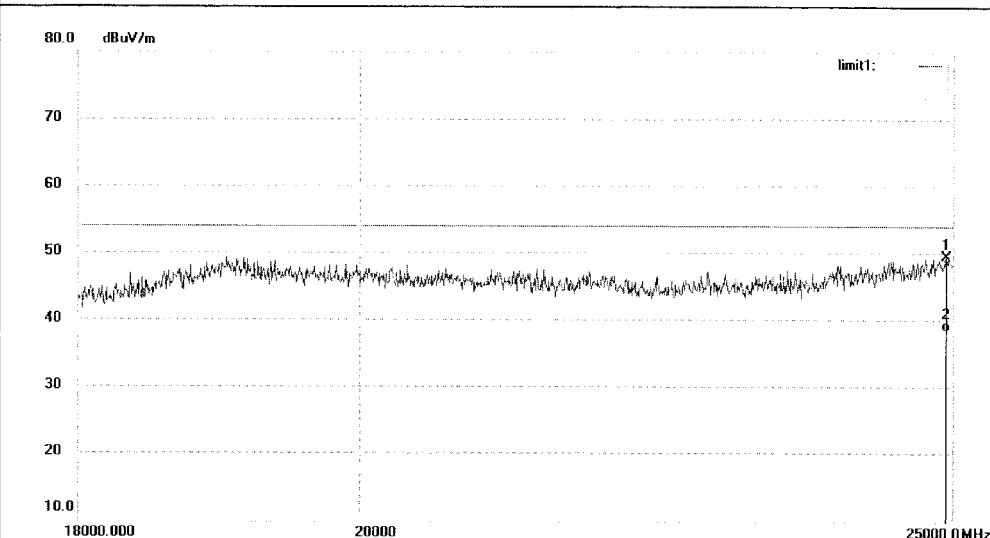
Date: 13/03/03/

Time: 15/34/16

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24942.463	30.73	18.82	49.55	74.00	-24.45	peak			
2	24942.463	19.58	18.82	38.40	54.00	-15.60	AVG			


ACCURATE TECHNOLOGY CO., LTD.

 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1037

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2411MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

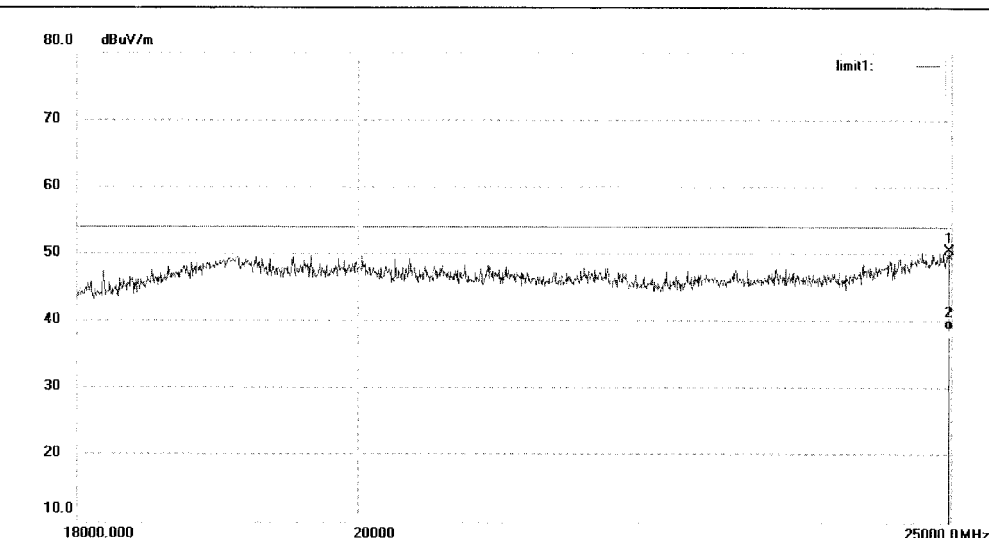
Date: 13/03/03/

Time: 15/26/13

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24983.547	31.56	18.88	50.44	74.00	-23.56	peak			
2	24983.547	19.83	18.88	38.71	54.00	-15.29	AVG			

Prüfbericht - Nr.: 17031716 001
Test Report No.
Seite 31 von 57
Page 31 of 57

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1039

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2445MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

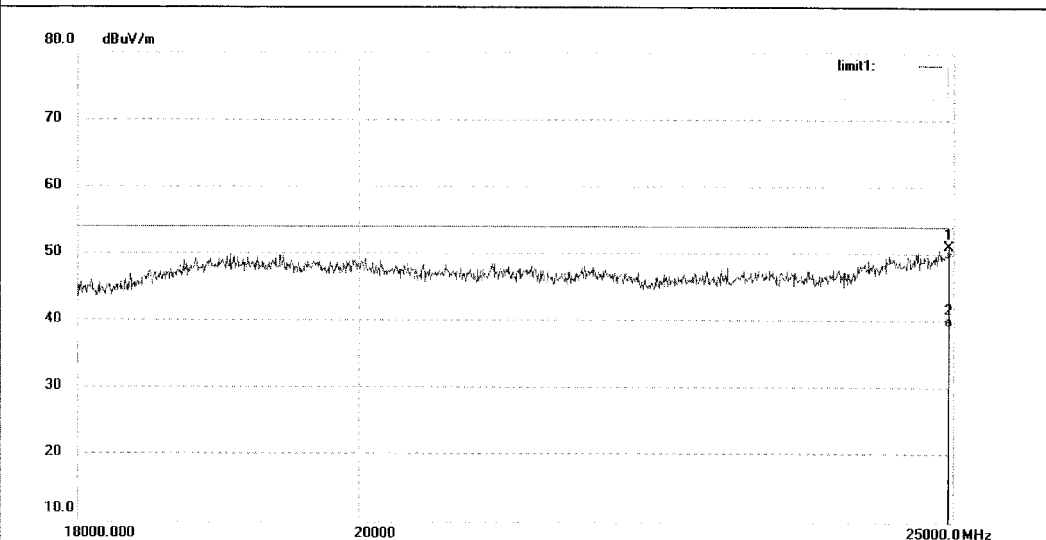
Date: 13/03/03/

Time: 15/43/53

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24958.889	32.14	18.84	50.98	74.00	-23.02	peak			
2	24958.889	20.23	18.84	39.07	54.00	-14.93	AVG			


ACCURATE TECHNOLOGY CO., LTD.

 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel: +86-0755-26503290

Fax: +86-0755-26503396

Job No.: PYH #1040

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2445MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

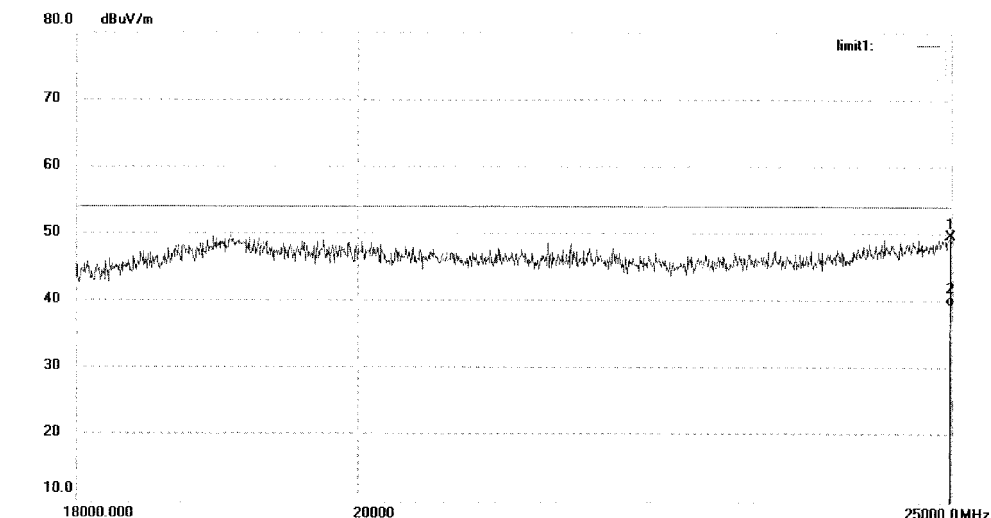
Date: 13/03/03/

Time: 15/52/42

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24991.772	30.71	18.89	49.60	74.00	-24.40	peak			
2	24991.772	20.42	18.89	39.31	54.00	-14.69	AVG			


ACCURATE TECHNOLOGY CO., LTD.

 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1042

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2478MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

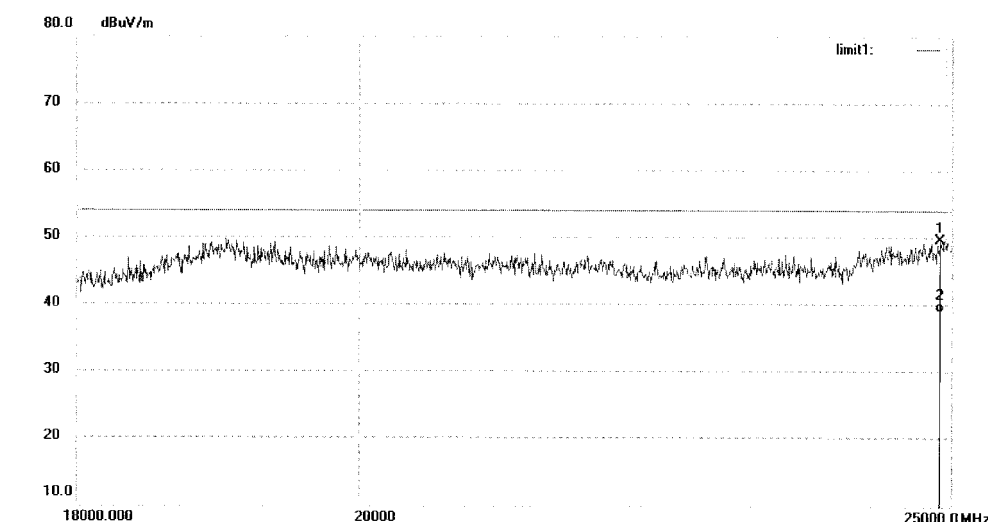
Date: 13/03/03/

Time: 16/09/16

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24901.446	30.85	18.76	49.61	74.00	-24.39	peak			
2	24901.446	20.17	18.76	38.93	54.00	-15.07	AVG			

Prüfbericht - Nr.: 17031716 001
Test Report No.
Seite 34 von 57
Page 34 of 57

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1041

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: TX 2478MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

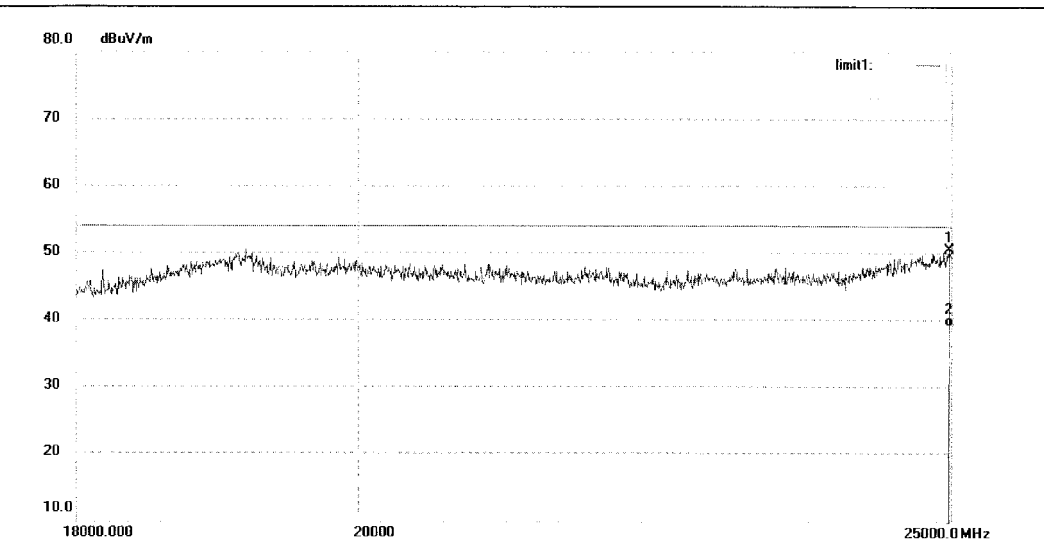
Date: 13/03/03/

Time: 16/01/13

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24983.547	31.56	18.88	50.44	74.00	-23.56	peak			
2	24983.547	20.18	18.88	39.06	54.00	-14.94	AVG			

5.1.3 Radiated emissions for transmitting mode**RESULT:****Pass**

Date of testing	:	2013-03-03
Test standard	:	FCC Part 15.209(a) FCC Part 15.249(d) RSS-210 Clause 2.2
Basic standard	:	ANSI C63.4: 2003
Frequency range	:	30 – 25000MHz *
Limits	:	FCC Part 15.209(a) FCC Part 15.249(d) A 2.9(b) of RSS-210
Kind of test site	:	3m Semi-Anechoic Chamber

Test Setup

Input Voltage	:	DC 6V
Operation Mode	:	A.1
Earthing	:	Not Connected
Ambient temperature	:	25°C
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

*- The EUT's highest frequency generated and used is 2478MHz, hence the highest scan frequency is up to 25GHz.

There was no emission higher than the limit.
Detailed test graphs and test data refer clause 5.1.2.

Prüfbericht - Nr.: 17031716 001

Test Report No.

Seite 36 von 57

Page 36 of 57

5.1.4 Radiated emissions for receiving mode**RESULT:****Pass**

Date of testing	:	2013-03-03
Test standard	:	FCC Part 15.109
	:	ICES-003 Issue 4 February 2004
Basic standard	:	ANSI C63.4: 2003
Frequency range	:	30 – 25000MHz *
Limits	:	FCC Part 15.109(a)
	:	ICES-003 Issue 4 February 2004
Kind of test site	:	3m Semi-Anechoic Chamber

Test Setup

Input Voltage	:	DC 6V
Operation Mode	:	A.2
Earthing	:	Not Connected
Ambient temperature	:	25°C
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

*- The EUT's highest frequency generated and used is 2478MHz, hence the highest scan frequency is up to 25GHz.

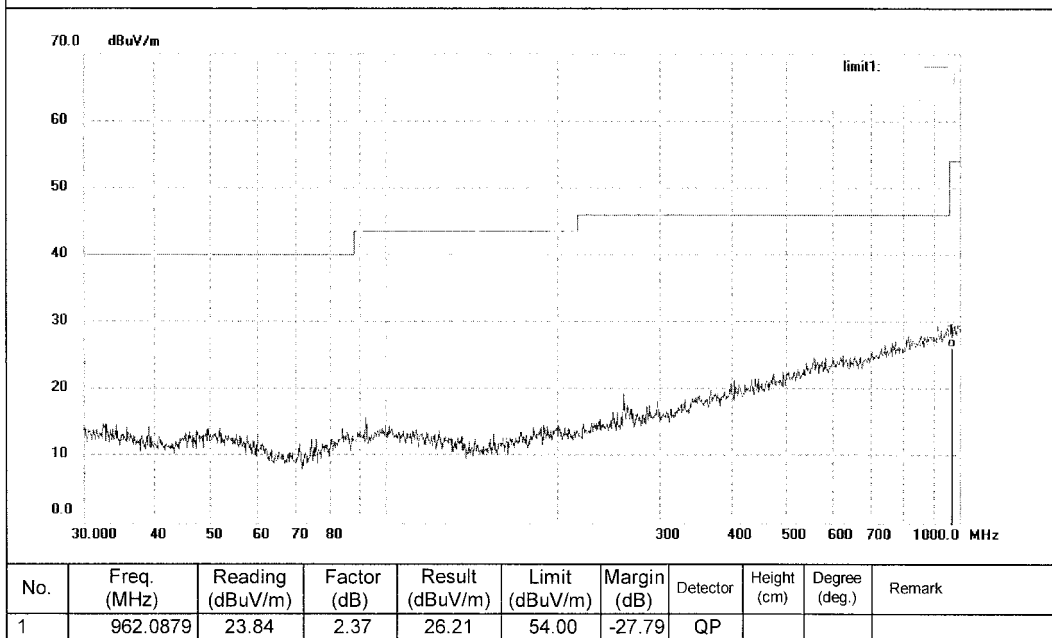
For details refer to following test plot.


ACCURATE TECHNOLOGY CO., LTD.
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

 Site: 2# Chamber
 Tel:+86-0755-26503290
 Fax:+86-0755-26503396

Job No.: PYH #986	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 6V
Test item: Radiation Test	Date: 13/03/02/
Temp.(C)/Hum.(%) 26 C / 55 %	Time: 11/20/01
EUT: Battborg Assortment	Engineer Signature: PEI
Mode: RX 2411MHz	Distance: 3m
Model: T60800-TX, T60801-TX	
Manufacturer: TOMY International Inc.	

Note:



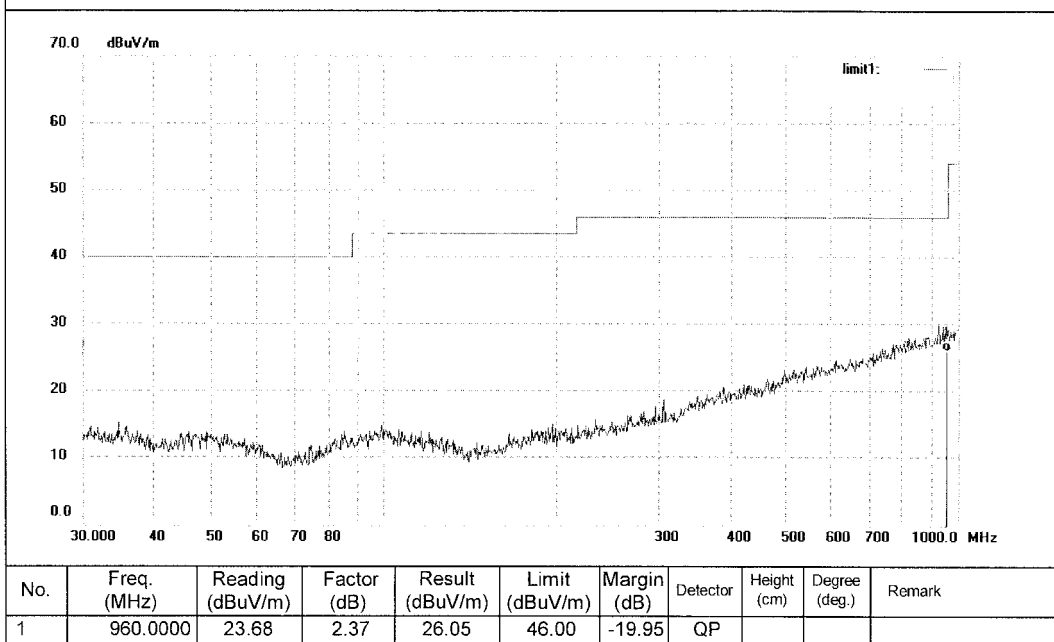
Prüfbericht - Nr.: 17031716 001
Test Report No.
Seite 38 von 57
Page 38 of 57

ACCURATE TECHNOLOGY CO., LTD.
 F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

 Site: 2# Chamber
 Tel:+86-0755-26503290
 Fax:+86-0755-26503396

Job No.: PYH #985	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 6V
Test item: Radiation Test	Date: 13/03/02/
Temp.(C)/Hum.(%) 26 C / 55 %	Time: 11/13/18
EUT: Battroborg Assortment	Engineer Signature: PEI
Mode: RX 2411MHz	Distance: 3m
Model: T60800-TX, T60801-TX	
Manufacturer: TOMY International Inc.	

Note:




ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #987

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2445MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

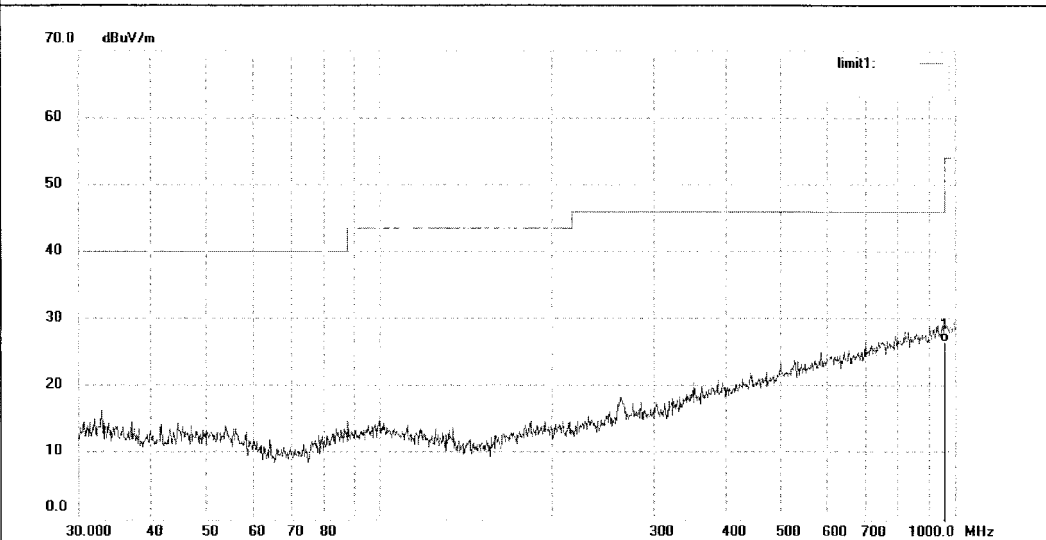
Date: 13/03/02/

Time: 11/27/32

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	960.0000	24.13	2.37	26.50	46.00	-19.50	QP			

Prüfbericht - Nr.: 17031716 001
Test Report No.
Seite 40 von 57
Page 40 of 57

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

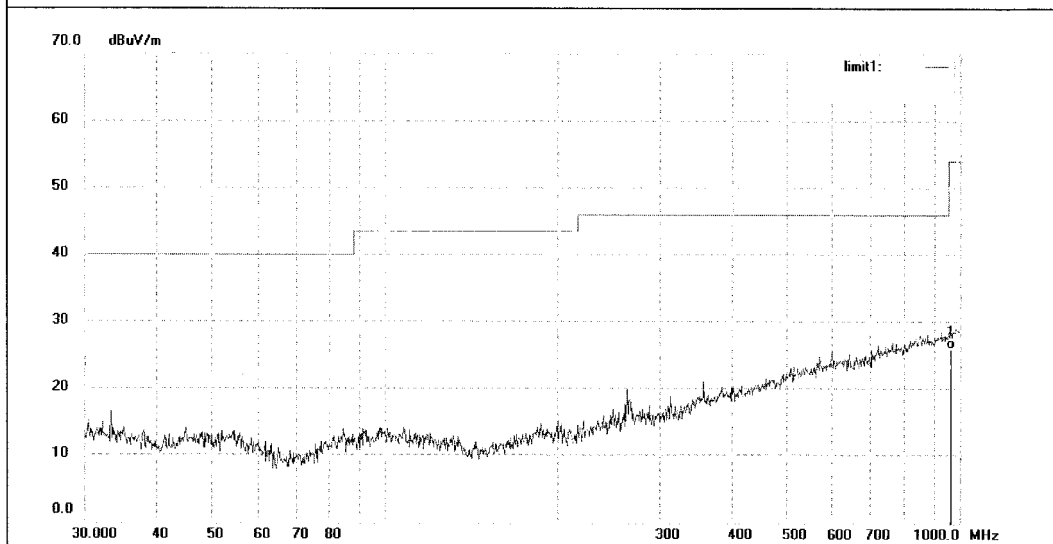
Tel: +86-0755-26503290

Fax: +86-0755-26503396

Job No.: PYH #988
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 26 C / 55 %
EUT: Battroborg Assortment
Mode: RX 2445MHz
Model: T60800-TX, T60801-TX
Manufacturer: TOMY International Inc.

Polarization: Vertical
Power Source: DC 6V
Date: 13/03/02/
Time: 11/36/19
Engineer Signature: PEI
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	960.0000	23.59	2.37	25.96	46.00	-20.04	QP			


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #989

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2478MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

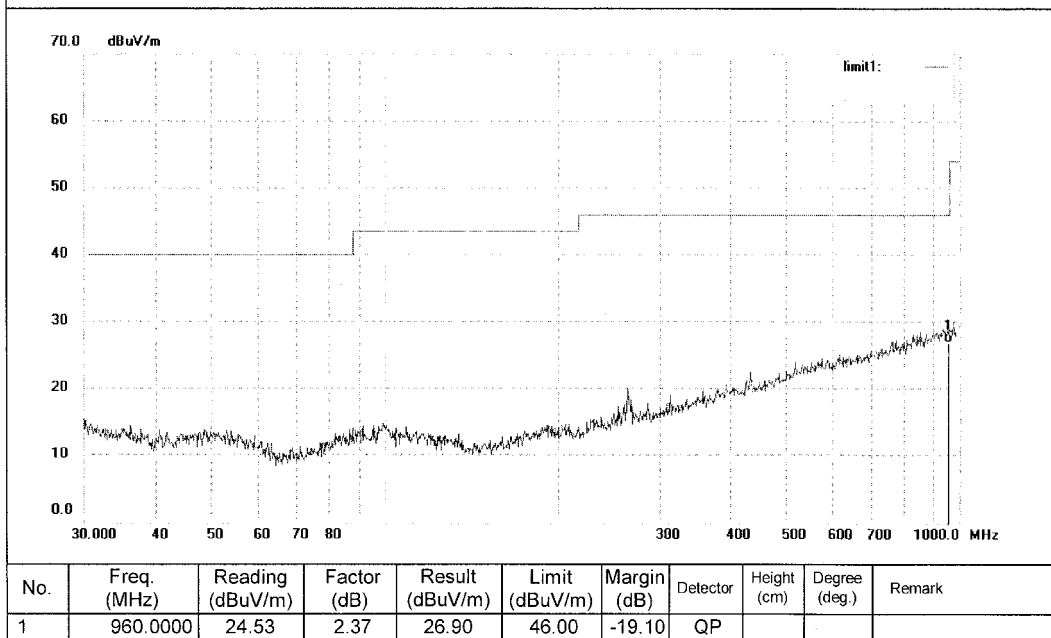
Date: 13/03/02/

Time: 11/44/25

Engineer Signature: PEI

Distance: 3m

Note:



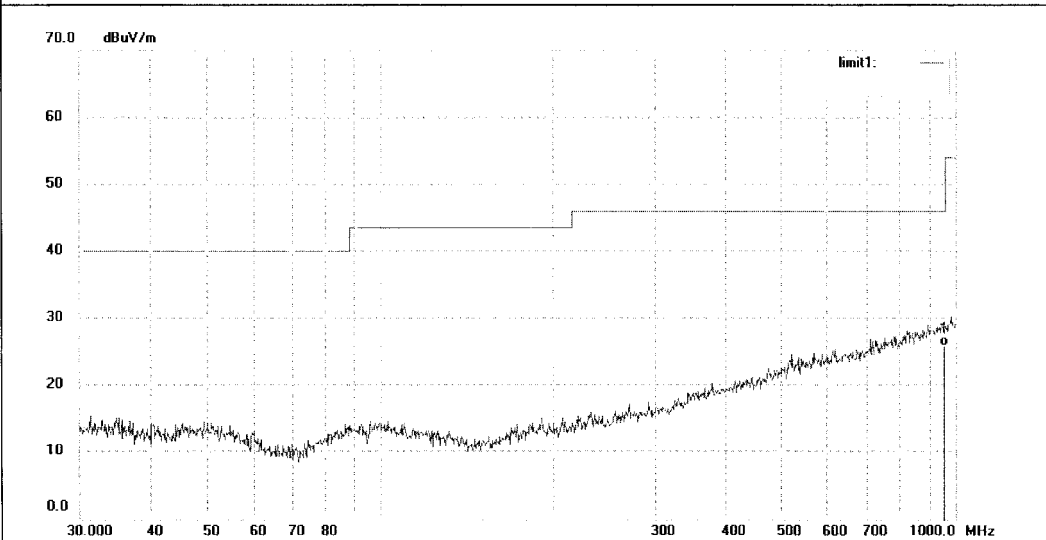

ACCURATE TECHNOLOGY CO., LTD.
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

 Site: 2# Chamber
 Tel:+86-0755-26503290
 Fax:+86-0755-26503396

 Job No.: PYH #990
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 26 C / 55 %
 EUT: Battroborg Assortment
 Mode: RX 2478MHz
 Model: T60800-TX, T60801-TX
 Manufacturer: TOMY International Inc.

 Polarization: Vertical
 Power Source: DC 6V
 Date: 13/03/02/
 Time: 11/53/50
 Engineer Signature: PEI
 Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	960.0000	23.50	2.37	25.87	46.00	-20.13	QP			


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1019

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2411MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

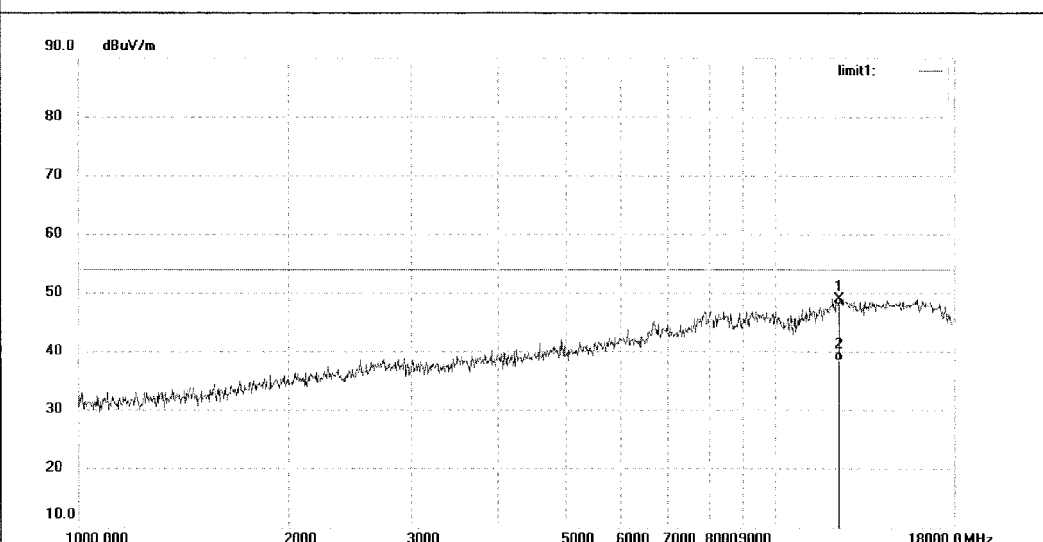
Date: 13/03/03/

Time: 12/57/17

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	12293.417	10.70	38.19	48.89	74.00	-25.11	peak			
2	12293.417	0.11	38.19	38.30	54.00	-15.70	AVG			


ACCURATE TECHNOLOGY CO., LTD.

 F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1020

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2411MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

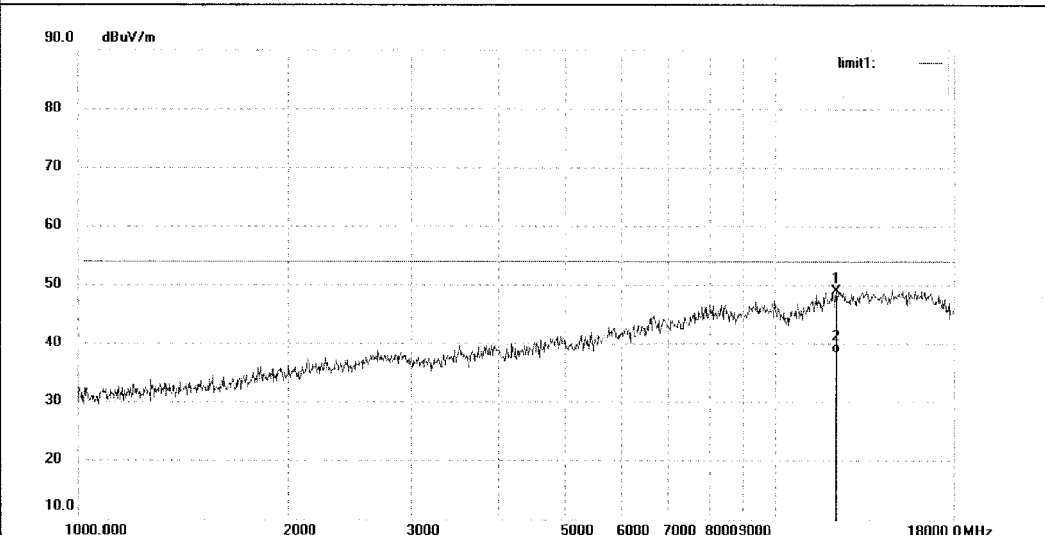
Date: 13/03/03/

Time: 13/06/17

Engineer Signature: PEI

Distance: 3m

Note:



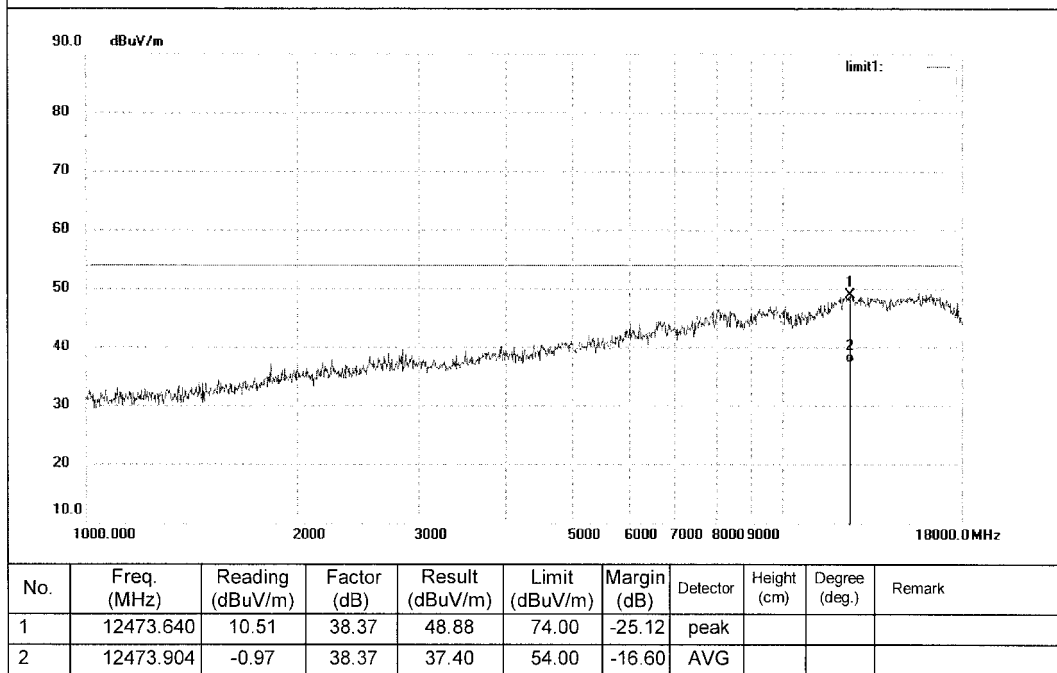
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	12222.059	10.75	38.12	48.87	74.00	-25.13	peak			
2	12222.059	0.15	38.12	38.27	54.00	-15.73	AVG			


ACCURATE TECHNOLOGY CO., LTD.
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

 Site: 2# Chamber
 Tel:+86-0755-26503290
 Fax:+86-0755-26503396

Job No.: PYH #1022	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 6V
Test item: Radiation Test	Date: 13/03/03/
Temp.(C)/Hum.(%) 26 C / 55 %	Time: 13/22/40
EUT: Battroborg Assortment	Engineer Signature: PEI
Mode: RX 2445MHz	Distance: 3m
Model: T60800-TX, T60801-TX	
Manufacturer: TOMY International Inc.	

Note:




ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1021

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2445MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

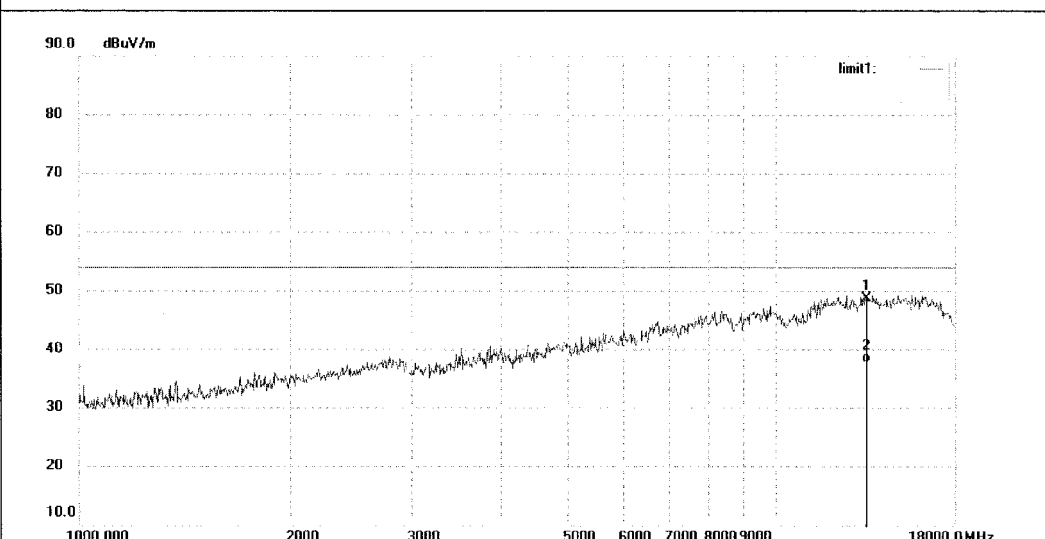
Date: 13/03/03/

Time: 13/13/01

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	13454.277	9.24	39.55	48.79	74.00	-25.21	peak			
2	13454.277	-1.85	39.55	37.70	54.00	-16.30	AVG			


ACCURATE TECHNOLOGY CO., LTD.
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

 Site: 2# Chamber
 Tel:+86-0755-26503290
 Fax:+86-0755-26503396

Job No.: PYH #1023

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 6V

Test item: Radiation Test

Date: 13/03/03/

Temp.(C)/Hum.(%) 26 C / 55 %

Time: 13/30/51

EUT: Battroborg Assortment

Engineer Signature: PEI

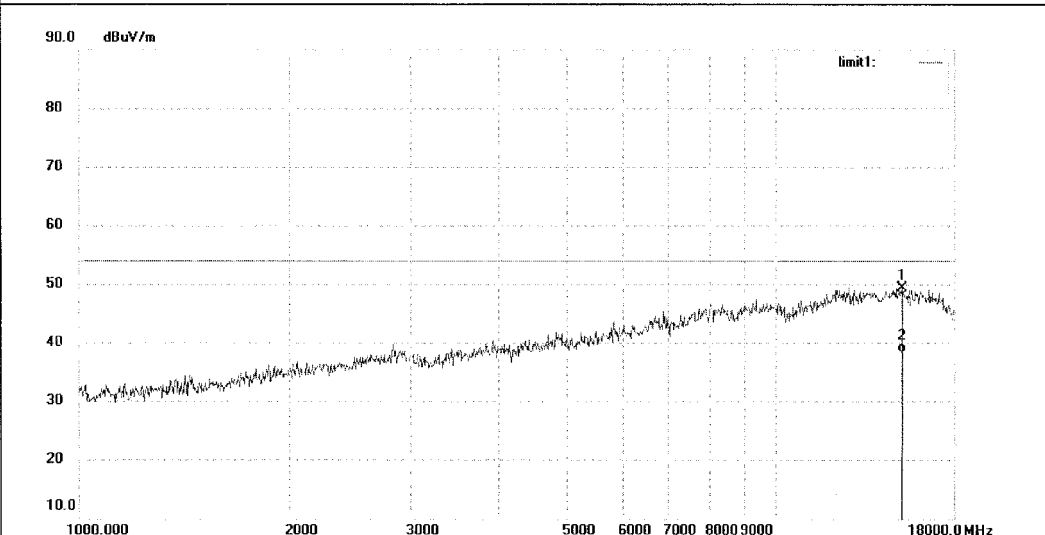
Mode: RX 2478MHz

Distance: 3m

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	15159.656	8.46	40.78	49.24	74.00	-24.76	peak			
2	15159.656	-2.46	40.78	38.32	54.00	-15.68	AVG			


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1024

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2478MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

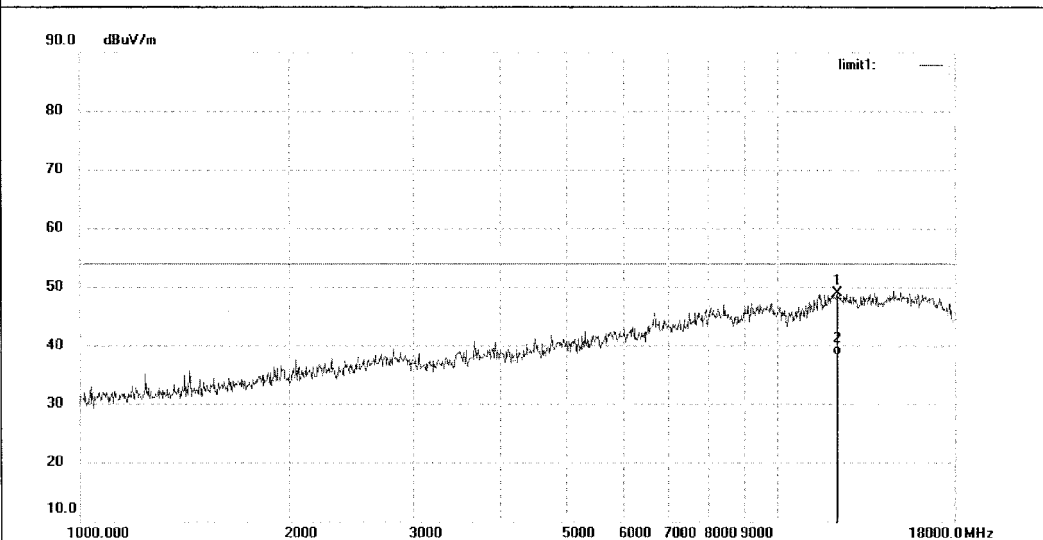
Date: 13/03/03/

Time: 13/38/33

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	12217.059	10.84	38.12	48.96	74.00	-25.04	peak			
2	12217.059	0.28	38.12	38.40	54.00	-15.60	AVG			

Prüfbericht - Nr.: 17031716 001
Test Report No.
Seite 49 von 57
Page 49 of 57

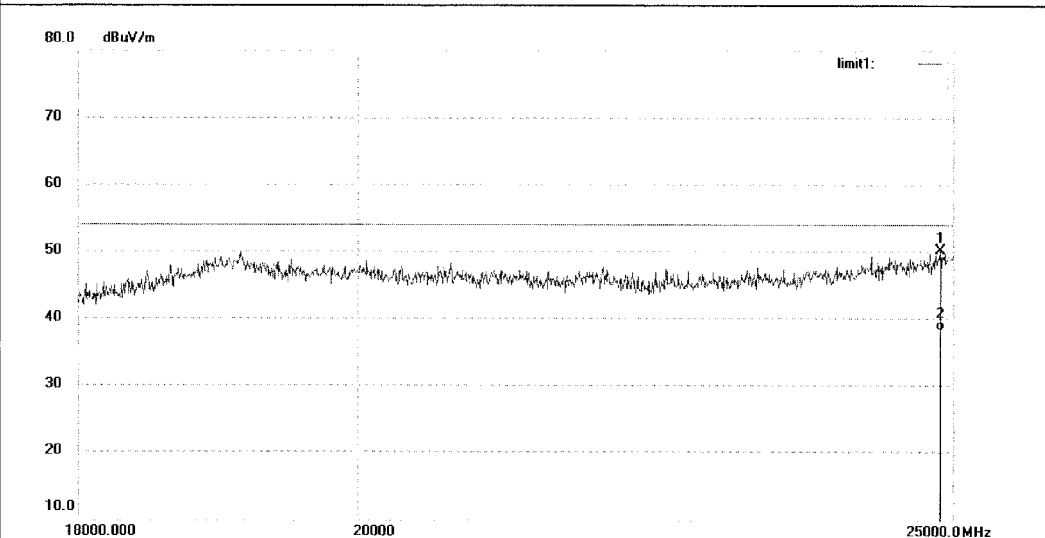
ACCURATE TECHNOLOGY CO., LTD.
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

 Site: 2# Chamber
 Tel:+86-0755-26503290
 Fax:+86-0755-26503396

 Job No.: PYH #1044
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 26 C / 55 %
 EUT: Battorborg Assortment
 Mode: RX 2411MHz
 Model: T60800-TX, T60801-TX
 Manufacturer: TOMY International Inc.

 Polarization: Horizontal
 Power Source: DC 6V
 Date: 13/03/03/
 Time: 16/16/15
 Engineer Signature: PEI
 Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24885.058	31.46	18.74	50.20	74.00	-23.80	peak			
2	24885.058	19.53	18.74	38.27	54.00	-15.73	AVG			

Prüfbericht - Nr.: 17031716 001
 Test Report No.

Seite 50 von 57
 Page 50 of 57

ACCURATE TECHNOLOGY CO., LTD.

 F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1043

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2411MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

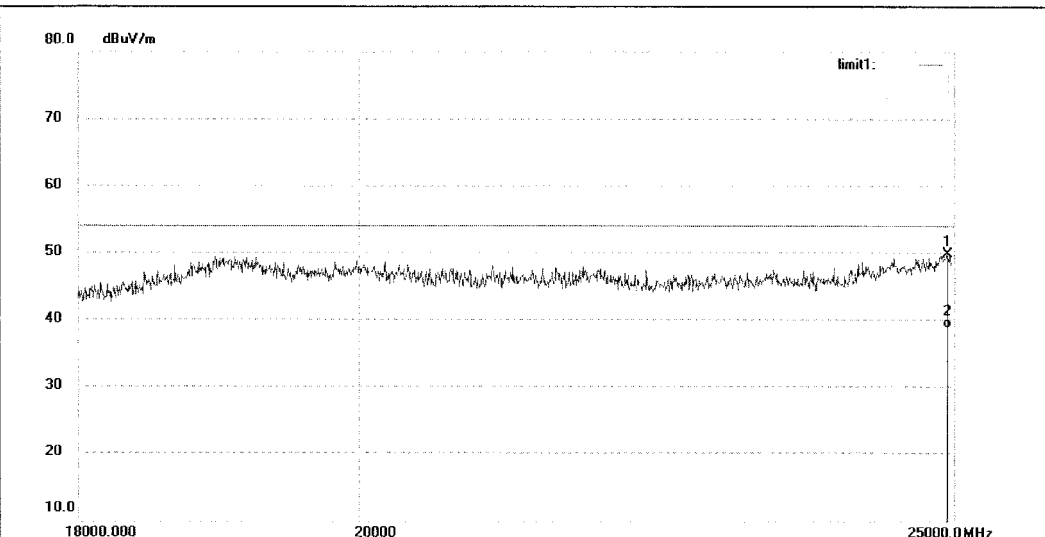
Date: 13/03/03/

Time: 16/17/10

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24942.463	31.01	18.82	49.83	74.00	-24.17	peak			
2	24942.463	19.96	18.82	38.78	54.00	-15.22	AVG			


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1045

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 6V

Test item: Radiation Test

Date: 13/03/03/

Temp.(C)/Hum.(%) 26 C / 55 %

Time: 16/25/05

EUT: Battorborg Assortment

Engineer Signature: PEI

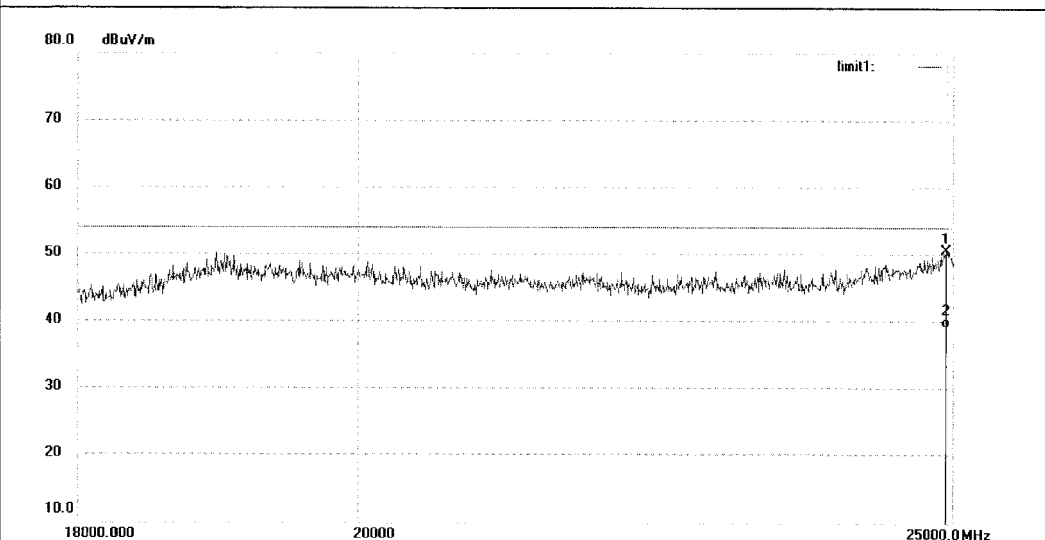
Mode: RX 2445MHz

Distance: 3m

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24942.463	31.61	18.82	50.43	74.00	-23.57	peak			
2	24942.463	20.36	18.82	39.18	54.00	-14.82	AVG			


ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1046

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2445MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

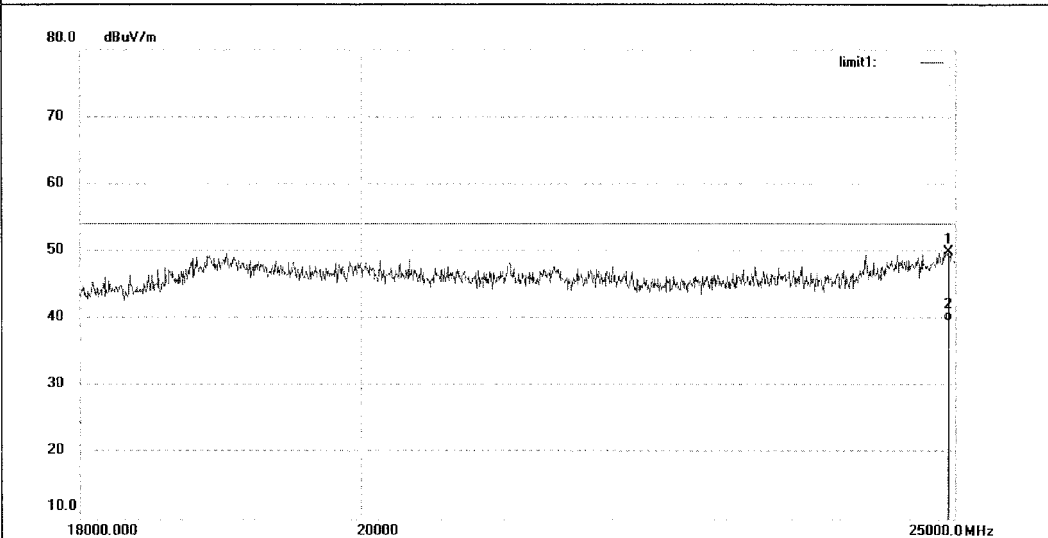
Date: 13/03/03/

Time: 16/33/26

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24942.463	31.07	18.82	49.89	74.00	-24.11	peak			
2	24942.463	20.59	18.82	39.41	54.00	-14.59	AVG			


ACCURATE TECHNOLOGY CO., LTD.

 F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1048

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2478MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Horizontal

Power Source: DC 6V

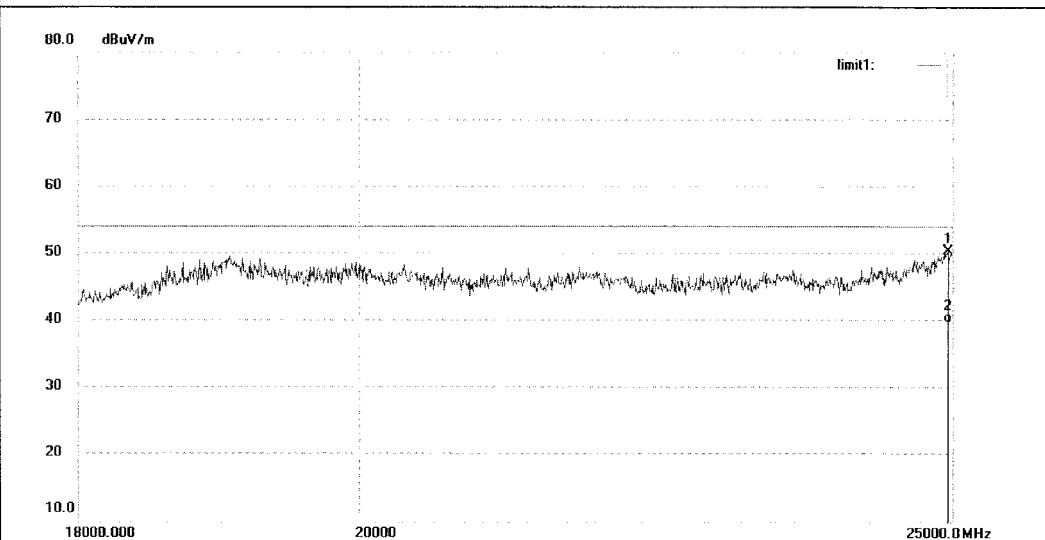
Date: 13/03/03/

Time: 16/50/53

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24958.889	31.56	18.84	50.40	74.00	-23.60	peak			
2	24958.889	20.81	18.84	39.65	54.00	-14.35	AVG			

Prüfbericht - Nr.: 17031716 001
Test Report No.
Seite 54 von 57
Page 54 of 57

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: PYH #1047

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: Battroborg Assortment

Mode: RX 2478MHz

Model: T60800-TX, T60801-TX

Manufacturer: TOMY International Inc.

Polarization: Vertical

Power Source: DC 6V

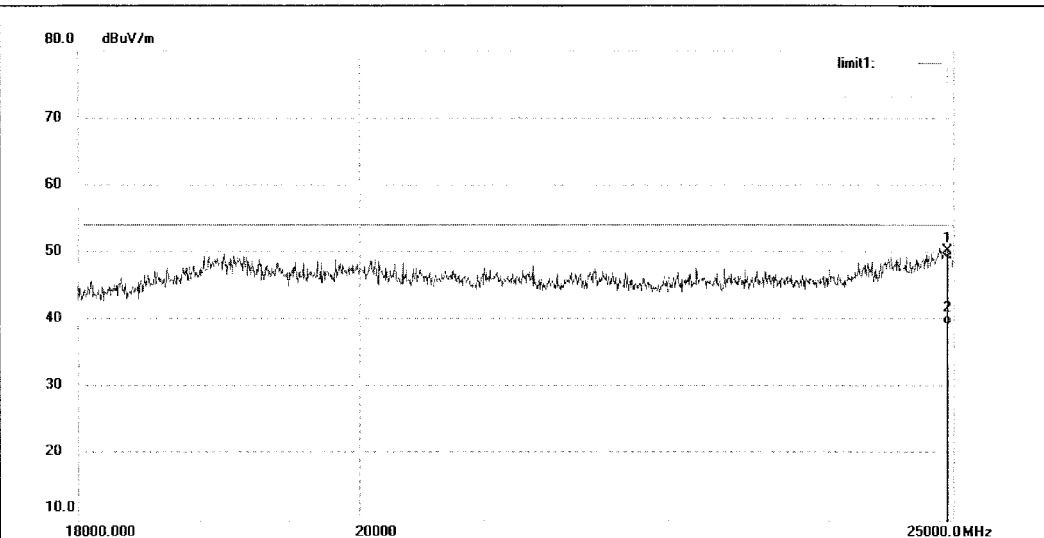
Date: 13/03/03/

Time: 16/41/01

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	24950.674	31.36	18.83	50.19	74.00	-23.81	peak			
2	24950.674	20.29	18.83	39.12	54.00	-14.88	AVG			

6. Safety Human exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT:**Pass**

Test standard : RSS-102 Issue 4
FCC KDB Publication 447498 v05

The maximum peak output power of the transmitter is 0.28mW (-5.57dBm) only, which less than 20mW. Hence the EUT is exempted from routine evaluation limits (SAR Evaluation) according to clause 2.5.1 of RSS-102 Issue 4.

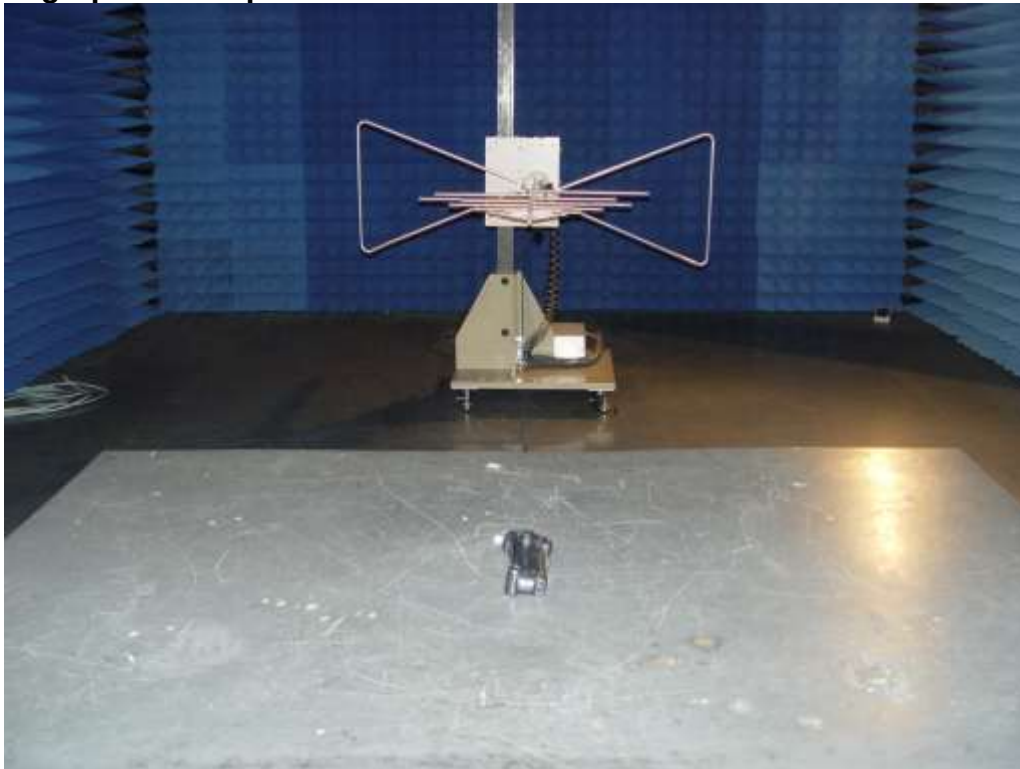
The maximum peak output power of the transmitter is 0.28 mW, which far below than the SAR exclusion threshold level (Appendix A, SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤50 mm):

MHz	5	10	15	20	25	30	35	40	45	50	mm
2450	10	19	29	38	48	57	67	77	86	96	mW

Therefore the transmitter is deemed comply with the requirement without SAR testing.

7. Photographs of the Test Set-Up

Photograph 1: Setup for Radiated Emissions below 1GHz



Photograph 2: Setup for Radiated Emissions above 1GHz



8. List of Tables

Table 1: List of Test and Measurement Equipment	5
Table 2: Measurement Uncertainty	6
Table 3: Technical Specification of EUT	7
Table 4: Test result of 20dB & 99% Bandwidth.....	12
Table 5: Polarization of the measurement for the larger power level channel 2411MHz: Horizontal.....	16

9. List of Photographs

Photograph 1: Setup for Radiated Emissions below 1GHz.....	56
Photograph 2: Setup for Radiated Emissions above 1GHz	56