FCC PART 15.239

EMI MEASUREMENT AND TEST REPORT

For

TAW~Global, LLC

8135 COX'S DR, STE 211, PORTAGE, MI 49002,USA

FCC ID: XOAWH-FMT

Aug. 15, 2009

This Report Concerns: Original Report	Equipment Type： FM Transmitter
Test Engineer:	Jack Liu
Report No.:	BST09074233119R-3
Receive EUT Date/Test Date:	Aug.03,2009/ Aug.03-15,2009
Reviewed By:	Christina
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1. GENERAL INFORMATION

1.1. Report information

1.1.1.This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that BST approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that BST in any way guarantees the later performance of the product/equipment.

1.1.2.The sample/s mentioned in this report is/are supplied by Applicant, BST therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through BST, unless the applicant has authorized BST in writing to do so.

Test Facility -
The test site used to collect the radiated data is located on the address of Solid Industrial Co.,Ltd. (FCC Registered Test Site Number: 759397) on
333 Bulong Highway Buji Longgang Shenzhen Guangdong China
The Test Site is constructed and calibrated to meet the FCC requirements.

1.2. Measurement Uncertainty

Available upon request.

2. PRODUCT DESCRIPTION

2.1. EUT Description

Description : FM Transmitter

Applicant : TAW~Global, LLC
8135 COX'S DR, STE 211, PORTAGE , MI 49002, USA

Model Number : WH-FMT

Additonal Information

Frequency : 88.1-107.9MHz

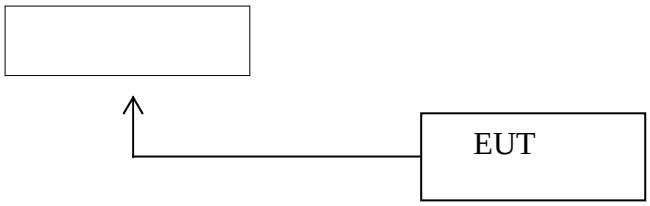
Power Supply : DC 4.5V

Maximum Range : N/A

Transmitter Antenna : -

Current Consumption : N/A

2.2. Block Diagram of EUT Configuration



2.3. Support Equipment List

1. Ipod mp3 player FCC DOC

2.4. Test Conditions

Temperature: 23~25℃

Relative Humidity: 55~63 %

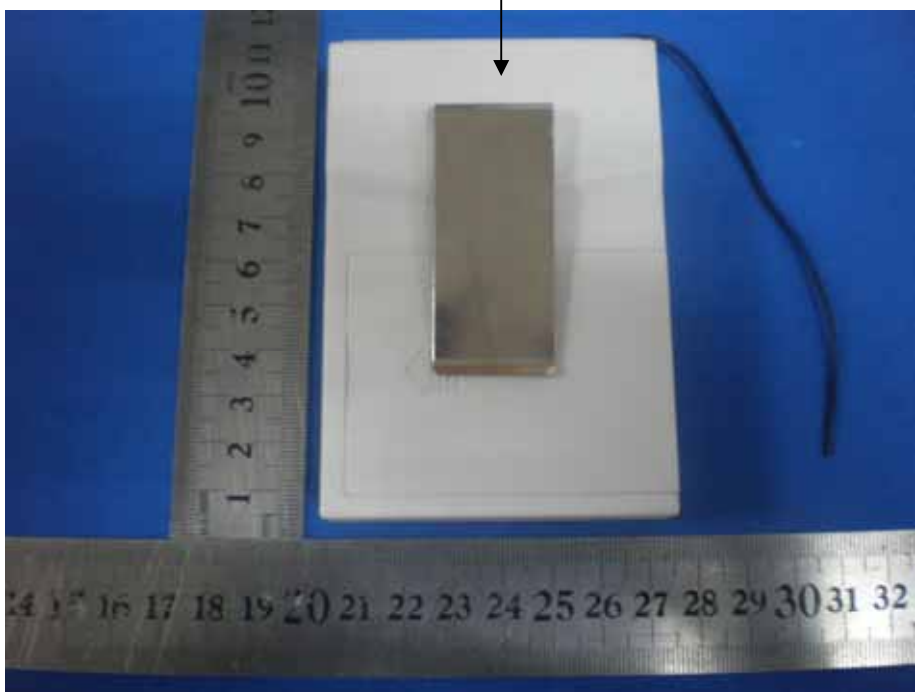
3. FCC ID LABEL

FCC ID:XOAWH-FMT

This device complies with Part 15 of the FCC Rules.Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received,including interference that may cause undesired operation.

Label Location on EUT

EUT Bottom View/ FCC ID Label Location



4. TEST RESULTS SUMMARY

FCC 15 Subpart C,Paragraph 15.239

Test Standards	Test Items	Test Results
FCC Part 15 Subpart C, Paragraph 15.239	Radiated Emission (30MHz to 1000MHz)	Pass
FCC Part 15 Subpart C, Paragraph 15.239	Occupied Bandwidth	Pass

Remark: “N/A” means “Not applicable.”

Modifications

No modification was made.

5. TEST EQUIPMENT USED

Equipment/Facilities	Manufacturer	Model #	Serial no.	Date of Cal.	Cal. Interval
Cable	Resenberger	N/A	NO.1	Mar 10，2009	1 Year
Cable	SCHWARZBECK	N/A	NO.2	Mar 10，2009	1 Year
Cable	SCHWARZBECK	N/A	NO.3	Mar 10，2009	1 Year
LISN	Rohde＆Schwarz	ESH3-Z5	100305	Mar 10，2009	1 Year
50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Mar 10, 2009	1 Year
EMI Test Receiver	Rohde＆Schwarz	ESP13	100180	Oct.18,2008	1 Year
Spectrum Analyzer	Rohde＆Schwarz	FSP40	100273	Sep.10,2008	1 Year
3m Semi-Anechoic Chamber	Albatross Projects	9m×6m×6m	N/A	Feb.20,2009	1 Year
Signal Generator	FLUKE	PM5418 + Y/C	LO747012	Feb.20,2009	1 Year
Signal Generator	FLUKE	PM5418TX	LO738007	Feb.20,2009	1 Year
Loop Antenna	SCHWARZBECK	FMZB1516	113	Jan.30,2009	1 Year
Trilog-Super Broadband Antenna	SCHWARZBECK	VULB9161	9161-4079	Sep.22,2008	1 Year
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-564	Sep.22,2008	1 Year
Ultra Broadband Antenna	Rohde＆Schwarz	HL-562	100110	June.15,2009	1 Year
AMN	Rohde＆Schwarz	ESH3-Z5	100196	Oct.11,2008	1 Year
AMN	Rohde＆Schwarz	ESH3-Z5	100197	Oct.11,2008	1 Year
Pulse Limiter	Rohde＆Schwarz	ESH3-Z2	N/A	N/A	N/A
Power Meter	Rohde＆Schwarz	NRVD	100041	Feb.20,2009	1 Year
EMI Test Receiver	Rohde＆Schwarz	ESCS30	100003	Feb.20,2009	1 Year
Coaxial Cable with N-connectors	SCHWARZBECK	AK9515H	95549	Sep.22,2008	1 Year
Radio Communication Test Set	Rohde＆Schwarz	CMS 54	846621/024	Feb.20,2009	1 Year
Modulation Analyzer	Hewlett-Packard	8901B	2303A00362	Feb.20,2009	1 Year
Absorbing clamp	Rohde＆Schwarz	MDS-21	N/A	Oct.29,2008	1 Year

6. RADIATED EMISSIONS

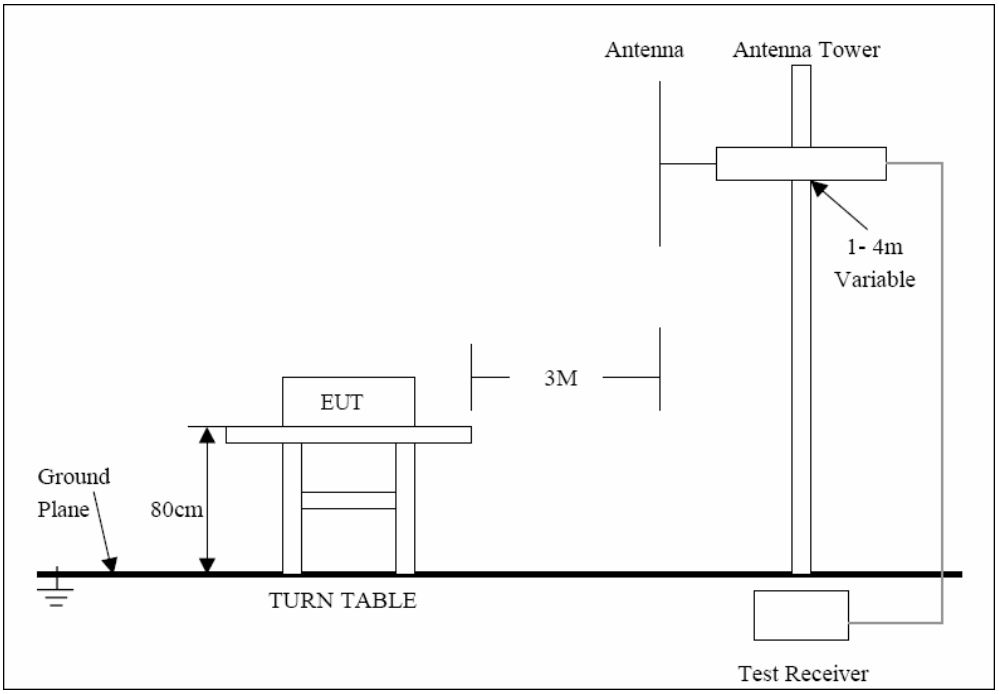
6.1. Test Equipment

Please refer to section 4 this report.

6.2. Test Procedure

The out of band emission tests were performed in the 3-meter chamber test site, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC Part Subpart C limits.

6.3. Radiated Test Setup



For the accrual test configuration,pleas refer to the related items-photos of Testing.

6.4. Radiated Emission Limit

CARRIER FREQUENCY WILL NOT EXCEEDS 48.0 dBuV/m AT 3M. OUT-OF-BAND EMISSIONS SHALL NOT EXCEED:

Frequency (MHz)	Distance (m)	Field Strength (dBuV/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
ABOVE 960	3	54.0

6.5. Radiated Emission Test Result

FREQ. (MHZ)	POL V/H	LEVEL (DBµV)		LIMIT (DBµV)		MARGIN (DB)	
		AV	PK	AV	PK	AV	PK
88.1	H	42.12	47.89	48	68	-5.88	-20.11
88.1	V	44.15	49.25	48	68	-3.85	-18.75
98.0	H	41.42	48.25	48	68	-6.58	-19.75
98.0	V	45.28	52.36	48	68	-2.72	-15.64
107.9	H	42.13	49.35	48	68	-5.87	-18.65
107.9	V	43.32	51.37	48	68	-4.68	-16.63

FREQ. (MHZ)	POL V/H	LEVEL (DBµV)	LIMIT (DBµV)	MARGIN (DB)
For 88.0MHz				
176.2	H	25.32	43.5	18.18
176.2	V	23.26	43.5	20.24
264.3	H	22.38	46	23.62
264.3	V	19.65	46	26.35
352.4	H	19.76	46	26.24
352.4	V	20.65	46	25.35
440.5	H	--	46	--
440.5	V	--	46	--
528.6	H	--	46	--
528.6	V	--	46	--
616.7	H	--	46	--
616.7	V	--	46	--
704.8	H	--	46	--
704.8	V	--	46	--
792.9	H	--	54	--
792.9	V	--	54	--
881.0	H	--	54	--
881.0	V	--	54	--

FREQ. (MHZ)	POL V/H	LEVEL (DBµV)	LIMIT (DBµV)	MARGIN (DB)
For 98.0MHz				
196.0	H	25.35	43.5	18.15
196.0	V	28.76	43.5	14.74
294.0	H	19.67	46	26.33
294.0	V	21.25	46	24.75
392.0	H	18.67	46	27.33
392.0	V	19.77	46	26.23
490.0	H	--	46	--
490.0	V	--	46	--
588.0	H	--	46	--
588.0	V	--	46	--
686.0	H	--	46	--
686.0	V	--	46	--
784.0	H	--	46	--
784.0	V	--	46	--
882.0	H	--	54	--
882.0	V	--	54	--
980.0	H	--	54	--
980.0	V	--	54	--

FREQ. (MHZ)	POL V/H	LEVEL (DBµV)	LIMIT (DBµV)	MARGIN (DB)
For 107.9MHz				
215.8	H	22.56	43.5	20.94
215.8	V	23.71	43.5	19.79
323.7	H	23.79	46	22.21
323.7	V	25.13	46	20.87
431.6	H	21.26	46	24.74
431.6	V	23.45	46	22.55
539.5	H	--	46	--
539.5	V	--	46	--
647.4	H	--	46	--
647.4	V	--	46	--
755.3	H	--	46	--
755.3	V	--	46	--
863.2	H	--	46	--
863.2	V	--	46	--
971.1	H	--	54	--
971.1	V	--	54	--
1079.0	H	--	54	--
1079.0	V	--	54	--

Note: The frequency will not be recorded if the the level of the spurious emission is very weak(no harmonic or spurious emissions were higher than 20dB below the limits of 47 CFR Part 15.209).

7. OCCUPIED BANDWIDTH

7.1. Test Equipment

Please refer to Section 4 this report.

7.2. Test Procedure

1. The EUT was tested according C63.4-2003.The test was performed with Spectrum Analyzer at FCC Registration laboratory .
2. Based on FCC Part15 C Section 15.239.

Operation within the band 88MHz – 108MHz

7.3. Requirements

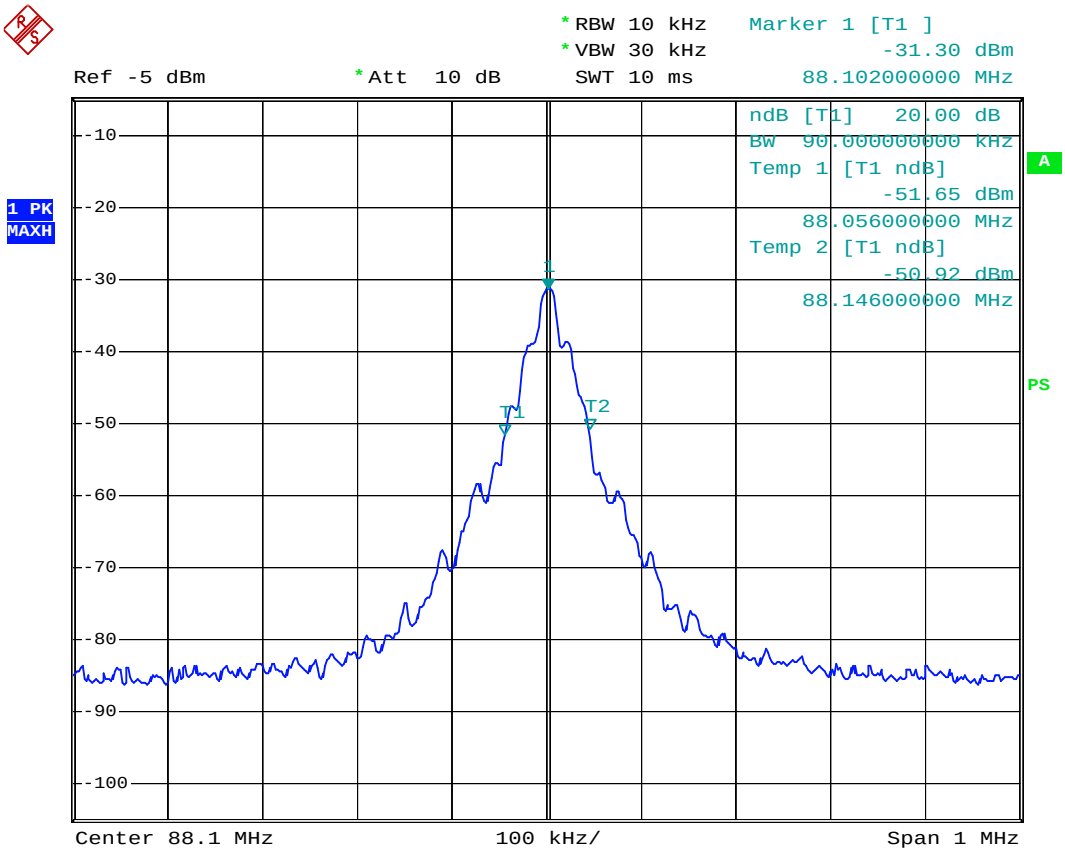
Intentional radiators operating under the alternative provisions to the geneql emission limits,as Emissions from the device shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88-108 MHz.

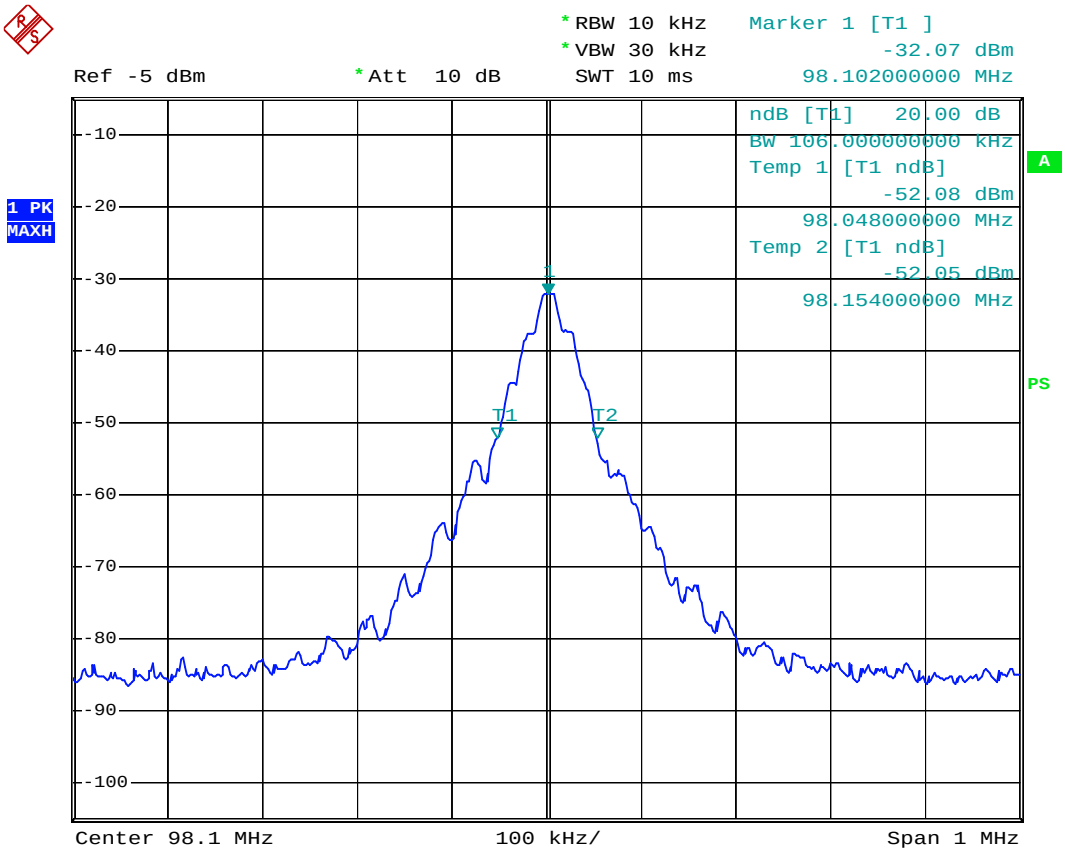
7.4. Test Result

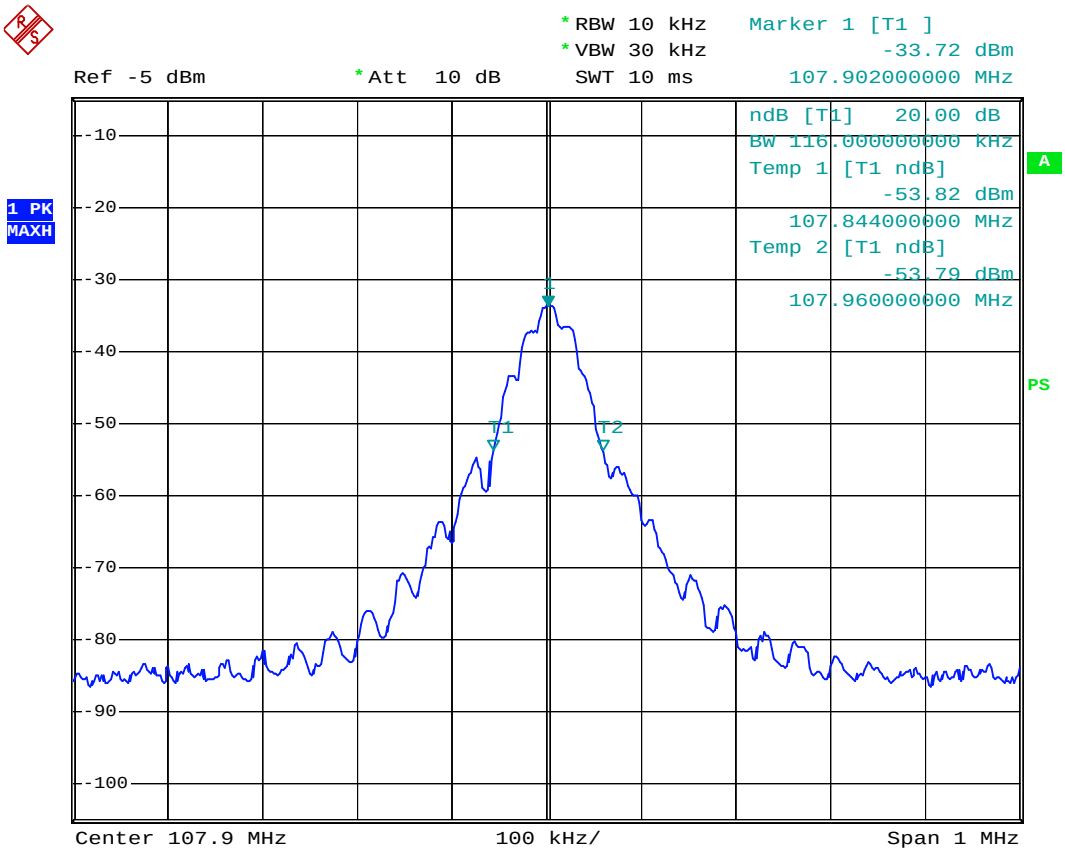
Method of measurement:

The bandwidth was properly tested with maximum audio input(such as MP3 Player)

1. Set both RBW and VBW of spectrum analyzer to 10 kHz and 30kHz respectively with a convenient frequency span including 200kHz bandwidth of the emission.
2. Mark the bandwidth of 200kHz points and plot the graph on spectrum analyzer.


*RBW 10 kHz
*VBW 30 kHz
Ref -5 dBm
*Att 10 dB
SWT 10 ms
Marker 1 [T1]
-31.30 dBm
88.102000000 MHz
ndB [T1] 20.00 dB
BW 90.000000000 kHz
Temp 1 [T1 ndB]
-51.65 dBm
88.056000000 MHz
Temp 2 [T1 ndB]
-50.92 dBm
88.146000000 MHz
1 PK
MAXH
A
PS
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
T1
T2
Center 88.1 MHz
100 kHz/
Span 1 MHz


*RBW 10 kHz
*VBW 30 kHz
Ref -5 dBm
*Att 10 dB
SWT 10 ms
Marker 1 [T1]
-32.07 dBm
98.102000000 MHz
ndB [T1] 20.00 dB
BW 106.000000000 kHz
Temp 1 [T1 ndB]
-52.08 dBm
98.048000000 MHz
Temp 2 [T1 ndB]
-52.05 dBm
98.154000000 MHz
1 PK
MAXH
A
PS
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
T1
T2
Center 98.1 MHz
100 kHz/
Span 1 MHz


*RBW 10 kHz
*VBW 30 kHz
Ref -5 dBm
*Att 10 dB
SWT 10 ms
Marker 1 [T1]
-33.72 dBm
107.902000000 MHz
ndB [T1] 20.00 dB
BW 116.000000000 kHz
Temp 1 [T1 ndB]
-53.82 dBm
107.844000000 MHz
Temp 2 [T1 ndB]
-53.79 dBm
107.960000000 MHz
1 PK
MAXH
A
PS
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
T1
T2
Center 107.9 MHz
100 kHz/
Span 1 MHz