



849 NW STATE ROAD 45
NEWBERRY, FL 32669 USA
PH: 888.472.2424 OR 352.472.5500
FAX: 352.472.2030
EMAIL: INFO@TIMCOENGR.COM
[HTTP://WWW.TIMCOENGR.COM](http://WWW.TIMCOENGR.COM)

FCC PART 15.247 FHSS TEST REPORT

APPLICANT	Thermo Measure Tech
ADDRESS	255 North IH-35
	P.O.Box 800
	Round Rock, Texas 78680 USA
TELEPHONE	713.272.2242
FCC ID	MCO-AR900
MODEL NUMBER	AutoRadio
PRODUCT DESCRIPTION	902-928 MHz frequency hopping radio
DATE SAMPLE RECEIVED	March 6, 2006
DATE TESTED	March 13, 2006
TESTED BY	Nam Nguyen, Joe Scoglio
APPROVED BY	Mario de Aranzeta C.E.T.
TIMCO REPORT NO	1707WUT6
TEST RESULTS	☒ PASS ☐ FAIL

**THE ATTACHED REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL OF TIMCO ENGINEERING, INC.**



Certificate # 0955-01

TABLE OF CONTENTS

STATEMENT OF COMPLIANCE.....	3
GENERAL INFORMATION	4
EMC EQUIPMENT LIST	5
TEST PROCEDURES	6
POWER LINE CONDUCTED INTERFERENCE.....	7
NUMBER OF HOPPING CHANNELS	8
DWELL TIME OF A HOPPING CHANNEL.....	9
20 dB BANDWIDTH	10
CARRIER FREQUENCY SEPARATION	11
POWER OUTPUT	12
SPURIOUS EMISSIONS AT ANTENNA TERMINALS	13
FIELD STRENGTH OF SPURIOUS EMISSIONS.....	14
RADIATED SPURIOUS EMISSIONS INTO ADJACENT RESTRICTED BAND.....	24

STATEMENT OF COMPLIANCE

This equipment has been tested in accordance with the standards identified in the referenced test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report and demonstrate that the equipment complies with the appropriate standards.

I attest that the necessary measurements were made by me or under my supervision, at Timco Engineering, Inc. located at 849 N.W. State Road 45, Newberry, Florida 32669 USA.

AUTHORIZED BY: Mario de Aranzeta

A handwritten signature in black ink, reading "Mario de Aranzeta". The signature is written in a cursive, flowing style.

SIGNATURE:

FUNCTION: Engineer

DATE: August 15, 2006

TESTED BY: Nam Nguyen, Joe Scoglio

SIGNATURE: on file

GENERAL INFORMATION

Purpose of Test: To show the DUT in compliant with Limited Modular Approval requirements

Test Result: The test results relate only to the items tested.

Test Facilities: All measurements were made at one or more of the test sites of TIMCO ENGINEERING INC. located at 849 N.W. State Road 45, Newberry, FL 32669.

Laboratory Test Conditions: Temperature: 26°C, Humidity: 55%

Test Exercise: The EUT was set in continuous transmit mode of operation.

Description of Certified System: The system consists of the transmitter (professionally installed) and the following antenna systems:

- a) 0 dBi monopole antenna
- b) 10 dBd Yagi antenna Thermo Electron #7-0132-235 with 200 ft of LMR400 coax cable
- c) 9 dBd colinear antenna Bluewave BMO902J with 100 ft of LMR400 coaxial cable

Product Description: Telemetry Radio

FCC ID: MCO-AR900

Model Number: AutoRadio

Brand Name: Thermo

Operating Frequency: 902 – 928 MHz

Number of Channels: 51

Max. Output Pwr: 1.0 Watts

Type of Modulation: FSK

EUT Power Source: Primary Power – 12 Vdc
Secondary Power – N/A

Test Item: Prototype

Type of Equipment: Mobile

Antennas: ¼ wave monopole, Yagi antenna, colinear antenna

Antenna Connector: SMA

Modifications to DUT: No modification was made to ensure the DUT in compliant with FCC requirements.

EMC EQUIPMENT LIST

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date
3/10-Meter OATS	TEI	N/A	N/A	Listed 3/27/04	3/26/07
3-Meter OATS	TEI	N/A	N/A	Listed 1/11/06	1/10/09
Biconnical Antenna	Eaton	94455-1	1057	CAL 12/12/05	12/12/07
Biconnical Antenna	Electro-Metrics	BIA-25	1171	CAL 4/29/05	4/29/07
Analyzer Tan Tower Quasi-Peak Adapter	HP	85650A	3303a01690	CAL 12/8/05	12/8/07
Analyzer Tan Tower RF Preselector	HP	85685A	3221A01400	CAL 12/7/05	12/7/07
Analyzer Tan Tower Spectrum Analyzer	HP	8566B OPT 462	3188A07786 3144A20661	CAL 12/7/05	12/7/07
Analyzer Tan Tower Preamplifier	HP	8449B-H02	3008A00372	CAL 12/8/05	12/8/07
LISN	Electro-Metrics	EM-7820	2682	CAL 4/28/05	4/28/07
Log-Periodic Antenna	Eaton	96005	1243	CAL 12/14/05	12/14/07

TEST PROCEDURES

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-2003 using a 50uH LISN. Both lines were observed with the UUT transmitting. The resolution bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

BANDWIDTH 20 dB: The measurements were made with the spectrum analyzer's resolution bandwidth (RBW) = 1 MHz and the video bandwidth (VBW) = 3 MHz and the span set as shown on plot.

POWER OUTPUT: The RF power output was measured at the antenna feed point using a peak power meter.

ANTENNA CONDUCTED EMISSIONS: The RBW = 100 kHz, VBW = 300 kHz and the span set to 10.0 MHz and the spectrum was scanned from 30 MHz to the 10th Harmonic of the fundamental. Above 1 GHz the resolution bandwidth was 1 MHz and the VBW = 3 MHz and the span to 50 MHz.

RADIATION INTERFERENCE: The test procedure used was ANSI standard C63.4-2003 using an Agilent spectrum receiver with preselector. The bandwidth (RBW) of the spectrum receiver was 100 kHz up to 1 GHz and 1 MHz above 1 GHz with an appropriate sweep speed. The VBW above 1 GHz was 3 MHz. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

TEST STANDARDS: ANSI C63.4: 2003, FCC Part 15.247

POWER LINE CONDUCTED INTERFERENCE

RULES PART NO.: 15.107(a)

REQUIREMENTS:

Emission Frequency (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak (QP)	Average (AV)
0.15 – 0.5	66 to 56 *	56 to 46 *
0.5 – 5	56	46
5 – 30	60	50
* Decreases with the logarithm of the frequency.		

TEST PROCEDURE: ANSI C63.4-2003. The spectrum was scanned from .15 to 30 MHz.

TEST DATA: Not applicable to this device.

NUMBER OF HOPPING CHANNELS

RULES PART NO.: 15.247(a)(1)

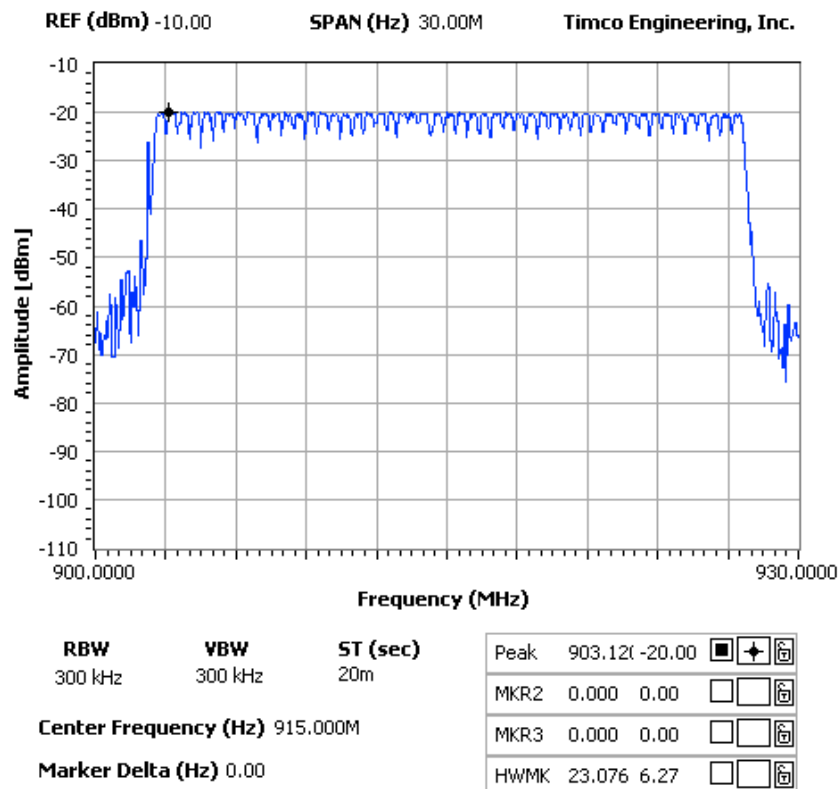
REQUIREMENTS:

902-928 MHz	If the 20 dB bandwidth is less than 250 kHz, the system shall use at least 50 hopping frequencies.
	If the 20 dB bandwidth is 250 kHz or greater, the system shall use at least 25 hopping frequencies.
2400-2483.5 MHz	At least 15 channels
5725-5850 MHz	At least 75 channels

TEST DATA: There are 51 hopping channels

NOTES:

THERMO MEASURE TECH - FCC ID:
NUMBER OF HOPPING FREQUENCIES.



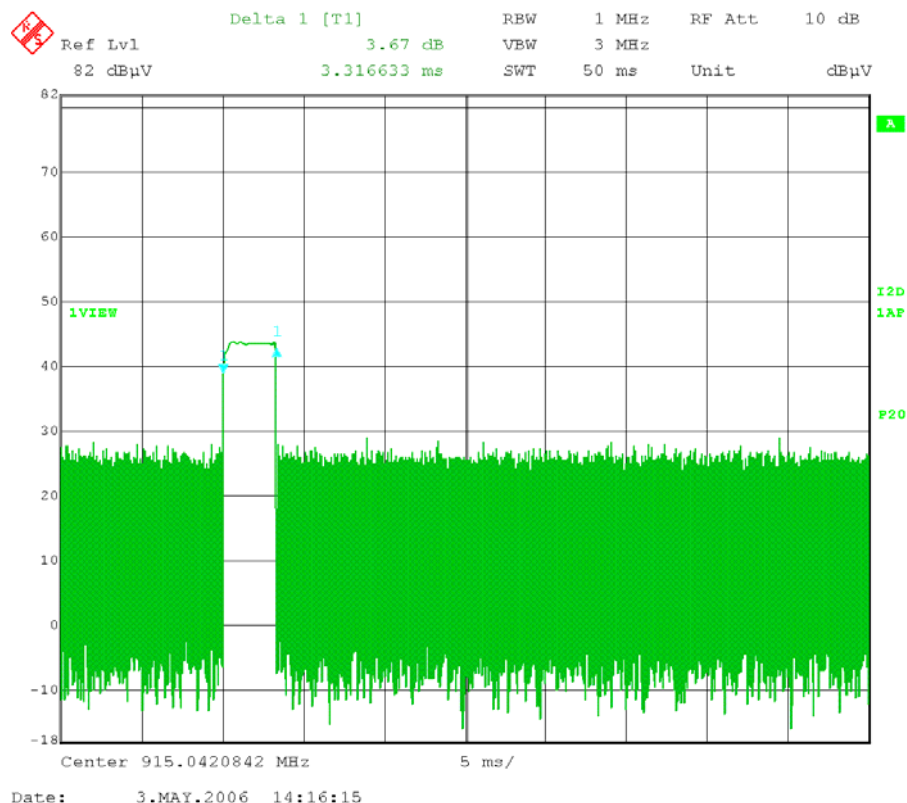
DWELL TIME OF A HOPPING CHANNEL

RULES PART NO.: 15.247(a)(1)(i)

REQUIREMENTS:

902-928 MHz	If 20 dB bandwidth is less than 250 kHz, Dwell time ≤ 0.4 seconds in a 20 second period.
	If 20 dB bandwidth is 250 kHz or greater, Dwell time ≤ 0.4 seconds in a 10 second period.
2400-2483.5 MHz	≤ 0.4 seconds in a 0.4 seconds multiplied the number of hopping channels employed.
5725-5850 MHz	≤ 0.4 seconds in a 30 second period.

TEST DATA: The dwell time is 196 msec. The Dwell Time can be calculated within 20 seconds period $10 \times 1/51 = 196\text{ms}$



Three places in the band were measured and the worst case presented above.

20 dB BANDWIDTH

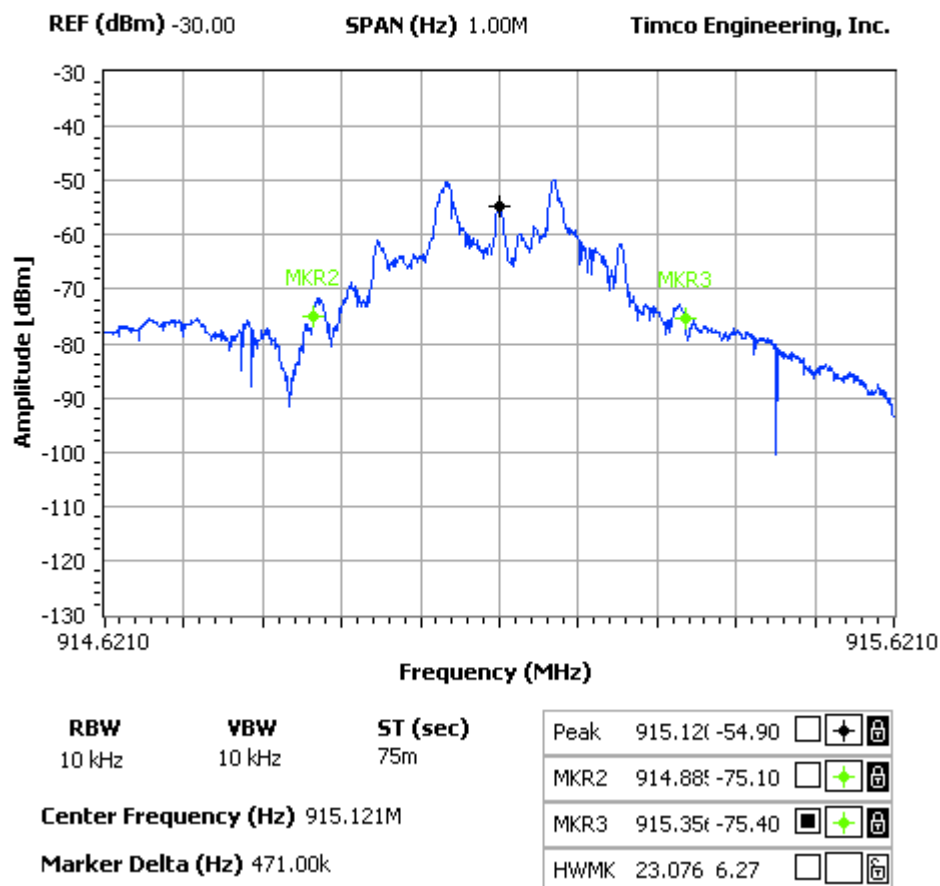
RULES PART NO.: 15.247(a)(2)

REQUIREMENTS: The 20 dB bandwidth must be less than 500 kHz.

TEST DATA: See the following plots

NOTES:

THERMO MEASURE TECH -
20 dB BANDWIDTH - MARKER DELTA = 471 KHz



Three places in the band were measured and the worst case presented above.

CARRIER FREQUENCY SEPARATION

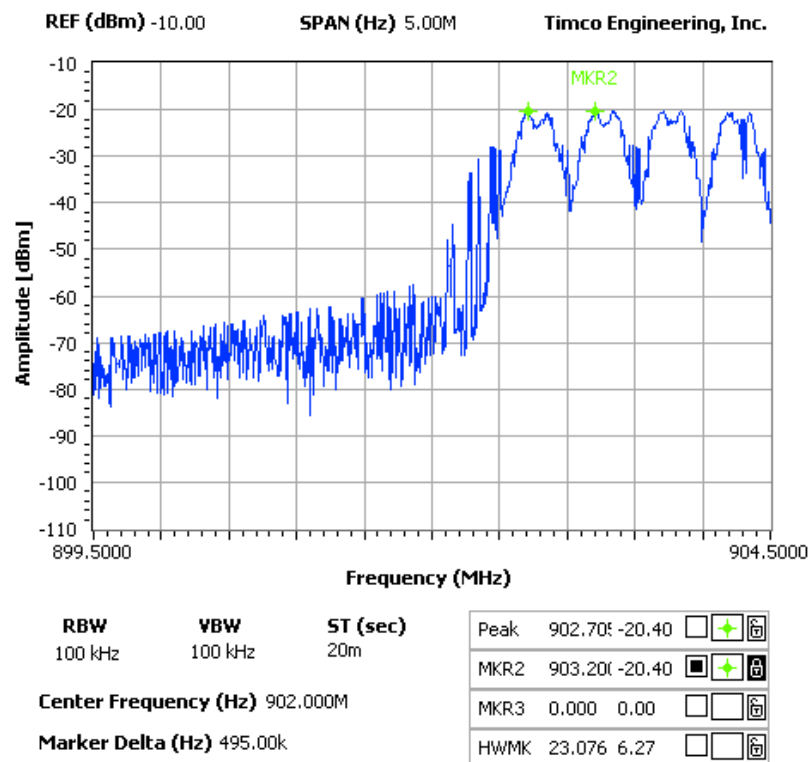
RULES PART NO.: 15.247(a)(2)

REQUIREMENTS: The hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

TEST DATA: See the following plot

NOTES:

THERMO MEASURE TECH - FCC ID:
CARRIER FREQUENCY SEPARATION. DELTA MARKER = 495 KHz



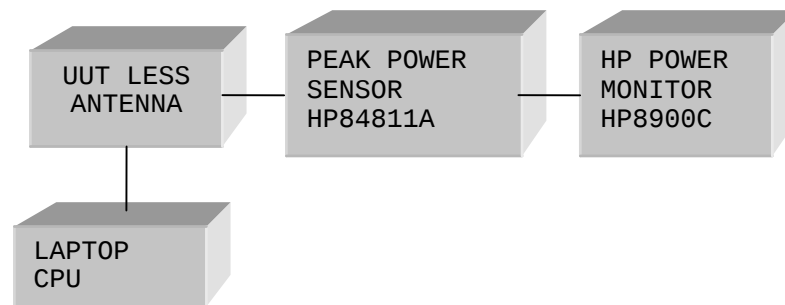
POWER OUTPUT

RULES PART NO.: 15.247(b)

REQUIREMENTS: The maximum peak output power shall not exceed 1 watt (30 dBm). If directional transmitting antennas with a gain of more than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST METHOD: Power was measured by disconnecting the antennas and measuring across a 50 ohm load as recommended by the manufacturer using a HP peak power meter Model 8900C. The antenna is non-directional and doesn't exceed 6 dBi gain. The power output was measured at three places in the band highest is reported below.

The RF power output was measured at the antenna feed point by removing the permanent antenna and connecting the UUT to a peak power meter, Agilent Model No. 8900C.



TEST DATA: 1 Watt or 30 dBm @ 927.4MHz

Three places in the band were measured and the highest power presented above.

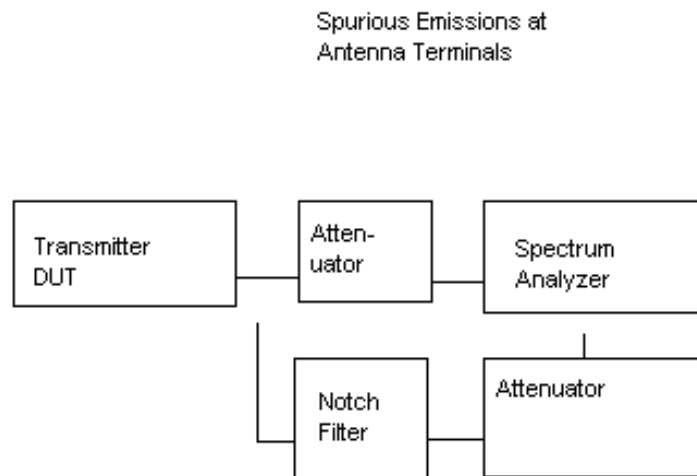
SPURIOUS EMISSIONS AT ANTENNA TERMINALS

RULES PART NO.: 15.247(c)

REQUIREMENTS: Emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

TEST METHOD:

TEST SETUP:



Note: The spectrum was scanned to the tenth harmonic.

TEST DATA:

Low Channel		Middle Channel		High Channel	
Frequency MHz	Reading dBuV	Frequency MHz	Reading dBuV	Frequency MHz	Reading dBuV
902.76	135.8	915.06	135.9	927.35	134.5
1805.52	48.6	1830.12	51.9	1854.70	53.4
2708.28	53.3	2745.18	56.8	2782.05	54.2
3611.04	69.4	3660.24	69.9	3709.40	67.2
4513.80	61.2	4575.30	59.4	4636.75	58.6
5416.56	59.6	5490.36	63.0	5564.10	63.8
6319.32	59.1	6405.42	56.6	6491.45	51.9
7222.08	52.0	7320.48	60.1	7418.80	61.4
8124.84	62.3	8235.54	59.8	8346.15	60.3
9027.60	51.4	9150.60	55.0	9273.50	50.3

FIELD STRENGTH OF SPURIOUS EMISSIONS

RULES PART NO.: 15.247(c), 15.205 & 15.209(b)

REQUIREMENTS:

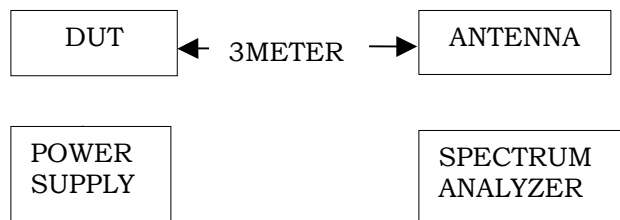
§15.247(c) & §15.205	
(Fundamental) Frequency	(Field Strength) Limits
902 – 928 MHz	127.37 dBuV/m
2.4 – 2.4835 GHz	
	54 dBuV/m @3m
§15.209	
30 - 88 MHz	40 dBuV/m @3M
88 -216 MHz	43.5 dBuV/m @3M
216 -960 MHz	46 dBuV/m @3M
ABOVE 960 MHz	54 dBuV/m

Emissions that fall in the restricted bands (15.205) must be less than or equal to 500 uV/m (54 dBuV/m). Spurious not in a restricted band must be 20 dBc.

Harmonics were measured to the 10th harmonic.

TEST METHOD: The procedure used was ANSI standard C63.4-2003 & the FCC/OET Guidance on Measurements for Spread Spectrum Systems – Public Notice 54797 Dated July 12, 1995.

TEST SETUP



Equipment placed 80cm above ground on a rotatable platform.

TEST DATA: Quarter wave monopole

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity V/H	Coax Loss dB	Correction Factor dB/m	Duty Cycle dB	Field Strength dBuV/m	Margin dB
902.8	902.76	96.3	V	1.95	22.33	18.4	102.18	
902.8	902.76	96.3	H	1.95	23.3	18.4	103.15	
902.8	1,805.52	32.8	V	2.74	30.03	18.4	47.17	35.98
902.8	1,805.52	35.9	H	2.74	30.03	18.4	50.27	32.88
902.8	3,611.04	24.8	V	4.15	33.39	18.4	43.94	30.06
902.8	3,611.04	32.3	H	4.15	33.39	18.4	51.44	22.56
902.8	4,513.80	14.8	H	4.76	34.11	18.4	35.27	38.73
902.8	4,513.80	13.8	V	4.76	34.11	18.4	34.27	39.73
902.8	5,416.56	21.1	V	5.12	35.00	18.4	42.82	40.33
902.8	5,416.56	17.9	H	5.12	35.00	18.4	39.62	43.53
902.8	6,319.32	21.6	H	5.40	35.96	18.4	44.56	38.59
902.8	6,319.32	28.2	V	5.40	35.96	18.4	51.16	31.99
902.8	7,222.08	25.1	V	5.73	36.17	18.4	48.6	25.40
902.8	7,222.08	20.1	H	5.73	36.17	18.4	43.6	30.40
902.8	8,124.84	19.3	H	6.25	36.30	18.4	43.45	30.55
902.8	8,124.84	19.4	V	6.25	36.30	18.4	43.55	30.45
902.8	9,027.60	10.3	H	6.61	36.83	18.4	35.34	47.81
902.8	9,027.60	12.7	V	6.61	36.83	18.4	37.74	45.41

TEST DATA: Quarter wave monopole

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity V/H	Coax Loss dB	Correction Factor dB/m	Duty Cycle dB	Field Strength dBuV/m	Margin dB
915.1	915.06	98.4	V	1.97	22.55	18.4	104.52	
915.1	915.06	98.4	H	1.97	23.4	18.4	105.37	
915.1	1,830.12	32.7	V	2.76	30.18	18.4	47.24	38.13
915.1	1,830.12	37.7	H	2.76	30.18	18.4	52.24	33.13
915.1	2,745.18	34.7	H	3.42	32.89	18.4	52.61	21.39
915.1	2,745.18	33.1	V	3.42	32.89	18.4	51.01	22.99
915.1	3,660.24	27.7	H	4.19	33.43	18.4	46.92	27.08
915.1	3,660.24	28.4	V	4.19	33.43	18.4	47.62	26.38
915.1	4,575.30	18.3	H	4.79	34.16	18.4	38.85	35.15
915.1	4,575.30	15.8	V	4.79	34.16	18.4	36.35	37.65
915.1	5,490.36	17.7	V	5.15	35.09	18.4	39.54	45.83
915.1	5,490.36	19.7	H	5.15	35.09	18.4	41.54	43.83
915.1	6,405.42	19.7	H	5.42	36.02	18.4	42.74	42.63
915.1	6,405.42	25.8	V	5.42	36.02	18.4	48.84	36.53
915.1	7,320.48	18.1	H	5.79	36.28	18.4	41.77	32.23
915.1	7,320.48	23.1	V	5.79	36.28	18.4	46.77	27.23
915.1	8,235.54	15.6	H	6.29	36.3	18.4	39.79	34.21
915.1	8,235.54	13.7	V	6.29	36.3	18.4	37.89	36.11
915.1	9,150.60	8.8	H	6.65	36.98	18.4	34.03	51.34
915.1	9,150.60	10.4	V	6.65	36.98	18.4	35.63	49.74

TEST DATA: Quarter wave monopole

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity V/H	Coax Loss dB	Correction Factor dB/m	Duty Cycle dB	Field Strength dBuV/m	Margin dB
927.4	927.35	96.3	V	1.99	22.77	18.4	102.66	
927.4	927.35	97.2	H	1.99	24.09	18.4	104.88	
927.4	1,854.70	38.7	H	2.78	30.33	18.4	53.41	31.37
927.4	1,854.70	38.2	V	2.78	30.33	18.4	52.91	31.97
927.4	2,782.05	29.5	V	3.45	32.94	18.4	47.49	6.51
927.4	2,782.05	31.2	H	3.45	32.94	18.4	49.19	4.81
927.4	3,709.40	28	V	4.24	33.47	18.4	47.31	6.69
927.4	3,709.40	28.7	H	4.24	33.47	18.4	48.01	5.99
927.4	4,636.75	27.1	V	4.82	34.21	18.4	47.73	6.27
927.4	4,636.75	24.1	H	4.82	34.21	18.4	44.73	9.27
927.4	5,564.10	22.7	V	5.17	35.18	18.4	44.65	40.23
927.4	5,564.10	19.8	H	5.17	35.18	18.4	41.75	43.13
927.4	6,491.45	23.1	V	5.45	36.09	18.4	46.24	38.64
927.4	6,491.45	17.4	H	5.45	36.09	18.4	40.54	44.34
927.4	7,418.80	20.1	H	5.85	36.4	18.4	43.95	10.05
927.4	7,418.80	27.3	V	5.85	36.4	18.4	51.15	2.85
927.4	8,346.15	12.2	H	6.34	36.3	18.4	36.44	17.56
927.4	8,346.15	12.9	V	6.34	36.3	18.4	37.14	16.86
927.4	9,273.50	8.3	H	6.68	37.13	18.4	33.71	51.17
927.4	9,273.50	9.5	V	6.68	37.13	18.4	34.91	49.97

TEST DATA: Yagi antenna

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Pol V/H	Coax Loss dB	Correction Factor dB	Duty Cycle dB	Field Strength dBuV/m	Margin dB
902.8	902.8	89.3	H	1.95	23.33	18.4	96.18	
902.8	902.8	108.1	V	1.95	22.67	18.4	114.32	
902.8	1,805.60	25.9	V	2.74	30.03	18.4	40.27	54.05
902.8	2,708.40	32.2	H	3.4	32.85	18.4	50.05	26.13
902.8	2,708.40	36.0	V	3.4	32.85	18.4	53.85	40.47
902.8	3,611.20	21.4	H	4.15	33.39	18.4	40.54	13.46
902.8	3,611.20	29.0	V	4.15	33.39	18.4	48.14	5.86
902.8	4,514.00	14.6	H	4.76	34.11	18.4	35.07	18.93
902.8	4,514.00	25.1	V	4.76	34.11	18.4	45.57	8.43
902.8	5,416.80	9.0	H	5.13	35.00	18.4	30.73	23.27
902.8	5,416.80	16.0	V	5.13	35.00	18.4	37.73	16.27
902.8	6,319.60	10.5	H	5.4	35.96	18.4	33.46	42.72
902.8	6,319.60	20.1	V	5.4	35.96	18.4	43.06	51.26
902.8	7,222.40	16.7	H	5.73	36.17	18.4	40.20	35.98
902.8	7,222.40	24.4	V	5.73	36.17	18.4	47.90	46.42
902.8	8,125.20	9.0	H	6.25	36.30	18.4	33.15	20.85
902.8	8,125.20	14.9	V	6.25	36.30	18.4	39.05	14.95
902.8	9,028.00	8.3	H	6.61	36.83	18.4	33.34	20.66
902.8	9,028.00	11.8	V	6.61	36.83	18.4	36.84	17.16

TEST DATA: Yagi antenna

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Pol V/H	Coax Loss dB	Correction Factor dB	Duty Cycle dB	Field Strength dBuV/m	Margin dB
915.1	915.1	90.7	H	1.97	23.35	18.4	97.62	
915.1	915.1	108.1	V	1.97	22.60	18.4	114.27	
915.1	1,830.20	27.9	V	2.76	30.18	18.4	42.44	51.83
915.1	2,745.30	31.6	H	3.42	32.89	18.4	49.51	28.11
915.1	2,745.30	32.6	V	3.42	32.89	18.4	50.51	43.76
915.1	3,660.40	19.4	H	4.19	33.43	18.4	38.62	15.38
915.1	3,660.40	27.1	V	4.19	33.43	18.4	46.32	7.68
915.1	4,575.50	17.1	H	4.79	34.16	18.4	37.65	16.35
915.1	4,575.50	25.0	V	4.79	34.16	18.4	45.55	8.45
915.1	5,490.60	18.3	H	5.15	35.09	18.4	40.14	37.48
915.1	5,490.60	23.6	V	5.15	35.09	18.4	45.44	48.83
915.1	6,405.70	10.1	H	5.42	36.02	18.4	33.14	44.48
915.1	6,405.70	16.9	V	5.42	36.02	18.4	39.94	54.33
915.1	7,320.80	20.8	H	5.79	36.28	18.4	44.47	9.53
915.1	7,320.80	24.0	V	5.79	36.28	18.4	47.67	6.33
915.1	8,235.90	9.2	V	6.29	36.30	18.4	33.39	20.61
915.1	9,151.00	12.4	H	6.65	36.98	18.4	37.63	16.37

TEST DATA: Yagi antenna

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Pol V/H	Coax Loss dB	Correction Factor dB	Duty Cycle dB	Field Strength dBuV/m	Margin dB
927.4	927.4	85.8	H	1.99	23.45	18.4	92.84	
927.4	927.4	106.5	V	1.99	22.67	18.4	112.76	
927.4	1,854.70	27.5	H	2.78	30.33	18.4	42.21	30.63
927.4	1,854.70	30.3	V	2.78	30.33	18.4	45.01	47.75
927.4	2,782.10	29.7	H	3.45	32.94	18.4	47.69	6.31
927.4	2,782.10	32.4	V	3.45	32.94	18.4	50.39	3.61
927.4	3,709.50	22.6	V	4.24	33.47	18.4	41.91	12.09
927.4	3,709.50	30.0	H	4.24	33.47	18.4	49.31	4.69
927.4	4,636.90	18.8	V	4.82	34.21	18.4	39.43	14.57
927.4	4,636.90	28.0	H	4.82	34.21	18.4	48.63	5.37
927.4	5,564.20	22.4	V	5.17	35.18	18.4	44.35	48.41
927.4	5,564.20	27.6	H	5.17	35.18	18.4	49.55	23.29
927.4	6,491.60	10.7	V	5.45	36.09	18.4	33.84	58.92
927.4	6,491.60	12.3	H	5.45	36.09	18.4	35.44	37.40
927.4	7,419.00	24.7	V	5.85	36.40	18.4	48.55	5.45
927.4	7,419.00	29.8	H	5.85	36.40	18.4	53.65	0.35
927.4	8,346.40	8.9	H	6.34	36.30	18.4	33.14	20.86

TEST DATA: Colinear antenna

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Pol V/H	Coax Loss dB	Correction Factor dB	Duty Cycle dB	Field Strength dBuV/m	Margin dB
902.8	902.8	88.2	H	1.95	23.33	18.4	95.08	
902.8	902.8	100.1	V	1.95	22.67	18.4	106.32	
902.8	1,805.60	22.1	V	2.74	30.03	18.4	36.47	49.85
902.8	1,805.60	23.2	H	2.74	30.03	18.4	37.57	37.51
902.8	2,708.40	31.2	H	3.4	32.85	18.4	49.05	4.95
902.8	2,708.40	32.9	V	3.4	32.85	18.4	50.75	3.25
902.8	3,611.20	20.2	V	4.15	33.39	18.4	39.34	14.66
902.8	3,611.20	23.9	H	4.15	33.39	18.4	43.04	10.96
902.8	4,514.00	18.6	H	4.76	34.11	18.4	39.07	14.93
902.8	4,514.00	20.8	V	4.76	34.11	18.4	41.27	12.73
902.8	5,416.80	11.2	H	5.13	35.00	18.4	32.93	21.07
902.8	5,416.80	12.1	V	5.13	35.00	18.4	33.83	20.17
902.8	6,319.60	11.0	H	5.4	35.96	18.4	33.96	41.12
902.8	6,319.60	11.6	V	5.4	35.96	18.4	34.56	51.76
902.8	7,222.40	17.3	V	5.73	36.17	18.4	40.8	45.52
902.8	7,222.40	18.2	H	5.73	36.17	18.4	41.7	33.38
902.8	8,125.20	7.2	V	6.25	36.3	18.4	31.35	22.65
902.8	8,125.20	9.8	H	6.25	36.3	18.4	33.95	20.05
902.8	9,028.00	8.0	H	6.61	36.83	18.4	33.04	20.96

TEST DATA: Colinear antenna

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Pol V/H	Coax Loss dB	Correction Factor dB	Duty Cycle dB	Field Strength dBuV/m	Margin dB
915	915	86.3	H	1.97	23.35	18.4	93.22	
915	915	100.3	V	1.97	22.6	18.4	106.47	
915	1,830.00	23.5	V	2.76	30.18	18.4	38.04	48.43
915	1,830.00	23.9	H	2.76	30.18	18.4	38.44	34.78
915	2,745.00	28.0	V	3.42	32.89	18.4	45.91	8.09
915	2,745.00	28.4	H	3.42	32.89	18.4	46.31	7.69
915	3,660.00	23.1	V	4.19	33.43	18.4	42.32	11.68
915	3,660.00	25.7	H	4.19	33.43	18.4	44.92	9.08
915	4,575.00	19.5	H	4.79	34.16	18.4	40.05	13.95
915	4,575.00	23.0	V	4.79	34.16	18.4	43.55	10.45
915	5,490.00	16.0	H	5.15	35.09	18.4	37.84	35.38
915	5,490.00	18.0	V	5.15	35.09	18.4	39.84	46.63
915	6,405.00	10.7	V	5.42	36.02	18.4	33.74	52.73
915	6,405.00	11.2	H	5.42	36.02	18.4	34.24	38.98
915	7,320.00	22.0	V	5.79	36.28	18.4	45.67	8.33
915	7,320.00	22.9	H	5.79	36.28	18.4	46.57	7.43
915	8,235.00	8.2	H	6.29	36.3	18.4	32.39	21.61
915	8,235.00	11.3	V	6.29	36.3	18.4	35.49	18.51
915	9,150.00	7.0	H	6.65	36.98	18.4	32.23	21.77
915	9,150.00	12.5	V	6.65	36.98	18.4	37.73	16.27

TEST DATA: Colinear antenna

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Pol V/H	Coax Loss dB	Correction Factor dB	Duty Cycle dB	Field Strength dBuV/m	Margin dB
927.3	927.3	84.9	H	1.99	23.45	18.4	91.94	
927.3	927.3	98.9	V	1.99	22.67	18.4	105.16	
927.3	1,854.60	18.8	H	2.78	30.33	18.4	33.51	38.43
927.3	1,854.60	22.1	V	2.78	30.33	18.4	36.81	48.35
927.3	2,781.90	25.9	H	3.45	32.94	18.4	43.89	10.11
927.3	2,781.90	27.5	V	3.45	32.94	18.4	45.49	8.51
927.3	3,709.20	20.6	V	4.24	33.47	18.4	39.91	14.09
927.3	3,709.20	23.5	H	4.24	33.47	18.4	42.81	11.19
927.3	4,636.50	19.4	H	4.82	34.21	18.4	40.03	13.97
927.3	4,636.50	20.5	V	4.82	34.21	18.4	41.13	12.87
927.3	5,563.80	15.8	H	5.17	35.18	18.4	37.75	34.19
927.3	5,563.80	21.3	V	5.17	35.18	18.4	43.25	41.91
927.3	6,491.10	11.8	H	5.45	36.09	18.4	34.94	37.00
927.3	6,491.10	11.9	V	5.45	36.09	18.4	35.04	50.12
927.3	7,418.40	22.1	V	5.85	36.4	18.4	45.95	8.05
927.3	7,418.40	23.7	H	5.85	36.4	18.4	47.55	6.45
927.3	8,345.70	7.5	H	6.34	36.3	18.4	31.74	22.26
927.3	8,345.70	8.9	V	6.34	36.3	18.4	33.14	20.86
927.3	9,273.00	8.1	H	6.68	37.13	18.4	33.51	38.43
927.3	9,273.00	8.5	V	6.68	37.13	18.4	33.91	52.56

RADIATED SPURIOUS EMISSIONS INTO ADJACENT RESTRICTED BAND

REQUIREMENTS: Emissions that fall in the restricted bands (15.205). These emissions must be less than or equal to 500 uV/m (54dBuV/m). Emissions not in the restricted band must be 20 dBc.

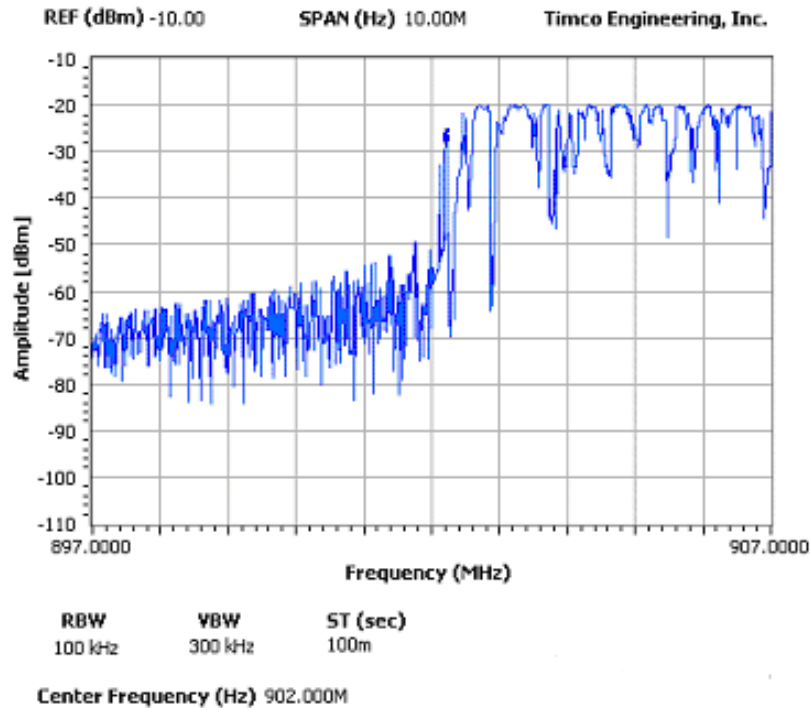
TEST METHOD: An in band field strength measurement of the fundamental emission using the RBW and detector function required by C63.4-2003 and the FCC rules.

TEST DATA: The plots are presented below.

Quarter wave monopole – Band Edge Lower

NOTES:

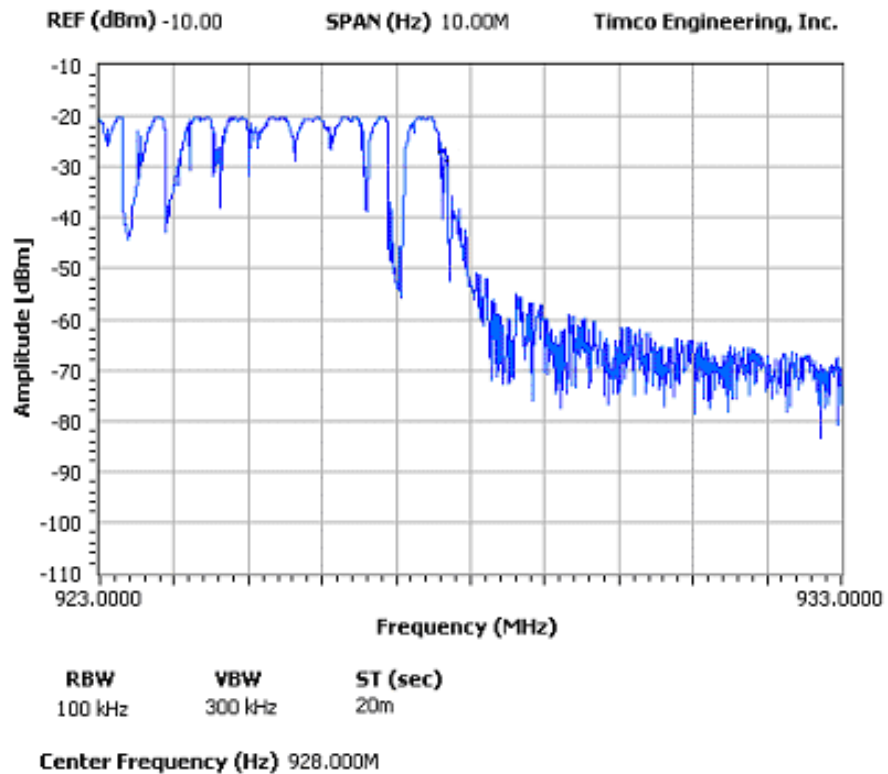
THERMO MEASURE TECH - FCC ID:
BANDEDGE COMPLIANCE PLOT - 902 MHz



Quarter wave monopole – Band Edge Upper

NOTES:

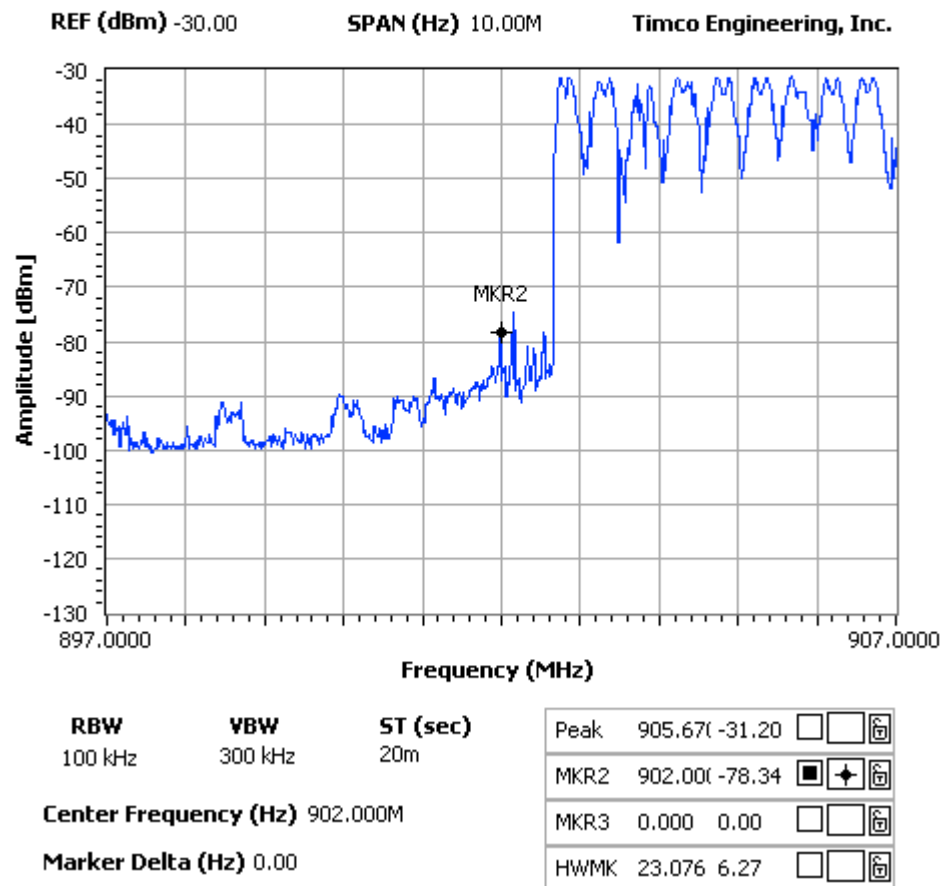
THERMO MEASURE TECH - FCC ID:
BANDEDGE COMPLIANCE PLOT - 928 MHz



Yagi antenna - Band Edge Lower

NOTES:

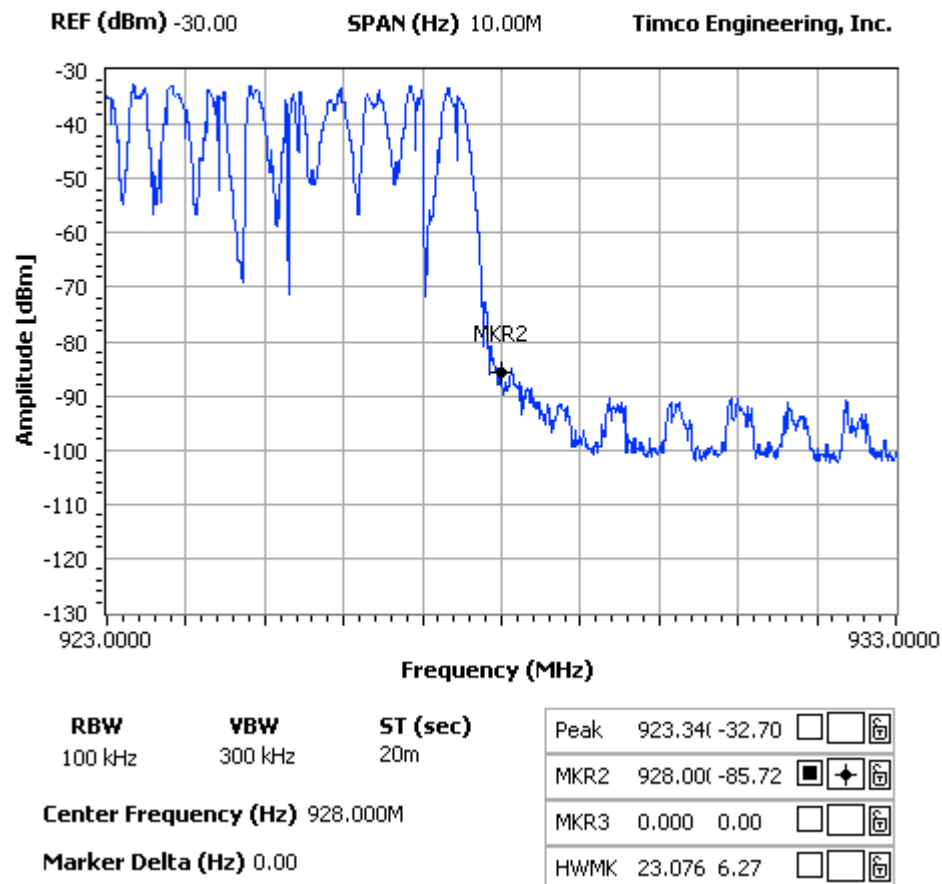
1707vat6 bandedge lower



Yagi antenna – Band Edge Upper

NOTES:

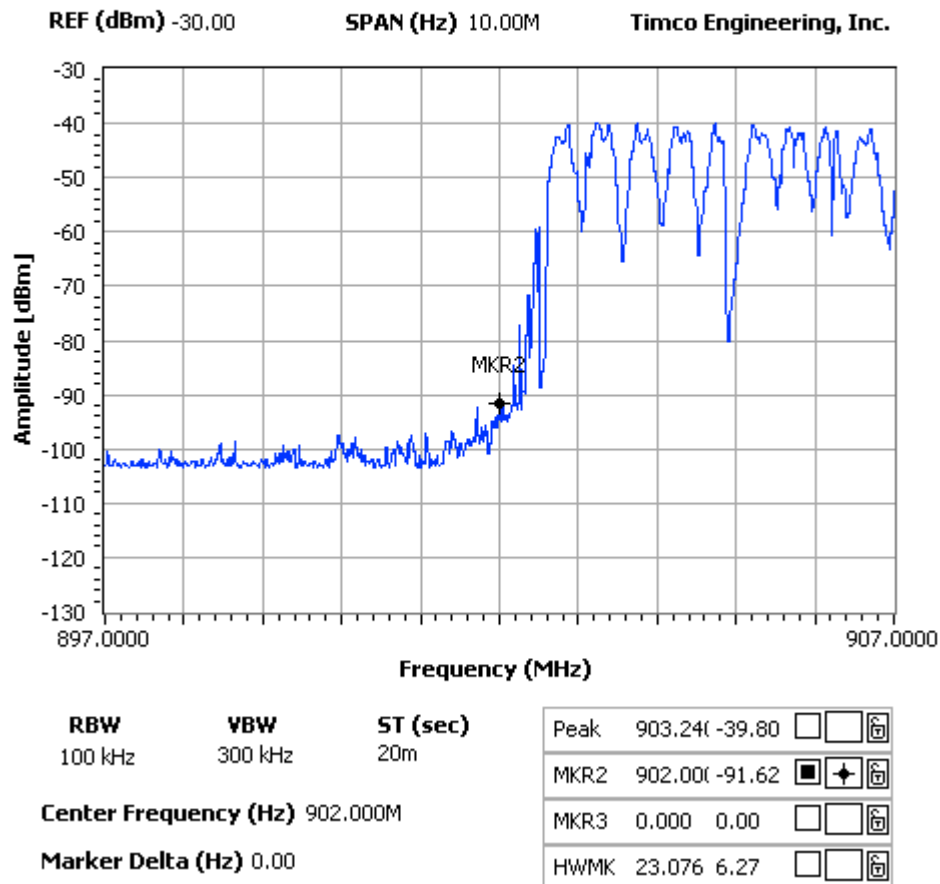
1707vat6 bandedge upper 30 db pad



Colinear antenna – Band Edge Lower

NOTES:

1707vbt6 bandedge lower 30db pad



Colinear Antenna – Band Edge Upper

NOTES:

1707vbt6 bandedge upper end 30db attn

