

Attenti US Inc. TEST REPORT

SCOPE OF WORK

EMC TESTING – AT1 1-PIECE GPS TRACKING DEVICE

REPORT NUMBER

103788844LEX-003.3

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EMC TEST REPORT

(FULL COMPLIANCE)

Report Number: 103788844LEX-003.3

Project Number: G103788844

Report Issue Date: 4/10/2019

Model(s) Tested: AT1 1-Piece GPS Tracking Device

Standards: FCC Part 15.231
RSS-210 Issue 9

Tested by:
Intertek Testing Services NA, Inc.
731 Enterprise Dr.
Lexington, KY 40510
USA

Client:
Attenti US Inc.
1838 Gunn Highway
Odessa, FL 55144
USA

Report prepared by



Brian Daffin,
Engineer

Report reviewed by



Bryan Taylor,
Team Leader

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1 Introduction and Conclusion

The tests indicated in section 2 were performed on the product constructed as described in section 3. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test method, a list of the actual test equipment used, documentation photos, results and raw data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested complied with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

The INTERTEK-Lexington is located at 731 Enterprise Drive, Lexington Kentucky, 40510. The radiated emission test site is a 10-meter semi-anechoic chamber. The chamber meets the characteristics of CISPR 16-1 and ANSI C63.4: 2009. For measurements, a remotely controlled flush-mount metal-top turntable is used to rotate the EUT a full 360 degrees. A remote controlled non-conductive antenna mast is used to scan the antenna height from one to four meters. The test site is listed with the FCC under registration number 485103. The test site is listed with Industry Canada under site number IC 2042M-1.

2 Test Summary

Page	Test full name	FCC Reference	IC Reference	Result
8	Duty Cycle Correction Factor	ANSI C63.10: 2013	ANSI C63.10: 2013	---
11	Transmission Timing Measurements	§ 15.231(a)	RSS-210 (A1.1.1)	Pass
11	Occupied Bandwidth	§ 15.231(c)	RSS-210 (A1.1.3)	Pass
12	Radiated Emissions	§ 15.231(b)	RSS-210 (A1.1.2)	Pass
21	Antenna Requirement per FCC Part 15.203	§ 15.203	RSS-Gen (7.1.2)	Pass



3 Description of Equipment Under Test

Equipment Under Test	
Manufacturer	Attenti US Inc.
Model Number	14024VL
Serial Number	34477985
Receive Date	12/13/2018
Test Start Date	12/13/2018
Test End Date	12/21/2018
Device Received Condition	Good
Test Sample Type	Production
Transmission Control	Firmware
Transmit Frequencies	433.92 MHz
Fundamental Transmission Field Strength	Beacon Mode – 79.96 dB μ V/m Ping Mode – 67.11 dB μ V/m
Antenna Type (15.203)	Permanent internal antenna
Operating Voltage	Battery Powered

Description of Equipment Under Test
Attenti 1Piece GPS Offender Tracking Device Model 14024VL

Operating modes of the EUT:

No.	Descriptions of EUT Exercising
1	Beacon Mode - Continuously transmitting data transmission at normal operation max power
2	Ping Mode - Continuously transmitting CW at reduced power



3.1 Photographs of Test Sample

Front



Back





4 System Setup and Method

4.1 Method:

Configuration as required by ANSI C63.10:2013.

No.	Descriptions of EUT Exercising
1	Beacon Mode - Continuously transmitting data transmission at normal operation max power
2	Ping Mode - Continuously transmitting CW at reduced power

Cables					
ID	Description	Length (m)	Shielding	Ferrites	Termination
	Charging Cable	2	No	No	AC Plug

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
No Support Equipment	---	---	---



5 Duty Cycle Correction Factor

5.1 Test Procedure

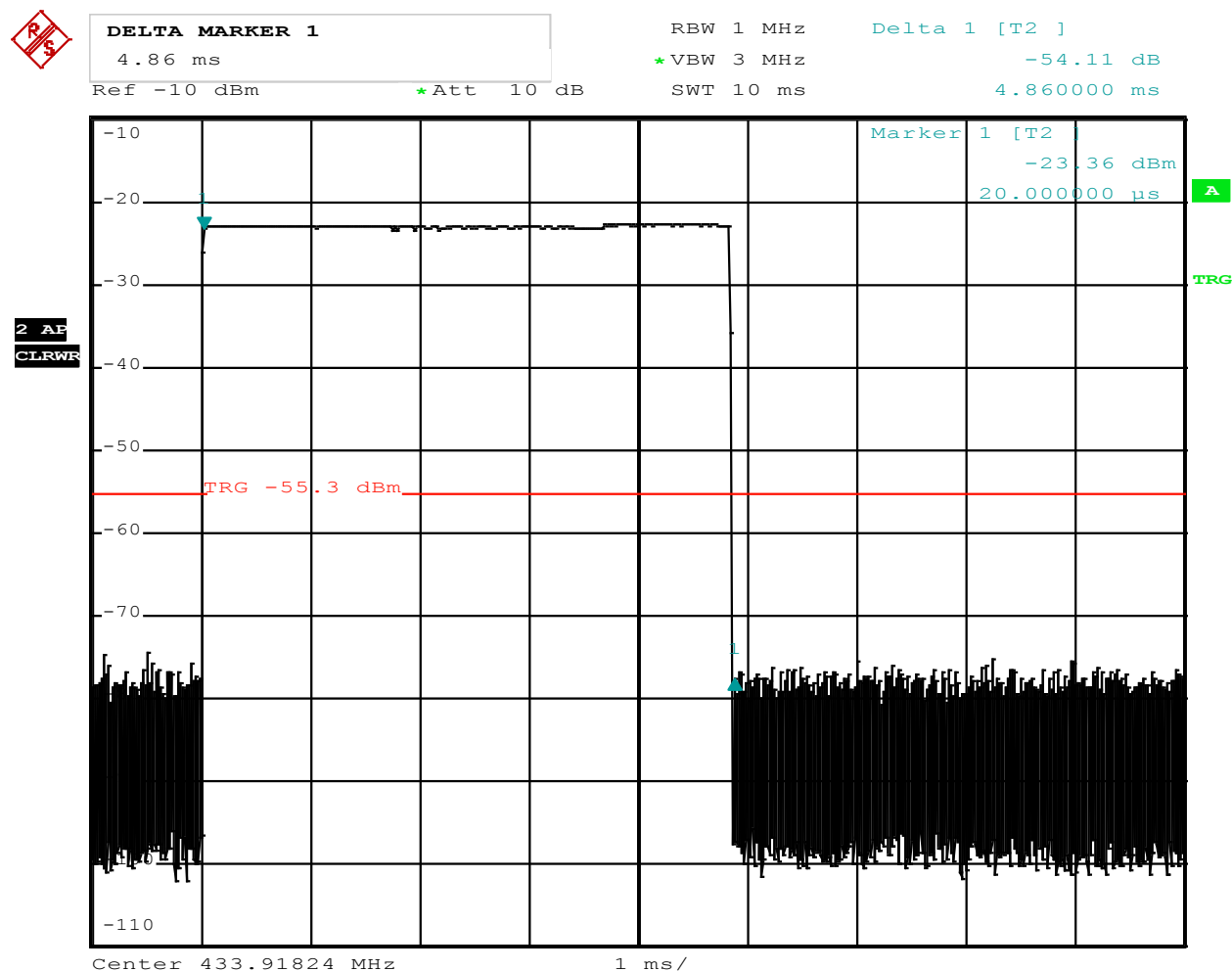
ANSI C63.10: 2013 Section 7.5 was followed for measuring the duty cycle and calculating the duty cycle correction factor. When necessary the duty cycle correction factor was used to compute the average value of pulsed emissions during the radiated testing.

5.2 Test Equipment Used:

Description	Serial Number	Manufacturer	Model	Cal. Date	Cal. Due
Spectrum Analyzer	3099	Rohde & Schwarz	FSP7	9/20/2018	9/20/2019

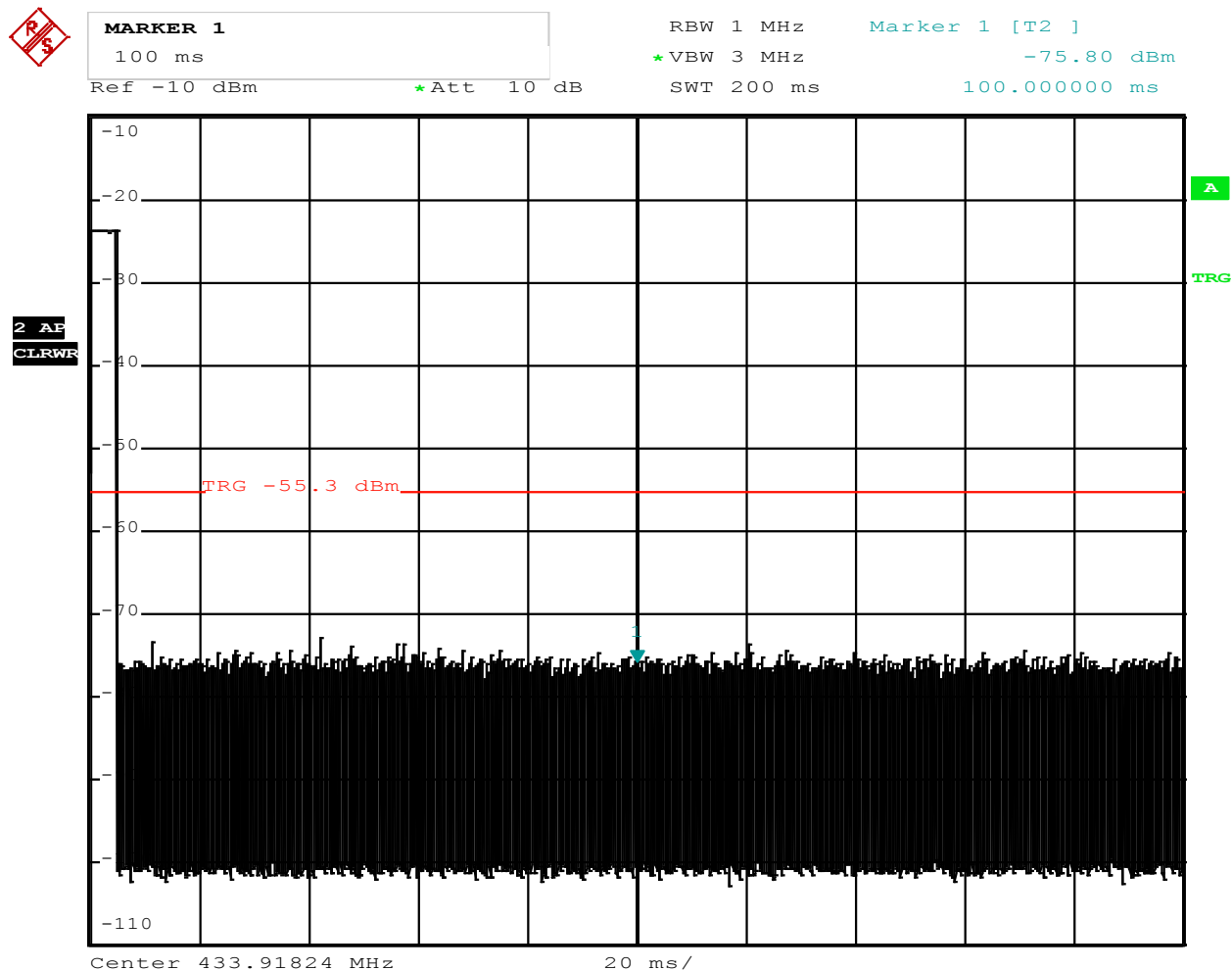
5.3 Duty Cycle Correction Factor Results (433.92MHz):

Pulse train exceeds 100ms, so duty cycle correction factor is calculated based on 100ms window



Date: 21.DEC.2018 16:19:09

Beacon Pulse Duration = 4.86mS



Date: 21.DEC.2018 16:22:03

Beacon Pulses in 100mS = 1

Beacon DCCF = $20\log(4.86 / 100) = -26.26\text{dB}$

Max Duty Cycle Correction factor is -20 dB.

Note: Firmware changes were made after the original testing to reduce the total transmission time. These changes are detailed in the operational description document. These changes impact the ping mode Duty Cycle Correction Factor, which is calculated by the manufacturer in the "OperationalDescription_Pages4&5_2019_04-09.pdf" as -18.85dB.



6 Transmission Timing

§ 15.231(a):

The provisions of this section are restricted to periodic operation within the band 40.66-40.70 MHz and above 70 MHz. Except as shown in paragraph (e) of this section, the intentional radiator is restricted to the transmission of a control signal such as those used with alarm systems, door openers, remote switches, etc. Continuous transmissions, voice, video and the radio control of toys are not permitted. Data is permitted to be sent with a control signal. The following conditions shall be met to comply with the provisions for this periodic operation:

(1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

(2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.

(3) Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions, including data, to determine system integrity of transmitters used in security or safety applications are allowed if the total duration of transmissions does not exceed more than two seconds per hour for each transmitter. There is no limit on the number of individual transmissions, provided the total transmission time does not exceed two seconds per hour.

(4) Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition

(5) Transmission of set-up information for security systems may exceed the transmission duration limits in paragraphs (a)(1) and (a)(2) of this section, provided such transmissions are under the control of a professional installer and do not exceed ten seconds after a manually operated switch is released or a transmitter is activated automatically. Such set-up information may include data.

6.1 Test Results

The client provided attestation statements indicating the following:

This device does not contain a manually operated transmitter.

The automatically activated transmitter ceases transmission within 5 seconds after activation.

This is a security or safety application. This device transmits at regular pre-determined intervals. The total duration of cumulative transmissions does not exceed 2 seconds per hour. The total transmission time does not exceed 2 seconds per hour.



7 Occupied Bandwidth

7.1 Test Limits

§ 15.231(c): The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

7.2 Test Procedure

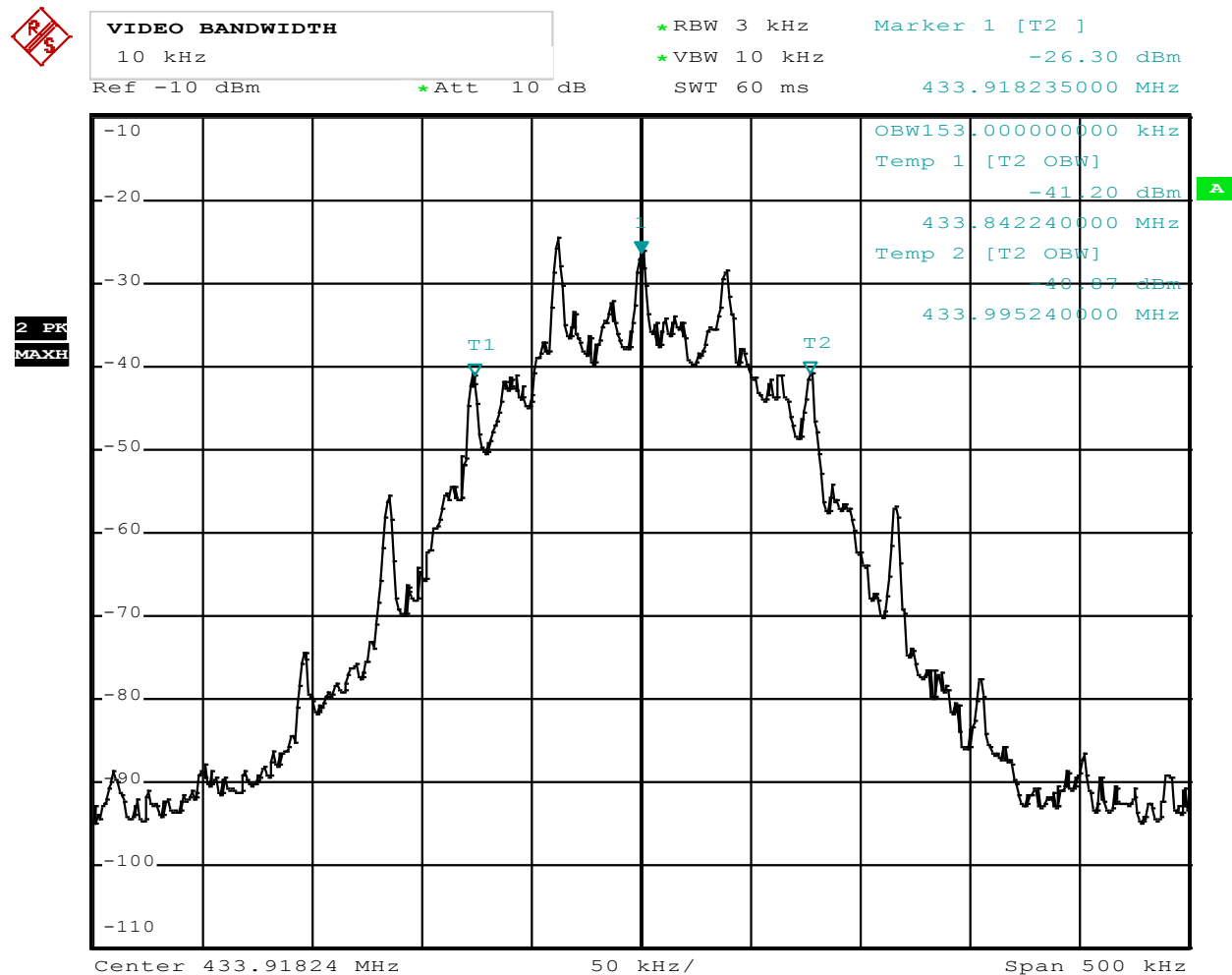
ANSI C63.10: 2013

7.3 Test Equipment Used:

Description	Serial Number	Manufacturer	Model	Cal. Date	Cal. Due
Spectrum Analyzer	3099	Rohde & Schwarz	FSP7	9/20/2018	9/20/2019



7.4 Results: Beacon Mode - Bandwidth Measurement



Date: 21.DEC.2018 16:46:25

Beacon 99% BW = 153kHz

**ndB DOWN VALUE**

20 dB

Ref -10 dBm

*Att 10 dB

*RBW 3 kHz

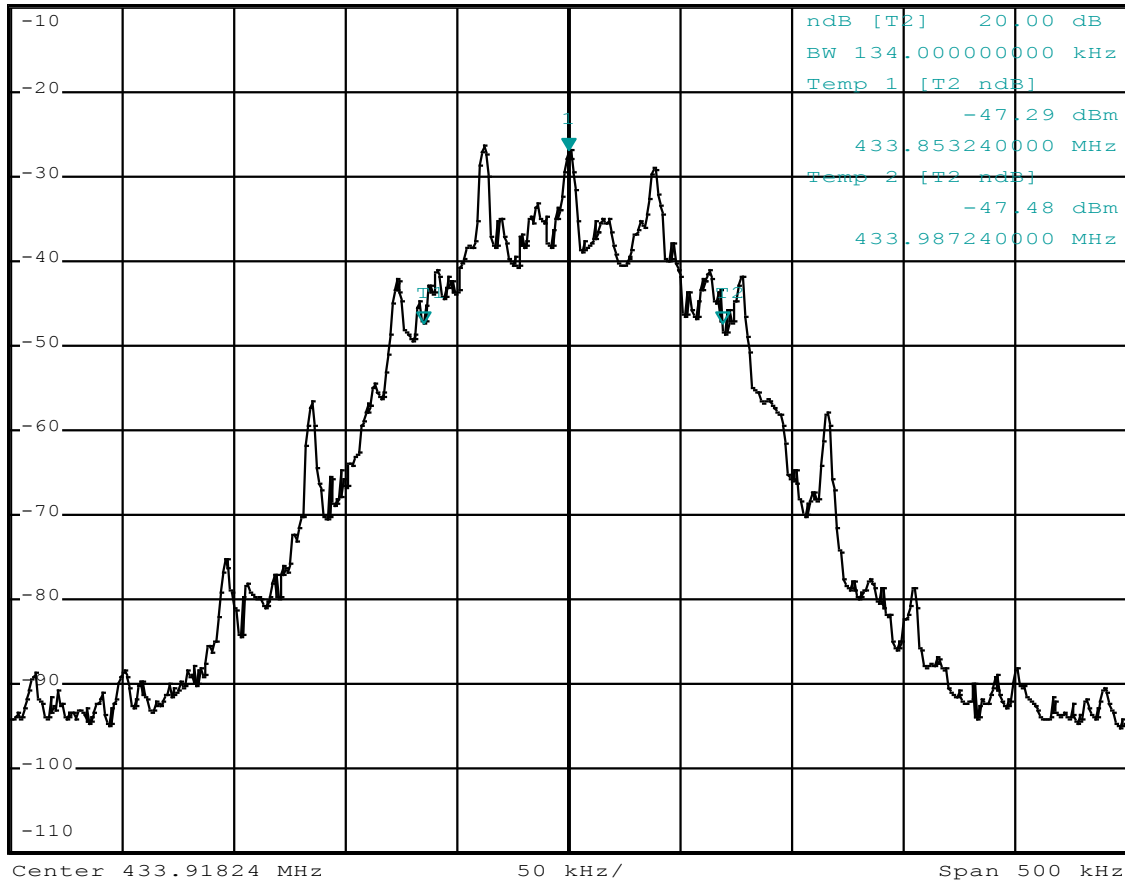
*VBW 10 kHz

SWT 60 ms

Marker 1 [T2]

-26.90 dBm

433.918235000 MHz

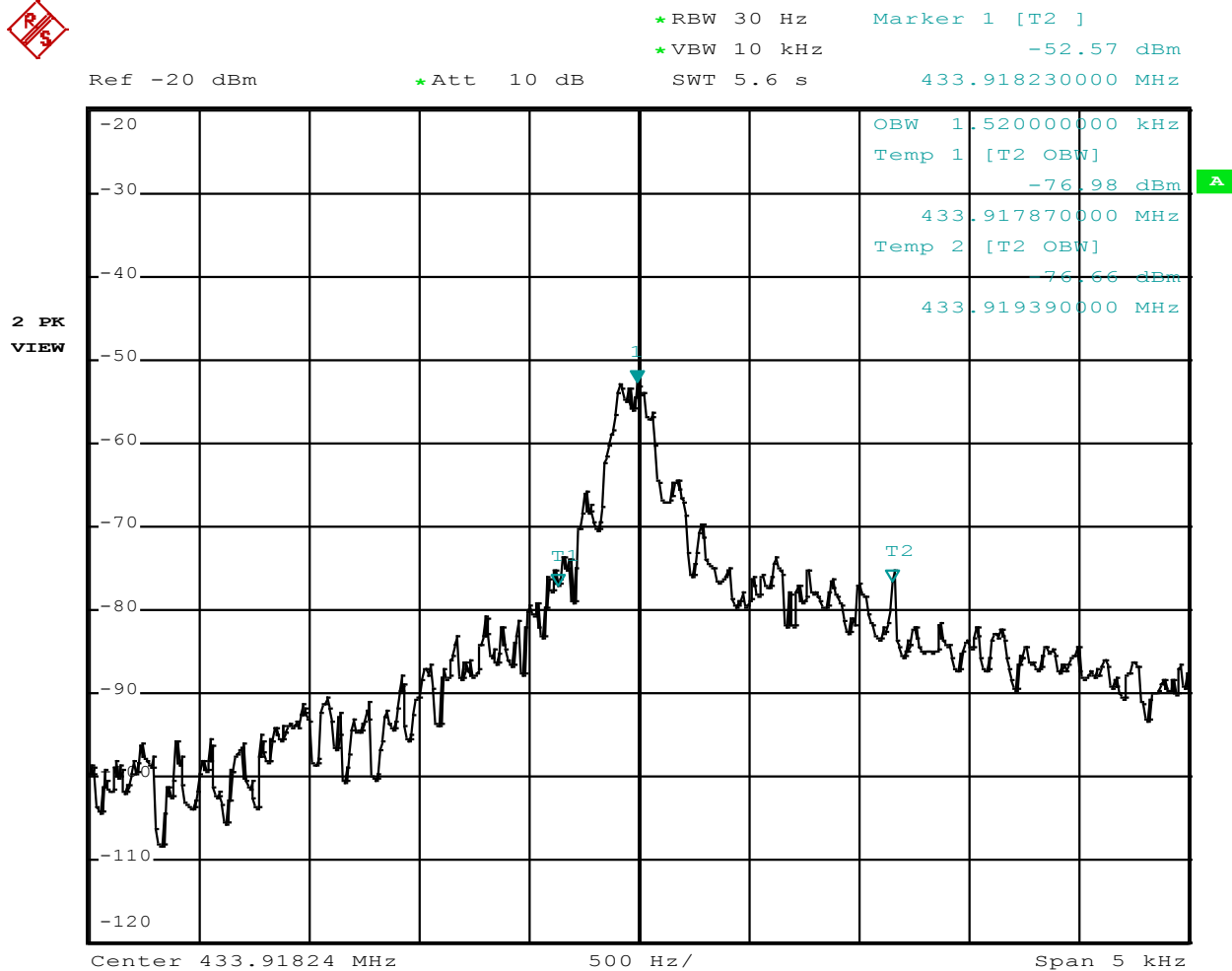
2 PK
MAXH

Date: 21.DEC.2018 16:47:38

Beacon 20dB BW = 134kHz



7.1 Results: Ping Mode - Bandwidth Measurement



Date: 21.DEC.2018 15:22:17

99% BW = 1.52kHz

**MARKER 1**

433.91823 MHz

Ref -20 dBm

★ Att 10 dB

★ RBW 30 Hz

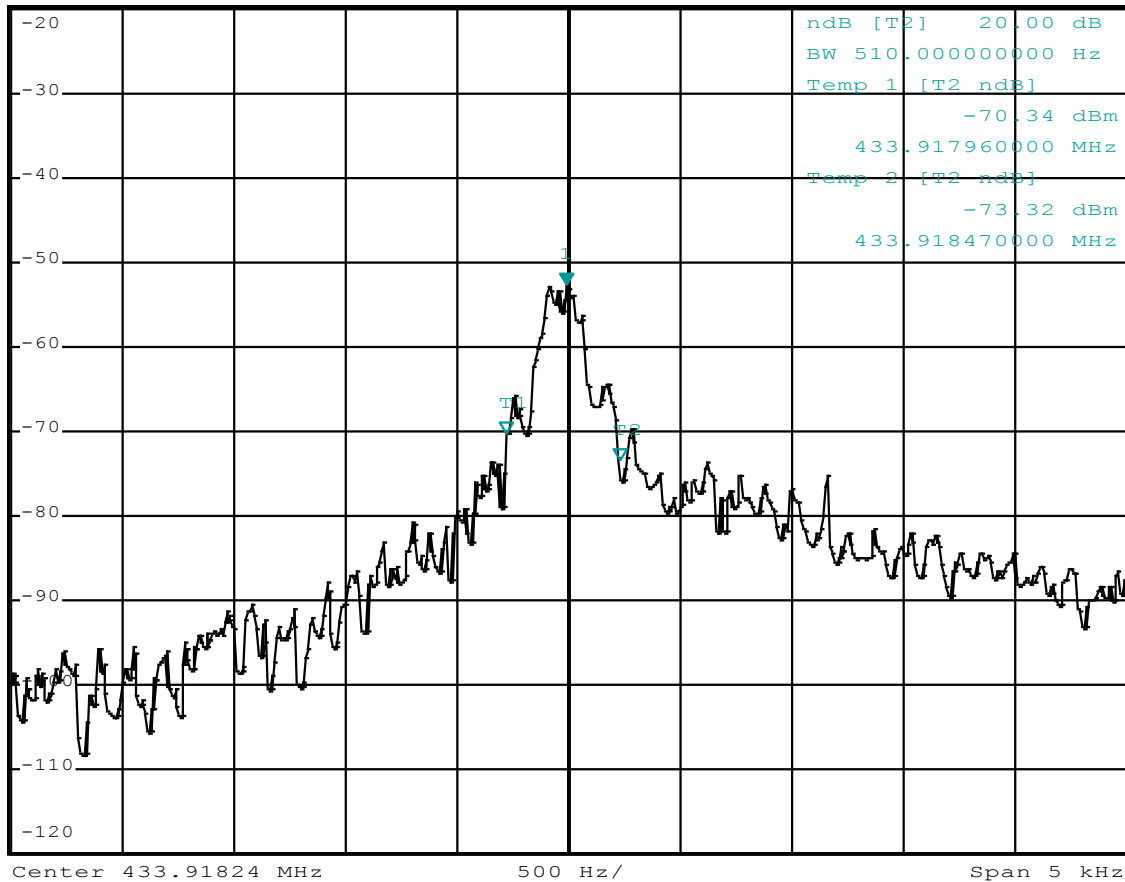
★ VBW 10 kHz

SWT 5.6 s

Marker 1 [T2]

-52.57 dBm

433.918230000 MHz

2 PK
VIEW

Date: 21.DEC.2018 15:24:02

20dB BW = 510Hz



8 Radiated Spurious Emissions (Transmitter)

8.1 Test Limits

§ 15.231(a): The provisions of this section are restricted to periodic operation within the band 40.66-40.70 MHz and above 70 MHz. Except as shown in paragraph (e) of this section, the intentional radiator is restricted to the transmission of a control signal such as those used with alarm systems, door openers, remote switches, etc. Continuous transmissions, voice, video and the radio control of toys are not permitted. Data is permitted to be sent with a control signal. The following conditions shall be met to comply with the provisions for this periodic operation

(2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.

(4) Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition.

(b) In addition to the provisions of §15.205, the field strength of emissions from intentional radiators operated under this section shall not exceed the following:

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emissions (microvolts/meter)
40.66-40.70	2,250	225
70-130	1,250	125
130-174	¹ 1,250 to 3,750	¹ 125 to 375
174-260	3,750	375
260-470	¹ 3,750 to 12,500	¹ 375 to 1,250
Above 470	12,500	1,250

¹Linear interpolations.

(1) The above field strength limits are specified at a distance of 3 meters. The tighter limits apply at the band edges.

(2) Intentional radiators operating under the provisions of this section shall demonstrate compliance with the limits on the field strength of emissions, as shown in the above table, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector. The specific method of measurement employed shall be specified in the application for equipment authorization. If average emission measurements are employed, the provisions in §15.35 for averaging pulsed emissions and for limiting peak emissions apply. Further, compliance with the provisions of §15.205 shall be demonstrated using the measurement instrumentation specified in that section.

(3) The limits on the field strength of the spurious emissions in the above table are based on the fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in §15.209, whichever limit permits a higher field strength.

**Part 15.205(a): Restricted Bands of Operations**

MHz	MHz	MHz	GHz
0.090–0.110	16.42–16.423	399.9–410	4.5–5.15
1.0495–0.505	16.69475–16.69525	608–614	5.35–5.46
2.1735–2.1905	16.80425–16.80475	960–1240	7.25–7.75
4.125–4.128	25.5–25.67	1300–1427	8.025–8.5
4.17725–4.17775	37.5–38.25	1435–1626.5	9.0–9.2
4.20725–4.20775	73–74.6	1645.5–1646.5	9.3–9.5
6.215–6.218	74.8–75.2	1660–1710	10.6–12.7
6.26775–6.26825	108–121.94	1718.8–1722.2	13.25–13.4
6.31175–6.31225	123–138	2200–2300	14.47–14.5
8.291–8.294	149.9–150.05	2310–2390	15.35–16.2
8.362–8.366	156.52475–156.52525	2483.5–2500	17.7–21.4
8.37625–8.38675	156.7–156.9	2655–2900	22.01–23.12
8.41425–8.41475	162.0125–167.17	3260–3267	23.6–24.0
12.29–12.293	167.72–173.2	3332–3339	31.2–31.8
12.51975–12.52025	240–285	3345.8–3358	36.43–36.5
12.57675–12.57725	322–335.4	3600–4400	(²)
13.36–13.41.			

¹ Until February 1, 1999, this restricted band shall be 0.490–0.510 MHz.² Above 38.6**Part 15.209(a): Field Strength Limits for Restricted Bands of Operation**

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2,400 / F (kHz)	300
0.490 - 1.705	24,000 / F (kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3



8.2 Test Procedure

ANSI C63.10: 2013

8.3 Example of Field Strength Calculation Method:

The measured field strength was calculated by summing the readings taken from the spectrum analyzer with the appropriate correction factors associated with the antenna losses and cable losses. The calculation formula and sample calculations are listed below:

Formula:

$$FS = RA + AF + CF + DCCF$$

FS = Field Strength in dB μ V/m

RA = Receiver Amplitude in dB μ V

AF = Antenna Factor in dB

CF = Cable Attenuation Factor in dB (Including preamplifier and filter attenuation)

DCCF = Duty Cycle Correction Factor (used for average measurements only)

$$DCCF = 20 \cdot \log(\text{Time on}/100\text{ms})$$

Example Calculation:

RA = 19.48 dB μ V

AF = 18.52 dB

CF = 0.78 dB

DCCF = -20 dB

$$FS = 19.48 + 18.52 + 0.78 - 20 = 18.78 \text{ dB}\mu\text{V/m}$$

8.4 Test Equipment Used:

Description	Asset	Manufacturer	Model	Cal Date	Cal Due
EMI Test Receiver	3900	Rohde & Schwarz	ESU40	9/18/2018	9/18/2019
Bilog Antenna	7088	SunAR	JB6	7/24/2018	7/24/2019
Horn Antenna	3780	ETS Lindgren	3117	6/11/2018	6/11/2019
System Controller	4096	ETS Lindgren	2090	Verify at Time of Use	Verify at Time of Use
System Controller	3957	Sunol Sciences	SC99V	Verify at Time of Use	Verify at Time of Use
3m Cable Antenna→Preamp	3074			11/26/2018	11/26/2019
3m Cable Preamplifier	3918	Rohde & Schwarz	TS-PR18	11/26/2018	11/26/2019
3m Cable Preamp→Chamber	2588			11/26/2018	11/26/2019
3m Cable Chamber→Control Room	2593			11/26/2018	11/26/2019
3m Cable Control Room→Receiver	2592			11/26/2018	11/26/2019



8.5 Results:

All fundamental and spurious emissions not falling into the restricted bands met the limits outlined in FCC Part 15.231(b). Additionally, all emissions falling within restricted bands of operation were found to be below the limit specified in Part 15.209(a). The emissions listed in the following tables are the worst case emissions and were investigated with the sample positioned in three orthogonal axis in order to report the highest possible field strength.

Worst Case Spurious Measurements – Beacon Mode

Fundamental

Frequency (MHz)	QuasiPeak (dBμV/m)	Duty Cycle Corr.	Final Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
433.940000	99.96	-20	79.96	80.83	0.87	120.000	112.1	V	322.0	26.2

Spurious Emissions Below 1GHz

Frequency (MHz)	QuasiPeak (dBμV/m)	Duty Cycle Corr.	Final Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
867.780000	44.75	0	44.75	60.83	16.08	120.000	146.5	H	210.0	33.7

Spurious Emissions Above 1GHz(Max Peak)

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1301.500000	56.94	74.00	17.06	1000.000	314.0	V	258.0	-1.7
1735.500000	65.93	80.83	14.90	1000.000	141.0	H	316.0	-0.6
2169.500000	59.82	80.83	21.01	1000.000	244.0	V	190.0	2.0
2603.500000	61.89	80.83	18.94	1000.000	133.0	V	0.0	3.4
3071.500000	39.86	80.83	40.97	1000.000	100.0	H	157.0	4.4
3471.000000	52.07	80.83	28.76	1000.000	316.0	V	156.0	4.8
3905.000000	54.83	74.00	19.17	1000.000	339.0	V	145.0	5.7
4338.500000	52.26	74.00	21.74	1000.000	253.0	V	182.0	6.2
4773.500000	59.81	74.00	14.19	1000.000	265.0	V	134.0	7.1
5207.500000	63.87	80.83	16.96	1000.000	254.0	V	151.0	7.7
5640.500000	56.61	80.83	24.22	1000.000	287.0	V	130.0	8.2
6074.500000	53.94	80.83	26.89	1000.000	340.0	V	124.0	9.4
6509.500000	53.83	80.83	27.00	1000.000	221.0	V	128.0	10.1
6943.000000	55.15	80.83	25.68	1000.000	323.0	V	136.0	10.8
7376.000000	51.23	74.00	22.77	1000.000	100.0	V	156.0	10.9
7811.000000	52.46	80.83	28.37	1000.000	109.0	V	158.0	11.4

Spurious Emissions Above 1GHz(Average, MaxPeak minus Duty Cycle Correction Factor)

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1301.500000	36.94	54.00	17.06	1000.000	314.0	V	258.0	-1.7
1735.500000	45.93	60.83	14.90	1000.000	141.0	H	316.0	-0.6
2169.500000	39.82	60.83	21.01	1000.000	244.0	V	190.0	2.0
2603.500000	41.89	60.83	18.94	1000.000	133.0	V	0.0	3.4
3071.500000	19.86	60.83	40.97	1000.000	100.0	H	157.0	4.4
3471.000000	32.07	60.83	28.76	1000.000	316.0	V	156.0	4.8
3905.000000	34.83	54.00	19.17	1000.000	339.0	V	145.0	5.7
4338.500000	32.26	54.00	21.74	1000.000	253.0	V	182.0	6.2
4773.500000	39.81	54.00	14.19	1000.000	265.0	V	134.0	7.1
5207.500000	43.87	60.83	16.96	1000.000	254.0	V	151.0	7.7
5640.500000	36.61	60.83	24.22	1000.000	287.0	V	130.0	8.2
6074.500000	33.94	60.83	26.89	1000.000	340.0	V	124.0	9.4
6509.500000	33.83	60.83	27.00	1000.000	221.0	V	128.0	10.1
6943.000000	35.15	60.83	25.68	1000.000	323.0	V	136.0	10.8
7376.000000	31.23	54.00	22.77	1000.000	100.0	V	156.0	10.9
7811.000000	32.46	60.83	28.37	1000.000	109.0	V	158.0	11.4

**Worst Case Spurious Measurements – Ping Mode**
Using limits defined in FCC Part 15.231(e)**Fundamental**

Frequency (MHz)	QuasiPeak (dBµV/m)	Duty Cycle Corr.	Final Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
433.920000	82.24	-18.85	63.39	72.86	13.72	120.000	106.6	V	210.0	26.2

Spurious Emissions Below 1GHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Duty Cycle Corr.	Final Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
866.940000	42.07	0	42.07	52.86	10.79	120.000	153.4	H	238.0	33.7

Spurious Emissions Above 1GHz(Max Peak)

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1301.500000	54.72	72.86	18.14	1000.000	202.0	H	92.0	-1.7
1735.500000	39.86	72.86	33.00	1000.000	330.0	H	268.0	-0.6
1837.000000	37.04	72.86	35.82	1000.000	410.0	H	345.0	0.8
2169.500000	43.31	72.86	29.55	1000.000	167.0	V	72.0	2.0
2603.500000	47.18	72.86	25.68	1000.000	133.0	V	84.0	3.4
3037.500000	43.53	72.86	29.33	1000.000	167.0	V	80.0	4.2
3471.000000	42.76	72.86	30.10	1000.000	109.0	V	66.0	4.8
3905.000000	44.32	72.86	28.54	1000.000	263.0	V	73.0	5.7
4339.000000	46.54	72.86	26.32	1000.000	100.0	V	90.0	6.2
4773.000000	50.33	72.86	22.53	1000.000	100.0	V	86.0	7.1
5207.000000	54.05	72.86	18.81	1000.000	202.0	V	101.0	7.7
17624.000000	57.49	72.86	15.37	1000.000	100.0	V	0.0	24.9

Spurious Emissions Above 1GHz(Average MaxPeak minus Duty Cycle Correction Factor)

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1301.500000	35.87	52.86	16.99	1000.000	202.0	H	92.0	-1.7
1735.500000	21.01	52.86	31.85	1000.000	330.0	H	268.0	-0.6
1837.000000	18.19	52.86	34.67	1000.000	410.0	H	345.0	0.8
2169.500000	24.46	52.86	28.40	1000.000	167.0	V	72.0	2.0
2603.500000	28.33	52.86	24.53	1000.000	133.0	V	84.0	3.4
3037.500000	24.68	52.86	28.18	1000.000	167.0	V	80.0	4.2
3471.000000	23.91	52.86	28.95	1000.000	109.0	V	66.0	4.8
3905.000000	25.47	52.86	27.39	1000.000	263.0	V	73.0	5.7
4339.000000	27.69	52.86	25.17	1000.000	100.0	V	90.0	6.2
4773.000000	31.48	52.86	21.38	1000.000	100.0	V	86.0	7.1
5207.000000	35.20	52.86	17.66	1000.000	202.0	V	101.0	7.7
17624.000000	38.64	52.86	14.22	1000.000	100.0	V	0.0	24.9



9 Antenna Requirement per FCC Part 15.203

9.1 Test Limits

§ 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

9.2 Results:

The sample tested met the antenna requirement. The antenna used was permanently attached to the PCB.



10 Measurement Uncertainty

The measured value related to the corresponding limit will be used to decide whether the equipment meets the requirements.

The measurement uncertainty figures were calculated and correspond to a coverage factor of $k = 2$, providing a confidence level of respectively 95.45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian).

Measurement uncertainty Table

Parameter	Uncertainty	Notes
Radiated emissions, 30 to 1000 MHz	$\pm 3.9\text{dB}$	
Radiated emissions, 1 to 18 GHz	$\pm 4.2\text{dB}$	
Radiated emissions, 18 to 40 GHz	$\pm 4.3\text{dB}$	
Power Port Conducted emissions, 150kHz to 30 MHz	$\pm 2.8\text{dB}$	



11 Revision History

Revision Level	Date	Report Number	Notes
0	1/17/2019	103788844LEX-003	Original Issue
1	3/1/2019	103788844LEX-003.1	Added limits for restricted bands of operation
2	4/5/2019	103788844LEX-003.2	Changed Average Results in Section 8.5 to utilize the duty cycle correction factors
3	4/10/2019	103788844LEX-003.3	Added reference to operational description, changed ping mode to reference 15.231(e) limits