

Prüfbericht-Nr.: 17037990 001 Auftrags-Nr.: Seite 1 von 58 164010423 Test Report No.: Order No.: Page 1 of 58 Kunden-Referenz-Nr.: Auftragsdatum: N/A 09.01.2014 Client Reference No.: Order date: Auftraggeber: Mae Tay Precision Co., Ltd. 6F., No.99, Ruihu St., Neihu Dist., Taipei City, 114, Client: Taiwan Prüfgegenstand: **USB** Dongle Test item: Bezeichnung / Typ-Nr.: RG1102 Identification / Type No.: Auftrags-Inhalt: **FCC Certification** Order content: Prüfgrundlage: CFR47 FCC Part 15: Subpart C Section 15.249 Test specification: CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209 CFR47 FCC Part 15: Subpart B Section 15.107 CFR47 FCC Part 15: Subpart B Section 15.109 FCC KDB Publication 447498 v05r01 Wareneingangsdatum: N/A Date of receipt: Prüfmuster-Nr.: N/A Test sample No.: Prüfzeitraum: 04.01.2014 - 23.01.2014 Testing period: Ort der Prüfung: Accurate Technology Co., Ltd. Place of testing: Prüflaboratorium: TÜV Rheinland (Shenzhen) Co., Ltd. Testing laboratory: Prüfergebnis*: **Pass** Test result*: geprüft von / tested by: kontrolliert von / reviewed by: Owen Flan/Project Manager 29.01.2014 29.01.2014 Winnie Hou/Technical Certicier Name / Stellung Datum Name / Stellung Unterschrift Datum Unterschrift Name / Position Date Signature Date Name / Position Signature Sonstiges / Other: Zustand des Prüfgegenstandes bei Anlieferung: Details im vorherigen Abschnitt Condition of the test item at delivery: Details in the previous section * Legende: 1 = sehr aut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet 2 = goodLegend: 1 = very good 3 = satisfactory 4 = sufficient 5 = poorP(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) 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.

This test report only 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 test mark.



Products

 Prüfbericht - Nr.:
 17037990 001
 Seite 2 von 58

 Test Report No.
 Page 2 of 58

TEST SUMMARY

5.1.1 FUNDAMENTAL & HARMONICS RADIATED EMISSION

RESULT: Pass

5.1.2 RADIATED EMISSIONS OUTSIDE OF THE BAND

RESULT: Pass

5.1.1 CONDUCTED EMISSIONS

RESULT: Pass

5.1.2 RADIATED EMISSIONS

RESULT: Pass

6.1.1 ELECTROMAGNETIC FIELDS

RESULT: Pass

Prüfbericht - Nr.: 17037990 001 Seite 3 von 58
Page 3 of 58

Test Report No. Contents 1. GENERAL REMARKS4 COMPLEMENTARY MATERIALS4 1.1 2. Test Sites4 2.1 TEST FACILITIES4 2.2 2.3 2.4 CALIBRATION6 2.5 2.6 LOCATION OF ORIGINAL DATA......6 2.7 3. GENERAL PRODUCT INFORMATION7 3.1 RATINGS AND SYSTEM DETAILS7 3.2 3.3 INDEPENDENT OPERATION MODES7 3.4 SUBMITTED DOCUMENTS8 3.5 4. PRINCIPLE OF CONFIGURATION SELECTION......9 4.1 TEST OPERATION AND TEST SOFTWARE9 4.2 4.3 4.4 COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE......9 4.5 5. TEST RESULTS11 5.1 TRANSMITTER REQUIREMENT & TEST SUITES11 Fundamental & Harmonics Radiated Emission11 5.1.1 5.1.2 5.1.1 Conducted emissions 46 5.1.2 6. SAFETY HUMAN EXPOSURE......54 6.1 RADIO FREQUENCY EXPOSURE COMPLIANCE......54 6.1.1 7. PHOTOGRAPHS OF THE TEST SET-UP55 8. LIST OF TABLES58 LIST OF PHOTOGRAPHS58 9.

Produkte Products

 Prüfbericht - Nr.:
 17037990 001
 Seite 4 von 58

 Test Report No.
 Page 4 of 58

1. General Remarks

1.1 Complementary Materials

None.

2. Test Sites

2.1 Test Facilities

Accurate Technology Co., Ltd.

(FCC Registration No.: 752051)

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.



Prüfbericht - Nr.: 17037990 001

Test Report No.

Seite 5 von 58 Page 5 of 58

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Туре	S/N	Calibrated until
Transmitter spurious en	nissions & Receiver	spurious emission	S	
Spectrum Analyzer	Agilent	E7405A	MY45115511	2015-01-07
Test Receiver	Rohde & Schwarz	ESCS30	100307	2015-01-07
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	2015-01-07
Loop Antenna	Schwarzbeck	FMZB1516	1516131	2015-01-07
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	2015-01-07
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	2015-01-07
50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	2015-01-07
RF Coaxial Cable	SUHNER	N-3m	No.8	2015-01-07
RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	2015-01-07
RF Coaxial Cable	SUHNER	N-6m	No.10	2015-01-07
RF Coaxial Cable	RESENBERGER	N-12m	No.11	2015-01-07
RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	2015-01-07
Pre-Amplifier	Rohde & Schwarz	CBLU1183540-01	3791	2015-01-07
Radio Spectrum Test	-1			
Spectrum Analyzer	Rohde & Schwarz	ESPI3	100396/003	2015-01-07
Spectrum Analyzer	Agilent	E7405A	MY45115511	2015-01-07
Temp. & Humid. Chambe	r Gongwen	HSD-500	0109	2015-01-07
Conducted Emission		-		
Test Receiver	Rohde & Schwarz	ESCS30	100307	2015-01-07
L.I.S.N.	Schwarzbeck	NLSK8126	8126431	2015-01-07
L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100310	2015-01-07
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100815	2015-01-07
50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283933	2015-01-07
RF Coaxial Cable	SUHNER	N-2m	No.3	2015-01-07
Radiated Emission				
Spectrum Analyzer	Agilent	E7405A	MY45115511	2015-01-07
Test Receiver	Rohde & Schwarz	ESCS30	100307	2015-01-07
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	2015-01-07
Loop Antenna	Schwarzbeck	FMZB1516	1516131	2015-01-07
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	2015-01-07
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	2015-01-07
50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	2015-01-07
RF Coaxial Cable	SUHNER	N-3m	No.8	2015-01-07
RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	2015-01-07
RF Coaxial Cable	SUHNER	N-6m	No.10	2015-01-07
RF Coaxial Cable	RESENBERGER	N-12m	No.11	2015-01-07
RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	2015-01-07
Pre-Amplifier	Rohde & Schwarz	CBLU1183540-01		2015-01-07



 Prüfbericht - Nr.:
 17037990 001
 Seite 6 von 58

 Test Report No.
 Page 6 of 58

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, 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 basics using in house standards or comparisons.

2.5 Measurement Uncertainty

Table 2: Measurement Uncertainty

Parameter	Uncertainty
Radio Spectrum	< ± 0.60 dB
Radiated emission of transmitter, valid up to 12.75 GHz	< ± 4.42 dB
Radiated emission of receiver, valid up to 12.75 GHz	< ± 4.42 dB
Conducted Emission	< ± 2.23 dB
Radiated Emission	< ± 4.42 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 and is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

 Prüfbericht - Nr.:
 17037990 001
 Seite 7 von 58

 Test Report No.
 Page 7 of 58

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a wireless USB dongle used with wireless keyboard. It operates at 2.4GHz ISM frequency band.

For details refer to the User Manual and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

Technical Specification	Value
Kind of Equipment	USB Dongle
Type Designation	RG1102
FCC ID	2AAIL-RG1102
Operating Frequency band	2408 – 2474MHz
Channel separation	2MHz
Channel number	34
Extreme Temperature Range	-20~+45°C
Operation Voltage	DC 5V (via USB port)
Modulation	FSK
Antenna Gain	3.27dBi

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, wireless mode
 - 1. Trnasmitting
 - 2. Receiving
- B. On, transfer data with PC via USB port
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.



Products

 Prüfbericht - Nr.:
 17037990 001
 Seite 8 von 58

 Test Report No.
 Page 8 of 58

3.5 Submitted Documents

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



 Prüfbericht - Nr.:
 17037990 001
 Seite 9 von 58

 Test Report No.
 Page 9 of 58

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

The EUT was tested together with the following accessories:

Description	Manufacturer	Part No.	S/N
Notebook	Lenovo	4290-RT8	R9-FW93G
Printer	HP	HP laserjet 1015	CNFG030424

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.

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 Prüfbericht - Nr.:
 17037990 001
 Seite 10 von 58

 Test Report No.
 Page 10 of 58

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test

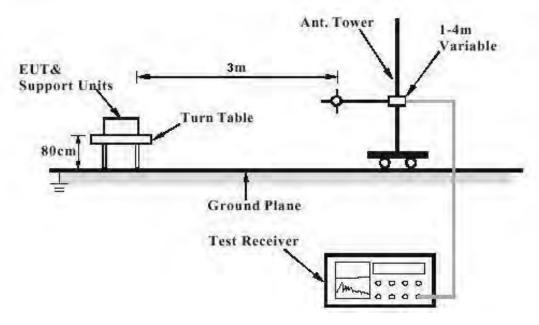
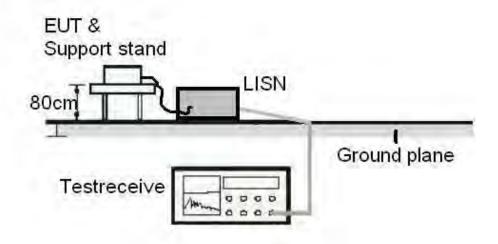


Diagram of Measurement Equipment Configuration for Conduction Measurement



Products

Prüfbericht - Nr.: 17037990 001 Seite 11 von 58 Page 11 of 58 Test Report No.

5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Fundamental & Harmonics Radiated Emission

RESULT: Pass

Date of testing

: 2014-01-04 : FCC part 15.249(a) : ANSI C63.4: 2003 : FCC part 15.249(a) : 3m Semi-Apo-1 Test standard Basic standard Limits

Kind of test site 3m Semi-Anechoic Chamber

Test setup

Test channel Low/ Middle/ High DC 5V (via USB port)

Input voltage :
Operation mode :
Ambient temperature : A.1 **25**℃ 52% Relative humidity Atmospheric pressure : 101kPa

Table 4: Polarization of the measurement for the larger power level channel 2440MHz: Vertical

		Fundai	mental	2 nd Harmonic			
Test co	nditions	Frequ	iency	Frequ	uency		
		2440	MHz	4948	BMHz		
	Unit	(dBµV/m)	(mV/m)	(dBµV/m)	(µV/m)		
$T_{nom}(25^{\circ}C)$	Horizontal	82.75	13.72	48.05	252.64		
	Vertical	85.10	17.99	48.48	265.46		
Liı	mit	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.



Products

17037990 001 Seite 12 von 58 Prüfbericht - Nr.: Page 12 of 58 Test Report No.

Test Plot of fundamental & harmonics radiated emission



ACCURATE TECHNOLOGY CO., LTD.

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

Polarization:

Date: 14/01/04/

Time: 11/57/21

Distance: 3m

Power Source: DC 5V

Engineer Signature: PEI

Horizontal

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

lan #1948

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle TX 2408MHz Mode:

MT-RG1102 Model:

Manufacturer: Mae Tay Precision Co., Ltd.

Note:

3

4

4816.051

4816.051

50.52

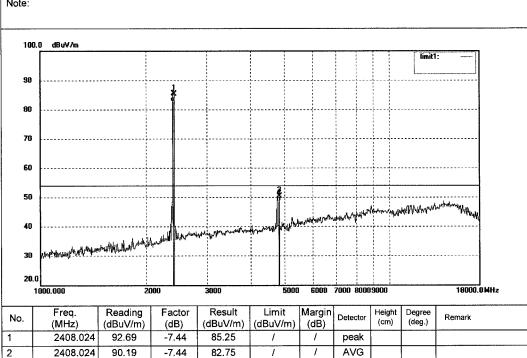
48.64

-0.23

-0.23

50.29

48.41



74.00

54.00

-23.71

peak

AVG



Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 13 von 58Page 13 of 58

ATC®

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1949

Standard: FCC Class B 3M Radiated

Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %

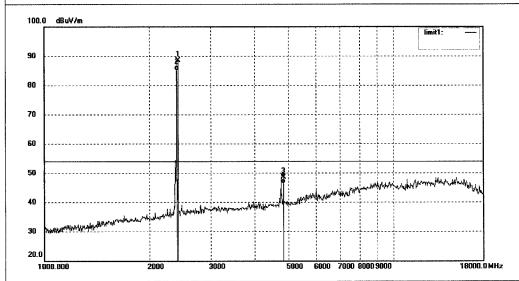
EUT: Dongle
Mode: TX 2408MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Polarization: Vertical Power Source: DC 5V Date: 14/01/04/ Time: 12/10/43

Engineer Signature: PEI

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2408.025	95.86	-7.44	88.42	1	1	peak			
2	2408.025	92.54	-7.44	85.10	1	/	AVG			
3	4816.045	48.67	-0.23	48.44	74.00	-25.56	peak			
4	4816.045	46.59	-0.23	46.36	54.00	-7.64	AVG			



Products

Prüfbericht - Nr.: 17037990 001

Test Report No.

Seite 14 von 58Page 14 of 58



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle
Mode: TX 2440MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

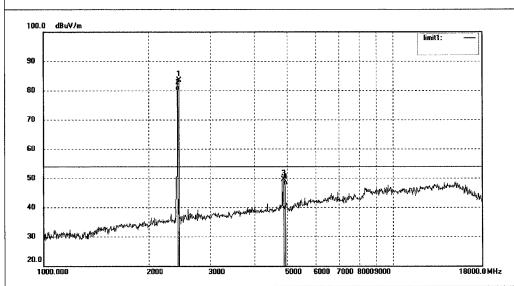
Polarization: Horizontal
Power Source: DC 5V

Date: 14/01/04/ Time: 12/32/43

Engineer Signature: PEI

Distance: 3m





No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.027	90.79	-7.35	83.44	1	/	peak			
2	2440.027	87.34	-7.35	79.99	1	/	AVG			
3	4880.055	49.39	0.13	49.52	74.00	-24.48	peak			
4	4880.055	47.46	0.13	47.59	54.00	-6.41	AVG			



Products

Prüfbericht - Nr.: 17037990 001

Test Report No.

Seite 15 von 58Page 15 of 58



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1950

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

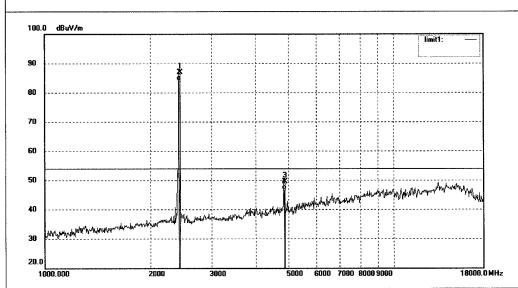
Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle
Mode: TX 2440MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

-4-.

Polarization: Vertical
Power Source: DC 5V
Date: 14/01/04/
Time: 12/21/08
Engineer Signature: PEI
Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.032	94.25	-7.36	86.89	1	/	peak			
2	2440.032	91.52	-7.36	84.16	1	1	AVG			
3	4880.054	49.32	0.13	49.45	74.00	-24.55	peak			
4	4880.054	46.59	0.13	46.72	54.00	-7.28	AVG			



Products

17037990 001 Prüfbericht - Nr.:

Test Report No.

Seite 16 von 58 Page 16 of 58



ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: TX 2474MHz MT-RG1102 Model:

Manufacturer: Mae Tay Precision Co., Ltd.

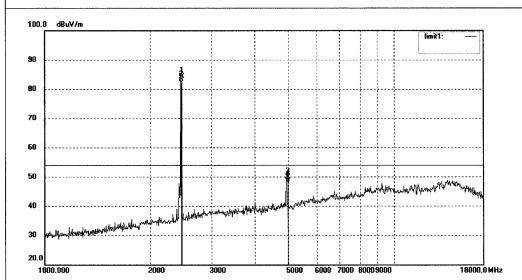
Engineer Signature: PEI Distance: 3m

Polarization: Horizontal

Power Source: DC 5V

Date: 14/01/04/

Time: 12/44/19



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2474.048	91.75	-7.37	84.38	1	1	peak			
2	2474.048	89.67	-7.37	82.30	1	/	AVG			
3	4948.086	49.43	0.47	49.90	74.00	-24.10	peak			
4	4948.086	47.58	0.47	48.05	54.00	-5.95	AVG			



Products

Prüfbericht - Nr.: 17037990 001

Test Report No.

Seite 17 von 58Page 17 of 58



ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Power Source: DC 5V Date: 14/01/04/

Time: 12/54/00

Job No.: lan #1953

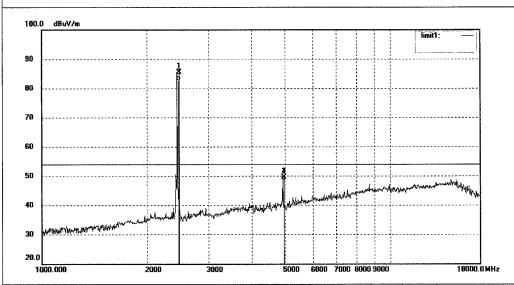
Standard: FCC Class B 3M Radiated

Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle
Mode: TX 2474MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Engineer Signature: PEI z Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2474.051	92.83	-7.37	85.46	/	/	peak			
2	2474.051	90.15	-7.37	82.78	ī	1	AVG			
3	4948.075	49.12	0.47	49.59	74.00	-24.41	peak			
4	4948.075	48.01	0.47	48.48	54.00	-5.52	AVG			



Products

Seite 18 von 58 Prüfbericht - Nr.: 17037990 001 Page 18 of 58 Test Report No.

5.1.2 Radiated emissions outside of the band

RESULT: Pass

2014-01-06

Date of testing :
Test standard : FCC Part 15.209(a)

FCC Part 15.249(d)

FCC Part 15.249(d)
: ANSI C63.4: 2003
: 0.009 – 25000MHz *
: FCC Part 15.209(a)
FCC Part 15.249(d) Basic standard Frequency range Limits

FCC Part 15.249(d)

3m Semi-Anechoic Chamber Kind of test site

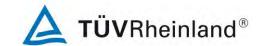
Test Setup

Low/ Middle/ High DC 5V (via USB port)

Input voltage :
Operation mode :
Ambient temperature :
Relative humidity A.1 **25**℃ 52% Atmospheric pressure : 101kPa

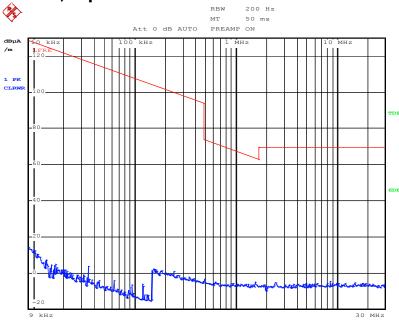
For details refer to following test plot.

^{*-} The EUT's highest frequency generated and used is 2474MHz, hence the highest scan frequency is up to 25GHz.



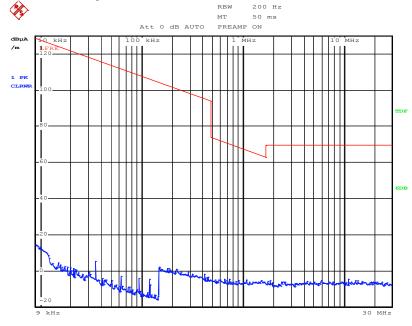
17037990 001 Seite 19 von 58 Prüfbericht - Nr.: Page 19 of 58 Test Report No.

Test Plot of radiated emissions outside of the band Low channel, X polarization:



Date: 6.JAN.2014 10:51:38

Low channel, Y polarization:

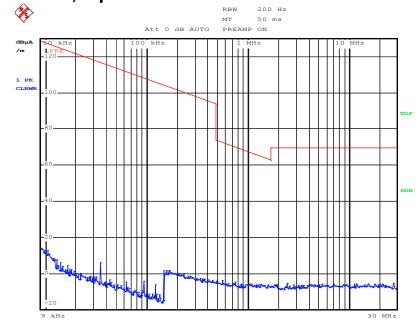


Date: 6.JAN.2014 10:58:52

 Prüfbericht - Nr.:
 17037990 001
 Seite 20 von 58

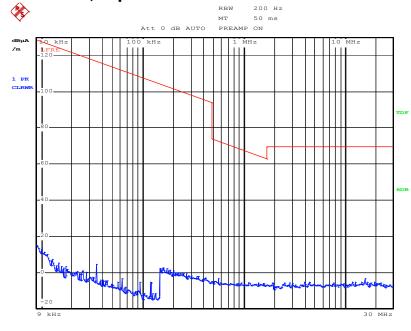
 Test Report No.
 Page 20 of 58

Low channel, Z polarization:



Date: 6.JAN.2014 11:01:08

Middle channel, X polarization:

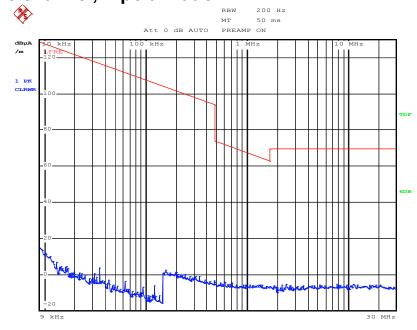


Date: 6.JAN.2014 11:03:19

 Prüfbericht - Nr.:
 17037990 001
 Seite 21 von 58

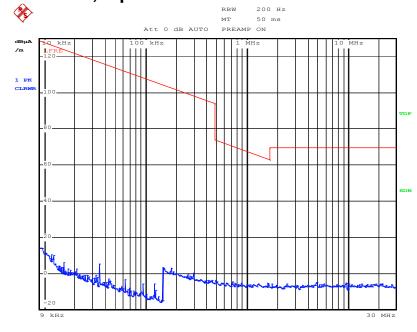
 Test Report No.
 Page 21 of 58

Middle channel, Y polarization:



Date: 6.JAN.2014 11:05:29

Middle channel, Z polarization:

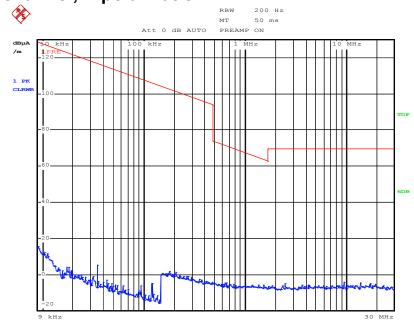


Date: 6.JAN.2014 11:07:40

 Prüfbericht - Nr.:
 17037990 001
 Seite 22 von 58

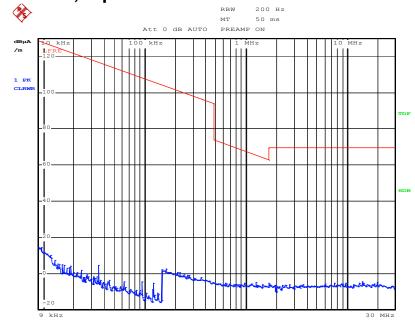
 Test Report No.
 Page 22 of 58

High channel, X polarization:



Date: 6.JAN.2014 11:09:50

High channel, Y polarization:



Date: 6.JAN.2014 11:12:01

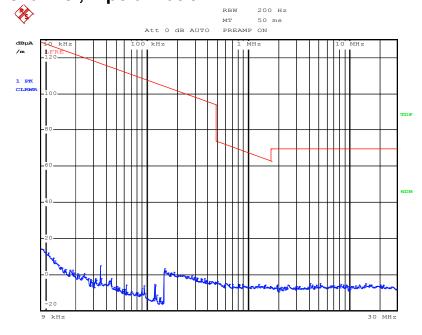


Products

 Prüfbericht - Nr.:
 17037990 001
 Seite 23 von 58

 Test Report No.
 Page 23 of 58

High channel, Z polarization:



Date: 6.JAN.2014 11:14:10



Products

Prüfbericht - Nr.:

17037990 001

Seite 24 von 58Page 24 of 58

Test Report No.



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1936

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle

Mode: TX 2408MHz

Model: MT-RG1102

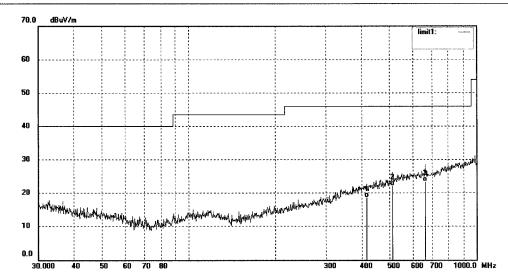
Manufacturer: Mae Tay Precision Co., Ltd.

Polarization: Horizontal Power Source: DC 5V

Date: 14/01/04/ Time: 10/15/40

Engineer Signature: PEI

Distance: 3m



_		T			т					r
No.	Freq.	Reading	Factor	Result	Limit	Margin	Detector	Height	Degree	Remark
NO.	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm	(cm)	(deg.)	Troman
1	416.9108	24.96	-6.30	18.66	46.00	-27.34	QP			
2	511.1487	26.66	-4.52	22.14	46.00	-23.86	QP			
3	662.9275	25.57	-2.21	23.36	46.00	-22.64	QP			



Products

Prüfbericht - Nr.:

17037990 001

Seite 25 von 58Page 25 of 58

Test Report No.



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 % EUT: Dongle

EUT: Dongle

Mode: TX 2408MHz

Model: MT-RG1102

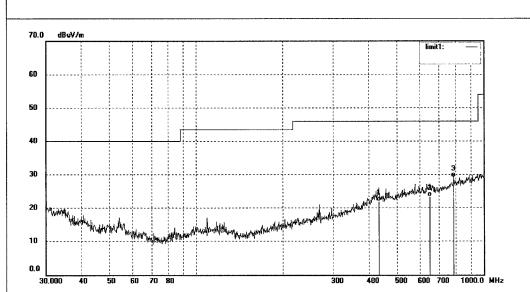
Manufacturer: Mae Tay Precision Co., Ltd.

Polarization: Vertical Power Source: DC 5V

Date: 14/01/04/ Time: 10/23/30

Engineer Signature: PEI

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	431.8197	27.93	-6.01	21.92	46.00	-24.08	QP			
2	649.0983	25.75	-2.46	23.29	46.00	-22.71	QP			
3	789.4749	29.31	-0.18	29.13	46.00	-16.87	QP			



Products

Prüfbericht - Nr.:

17037990 001

Seite 26 von 58Page 26 of 58

Test Report No.



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: Ian #1948 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle
Mode: TX 2408MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Date: 14/01/04/ Time: 11/57/21

Polarization:

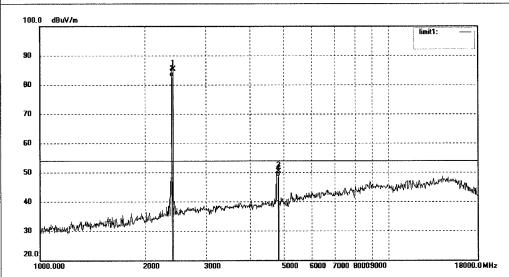
Engineer Signature: PEI

Power Source: DC 5V

Horizontal

Distance: 3m

140	ιe	:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2408.024	92.69	-7.44	85.25	1	1	peak				
2	2408.024	90.19	-7.44	82.75	1	1	AVG				
3	4816.051	50.52	-0.23	50.29	74.00	-23.71	peak				
4	4816.051	48.64	-0.23	48.41	54.00	-5.59	AVG				



Products

Test Report No.

Prüfbericht - Nr.:

17037990 001

Seite 27 von 58 Page 27 of 58



ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1949

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle TX 2408MHz Mode: Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

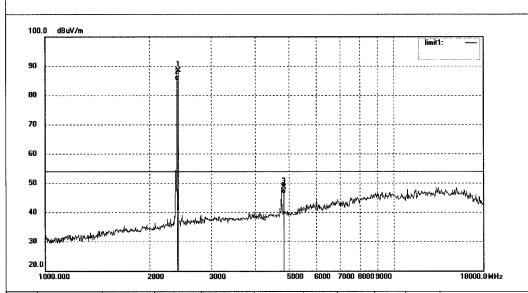
Polarization: Vertical Power Source: DC 5V

Date: 14/01/04/ Time: 12/10/43

Engineer Signature: PEI

Distance: 3m

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No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2408.025	95.86	-7.44	88.42	1	/	peak			
2	2408.025	92.54	-7.44	85.10	1	/	AVG			
3	4816.045	48.67	-0.23	48.44	74.00	-25.56	peak			
4	4816.045	46.59	-0.23	46.36	54.00	-7.64	AVG			



Products

Prüfbericht - Nr.:

17037990 001

Seite 28 von 58 Page 28 of 58

Test Report No.



ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: TX 2408MHz

Model:

Note:

Manufacturer: Mae Tay Precision Co., Ltd.

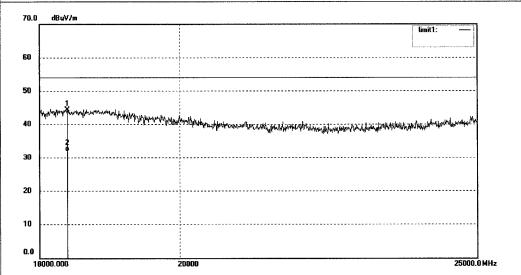
Polarization: Horizontal Power Source: DC 5V

Date: 14/01/04/ Time: 17/43/46

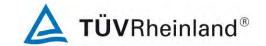
Engineer Signature: PEI

Distance: 3m

MT-RG1102



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	18377.167	27.47	16.93	44.40	74.00	-29.60	peak			
2	18377.167	15.03	16.93	31.96	54.00	-22.04	AVG			



Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 29 von 58 Page 29 of 58



ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: TX 2408MHz Model: MT-RG1102

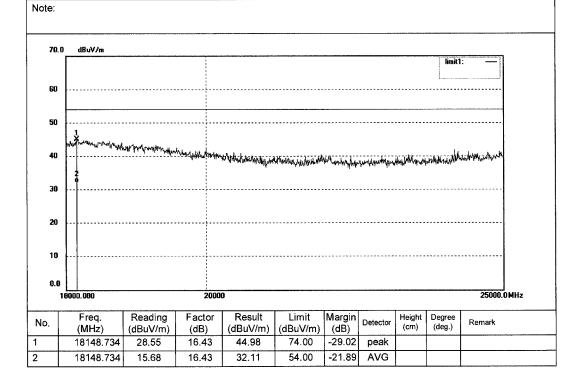
Manufacturer: Mae Tay Precision Co., Ltd.

Polarization: Vertical Power Source: DC 5V

Date: 14/01/04/ Time: 17/52/37

Distance: 3m

Engineer Signature: PEI





Products

Prüfbericht - Nr.:

17037990 001

Seite 30 von 58 Page 30 of 58

Test Report No.



ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1938 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 % EUT: Dongle

Mode: TX 2440MHz MT-RG1102 Model:

Manufacturer: Mae Tay Precision Co., Ltd.

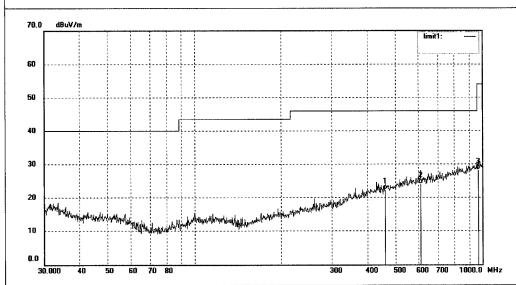
Polarization: Horizontal Power Source: DC 5V

Date: 14/01/04/ Time: 10/30/34

Engineer Signature: PEI

Distance: 3m





No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	458.3987	27.89	-5.64	22.25	46.00	-23.75	QP			
2	609.3176	26.92	-2.81	24.11	46.00	-21.89	QP			
3	968.8724	25.80	2.43	28.23	54.00	-25.77	QP			



Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 31 von 58 Page 31 of 58

ACCURATE TECHNOLOGY CO., LTD.

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

Polarization:

Date: 14/01/04/

Time: 10/38/20

Distance: 3m

Power Source: DC 5V

Engineer Signature: PEI

Vertical

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1939

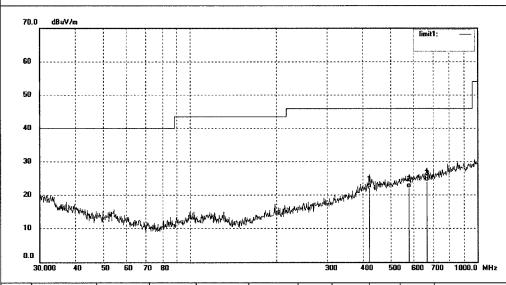
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 % EUT:

Dongle Mode: TX 2440MHz Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	419.8509	28.27	-6.16	22.11	46.00	-23.89	QP			
2	576.0085	25.32	-3.16	22.16	46.00	-23.84	QP			
3	667.6023	26.25	-2.16	24.09	46.00	-21.91	QP			



Products

Prüfbericht - Nr.:

17037990 001

Seite 32 von 58 Page 32 of 58

Test Report No.



ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: TX 2440MHz Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

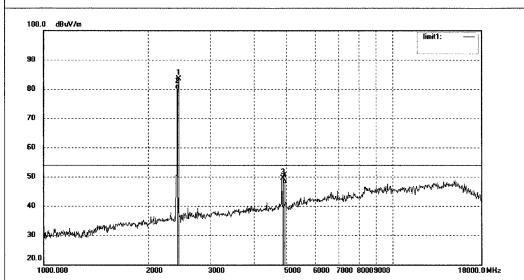
Polarization: Horizontal Power Source: DC 5V

Date: 14/01/04/ Time: 12/32/43

Engineer Signature: PEI

Distance: 3m





No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.027	90.79	-7.35	83.44	1	/	peak			
2	2440.027	87.34	-7.35	79.99	1	1	AVG			
3	4880.055	49.39	0.13	49.52	74.00	-24.48	peak			
4	4880.055	47.46	0.13	47.59	54.00	-6.41	AVG			



Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 33 von 58 Page 33 of 58

ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1950

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle TX 2440MHz Mode: Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Power Source: DC 5V Date: 14/01/04/

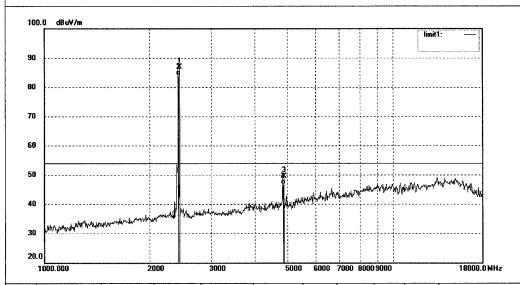
Polarization:

Engineer Signature: PEI

Vertical

Distance: 3m

Time: 12/21/08



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.032	94.25	-7.36	86.89	1	/	peak			
2	2440.032	91.52	-7.36	84.16	1	/	AVG			
3	4880.054	49.32	0.13	49.45	74.00	-24.55	peak			
4	4880.054	46.59	0.13	46.72	54.00	-7.28	AVG			



Products

Prüfbericht - Nr.:

17037990 001

Seite 34 von 58Page 34 of 58

Test Report No.

2

18377.167

15.03

16.93

31.96



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1984

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: TX 2440MHz Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

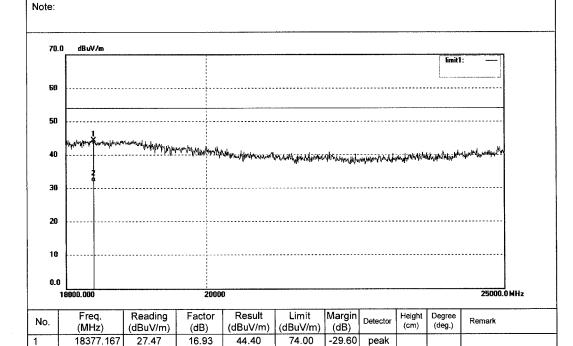
MT-RG1102

Polarization: Horizontal Power Source: DC 5V

Date: 14/01/04/ Time: 18/01/46

Engineer Signature: PEI

Distance: 3m



54.00

-22.04

AVG



Products

Prüfbericht - Nr.:

17037990 001

Seite 35 von 58 Page 35 of 58

Test Report No.



ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle TX 2440MHz Mode: Model: MT-RG1102

18148.734

18148.734

2

28.55

15.68

16.43

32.11

54.00

-21.89

AVG

Manufacturer: Mae Tay Precision Co., Ltd.

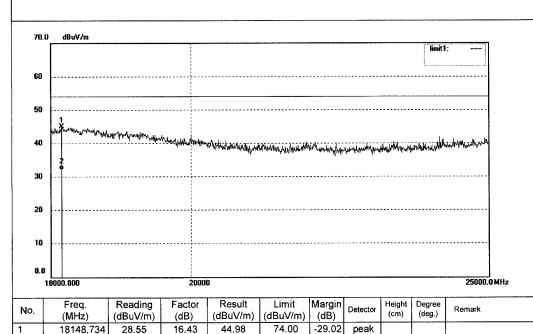
Engineer Signature: PEI

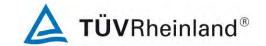
Distance: 3m

Time: 18/10/37

Polarization: Vertical

Power Source: DC 5V Date: 14/01/04/





Products

Prüfbericht - Nr.: 17037990 001

Test Report No.

Seite 36 von 58 *Page 36 of 58*



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: TX 2474MHz Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Note:

3

562.0143

26.01

-3.43

22.58

46.00

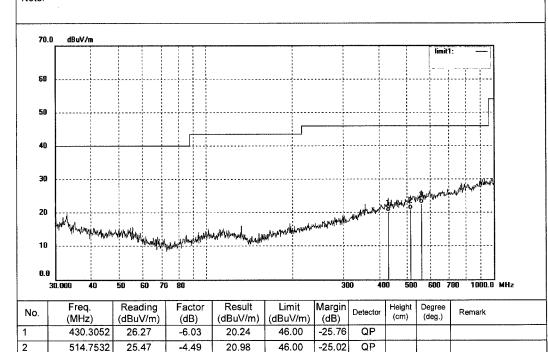
-23.42

QP

Polarization: Horizontal Power Source: DC 5V Date: 14/01/04/ Time: 10/55/01

Engineer Signature: PEI

Distance: 3m





Products

Prüfbericht - Nr.: 17037990 001

Test Report No.

Seite 37 von 58 *Page 37 of 58*



ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1940

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle
Mode: TX 2474MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Note:

2

3

665.2609

982.5855

25.66

25.28

-2.19

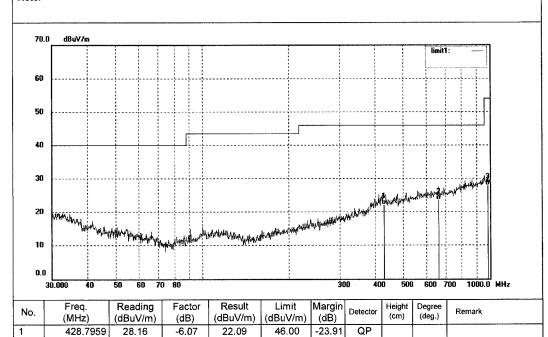
2.63

23.47

27.91

Polarization: Vertical
Power Source: DC 5V
Date: 14/01/04/
Time: 10/47/08
Engineer Signature: PEI

Distance: 3m



46.00

54.00

-22.53

-26.09

QΡ

QP



Site: 1# Chamber

Tel:+86-0755-26503290

Produkte

Products

Prüfbericht - Nr.: 17037990 001

Test Report No.

Seite 38 von 58 *Page 38 of 58*



ACCURATE TECHNOLOGY CO., LTD.

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

Power Source: DC 5V

Fax:+86-0755-26503396

Power Source: DC 5V

Date: 14/01/04/ Time: 12/44/19

Engineer Signature: PEI

Distance: 3m

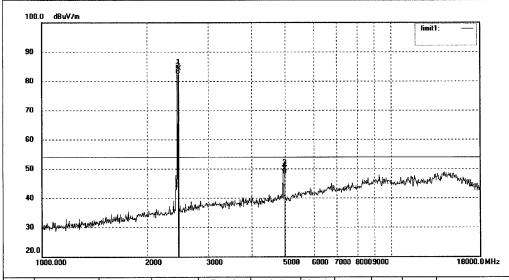
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

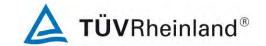
Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: TX 2474MHz Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2474.048	91.75	-7.37	84.38	1	/	peak			
2	2474.048	89.67	-7.37	82.30	1	/	AVG			
3	4948.086	49.43	0.47	49.90	74.00	-24.10	peak			
4	4948.086	47.58	0.47	48.05	54.00	-5.95	AVG			



Products

Prüfbericht - Nr.: 17037990 001

Test Report No.

Seite 39 von 58 *Page 39 of 58*



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Vertical

Polarization:

Time: 12/54/00

Distance: 3m

Power Source: DC 5V Date: 14/01/04/

Engineer Signature: PEI

Job No.: lan #1953

Standard: FCC Class B 3M Radiated

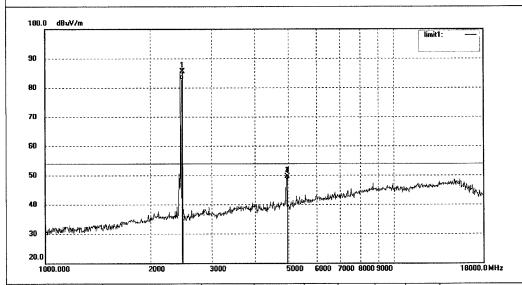
Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle
Mode: TX 2474MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Mailulacturer. Wae ray Frecision Co.,



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2474.051	92.83	-7.37	85.46	1	/	peak			
2	2474.051	90.15	-7.37	82.78	1	/	AVG			
3	4948.075	49.12	0.47	49.59	74.00	-24.41	peak			
4	4948.075	48.01	0.47	48.48	54.00	-5.52	AVG			



Products

Prüfbericht - Nr.:

17037990 001

Seite 40 von 58Page 40 of 58

Test Report No.



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1986

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: TX 2474MHz Model: MT-RG1102

18377.167

18377.167

2

27.47

15.03

16.93

16.93

44.40

31.96

Manufacturer: Mae Tay Precision Co., Ltd.

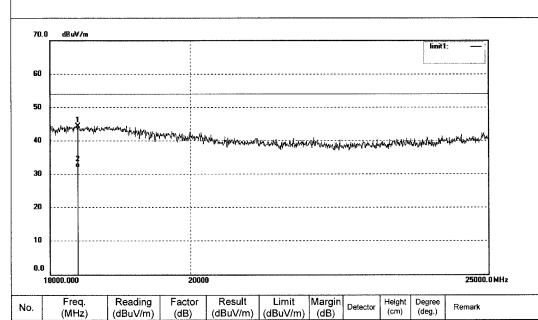
Polarization: Horizontal Power Source: DC 5V Date: 14/01/04/

Time: 18/18/46

Engineer Signature: PEI

Distance: 3m

N	a	ъ.
1.4	v	Ç.



74.00

54.00

-29.60

-22.04

peak

AVG



Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 41 von 58 Page 41 of 58

ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1987

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: TX 2474MHz Model: MT-RG1102

Note:

10

0.0

18000.000

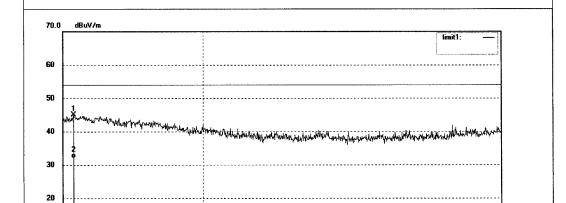
Manufacturer: Mae Tay Precision Co., Ltd.

Power Source: DC 5V Date: 14/01/04/ Time: 18/27/37

Polarization: Vertical

Engineer Signature: PEI

Distance: 3m



No.	Freq.	Reading	Factor	Result		Margin	Detector	Height	Degree	Remark	
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(deg.)		
1	18148.734	28.55	16.43	44.98	74.00	-29.02	peak				
2	18148.734	15.68	16.43	32.11	54.00	-21.89	AVG				

20000

25000.0 MHz



Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 42 von 58Page 42 of 58

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1963 Standard: FCC Part 15 Band Edge (2.4G)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle
Mode: TX 2408MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

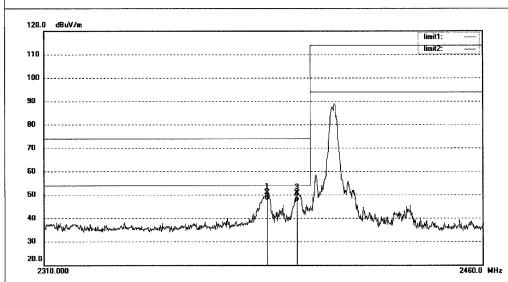
Polarization: Horizontal Power Source: DC 5V Date: 14/01/04/

Time: 14/20/20 Engineer Signature: PEI

Distance: 3m

Note:

lote:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2385.023	58.46	-7.56	50.90	74.00	-23.10	peak			
2	2385.023	55.07	-7.56	47.51	54.00	-6.49	AVG			
3	2395.420	58.03	-7.49	50.54	74.00	-23.46	peak			
4	2395.420	54.67	-7.49	47.18	54.00	-6.82	AVG			



Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 43 von 58Page 43 of 58

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ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1962

Standard: FCC Part 15 Band Edge (2.4G)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle
Mode: TX 2408MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

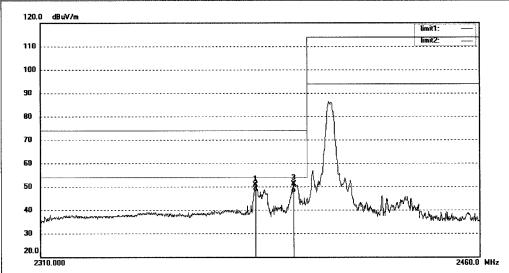
Date: 14/01/04/ Time: 14/08/53

Engineer Signature: PEI

Polarization: Vertical

Power Source: DC 5V

Distance: 3m



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No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2382.318	58.14	-7.58	50.56	74.00	-23.44	peak			
2	2382.318	55.34	-7.58	47.76	54.00	-6.24	AVG			
3	2395.420	58.64	-7.49	51.15	74.00	-22.85	peak			
4	2395.420	54.98	-7.49	47.49	54.00	-6.51	AVG			



Products

Test Report No.

Prüfbericht - Nr.:

17037990 001

Seite 44 von 58 Page 44 of 58

ACCURATE TECHNOLOGY CO., LTD.

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

Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1964

Standard: FCC Part 15 Band Edge (2.4G)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

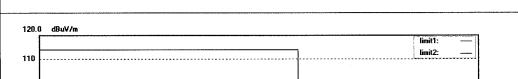
EUT: Dongle Mode: TX 2474MHz MT-RG1102 Model:

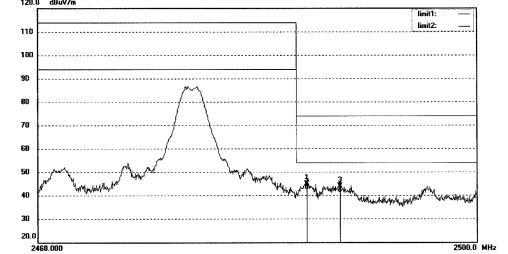
Manufacturer: Mae Tay Precision Co., Ltd.

Polarization: Horizontal Power Source: DC 5V Date: 14/01/04/

Time: 14/31/06 Engineer Signature: PEI

Distance: 3m





No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2484.452	52.28	-7.38	44.90	74.00	-29.10	peak			
2	2484.452	49.74	-7.38	42.36	54.00	-11.64	AVG			
3	2487.466	51.30	-7.38	43.92	74.00	-30.08	peak			
4	2487.466	48.57	-7.38	41.19	54.00	-12.81	AVG			



Products

Prüfbericht - Nr.:

17037990 001

Seite 45 von 58Page 45 of 58

Test Report No.



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 1# Chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: lan #1965

Standard: FCC Part 15 Band Edge (2.4G)

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

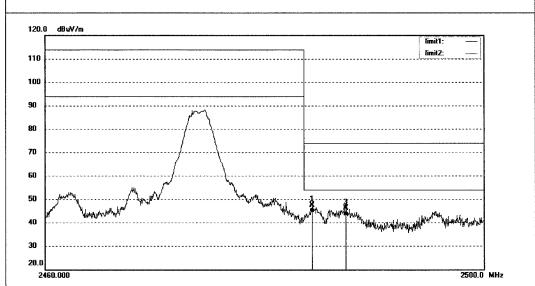
EUT: Dongle
Mode: TX 2474MHz
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Man Tou Descision Co. 14d

Polarization: Vertical
Power Source: DC 5V
Date: 14/01/04/
Time: 14/42/30
Engineer Signature: PEI

Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2484.252	54.84	-7.38	47.46	74.00	-26.54	peak			
2	2484.252	51.65	-7.38	44.27	54.00	-9.73	AVG			
3	2487.385	53.54	-7.38	46.16	74.00	-27.84	peak			
4	2487.385	50.17	-7.38	42.79	54.00	-11.21	AVG			



Products

Seite 46 von 58 Prüfbericht - Nr.: 17037990 001 Page 46 of 58 Test Report No.

5.1.1 Conducted emissions

RESULT: Pass

2014-01-07

Date of testing :
Test standard : FCC Part 15.107 (a)

FCC Part 15.207 (a)

Basic standard ANSI C63.4: 2003 Frequency range 0.15 - 30MHzLimits FCC Part 15.107(a)

FCC Part 15.207 (a)

Kind of test site : Shield room

Test setup

Operation mode : Earthing AC 120V, 60Hz

A & B

Not Connected

Ambient temperature : **25**℃ Relative humidity 52% Atmospheric pressure : 101kPa

For details refer to following test plot.



Produkte Products

Prüfbericht - Nr.:

17037990 001

Seite 47 von 58 Page 47 of 58

Test Report No.

Test Plot of Conducted emissions

ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Dongle M/N:MT-RG1102 Manufacturer: Mae Tay Precision Co., Ltd. Operating Condition: Transmitting+Receiving

Test Site: 1#Shielding Room Operator: LAN

Test Specification: L 120V/60Hz
Comment: Mains Port
Start of Test: 1/7/2014 / 9:12:09AM

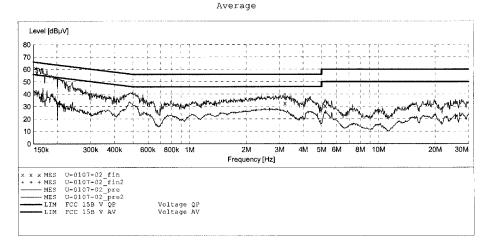
 SCAN TABLE:
 "V
 150K-30MHz
 fin"

 Short Description:
 SUB_STD_VTERM2
 1.70

 Start
 Stop
 Detector
 Meas.
 IF

 Frequency
 Frequency
 Width
 Time
 Band

 150.0 kHz
 30.0 MHz
 4.5 kHz
 QuasiPeak
 1.0 s
 9 kHz
 Transducer Bandw. 9 kHz NSLK8126 2008



MEASUREMENT RESULT: "U-0107-02 fin"

1/7	7/2014 9:22	MA						
	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dBuV	dВ	dBuV	dB			
	0.156109	57.30	10.5	66	8.4	OP	L1	GND
	3.205155	32.70	11.1	56	23.3	ÕP	L1	GND
	5.216293	30.60	11.2	60	29.4	ÕΡ	L1	GND
	0.210200					× ~		

MEASUREMENT RESULT: "U-0107-02_fin2"

1/7/2014 9:22	AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.168410	34.20	10.5	55	20.8	AV	L1	GND
2.656834	27.60	11.0	46	18.4	VA	Ll	GND
5 237158	25 30	11.2	5.0	24.7	VA	1.1	GND



Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 48 von 58 Page 48 of 58

ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

Dongle M/N:MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.
Operating Condition: Transmitting+Receiving
Test Site: 1#Shielding Room

Operator:

LAN

Test Specification: N 120V/60Hz

Comment: Start of Test:

Mains Port 1/7/2014 / 9:01:08AM

SCAN TABLE: "V 150K-30MHz fin" Short Description: Start Stop Step Detector Meas.

Transducer

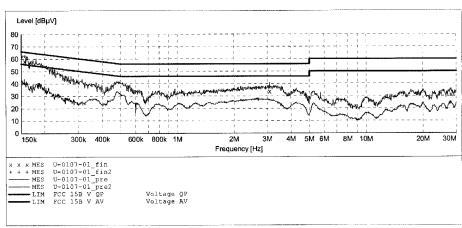
Frequency Frequency Width 150.0 kHz 30.0 MHz 4.5 kHz

Bandw. Time QuasiPeak 1.0 s

IF

9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "U-0107-01 fin"

1/7/2014 9:1	0AM						
Frequency	Level	Transd		-	Detector	Line	PΕ
MHz	dΒμV	dB	dΒμV	dB			
0.156734	58.00	10.5	66	7.6	OP	N	GND
3.079724	33.80	11.1	56		QP	N	GND
28.118280	31.00	11.5	60	29.0	QP	N	GND

MEASUREMENT RESULT: "U-0107-01 fin2"

1/7/2014	9:10A	М						
Freque	ncy	Level	Transd	Limit	Margin	Detector	Line	PE
:	MHz	dΒμV	dB	dBµV	dB			
0.155	487	40.80	10.5	56	14.9	AV	N	GND
2.678	132	27.40	11.0	46	18.6	AV	N	GND
27.894	676	24.40	11.5	50	25.6	AV	N	GND



Products

Seite 49 von 58 Prüfbericht - Nr.: 17037990 001 Page 49 of 58 Test Report No.

5.1.2 Radiated emissions

RESULT: Pass

Date of testing : 2014-01-23
Test standard : FCC Part 15.109
Basic standard : ANSI C63.4: 2003
Frequency range : 30 – 6000MHz *
Limits : FCC Part 15.109(a)
Kind of test site : 3m Semi-Anechoic C

3m Semi-Anechoic Chamber

Test Setup

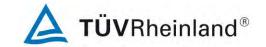
AC 120V, 60Hz

Not Connected

Input voltage :
Operation mode :
Earthing :
Ambient temperature :
Relative humidity :
Atmospheric pressure : **25**℃ 52% 101kPa

*- The EUT's highest frequency generated and used is less than 1000MHz, hence the highest scan frequency is up to 6GHz only.

For details refer to following test plot.



Products

Test Report No.

17037990 001 Prüfbericht - Nr.:

Seite 50 von 58 Page 50 of 58

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

Polarization:

Date: 14/01/23/

Time: 18:10:14

Distance: 3m

Engineer Signature:

Power Source: DC 5V

Horizontal

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

LAN #2087

Standard: FCC Class B 3M Radiated

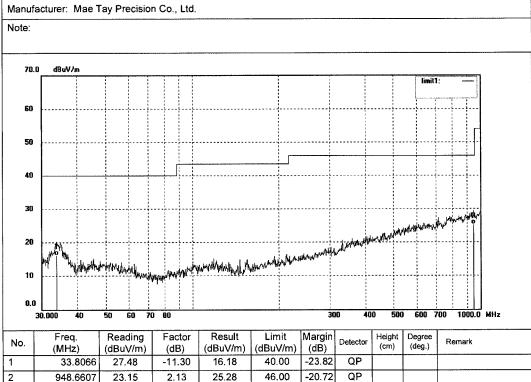
Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle

Mode:

MT-RG1102 Model:





Products

Prüfbericht - Nr.:

17037990 001

Seite 51 von 58Page 51 of 58

Test Report No.



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.: LAN #2086

Standard: FCC Class B 3M Radiated

Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %

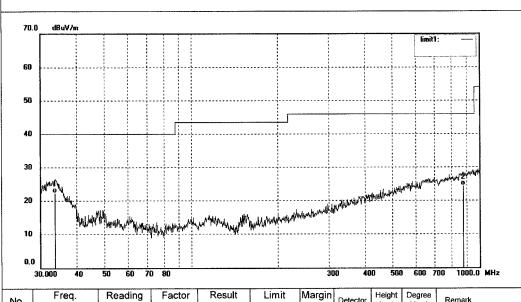
EUT: Dongle Mode: A

Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Polarization: Vertical Power Source: DC 5V Date: 14/01/23/

Time: 18:00:48
Engineer Signature:
Distance: 3m



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	33.5700	32.83	-10.27	22.56	40.00	-17.44	QP				
2	878.0931	23.36	1.13	24.49	46.00	-21.51	QP				



Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 52 von 58Page 52 of 58

ATO[®]

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.: LAN #2089

Standard: FCC Class B 3M Radiated

Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: A

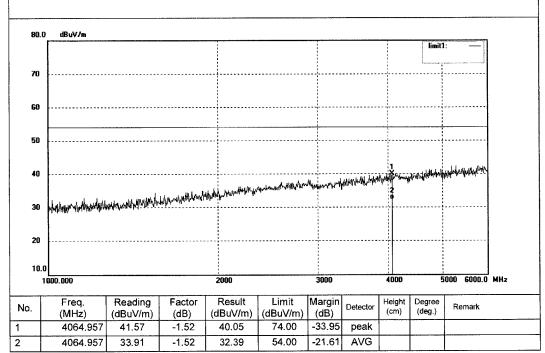
Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Power Source: DC 5V Date: 14/01/23/ Time: 18:30:46

Polarization: Horizontal

Engineer Signature: Distance: 3m





Products

Prüfbericht - Nr.:

Test Report No.

17037990 001

Seite 53 von 58 *Page 53 of 58*

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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.: LAN #2088

Standard: FCC Class B 3M Radiated

Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Dongle Mode: A

Model: MT-RG1102

Manufacturer: Mae Tay Precision Co., Ltd.

Power Source: DC 5V Date: 14/01/23/ Time: 18:21:53

Polarization: Vertical

Engineer Signature: Distance: 3m

Note:

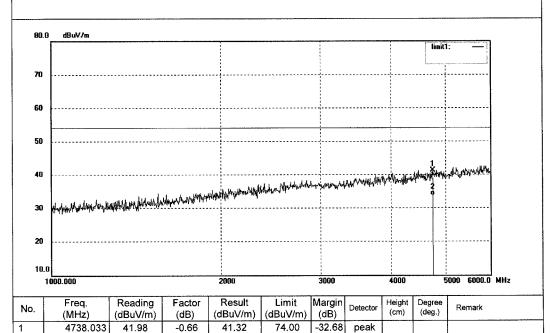
2

4738.033

34.43

-0.66

33.77



54.00

-20.23

AVG



 Prüfbericht - Nr.:
 17037990 001
 Seite 54 von 58

 Test Report No.
 Page 54 of 58

6. Safety Human exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT: Pass

Test standard : FCC KDB Publication 447498 D01 v05r01

The maximum peak output power of the tranmister is 0.1mW (-10.13dBm), 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 transmistter is deemed comply with the requirement without SAR testing.



 Prüfbericht - Nr.:
 17037990 001
 Seite 55 von 58

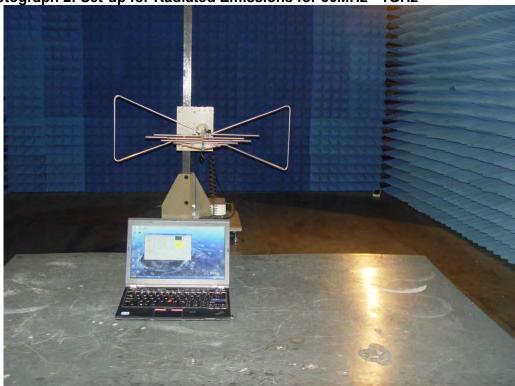
 Test Report No.
 Page 55 of 58

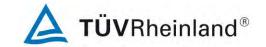
7. Photographs of the Test Set-Up

Photograph 1: Set-up for Radiated Emissions below 30MHz







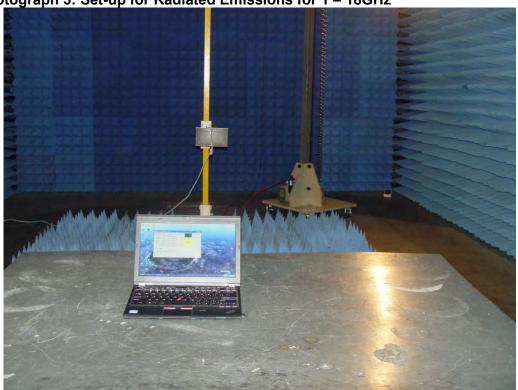


Prüfbericht - Nr.: 17037990 001

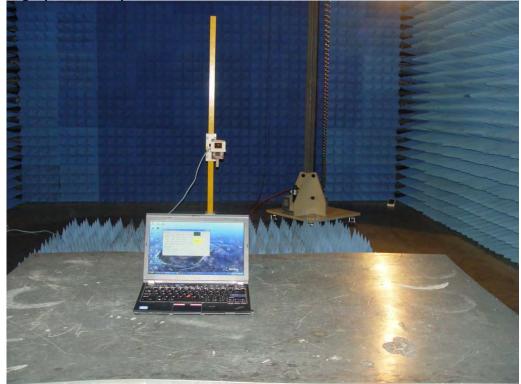
Test Report No.

Seite 56 von 58 *Page 56 of 58*

Photograph 3: Set-up for Radiated Emissions for 1 – 18GHz







TÜVRheinland®

Prüfbericht - Nr.: 17037990 001

Test Report No.

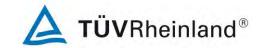
Seite 57 von 58 *Page 57 of 58*

Photograph 5: Set-up for Conducted Emissions









Products

Prüfbericht - Nr.: Test Report No.	17037990 001	Seite 58 von 58 Page 58 of 58
8. List of Table	S	
Table 2: Measurement Unce Table 3: Technical Specificat	asurement Equipmentrtaintyion of EUTneasurement for the larger power level channel	6 7
9. List of Photo	ographs	
Photograph 2: Set-up for Rac Photograph 3: Set-up for Rac Photograph 4: Set-up for Rac Photograph 5: Set-up for Col	diated Emissions below 30MHzdiated Emissions for 30MHz - 1GHzdiated Emissions for 1 – 18GHzdiated Emissions for 18 – 26.5GHzducted Emissionsdiated Emissions of mode Bdiated Emissions of mo	