# FCC CERTIFICATION On Behalf of Jannersten Forlag AB

Bridge Scorer Model No.: TBS

FCC ID: X9XTBS

Prepared for : Jannersten Forlag AB

Address : Banergatan 15, 752 37 Uppsala, Sweden

Prepared by : ACCURATE TECHNOLOGY CO. LTD

Address : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong

P.R. China

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Report Number : ATE20100506
Date of Test : March 30, 2010
Date of Report : April 1, 2010

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APPENDIX I (TEST CURVES) (22 pages)

#### **Test Report Certification**

Applicant : Jannersten Forlag AB

Manufacturer : Keysbond (China) Limited

EUT Description : Bridge Scorer

(A) MODEL NO.: TBS(B) SERIAL NO.: N/A

(C) POWER SUPPLY: 4.5V DC ("AA" batteries 3×)

Measurement Procedure Used:

# FCC Rules and Regulations Part 15 Subpart C Section 15.249 ANSI C63.4: 2003

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section15.249 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test:	March 30, 2010	
Prepared by :	sky Lang	
	(Engineer)	
Approved & Authorized Signer:	Sean (-)	
	(Manager)	

#### 1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT : Bridge Scorer

Model Number : TBS

Power Supply : 4.5V DC ("AA" batteries  $3\times$ )

Operate Frequency : 2405-2480MHz

Applicant : Jannersten Forlag AB

Address : Banergatan 15, 752 37 Uppsala, Sweden

Manufacturer : Keysbond (China) Limited

Address : No. 3, Kim Chau Industrial City, Nansha Guangzhou,

China

Date of sample received: March 18, 2010

Date of Test : March 30, 2010

#### 1.2.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC

The Registration Number is 752051

Listed by Industry Canada

The Registration Number is 5077A-2

Accredited by China National Accreditation Committee

for Laboratories

The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong

P.R. China

#### 1.3. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2

(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42 dB, k=2

(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2

(Above 1GHz)

## 2. MEASURING DEVICE AND TEST EQUIPMENT

**Table 1: List of Test and Measurement Equipment** 

Kind of equipment	Manufacturer	Туре	S/N	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 9, 2011
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 9, 2011
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 9, 2011
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 9, 2011
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 9, 2011
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 9, 2011
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 9, 2011
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 9, 2011
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 9, 2011
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 9, 2011

## 3. SUMMARY OF TEST RESULTS

FCC Rules	<b>Description of Test</b>	Result
Section 15.207	Conducted Emission	N/A
Section 15.249(a)	Fundamental and Harmonics Radiated Emission	Compliant
Section 15.249(d)	Spurious Radiated Emission	Compliant
Section 15.249(d)	Band Edge	Compliant
Section 15.203	Antenna Requirement	Compliant

Remark: "N/A" means "Not applicable".

# 4. FUNDAMENTAL AND HARMONICS RADIATED EMISSION FOR SECTION 15.249(A)

#### 4.1.Block Diagram of Test Setup

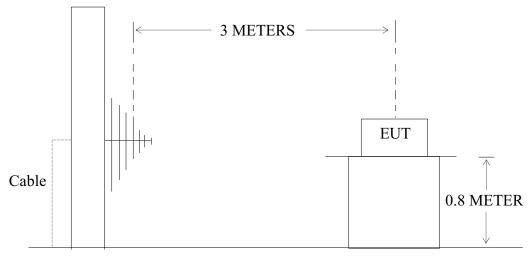
4.1.1.Block diagram of connection between the EUT and simulators

EUT

(EUT: Bridge Scorer)

4.1.2.Semi-Anechoic Chamber Test Setup Diagram

#### ANTENNA ELEVATION VARIES FROM 1 TO 4 METERS



**GROUND PLANE** 

(EUT: Bridge Scorer)

#### 4.2. The Emission Limit

4.2.1.For intentional radiators, According to section 15.249(a), Operation within the frequency band of 2.4 to 2.4835GHz, The fundamental field strength shall not exceed 94 dB $\mu$ V/m and the harmonics shall not exceed 54 dB $\mu$ V/m.

Fundamental	Field Strength of Fundamental	Field Strength of harmonics
Frequency	(millivolts/meter)	(microvolts/meter)
902-928MHz	50	500
2400-2483.5MHz	50	500
5725-5875MHz	50	500
24.0-24.25GHz	250	2500

4.2.2.According to section 15.249(e), as shown in section 15.35(b), the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

#### 4.3. Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.3.1. Bridge Scorer (EUT)

Model Number : TBS Serial Number : N/A

Manufacturer : Keysbond (China) Limited

#### 4.4. Operating Condition of EUT

- 4.4.1. Setup the EUT and simulator as shown as Section 4.1.
- 4.4.2. Turn on the power of all equipment.
- 4.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2405-2480MHz. We are select 2405MHz, 2445MHz, 2480MHz TX frequency to transmit.

#### 4.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 1MHz.

# 4.6. The Field Strength of Radiation Emission Measurement Results **PASS.**

Date of Test:March 30, 2010Temperature:25°CEUT:Bridge ScorerHumidity:50%Model No.:TBSPower Supply:4.5V DC ("AA" batteries 3×)Test Mode:TX 2405MHzTest Engineer:Joe

#### **Fundamental Radiated Emissions**

Frequency	Reading(c	dBμV/m)	Factor(dB)	actor(dB) Result(dBµV/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2405.030	86.64	92.17	-7.45	79.19	84.72	94	114	-14.81	-29.28	Vertical
2405.030	94.03	99.59	-7.45	86.58	92.14	94	114	-7.42	-21.86	Horizontal

#### **Harmonics Radiated Emissions**

Frequency	Reading(c	lBμV/m)	Factor(dB)	Result(c	lBμV/m)	Limit(dI	BμV/m)	Margi	n(dB)	Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
4810.052	49.11	54.65	-0.26	48.85	54.39	54	74	-5.15	-19.61	Vertical
7215.080	40.54	46.09	2.99	43.53	49.08	54	74	-10.47	-24.92	Vertical
4810.052	50.83	56.37	-0.26	50.57	56.11	54	74	-3.43	-17.89	Horizontal
7215.080	42.46	47.99	2.99	45.45	50.98	54	74	-8.55	-23.02	Horizontal

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test: March 30, 2010 Temperature: 25°C

EUT: Bridge Scorer Humidity: 50%

Model No.: TBS Power Supply: 4.5V DC ("AA" batteries 3×)

Test Mode: TX 2445MHz Test Engineer: Joe

#### **Fundamental Radiated Emissions**

Frequency	Reading(c	dBμV/m)	Factor(dB)	tor(dB) Result(dB $\mu$ V/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2445.040	85.18	90.70	-7.34	77.84	83.36	94	114	-16.16	-30.64	Vertical
2445.040	94.72	100.25	-7.34	87.38	92.91	94	114	-6.62	-21.09	Horizontal

#### **Harmonics Radiated Emissions**

Frequency	Reading(c	lBμV/m)	Factor(dB)	(dB) Result(dB $\mu$ V/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
4890.070	47.79	53.32	0.18	47.97	53.50	54	74	-6.03	-20.50	Vertical
7335.102	41.27	46.80	3.28	44.55	50.08	54	74	-9.45	-23.92	Vertical
4890.070	48.92	54.46	0.18	49.10	54.64	54	74	-4.90	-19.36	Horizontal
7335.102	41.77	47.28	3.28	45.05	50.56	54	74	-8.95	-23.44	Horizontal

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test: March 30, 2010 Temperature: 25°C

EUT: Bridge Scorer Humidity: 50%

Model No.: TBS Power Supply: 4.5V DC ("AA" batteries 3×)

Test Mode: TX 2480MHz Test Engineer: Joe

#### **Fundamental Radiated Emissions**

Frequency	Reading(c	dBμV/m)	Factor(dB)	Result(dBμV/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2480.038	85.36	90.88	-7.37	77.99	83.51	94	114	-16.01	-30.49	Vertical
2480.038	94.90	100.44	-7.37	87.53	93.07	94	114	-6.47	-20.93	Horizontal

#### **Harmonics Radiated Emissions**

Frequency	Reading(c	dBμV/m)	Factor(dB)	(dB) Result(dB $\mu$ V/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
4960.066	48.18	53.71	0.52	48.70	54.23	54	74	-5.30	-19.77	Vertical
7440.098	41.08	46.62	3.69	44.77	50.31	54	74	-9.23	-23.69	Vertical
4960.066	49.04	54.58	0.52	49.56	55.10	54	74	-4.44	-18.90	Horizontal
7440.098	40.49	46.21	3.69	44.18	49.90	54	74	-9.82	-24.10	Horizontal

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

## 5. SPURIOUS RADIATED EMISSION FOR SECTION 15.249(D)

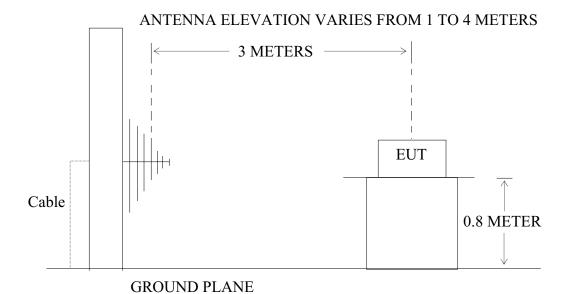
#### 5.1.Block Diagram of Test Setup

5.1.1.Block diagram of connection between the EUT and simulators

EUT

(EUT: Bridge Scorer)

5.1.2.Semi-Anechoic Chamber Test Setup Diagram



(EUT: Bridge Scorer)

#### 5.2. The Emission Limit For Section 15.249(d)

5.2.1.Emission radiated outside of the specified frequency bands, except for harmonics, shall be comply with the general radiated emission limits in Section 15.209.

Radiation Emission Measurement Limits According to Section 15.209

		Limit	
Frequency (MHz)	Field Strength of Quasi-peak Value (microvolts/m)	Field Strength of Quasi-peak Value (dBµV/m)	The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is
30 - 88	100	40	performed with Average detector.
88 - 216	150	43.5	Except those frequency bands mention above, the
216 - 960	200	46	final measurement for frequencies below
Above 960	500	54	1000MHz is performed with Quasi Peak detector.

#### 5.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1. Bridge Scorer (EUT)

Model Number : TBS Serial Number : N/A

Manufacturer : Keysbond (China) Limited

#### 5.4. Operating Condition of EUT

- 5.4.1. Setup the EUT and simulator as shown as Section 5.1.
- 5.4.2. Turn on the power of all equipment.
- 5.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2405-2480MHz. We are select 2405MHz, 2445MHz, 2480MHz TX frequency to transmit.

#### 5.5.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 120kHz in 30-1000MHz, and set at 1MHz in above 1000MHz.

The frequency range from 30MHz to 25000MHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

#### 5.6. The Emission Measurement Result

#### PASS.

Date of Test:	March 30, 2010	Temperature:	25°C
EUT:	Bridge Scorer	Humidity:	50%
Model No.:	TBS	Power Supply:	4.5V DC ("AA" batteries 3×)
Test Mode:	TX 2405MHz	Test Engineer:	Joe

Frequency	Reading	Factor(dB)	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
_	-	_	-	-	-	Horizontal

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	March 30, 2010	Temperature:	25°C
EUT:	Bridge Scorer	Humidity:	50%
Model No.:	TBS	Power Supply:	4.5V DC ("AA" batteries 3×)
Test Mode:	TX 2445MHz	Test Engineer:	Joe

Frequency	Reading	Factor(dB)	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP		QP	QP	QP	
_	_	-	_	-	_	Vertical
-	_	-	-	-	-	Horizontal

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:	March 30, 2010	Temperature:	25°C
EUT:	Bridge Scorer	Humidity:	50%
Model No.:	TBS	Power Supply:	4.5V DC ("AA" batteries $3\times$ )
Test Mode:	TX 2480MHz	Test Engineer:	Joe

Frequency	Reading	Factor(dB)	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP		QP	QP	QP	
_	_	_	-	_	_	Vertical
-	-	-	-	-	-	Horizontal

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

#### 6. BAND EDGES

#### 6.1. The Requirement

6.1.1.Band Edge from 2400MHz to 2483.5MHz. Emission radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

#### 6.2.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.2.1. Bridge Scorer (EUT)

Model Number : TBS Serial Number : N/A

Manufacturer : Keysbond (China) Limited

#### 6.3. Operating Condition of EUT

- 6.3.1. Setup the EUT and simulator as shown as Section 4.1.
- 6.3.2. Turn on the power of all equipment.
- 6.3.3. Let the EUT work in TX modes measure it. The transmit frequency are 2405-2480MHz. We are select 2405MHz, 2480MHz TX frequency to transmit.

#### 6.4. Test Procedure

- 1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
- 2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

RBW=1MHz, VBW=1MHz

#### 6.5. The Measurement Result

#### Pass.

Date of Test:March 30, 2010Temperature:25°CEUT:Bridge ScorerHumidity:50%Model No.:TBSPower Supply:4.5V DC ("AA" batteries 3×)Test Mode:TX 2405MHzTest Engineer:Joe

Frequency	Reading(c	dBμV/m)	Factor(dB)	Result(dBµV/m)		Limit(dBµV/m)		Margin(dB)		Polarization
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2400.000	44.01	49.52	-7.46	36.55	42.06	54	74	-17.45	-31.94	Vertical
2400.000	50.85	56.35	-7.46	43.39	48.89	54	74	-10.61	-25.11	Horizontal

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

Date of Test:March 30, 2010Temperature:25°CEUT:Bridge ScorerHumidity:50%Model No.:TBSPower Supply:4.5V DC ("AA" batteries 3×)Test Mode:TX 2480MHzTest Engineer:Joe

Frequency	Reading(c	dBμV/m)	Factor(dB)	Result(dBµV/m)		Limit(dBµV/m)		Margi	Polarization	
(MHz)	AV	PEAK	Corr.	AV	PEAK	AV	PEAK	AV	PEAK	
2483.500	49.06	54.57	-7.37	41.69	47.20	54	74	-12.31	-26.80	Vertical
2483.500	55.01	60.50	-7.37	47.64	53.13	54	74	-6.36	-20.87	Horizontal

#### Note:

- 1. Emissions attenuated more than 20 dB below the permissible value are not reported.
- 2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss - Amplifier Gain

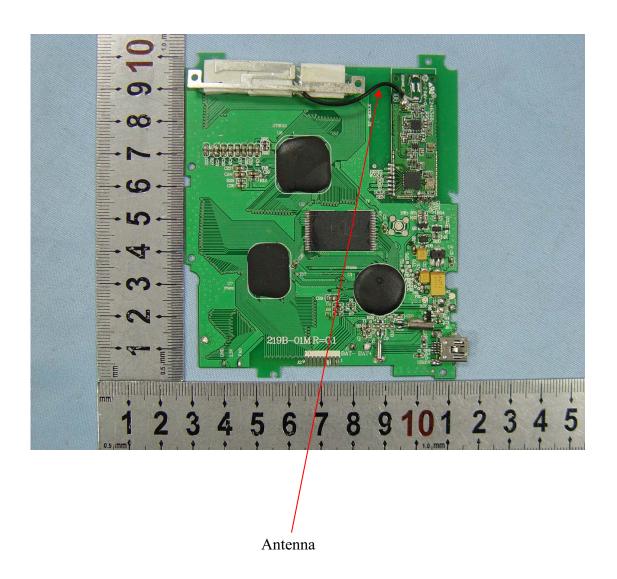
### 7. ANTENNA REQUIREMENT

#### 7.1.The Requirement

7.1.1.According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### 7.2. Antenna Construction

Antenna is formed by a short copper wire soldered on the PCB, no consideration of replacement.



# APPENDIX I (Test Curves)



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4394

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2405MHz

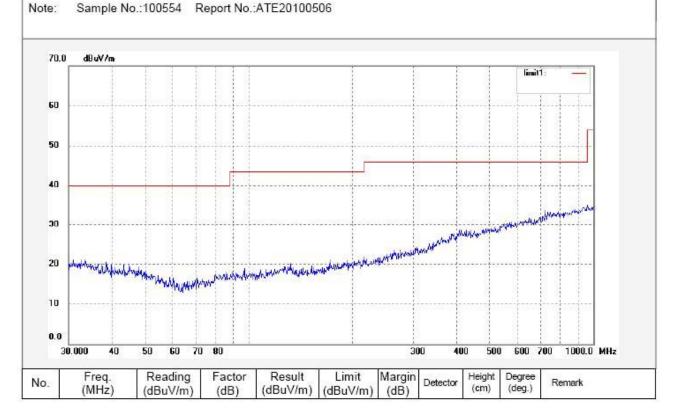
Model: TBS

Manufacturer: Keysbond (China) Limited

(1985년 1995년 1997년 - 1997년 - 1995년 1995년 1995년 1995년 1995년 1995년 1997년 1997년 1987 - - 1987년 1997년 1997년 1997년 1987년 Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 18:18:33

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4395

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2405MHz

Model: TBS

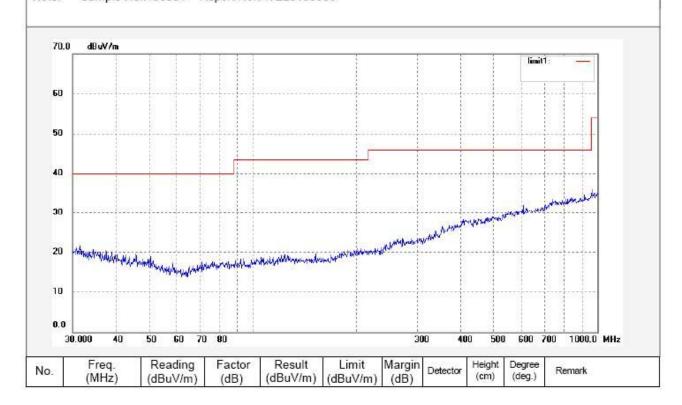
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 18:22:12

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4401 Standard: FCC Class B 3M Radiated

Test item: Radiation Test Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2405MHz

Model: TBS

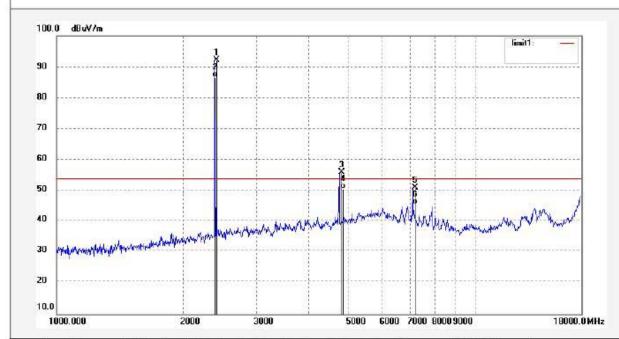
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 18:55:32

Engineer Signature: Joe



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2405.030	99.59	-7.45	92.14	114.00	-21.86	peak				
2	2405.030	94.03	-7.45	86.58	94.00	-7.42	AVG	ā :		5	
3	4810.052	56.37	-0.26	56.11	74.00	-17.89	peak				
4	4810.052	50.83	-0.26	50.57	54.00	-3.43	AVG	8 .		8	
5	7215.080	47.99	2.99	50.98	74.00	-23.02	peak		6	6	
6	7215.080	42.46	2.99	45.45	54.00	-8.55	AVG		1		



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4400

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2405MHz

Model: TBS

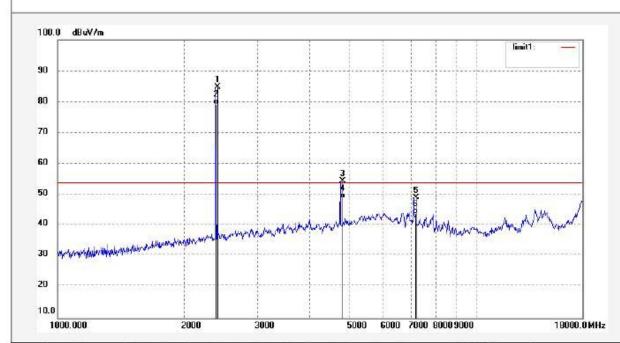
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 18:51:25

Engineer Signature: Joe



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2405.030	92.17	-7.45	84.72	114.00	-29.28	peak				
2	2405.030	86.64	-7.45	79.19	94.00	-14.81	AVG	5			
3	4810.052	54.65	-0.26	54.39	74.00	-19.61	peak				
4	4810.052	49.11	-0.26	48.85	54.00	-5.15	AVG	8		8	
5	7215.080	46.09	2.99	49.08	74.00	-24.92	peak	9	0	9	
6	7215.080	40.54	2.99	43.53	54.00	-10.47	AVG		-	9.0	



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4410 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2405MHz

Model: TBS

Note:

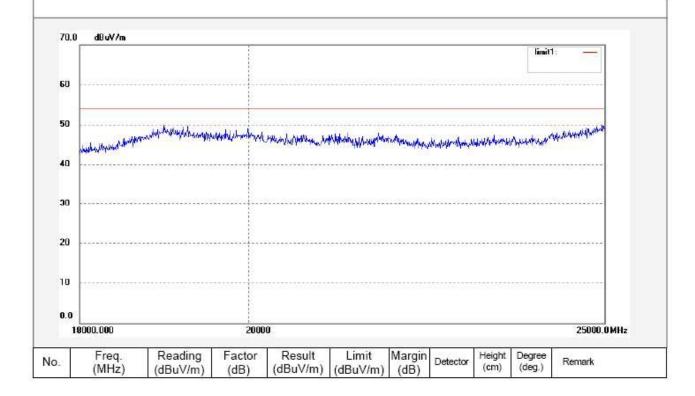
Manufacturer: Keysbond (China) Limited

Sample No.:100554 Report No.:ATE20100506

Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:43:59

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4411

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2405MHz

Model: TBS

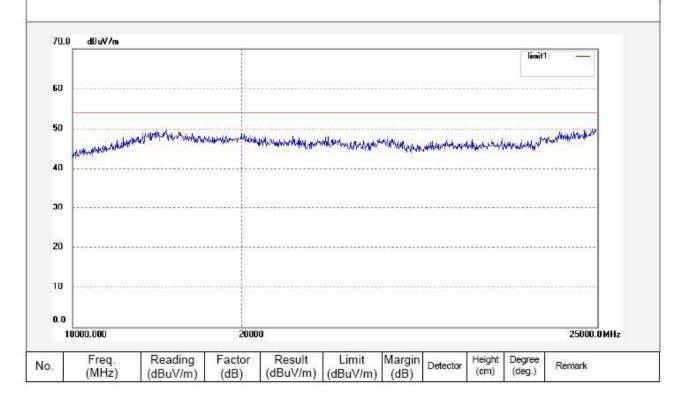
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:47:45

Engineer Signature: Joe





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

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4397

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer TX 2445MHz Mode:

Model: TBS

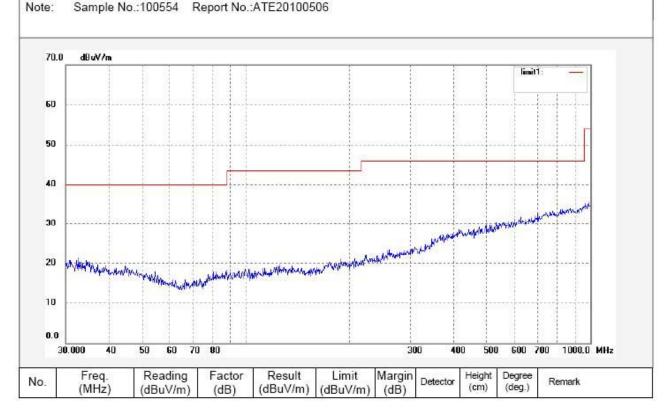
Manufacturer: Keysbond (China) Limited

Sample No.:100554 Report No.:ATE20100506

Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 18:30:14

Engineer Signature: Joe





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

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4396

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer TX 2445MHz Mode:

Model: TBS

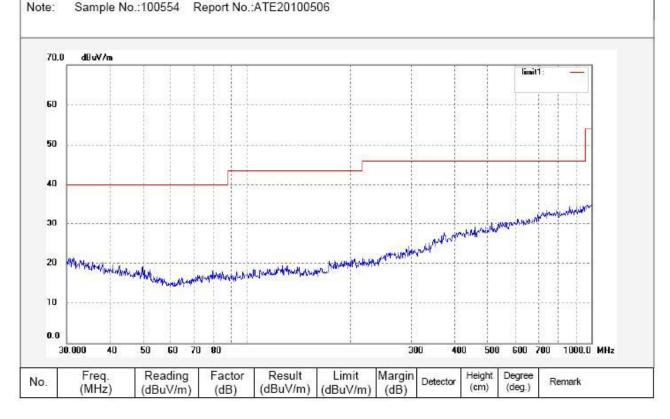
Manufacturer: Keysbond (China) Limited

Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 18:26:39

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4402

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2445MHz

Model: TBS

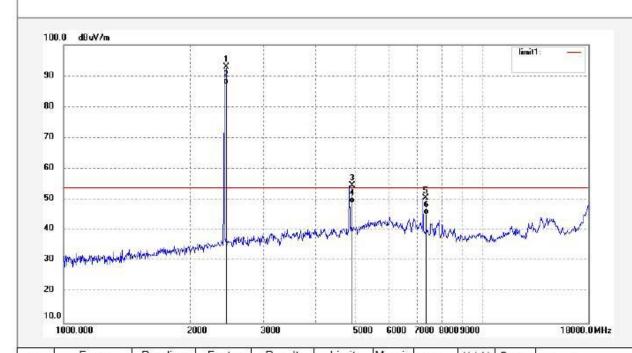
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 18:59:54

Engineer Signature: Joe



No.	Freq. (MHz)	(dBuV/m)	Factor (dB)	Result (dBuV/m)	(dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2445.040	100.25	-7.34	92.91	114.00	-21.09	peak				
2	2445.040	94.72	-7.34	87.38	94.00	-6.62	AVG	8 :	W		
3	4890.070	54.46	0.18	54.64	74.00	-19.36	peak				
4	4890.070	48.92	0.18	49.10	54.00	-4.90	AVG	8		3	
5	7335.102	47.28	3.28	50.56	74.00	-23.44	peak		60		
6	7335.102	41.77	3.28	45.05	54.00	-8.95	AVG		,		



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4403

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2445MHz

Model: TBS

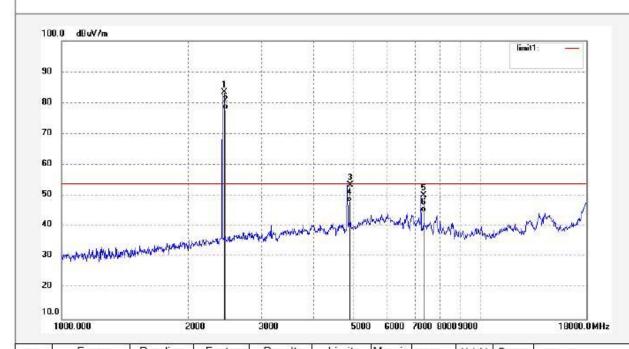
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:03:46

Engineer Signature: Joe



No.	Freq. (MHz)	(dBuV/m)	Factor (dB)	Result (dBuV/m)	(dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2445.040	90.70	-7.34	83.36	114.00	-30.64	peak				
2	2445.040	85.18	-7.34	77.84	94.00	-16.16	AVG	8 :	W		
3	4890.070	53.32	0.18	53.50	74.00	-20.50	peak				
4	4890.070	47.79	0.18	47.97	54.00	-6.03	AVG	8		3	
5	7335.102	46.80	3.28	50.08	74.00	-23.92	peak		60		
6	7335.102	41.27	3.28	44.55	54.00	-9.45	AVG		,		



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4413

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2445MHz

Model: TBS

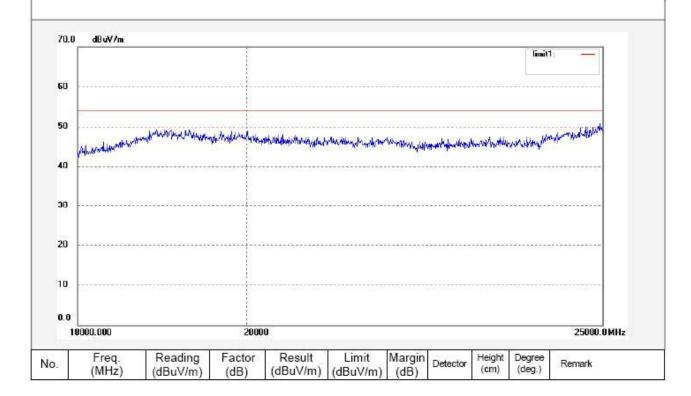
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:55:17

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4412

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2445MHz

Model: TBS

Note:

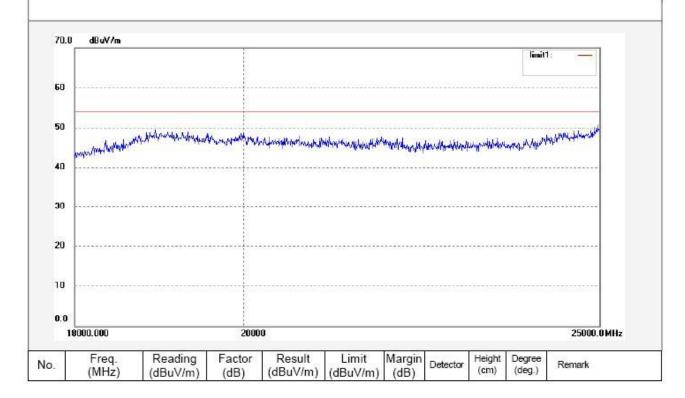
Manufacturer: Keysbond (China) Limited

Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:51:26

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4398

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2480MHz

Model: TBS

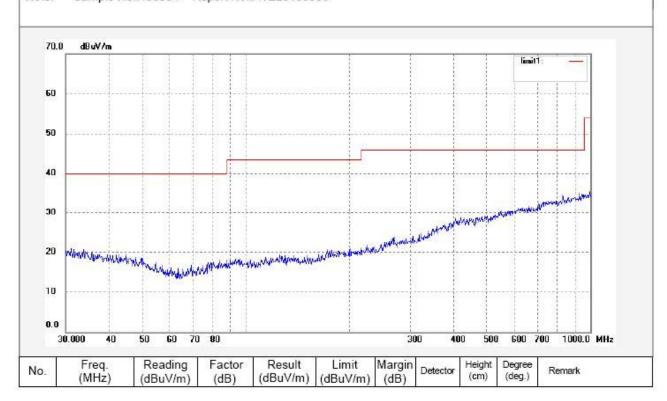
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Power Source: DC 4.5V Date: 2010/03/30 Time: 18:34:38

Engineer Signature: Joe

Polarization: Horizontal





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4399

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2480MHz

Model: TBS

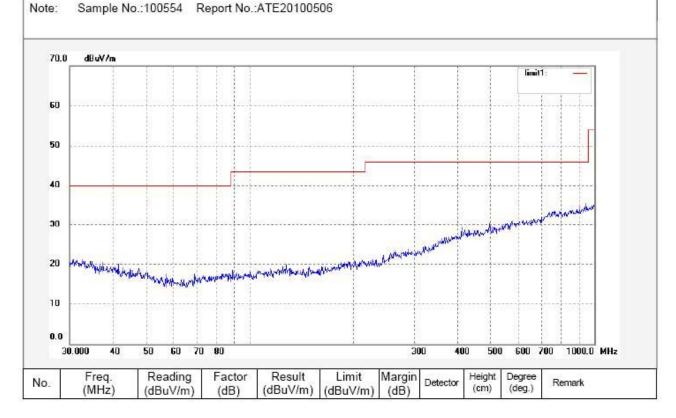
Manufacturer: Keysbond (China) Limited

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Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 18:38:19

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4405

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2480MHz

Model: TBS

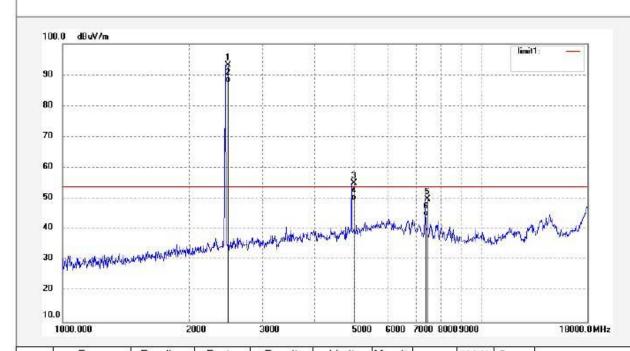
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:12:01

Engineer Signature: Joe



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2480.038	100.44	-7.37	93.07	114.00	-20.93	peak				
2	2480.038	94.90	-7.37	87.53	94.00	-6.47	AVG	S :	0.		
3	4960.066	54.58	0.52	55.10	74.00	-18.90	peak				
4	4960.066	49.04	0.52	49.56	54.00	-4.44	AVG	8		3	
5	7440.098	46.21	3.69	49.90	74.00	-24.10	peak		60		
6	7440.098	40.49	3.69	44.18	54.00	-9.82	AVG				



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4404

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2480MHz

Model: TBS

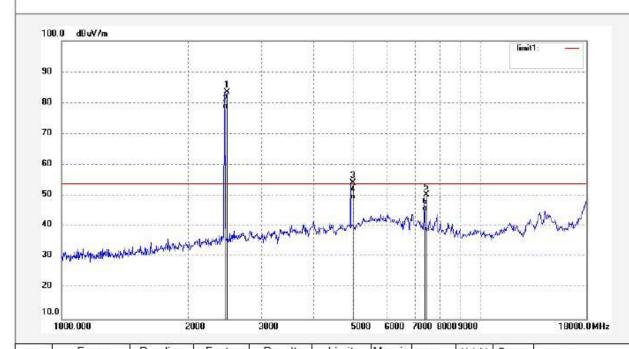
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:08:09

Engineer Signature: Joe



No.	Freq. (MHz)	(dBuV/m)	Factor (dB)	Result (dBuV/m)	(dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2480.038	90.88	-7.37	83.51	114.00	-30.49	peak				
2	2480.038	85.36	-7.37	77.99	94.00	-16.01	AVG	8 :	W 		
3	4960.066	53.71	0.52	54.23	74.00	-19.77	peak				
4	4960.066	48.18	0.52	48.70	54.00	-5.30	AVG	8		3	
5	7440.098	46.62	3.69	50.31	74.00	-23.69	peak		60		
6	7440.098	41.08	3.69	44.77	54.00	-9.23	AVG		,		



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4414

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2480MHz

Model: TBS

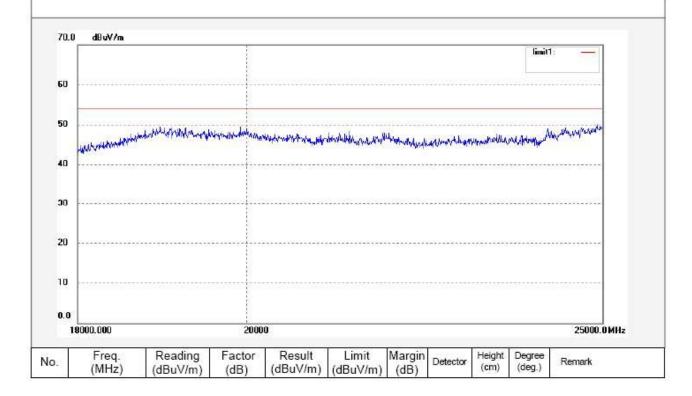
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:59:33

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4415

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 % EUT: Bridge Scorer

Mode: TX 2480MHz

Model: TBS

Note:

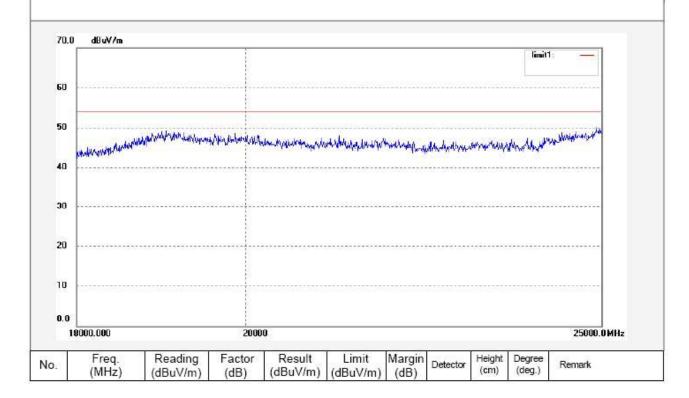
Manufacturer: Keysbond (China) Limited

Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical
Power Source: DC 4.5V

Date: 2010/03/30 Time: 20:03:27

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4409

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2405MHz

Model: TBS

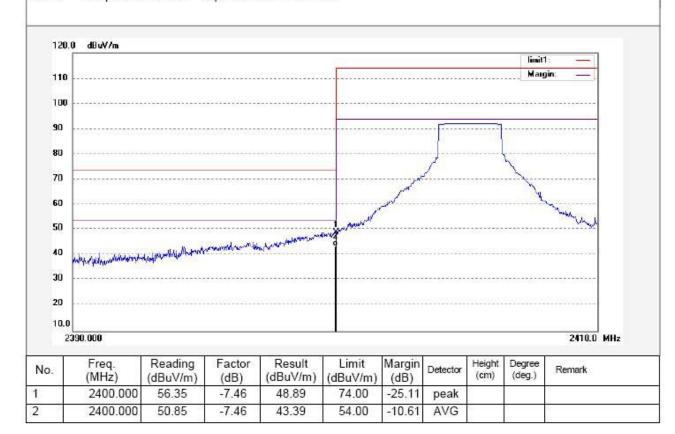
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:36:37

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4408

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2405MHz

Model: TBS

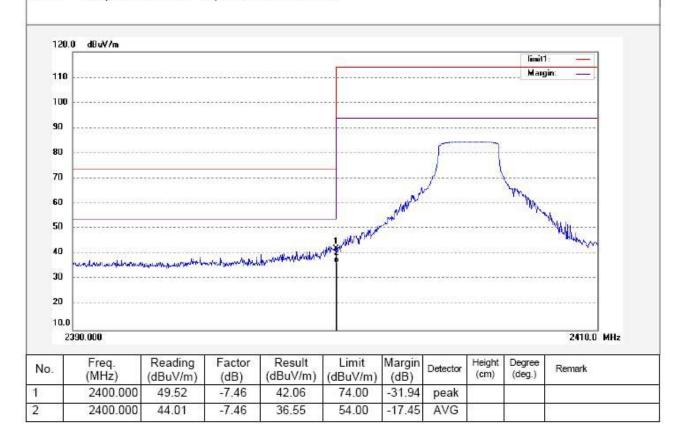
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:32:39

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4406 Standard: FCC Part 15 PEAK 2.4G

Test item: Padiation Test

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer Mode: TX 2480MHz

Model: TBS

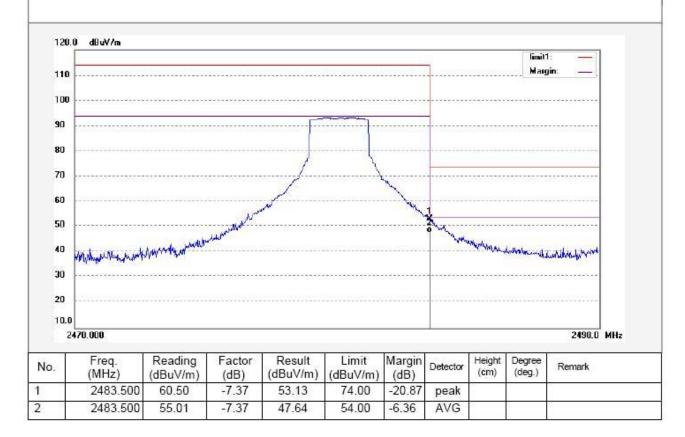
Manufacturer: Keysbond (China) Limited

Note: Sample No.:100554 Report No.:ATE20100506

Polarization: Horizontal Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:23:02

Engineer Signature: Joe





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

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #4407

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 50 %

EUT: Bridge Scorer TX 2480MHz Mode:

Model: TBS

Manufacturer: Keysbond (China) Limited

Sample No.:100554 Report No.:ATE20100506

Polarization: Vertical Power Source: DC 4.5V

Date: 2010/03/30 Time: 19:27:18

Engineer Signature: Joe

