

Produkte Products

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

Job No.: Igwade #1100 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2402MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

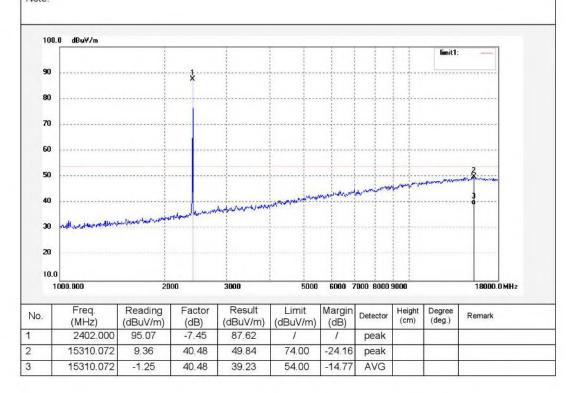
Polarization: Vertical Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





Produkte Products

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

Job No.: Igwade #1103

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2441MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

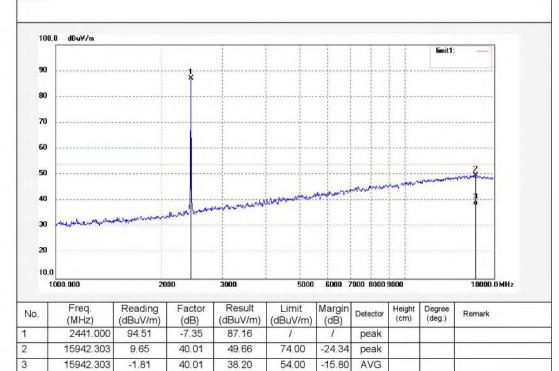
Polarization: Horizontal Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





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Job No.: Igwade #1104

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2441MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

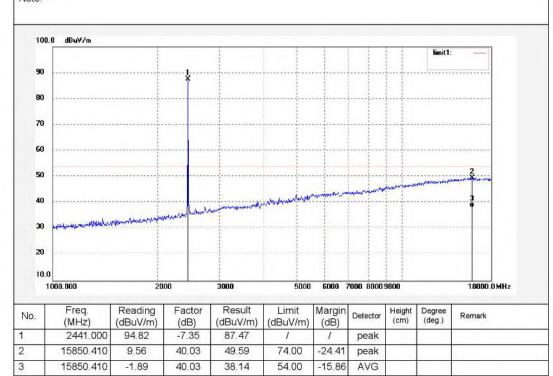
Polarization: Vertical

Power Source: DC 3.7V Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





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Job No.: Igwade #1105

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2480MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

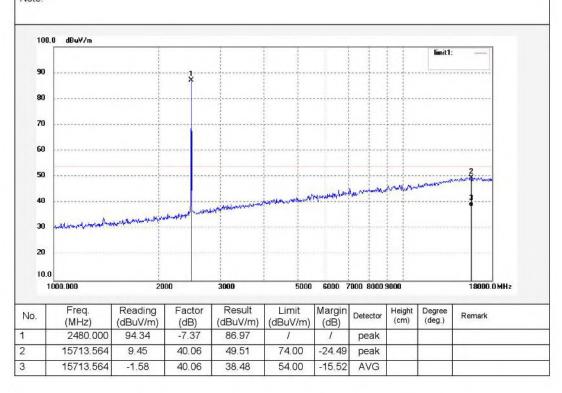
Polarization: Vertical Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





Produkte Products

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ACCURATE TECHNOLOGY CO., LTD.

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Job No.: Igwade #1106 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 % EUT: Mini Metal Bluetooth Speaker

Mode: TX 2480MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

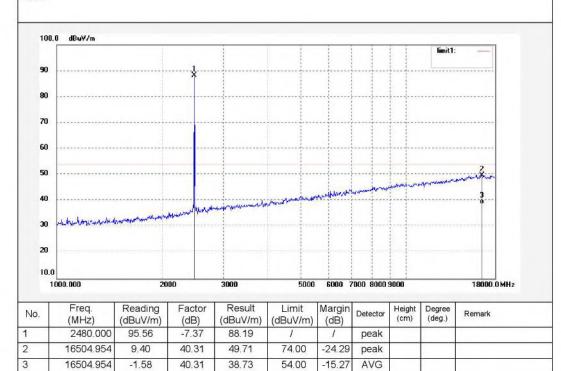
Polarization: Horizontal Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





Produkte Products

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18GHz - 26.5GHz



ACCURATE TECHNOLOGY CO., LTD.

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Polarization: Vertical

Date: 16/04/14/

Distance: 3m

Time:

Power Source: DC 3.7V

Engineer Signature: LGWADE

Job No.: Igwade #1109

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

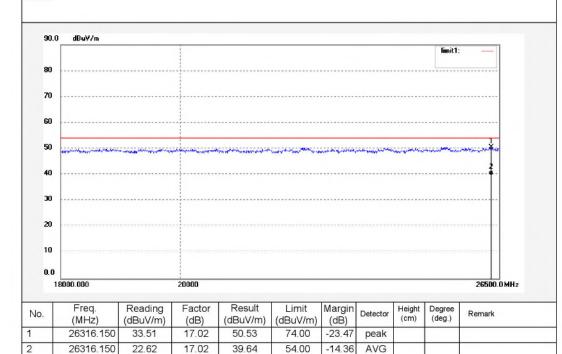
Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2402MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD





Produkte Products

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

Job No.: Igwade #1110 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2402MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

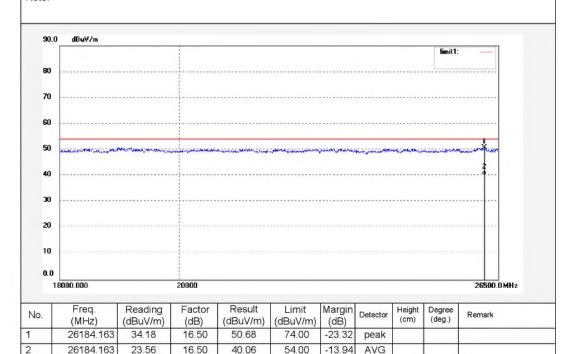
Polarization: Horizontal Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





Produkte Products

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ACCURATE TECHNOLOGY CO., LTD.

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

Job No.: Igwade #1111
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2441MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

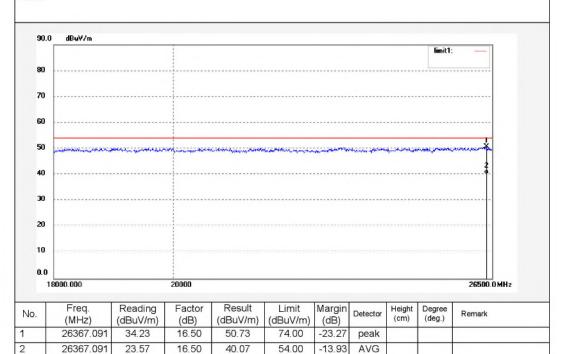
Polarization: Horizontal Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





Produkte Products

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

Job No.: Igwade #1112 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2441MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

Polarization: Vertical

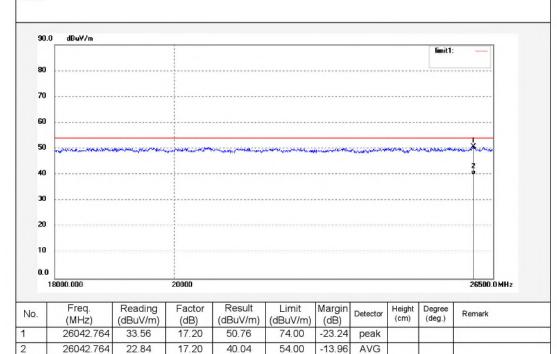
Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





Produkte Products

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

Job No.: Igwade #1113 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2480MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

Polarization: Vertical

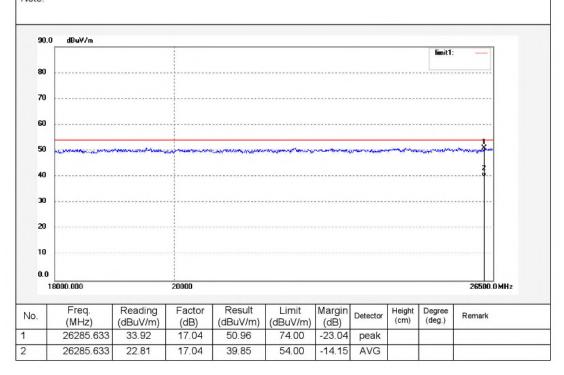
Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





Produkte Products

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

Job No.: Igwade #1114 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: TX 2480MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

Polarization: Horizontal

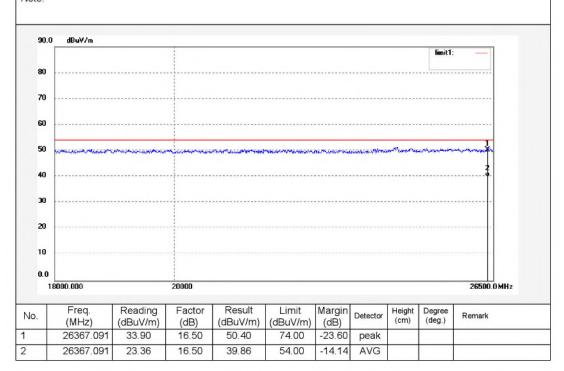
Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





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Site: 2# Chamber

Tel:+86-0755-26503290

Produkte Products

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Appendix B.2: Test Plots of Band Edge (Radiated)

Low Channel



ACCURATE TECHNOLOGY CO., LTD.

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Fax:+86-0755-26503396 Polarization: Vertical Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m

Igwade #1101 Standard: FCC (Band Edge) Test item: Radiation Test Temp.(C)/Hum.(%) 23 C / 48 %

EUT: Mini Metal Bluetooth Speaker Mode: TX 2402MHz

Model: MMBTSPKPKPRM Manufacturer: THUMBS UP UK LTD

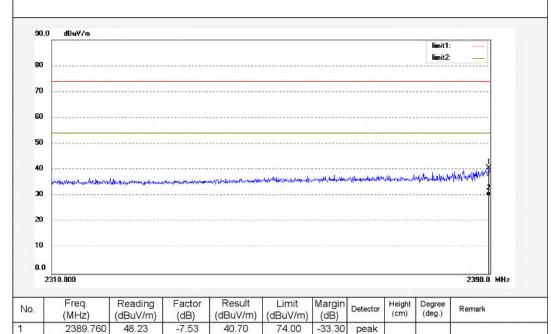
2389.760

2

37.35

-7.53

29.82



54.00

-24.18

AVG



Produkte Products

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

Job No.: Igwade #1102 Standard: FCC (Band Edge) Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 % EUT: Mini Metal Bluetooth Speaker

Mode: TX 2402MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

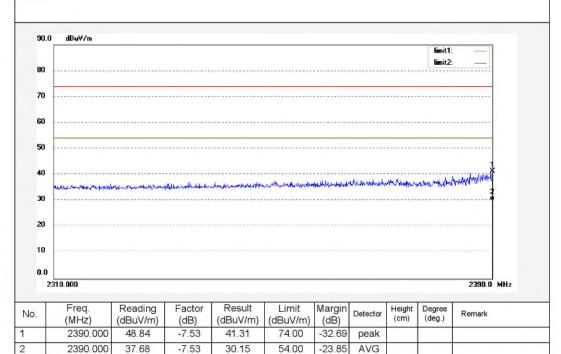
Polarization: Horizontal Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m





Produkte Products

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High Channel



ACCURATE TECHNOLOGY CO., LTD.

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Job No.: Igwade #1107 Standard: FCC (Band Edge) Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 % EUT: Mini Metal Bluetooth Speaker

Mode: TX 2480MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

Polarization: Horizontal Power Source: DC 3.7V

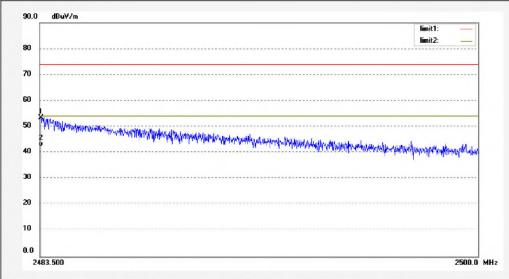
Date: 16/04/14/

Time:

Engineer Signature: LGWADE

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	2483.550	60.90	-7.37	53.53	74.00	-20.47	peak			
2	2483.550	49.85	-7.37	42.48	54.00	-11.52	AVG			



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

Job No.: Igwade #1108 Standard: FCC (Band Edge) Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 48 % EUT: Mini Metal Bluetooth Speaker

Mode: TX 2480MHz

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP UK LTD

Polarization: Vertical Power Source: DC 3.7V

Date: 16/04/14/

Time:

Engineer Signature: LGWADE

Distance: 3m

Note:

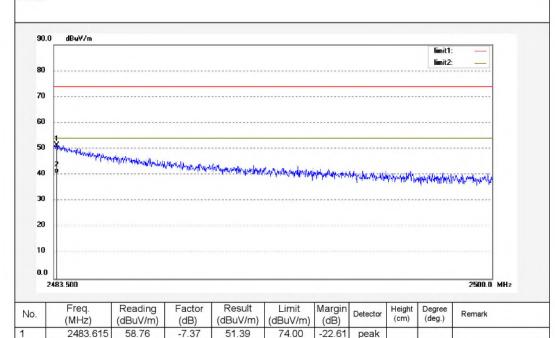
2

2483.615

47.89

-7.37

40.52



54.00

-13.48

AVG



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Appendix B.3: Test Plots of Conducted Emission

C Mode

ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 C

Mini Metal Bluetooth Speaker M/N:MMBTSPKPKPRM

THUMBS UP (UK) LTD Manufacturer:

Operating Condition: BT

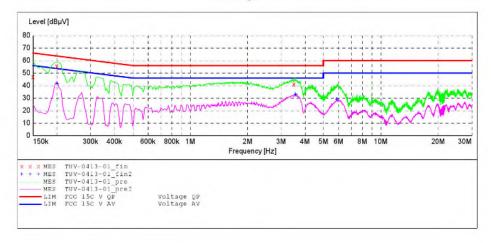
Test Site: 1#Shielding Room

LGWADE Operator: Test Specification: N 120V/60Hz Comment:

Start of Test: 4/13/2016 /

SCAN TABLE: "V 9K-30MHz fin"
Short Description: _SUB_STD_VTERM2 1.70
Start Stop Step Detector Meas. IF Transducer
Frequency Frequency Width Time Bandw.
9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008 Average 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "TUV-0413-01 fin"

4/13/2016 Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	47.00	10.5	66	19.0	QP	N	GND
0.200000	55.30	10.5	64	8.3	QP	N	GND
3.510000	41.00	11.1	56	15.0	QP	N	GND

MEASUREMENT RESULT: "TUV-0413-01_fin2"

4/13/2016 Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.200000 3.570000 5.880000	41.60 32.90 28.80	10.5 11.1 11.2	54 46 50	12.0 13.1 21.2	AV AV	N N	GND GND GND

Appendix B

50041915 001

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ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 C

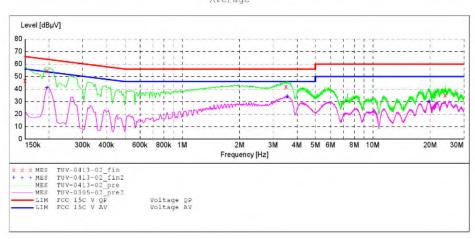
Mini Metal Bluetooth Speaker M/N:MMBTSPKPKPRM EUT:

Manufacturer: THUMBS UP (UK) LTD

Operating Condition: BT
Test Site: 1#Shielding Room
Operator: LGWADE

Test Specification: L 120V/60Hz Comment: Start of Test: 4/13/2016 /

SCAN TABLE: "V 9K-30MHz fin"
Short Description: _SUB_STD_VTERM2 1.70
Start Stop Step Detector Meas. IF Transducer
Frequency Frequency Width Time Bandw.
9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008 Average 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008 Average



MEASUREMENT RESULT: "TUV-0413-02 fin"

4/13/2016							
Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	46.60	10.5	66	19.4	QP	L1	GND
0.195000	54.30	10.5	64	9.5	QP	L1	GND
3.510000	41.70	11.1	56	14.3	QP	L1	GND
23.995000	35.00	11.5	60	25.0	QP	L1	GND

MEASUREMENT RESULT: "TUV-0413-02 fin2"

4/13/2016 Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.195000	41.00	10.5	54	12.8	AV	L1	GND
3.560000	34.20	11.1	46	11.8	AV	L1	GND
19.735000	29.90	11.4	50	20.1	AV	L1	GND

Appendix B

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Produkte Products



D Mode

ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

Mini Metal Bluetooth Speaker M/N:MMBTSPKPKPRM

Manufacturer: THUMBS UP (UK) LTD

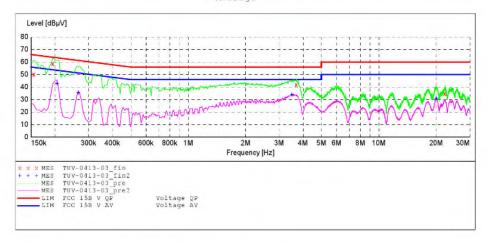
Operating Condition: Charging
Test Site: 1#Shielding Room

Operating Test Site: Operator: LGWADE

Test Specification: L 120V/60Hz Comment: Mains Port Start of Test: 4/13/2016 /

SCAN TABLE: "V 9K-30MHz fin"
Short Description: __SUB_STD_VTERM2 1.70
Start Stop Step Detector Meas.
Frequency Frequency Width Time
9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s Transducer Bandw. 200 Hz NSLK8126 2008 Average QuasiPeak 1.0 s 9 kHz NSLK8126 2008 150.0 kHz 30.0 MHz 5.0 kHz

Average



MEASUREMENT RESULT: "TUV-0413-03 fin"

4/13/2016 Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.155000	50.00	10.5	66	15.7	QP	L1	GND
0.195000	58.60	10.5	64	5.2	QP	L1	GND
3.690000	41.70	11.1	56	14.3	QP	L1	GND
22.255000	34.50	11.4	60	25.5	QP	L1	GND

MEASUREMENT RESULT: "TUV-0413-03_fin2"

4/13/2016 Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.205000	42.60	10.5	53	10.8	AV	L1	GND
0.265000	35,20	10.6	51	16.1	AV	L1	GND
3.500000	33.80	11.1	46	12.2	AV	L1	GND
20.020000	30.90	11.4	50	19.1	AV	L1	GND

Produkte

Products



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ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

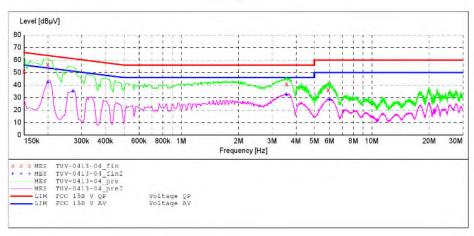
Mini Metal Bluetooth Speaker M/N:MMBTSPKPKPRM THUMBS UP(UK) LTD EUT:

Manufacturer:

Manufacturer:
Operating Condition: Charging
Test Site: 1#Shielding Room Operating Community Test Site: Operator: LGWADE Test Specification: N 120V/60Hz
Comment: Mains Port
Start of Test: 4/13/2016 /

SCAN TABLE: "V 9K-30MHz fin"
Short Description: _SUB_STD_VTERM2 1.70
Start Stop Step Detector Meas. IF Transducer
Frequency Frequency Width Time Bandw.
9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008 Average 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "TUV-0413-04 fin"

4/13/2016 Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	50.50	10.5	66	15.5	QP	N	GND
0.200000	56.50	10.5	64	7.1	QP	N	GND
3.580000	40.50	11.1	56	15.5	QP	N	GND
5.920000	36.00	11.2	60	24.0	QP	N	GND

MEASUREMENT RESULT: "TUV-0413-04 fin2"

4/13/2016 Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.200000	42.00	10.5	54	11.6	AV	N	GND
0.270000	34.80	10.6	51	16.3	AV	N	GND
3.560000	32.30	11.1	46	13.7	AV	N	GND
6.010000	28.30	11.2	50	21.7	AV	N	GND

Produkte Products



Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Appendix B.4: Test Plots of Radiated Emission

D Mode



ACCURATE TECHNOLOGY CO., LTD.

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

Polarization: Vertical Power Source: DC 5V

Date: 16/04/13/ Time:

Engineer Signature: LGWADE

Distance: 3m

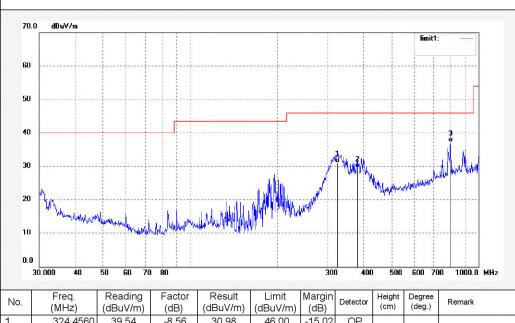
LGWADE #1590 Standard: FCC Class B 3M Radiated

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

EUT: Mini Metal Bluetooth Speaker Mode:

Charging

Model: MMBTSPKPKPRM Manufacturer: THUMBS UP(UK) LTD



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	324.4560	39.54	-8.56	30.98	46.00	-15.02	QP			
2	379.9141	36.89	-7.34	29.55	46.00	-16.45	QP			
3	798.9796	37.13	0.02	37.15	46.00	-8.85	QP			



Products

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

Job No.: LGWADE #1591 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: Charging

Model: MMBTSPKPKPRM

Manufacturer: THUMBS UP(UK) LTD

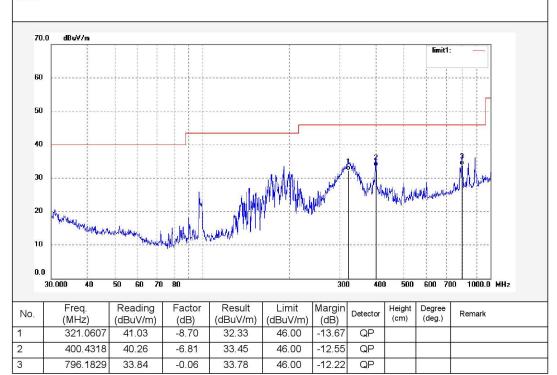
Polarization: Horizontal Power Source: DC 5V

Date: 16/04/13/

Time:

Engineer Signature: LGWADE

Distance: 3m





Products

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

Job No.: LGWADE #1600 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: Charging

Model: MMBTSPKPKPRM
Manufacturer: THUMBS UP(UK) LTD

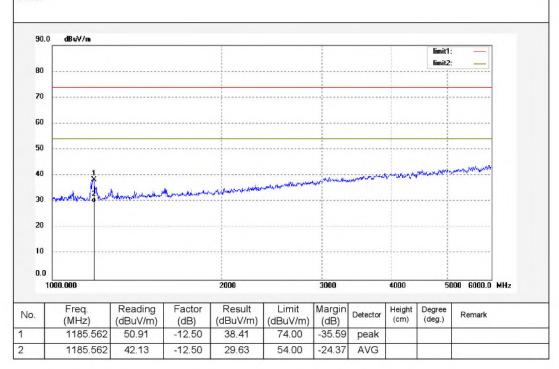
Polarization: Horizontal Power Source: DC 5V

Date: 16/04/13/

Time:

Engineer Signature: LGWADE

Distance: 3m





Products

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

Job No.: LGWADE #1601 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Mini Metal Bluetooth Speaker

Mode: Charging

Model: MMBTSPKPKPRM
Manufacturer: THUMBS UP(UK) LTD

Polarization: Vertical Power Source: DC 5V

Date: 16/04/13/

Time:

Engineer Signature: LGWADE

Distance: 3m

