

Technical Information

APPLICANT	MANUFACTURER
Name: <u>CRN Telemetry Devices, Inc.</u>	Name: <u>CRN Telemetry Devices, Inc.</u>
Address: <u>1515 Middle Country Road</u>	Address: <u>1515 Middle Country Road</u>
City, State, Zip: <u>Centereach, NY 11720</u>	City, State, Zip: <u>Centereach, NY 11720</u>

TEST SPECIFICATION: FCC Rules and Regulations Part 90

TEST SAMPLE DESCRIPTION

BRANDNAME(s): CRN Telemetry Devices, Inc.

MODEL(s): CRNSS7

FCC ID: ITCCRNSBU

TYPE: Frequency Modulated (FM)

POWER REQUIREMENTS: 12 VDC

FREQUENCY OF OPERATION: 466.3876 MHz

APPLICABLE RULE SECTION: Part 90

TESTS PERFORMED

- **2.1046** RF Power Output
- **2.1047** Modulation Characteristics
- **2.1049** Occupied Bandwidth
- **2.1051** Spurious Emissions at Antenna Terminals
- **2.1053** Field Strength of Spurious Radiation
- **2.1055** Frequency Stability
- **90.2154** Transient Frequency Behavior

TEST RESULTS

2.1046 RF Power Output

The RF Power Output of the EUT was measured with the transmitter adjusted for maximum power output. The highest observed power output was measured to be 1.47 Watts. The measured power output is in compliance with the requirements specified in section 90.205h of the FCC Rules.

2.1047 Modulation Characteristics

The curve showing the frequency response of its audio low pass filter is enclosed.

2.1049 Occupied Bandwidth

The Occupied Bandwidth of the transmitter was measured and found to be 10 kHz. Utilizing this Bandwidth, the transmitter complied with the requirements for Emissions Mask B contained in section 90.210(b) and the Bandwidth Limitations of section 90.209.

2.1051 Spurious Emissions at Antenna Terminals

The Spurious Emissions present at the antenna terminals were measured over the frequency range of 30 MHz to 5 GHz (ten times the operating frequency) in accordance with section 2.1057. Spurious emissions were attenuated at least $43 + 10 \log P$ (Watts) from the carrier as required by sections 90.209 and 90.210.

2.1053 Field Strength of Spurious Radiation

The Field Strength of Spurious Radiation was measured over the frequency range of 30 MHz to 5 GHz. All spurious emissions complied with the requirements of sections 90.209 and 90.210.

2.1054 Frequency Stability

The frequency stability of the transmitter was measured over temperature extremes of -30° to $+50^{\circ}$ C and with the input voltages varied from 85 to 115%. The EUT carrier frequency was found to remain within the 5 ppm tolerance as specified in section 90.213(a).

2.1055 Transient Frequency Behavior

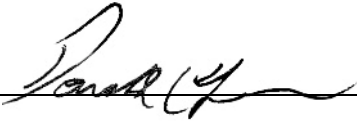
The transient frequency behavior was measured. No Transient emissions were observed.

GENERAL NOTES

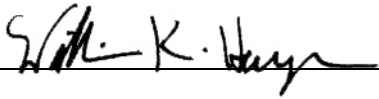
1. The DC input was varied from 85% to 115% of the rated input. Field strength measurements were taken with the DC input adjusted to produce maximum emissions.
2. All user accessible controls were adjusted to produce maximum emissions.
3. The unit operates at the following frequencies:
 - 466.3876 MHz
4. The unit was tested at the following frequencies:
 - 466.3876 MHz
5. The frequency range was scanned from 30 MHz to 5 GHz. All emissions not reported were more than 20 dB below the specified limit.
6. To comply with the spurious radiation limits, the original antenna was replaced with model TQX-400/1.5 antenna.

Certification and Signatures

We certify that this report is a true representation of the results obtained from the tests of the equipment stated. We further certify that the measurements shown in this report were made in accordance with the procedures indicated and vouch for the qualifications of all Retlif Testing Laboratories personnel taking them.



Donald C. Lerner
EMC Test Engineer



William K. Hayes
Executive Vice President

Non-Warranty Provision

The testing services have been performed, findings obtained and reports prepared in accordance with generally accepted laboratory principles and practices. This warranty is in lieu of all others, either expressed or implied.

Non-Endorsement

This test report contains only findings and results arrived at after employing the specific test procedures and standards listed herein. It is not intended to constitute a recommendation, endorsement or certification of the product or material tested. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

FCC 2.1046, RF Power Output

Measurement Procedure:

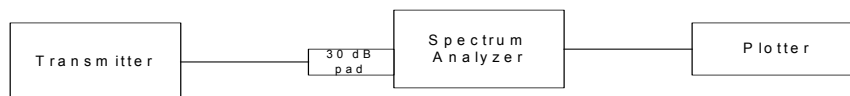
The RF output of the test sample was connected through external attenuators to a spectrum analyzer using a 3MHz resolution bandwidth. The power output was measured for the unmodulated carrier frequency with the EUT being supplied with a low voltage, nominal voltage, and high voltage.

Direct Connection:

Equipment Required:

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
1259	30 DB Atten.	Narda	dc - 18GHz	776B-30	6/12/2008	6/12/2009
5201	Digital Multimeter	Wavetek	N/A	DM25XT	7/9/2008	7/9/2009
696	DC Power Supply	BK Precision	30V/3A	1730	9/14/2007	9/14/2009
712	EMI Test Receiver	Rohde & Schwarz	20 Hz - 26.5 GHz	ESIB26	9/11/2007	11/11/2008

Test Set Up:



**FCC Part 2, RF Power Output, Paragraph 2.1046
Test Data**

FCC 2.1047, Modulation Characteristics

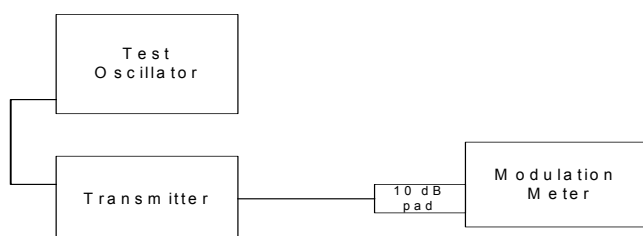
This unit contains an audio low pass filter. A curve showing the frequency response of the filter is attached.

Direct Connection:

Equipment Required:

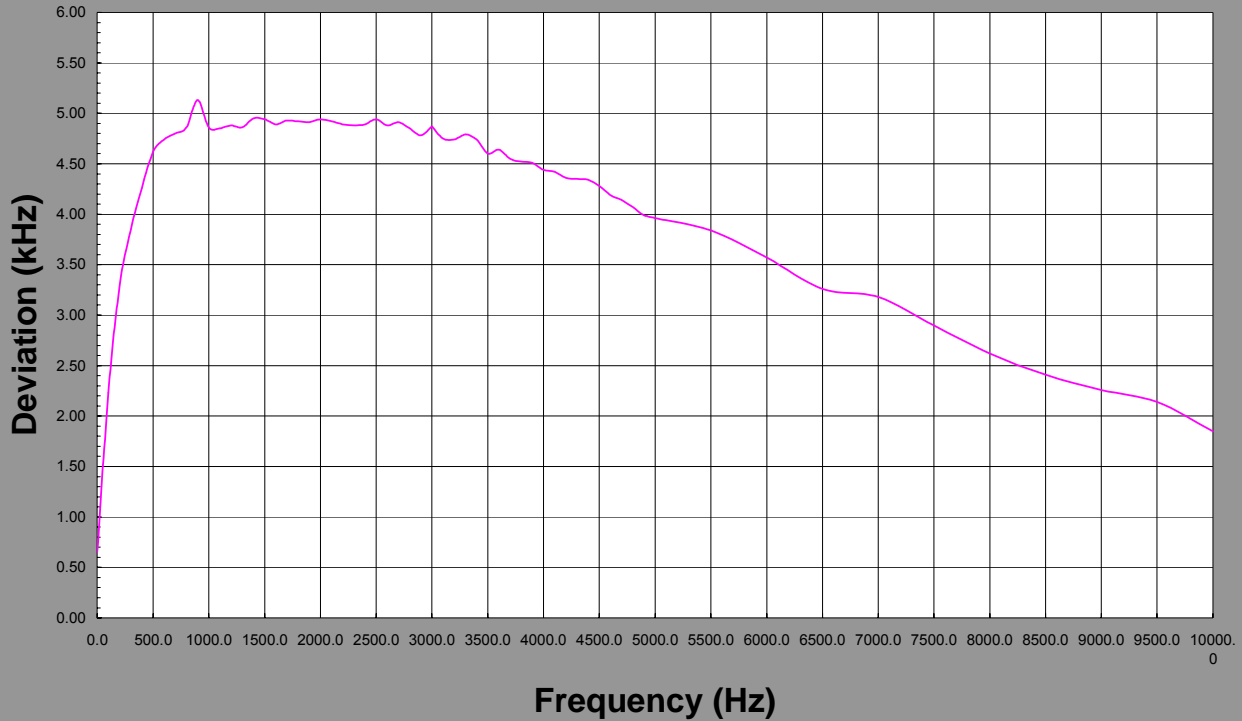
EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
1216	Oscilloscope	Tektronix	200 MHz	TDS 2022B	1/2/2008	1/2/2009
1254	20 DB Atten.	Narda	dc - 18GHz	776B-20	6/12/2008	6/12/2009
160	Function Generator	Hewlett Packard	.0005 Hz - 5 MHz	3310A	9/10/2008	9/10/2009
419	Modulation Meter	Boonton Electronics	.01 - 1.2 GHz	82AD	12/9/2008	12/9/2009
703	DC Power Supply	EPSCO INC.	16V8A/32V4A	EFB	1/15/2008	1/15/2009
762	AM/FM Signal Generator	Marconi Instru.	10 kHz - 1.2 GHz	2023	6/26/2008	6/26/2009

Test Setup:



**FCC Part 2.1047 Modulation Characteristics
Test Data**

Modulation Characteristic



FCC Part 2.1047 Modulation Characteristics

Note: Carrier frequency at 466.38 MHz.

Note: The modulating frequency was applied between the frequency range of 0 Hz to 10000 Hz.

Customer	CRN Telemetry Devices, Inc.	
Test Sample	UHF Alarm System Transmitter	
Part Number	N/A	FCC ID: ITCCRNSBU
Date: December 10, 2008	Tech: R.S	Sheet 1 of 1

FCC 2.1049, Occupied Bandwidth

Measurement Procedure:

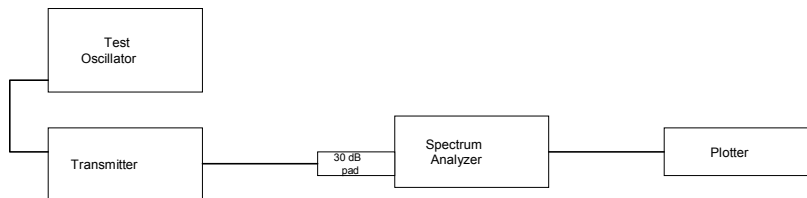
An audio signal was electrically coupled to the audio input terminals of the test sample. The RF output was monitored using a deviation meter. The audio input level was increased to produce 50% modulation. The RF output was then coupled through external attenuators to a spectrum analyzer and the audio level was increased by 16 dB. The occupied bandwidth of the RF carrier, modulated at 50% plus 16 dB, was then measured. The above procedure was performed with the audio input frequencies of 300 MHz, 2 kHz, and 4 kHz applied to the unit. The modulated signal must be within the template as specified by the applicable paragraph in Part 90.

Direct Connection:

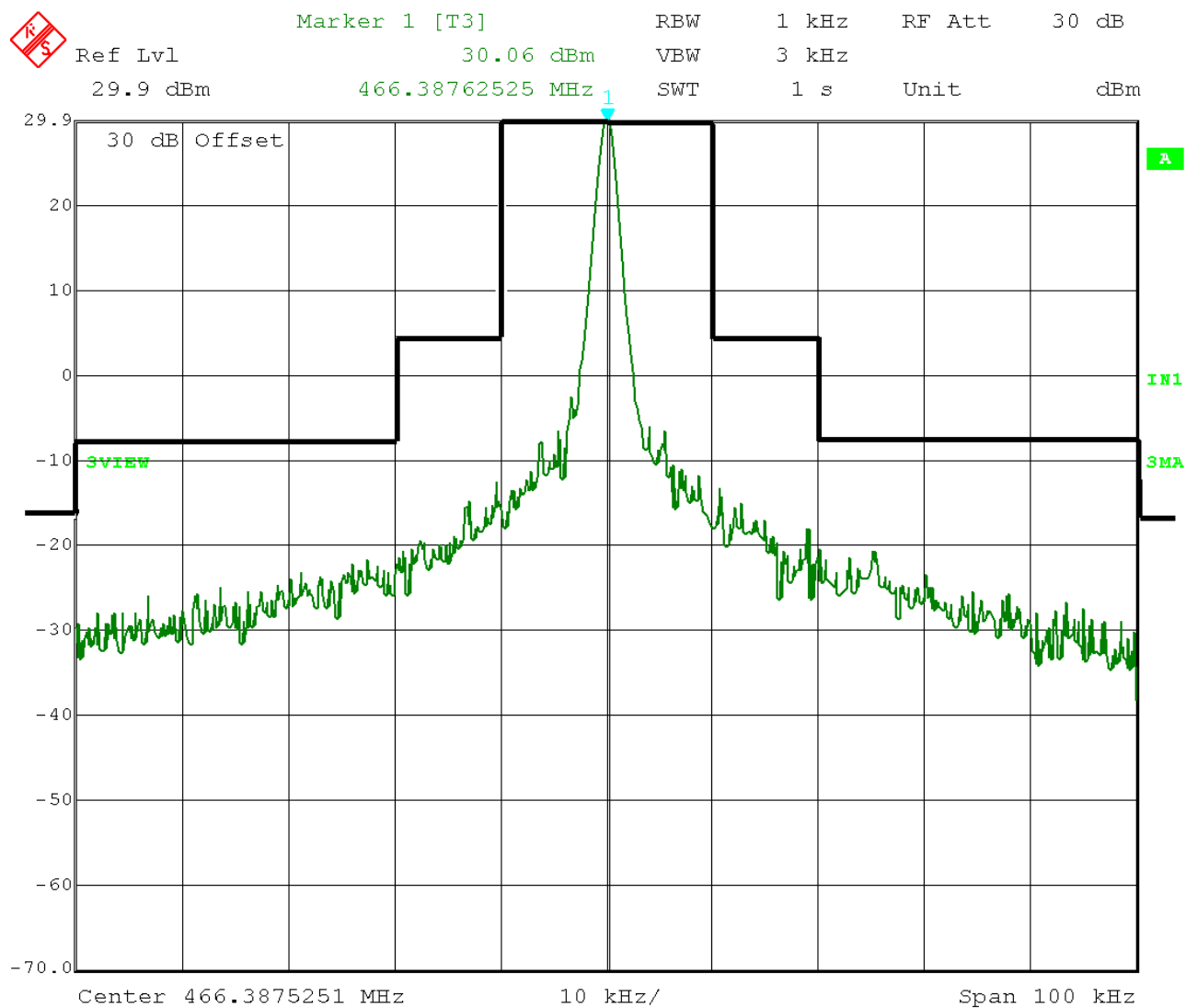
Equipment Required:

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
1086	Oscilloscope	Tektronix	DC - 500MHz	TDS3052B	3/12/2008	3/12/2009
1222	Arbitrary Waveform Gen.	Tegam Corporation		2720A	1/7/2008	1/7/2009
1259	30 DB Atten.	Narda	dc - 18GHz	776B-30	6/12/2008	6/12/2009
5201	Digital Multimeter	Wavetek	N/A	DM25XT	7/9/2008	7/9/2009
696	DC Power Supply	BK Precision	30V/3A	1730	9/14/2007	9/14/2009
712	EMI Test Receiver	Rohde & Schwarz	20 Hz - 26.5 GHz	ESIB26	9/11/2007	11/11/2008

Test Set Up:



**FCC Part 2, Paragraph 2.1049 Occupied Bandwidth,
Test Data**



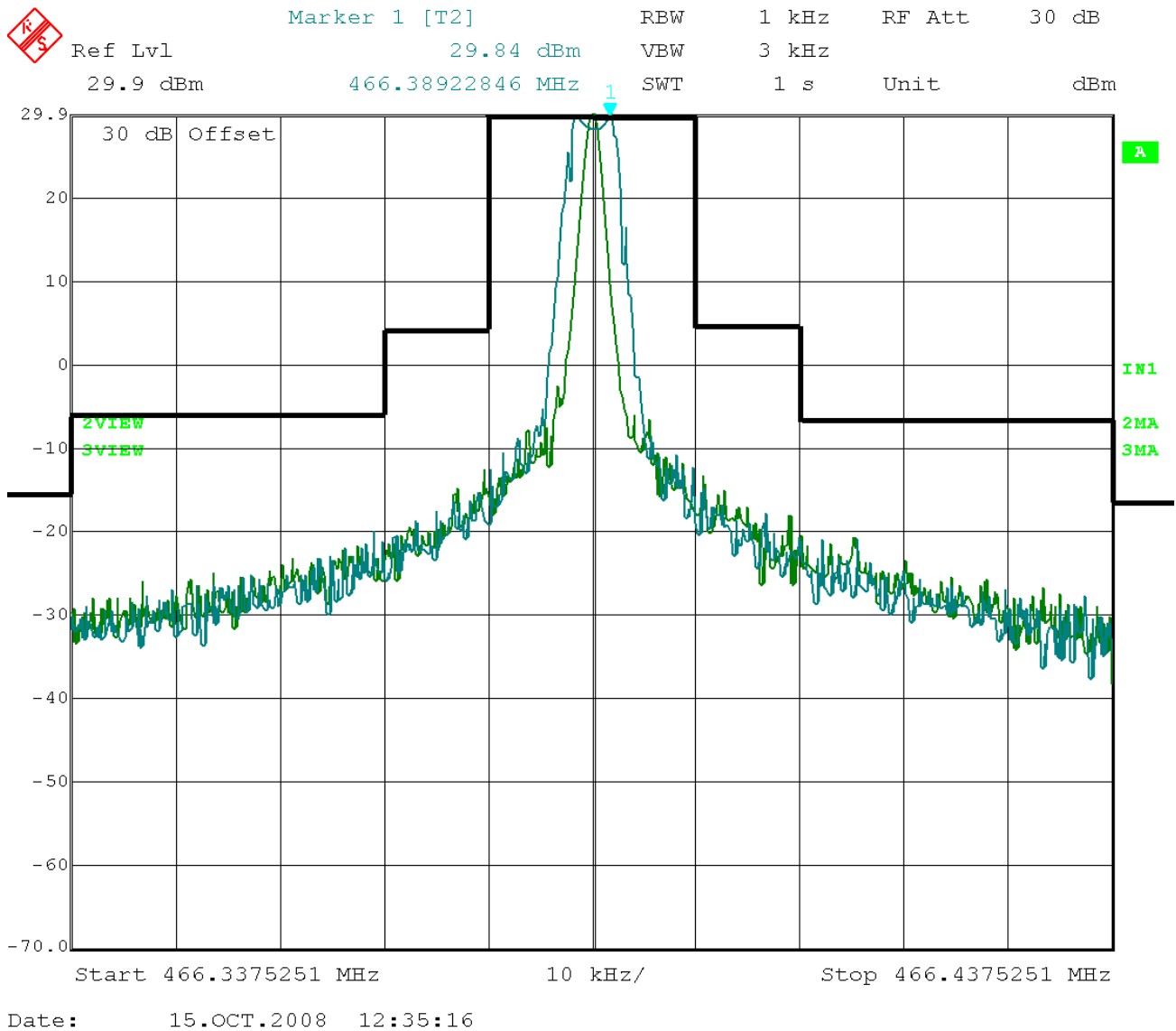
Date: 15.OCT.2008 12:47:58

FCC Part 2, Paragraph 2.1049 Occupied Bandwidth,

Note: Carrier frequency only at 466.38 MHz.

FCC ID: ITCCRNSBU

Customer	CRN Telemetry Devices, Inc.		
Test Sample	UHF Alarm System Transmitter		
Part Number	N/A		
Date: October 15, 2008	Tech: R.Soodoo	Sheet 1 of 4	



FCC Part 2, Paragraph 2.1049 Occupied Bandwidth,

Note: FCC Part 90: Paragraph 90.209 (1)(i) &(ii) 1V peak to peak, 300 Hz, Audio input.

FCC ID: ITCCRNSBU

Customer	CRN Telemetry Devices, Inc.		
Test Sample	UHF Alarm System Transmitter		
Part Number	N/A		
Date: October 15, 2008	Tech: R.Soodoo	Sheet 2 of 4	



Marker 1 [T3]

RBW

1 kHz

RF Att

30 dB

Ref Lvl

30.06 dBm

VBW

3 kHz

29.9 dBm

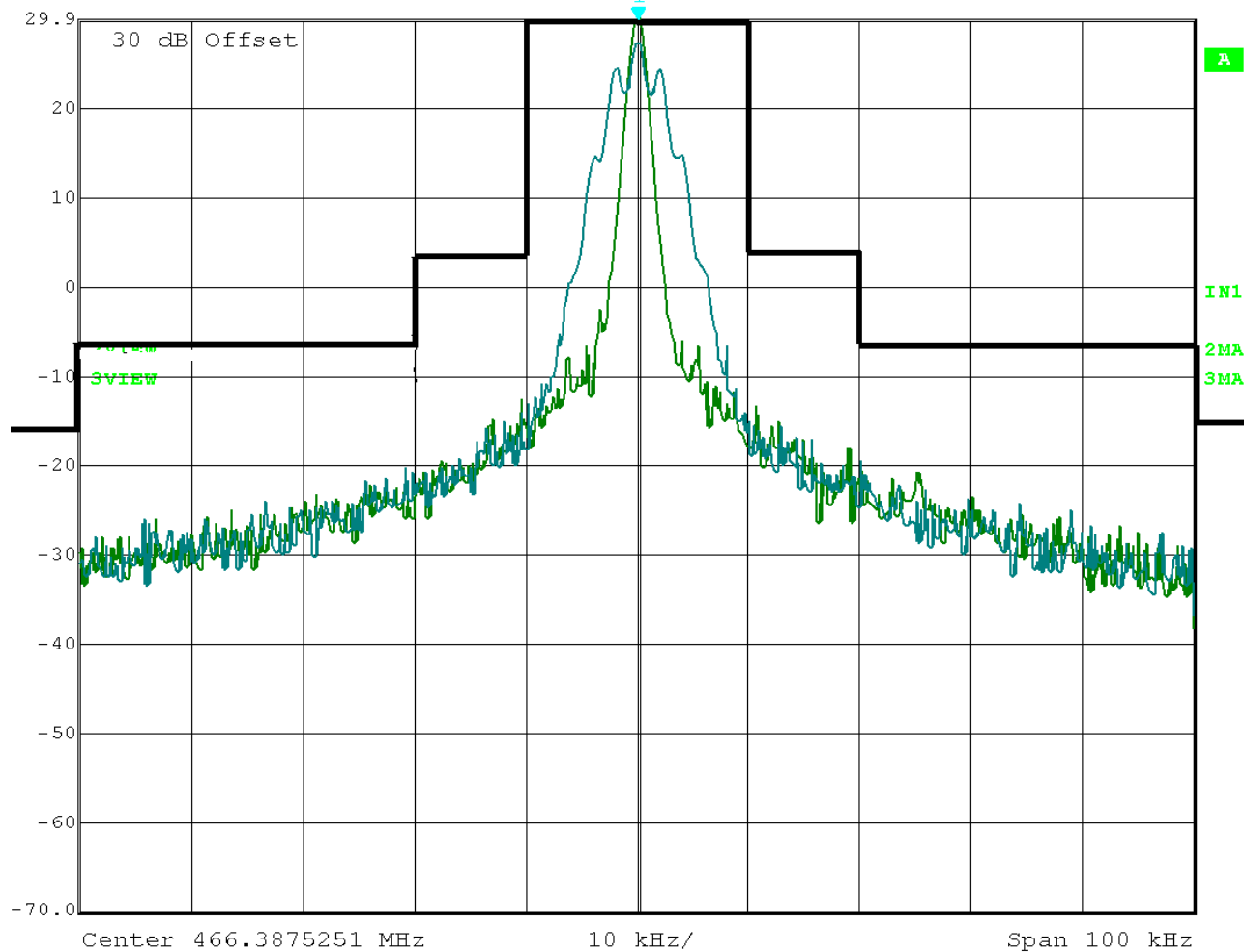
466.38762525 MHz

SWT

1 s

Unit

dBm



Date: 15.OCT.2008 12:42:43

FCC Part 2, Paragraph 2.1049 Occupied Bandwidth,**Note:** FCC Part 90: Paragraph 90.209 (1)(i) &(ii) 1V peak to peak, 2 kHz, Audio input.**FCC ID:** ITCCRNSBU

Customer	CRN Telemetry Devices, Inc.		
Test Sample	UHF Alarm System Transmitter		
Part Number	N/A		
Date: October 15, 2008	Tech: R.Soodoo	Sheet 3 of 4	



Marker 1 [T3]

RBW

1 kHz

RF Att

30 dB

Ref Lvl

30.06 dBm

VBW

3 kHz

29.9 dBm

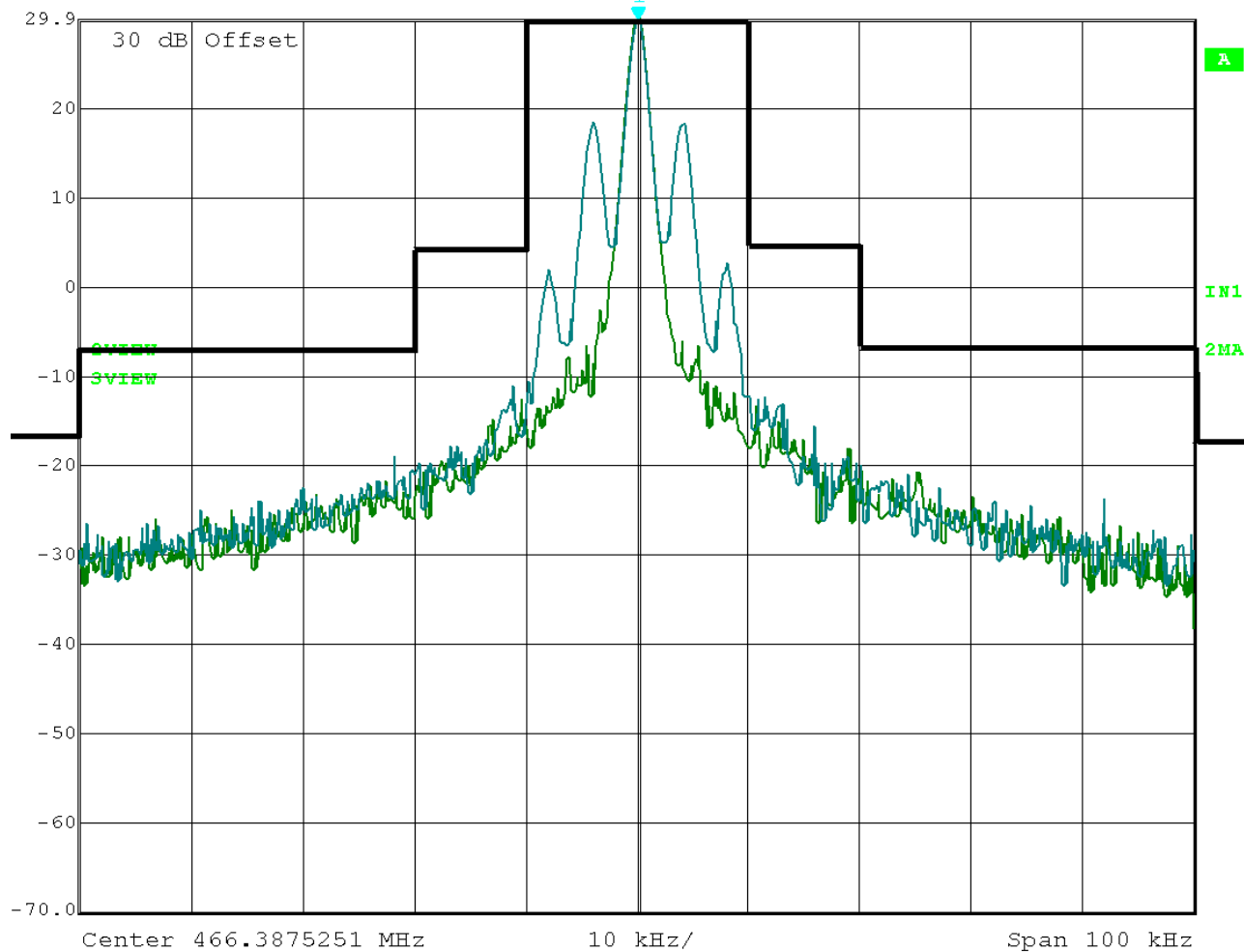
466.38762525 MHz

SWT

1 s

Unit

dBm



Date: 15.OCT.2008 12:45:31

FCC Part 2, Paragraph 2.1049 Occupied Bandwidth,**Note:** FCC Part 90: Paragraph 90.209 (1)(i) &(ii) 1V peak to peak, 4 kHz, Audio input.**FCC ID:** ITCCRNSBU

Customer	CRN Telemetry Devices, Inc.		
Test Sample	UHF Alarm System Transmitter		
Part Number	N/A		
Date: October 15, 2008	Tech: R.Soodoo	Sheet 4 of 4	

FCC 2.1051, Spurious Emissions at Antenna Terminals

Measurement Procedure:

The RF output of the test sample was coupled to a spectrum analyzer. The test sample was then modulated as stated in the occupied bandwidth test. The frequency range was scanned from the lowest frequency generated by the test sample to its harmonic. The limits for the spurious emissions are calculated utilizing the measured output power and the following equation:

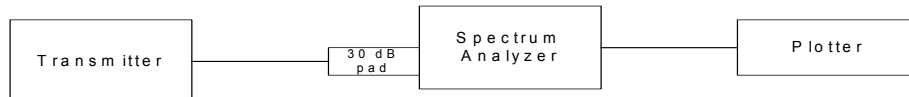
$$\text{Limit} = \text{Level of Fundamental} - (43 + 10 \log P_T)$$

Direct Connection:

Equipment Required:

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
1086	Oscilloscope	Tektronix	DC - 500MHz	TDS3052B	3/12/2008	3/12/2009
1222	Arbitrary Waveform Gen.	Tegam Corporation		2720A	1/7/2008	1/7/2009
5201	Digital Multimeter	Wavetek	N/A	DM25XT	7/9/2008	7/9/2009
696	DC Power Supply	BK Precision	30V/3A	1730	9/14/2007	9/14/2009
712	EMI Test Receiver	Rohde & Schwarz	20 Hz - 26.5 GHz	ESIB26	9/11/2007	11/11/2008

Test Set Up:

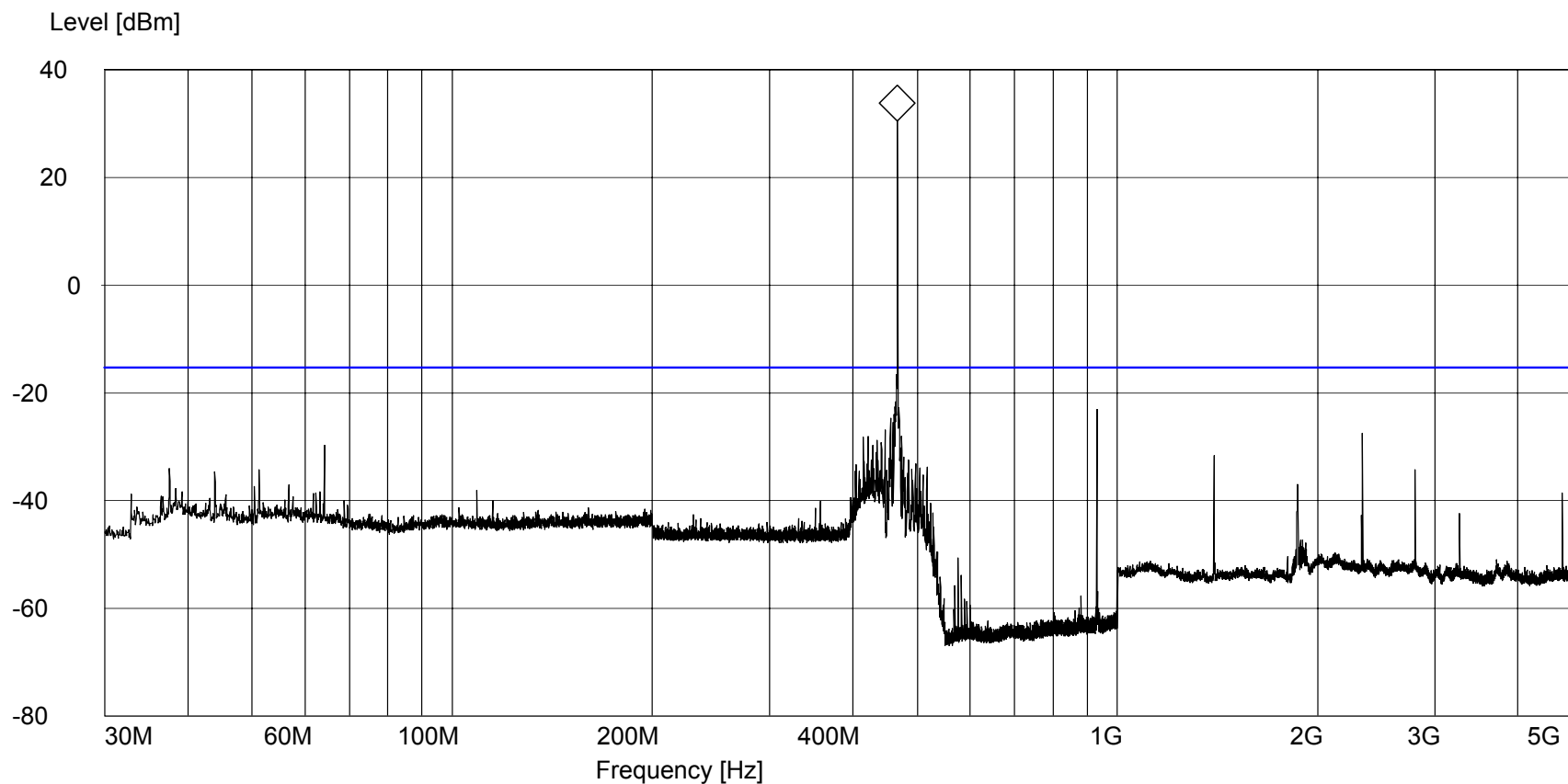


**FCC Part 2, Paragraph 2.1051, Antenna Spurious Emissions
30 MHz to 5.0 GHz
Test Data**

FCC Part 2, Antenna Spurious Emissions, 30 MHz to 5.0 GHz

Customer: CRN Telemetry Devices, Inc.
Test Sample: UHF Alarm System Transmitter
Part Number: N/A
FCC ID No.: ITCCRNSBU
Test Specification: FCC Part 2, paragraph 2.1051
Mode of Operation: Continuously transmitting a FM signal with a 2kHz 1V peak-peak audio signal.
Technician / Date: R.Soodoo / October 16, 2008.
Notes: Limit = Power output - (43 + 10 log PT) = 30.47-(43 + 10 log 2) = -15.3dBm
Notes: Limit line = -15.3dBm

Marker: 466.35 MHz 30.47 dBm



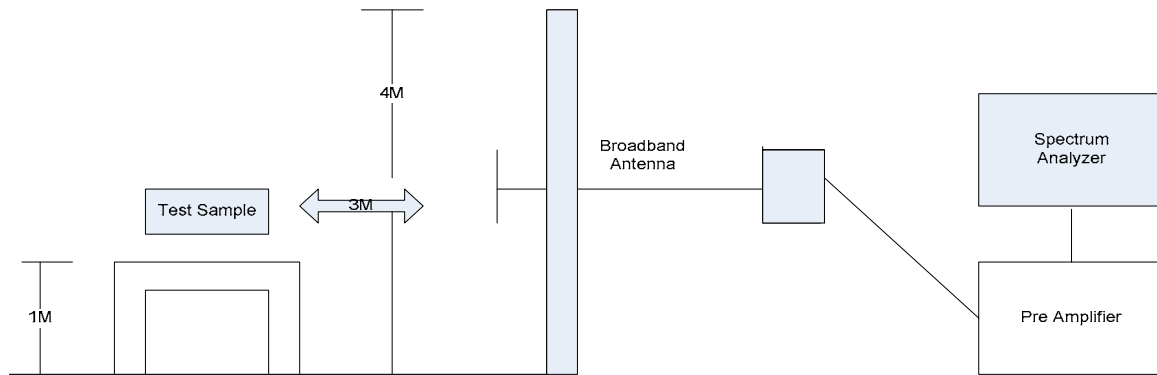
FCC Part 2, Radiated Spurious Emissions, 30 MHz to 5.0 GHz

Measurement Procedure:

The RF output of the test sample was terminated utilizing a shielded load. The test sample was then placed on a one meter high wooden test stand which was located three meters from the test antenna on an FCC listed test site. The frequency range scanned was from the lowest frequency generated by the test sample to its tenth harmonic. In order to maximize the level of each emission observed from the test sample, the tuned dipole antenna was tuned to the frequency of each emission and test sample was rotated 360 degrees. To further maximize each emission observed, the test antenna was both horizontally and vertically polarized, and then was raised and lowered from one to four meters from the ground plane. The limits for all of the spurious emissions were calculated utilizing the measured output power and the following equation:

$$\text{Limit (dB}\mu\text{V/M)} = 20 \log [(49.2 * P_T)^{1/2} / 3] - (43 + 10 \log P_T)$$

Test Set Up



Equipment Required:

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
1254	20 DB Atten.	Narda	dc - 18GHz	776B-20	6/12/2008	6/12/2009
319	Dummy Load	Bird Electronics	DC - 1 GHz, 50 Ohm	811152	6/2/2008	6/2/2009
520L	Digital Multimeter	Wavetek	N/A	25XT	7/7/2008	7/7/2009
7016	EMC Analyzer	Hewlett Packard	9kHz - 1.8GHz	8591EM	8/8/2008	8/8/2009
733A	DC Power Supply	Electro	0-8/0-16 volts, 10A	D-612T	3/3/2008	3/3/2010
810	Temperature Chamber	Tenney Engineering	-40 to 100 deg C	T5S-5	7/29/2008	7/29/2009
965	High Power Dir Coupler	Werlatone Inc.	10 kHz - 1 GHz	C5571-13	1/26/2008	1/26/2009

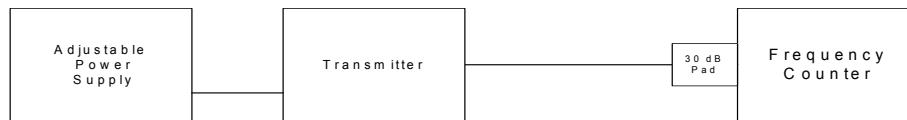
**FCC Part 2, Radiated Spurious Emissions, 30 MHz to 5.0 GHz,
Paragraph 2.1053
Retest Data**

Test Method:	FCC Part 2, Radiated Spurious Emissions, 30 MHz to 5.0 GHz, Paragraph 2.1053 Retest.						
Customer:	CRN Telemetry Devices, Inc.				Job No.:	R-12661	
Test Sample:	UHF Alarm System Transmitter						
Model No.:	N/A				Serial No.:	N/A	
FCC ID No.:	ITCCRNSBU						
Operating Mode:	Continuously transmitting a CW signal at center frequency.						
Technician:	R.Soodoo				Date:	November 7, 2008.	
Notes:	Test Distance: 3 Meters Temp: 24.0°C Humidity: 67.0 % Detector: Peak						
Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	Limit
MHz	(V/H) / Meters	x / y / z	dBuV	dB	dBuV/m	uV/m	uV/m
30.00							16596.0
271.4	H / 1.2	X	51.5	-5.0	46.5	211.3	
280.4	V / 1.0	X	55.1	-5.0	50.1	319.9	
377.4	V / 1.0	X	60.1	-1.5	58.6	851.1	
416.0	V / 1.0	X	59.1	-0.8	58.3	822.2	
497.6	H / 2.3	X	57.7	1.1	58.8	871.0	
932.7	V / 1.1	X	47.1	23.6	70.7	3427.7	
1400.0	V / 1.0	X	66.8	1.2	68.0	2511.9	
1865.0	H / 2.2	X	80.3	2.5	82.8	13803.8	
2331.0	V / 1.0	X	64.2	4.0	68.2	2570.4	
2798.0	V / 1.4	X	53.1	5.9	59.0	891.3	
5000.0							16596.0
	The frequency range was scanned from 30 MHz to 5.0 GHz.						
	The emissions observed from the EUT do not exceed the specified limits.						

FCC Part 2, Radiated Spurious Emissions, 30 MHz to 5.0 GHz, Paragraph 2.1053 Retest.							
Test Method:							
Customer:		CRN Telemetry Devices,Inc.			Job No.:		R-12661
Test Sample:		UHF Alarm System Transmitter					
Model No.:		N/A			Serial No.:		N/A
FCC ID No.:		ITCCRNSBU					
Operating Mode:		Continuously transmitting a CW signal at center frequency.					
Technician:		R.Soodoo			Date:		November 7, 2008.
Notes:		Test Distance: 3 Meters Detector: Peak			Temp: 24.0°C		Humidity:67.0 %
Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	Limit
MHz	(V/H) / Meters	x / y / z	dBuV	dB	dBuV/m	uV/m	uV/m
30.00							16596.0
271.4	H / 1.7	Y	55.9	-5.1	50.8	346.7	
279.8	V / 1.0	Y	54.4	-5.1	49.3	291.7	
377.9	H / 1.7	Y	65.2	-1.5	63.7	1531.1	
378.2	I / 1.0	Y	60.3	-1.5	58.8	871.0	
403.4	H / 1.7	Y	61.7	-0.7	61.0	1122.0	
416.7	V / 1.0	Y	58.9	-0.8	58.1	803.5	
503.9	H / 1.0	Y	56.5	1.1	57.6	758.6	
932.7	V / 1.0	Y	49.9	26.3	76.2	6456.5	
1400.0	V / 1.0	Y	65.8	1.2	67.0	2238.7	
1865.0	V / 1.0	Y	81.0	2.5	83.5	14962.4	
2331.0	V / 1.3	Y	64.6	4.0	68.6	2691.5	
2798.0	V / 1.8	Y	55.4	5.9	61.3	1161.4	
5000.0							16596.0
The frequency range was scanned from 30 MHz to 5.0 GHz.							
The emissions observed from the EUT do not exceed the specified limits.							

Test Method:		FCC Part 2, Radiated Spurious Emissions, 30 MHz to 5.0 GHz, Paragraph 2.1053 Retest.						
Customer:		CRN Telemetry Devices,Inc.			Job No.:		R-12661	
Test Sample:		UHF Alarm System Transmitter						
Model No.:		N/A			Serial No.:		N/A	
FCC ID No.:		ITCCRNSBU						
Operating Mode:		Continuously transmitting a CW signal at center frequency.						
Technician:		R.Soodoo			Date:		November 7, 2008.	
Notes:		Test Distance: 3 Meters Detector: Peak			Temp: 24.0°C		Humidity:67.0 %	
Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	Limit	
MHz	(V/H) / Meters	x / y / z	dBuV	dB	dBuV/m	uV/m	uV/m	
30.00							16596.0	
271.0	V / 1.6	Z	51.6	-5.0	46.6	213.8		
280.0	V / 1.6	Z	54.2	-5.0	49.2	288.4		
288.4	V / 1.6	Z	52.1	-5.0	47.1	226.5		
369.0	V / 1.0	Z	60.0	-1.5	58.5	841.4		
377.4	V / 1.0	Z	64.0	-1.5	62.5	1333.5		
415.0	V / 1.0	Z	60.8	-0.8	60.0	1000.0		
503.9	V / 1.0	Z	58.7	1.1	59.8	977.2		
932.7	V / 1.4	Z	50.5	23.6	74.1	5069.9		
1400.0	V / 1.3	Z	66.1	1.2	67.3	2317.4		
1865.0	H / 1.5	Z	80.8	2.5	83.3	14621.8		
2331.0	H / 1.2	Z	58.0	4.0	62.0	1258.9		
2798.0	H / 1.4	Z	58.9	5.9	64.8	1737.8		
5000.0							16596.0	
The frequency range was scanned from 30 MHz to 5.0 GHz.								
The emissions observed from the EUT do not exceed the specified limits.								

FCC Part 90.213 Frequency Stability



Test Procedure:

1. Connect the antenna output to the frequency counter with the 30 dB attenuator in line.
2. Power the frequency counter and allow to warm up.
3. Adjust the power supply to nominal voltage and take a frequency reading and list.
4. Adjust the power supply to be 85% of nominal voltage and take a frequency reading.
5. Adjust the power supply to be 115% of nominal voltage and take a frequency reading.
6. Verify all readings are within the specified tolerance parameters.

**FCC Part 90.213 Frequency Stability
Test Data**

Test Method:	FCC Part 90.213 Frequency Stability				
Customer:	CRN Telemetry Devices, Inc.			Job No.:	R-12661
Test Sample	UHF Alarm System Transmitter				
Model Number	N/A				
FCC ID. Number	ITCCRNSBU				
Serial Number	N/A				
Operating Mode:	Continuously transmitting a CW signal at center frequency.				
Technician:	D. Lerner			Date:	December 9, 2008.
Notes:	Carrier Frequency: 466.3876 MHz Limit = +/- 5ppm $L = (f * 5\text{ppm}) / 10^6 = 2331.9 \text{ Hz}$				
Temperature	Input Voltage	% Nominal Input Voltage	Lower Limit Frequency	Meter Reading	Upper Limit Frequency
Degrees °C	V		MHz	MHz	MHz
23.0	10.2	85%	466.3852	466.3876	466.3899
23.0	12.0	100%	466.3852	466.3876	466.3899
23.0	13.8	115%	466.3852	466.3876	466.3899
-30.0	10.2	85%	466.3852	466.3876	466.3899
-30.0	12.0	100%	466.3852	466.3871	466.3899
-30.0	13.8	115%	466.3852	466.3874	466.3899
-20.0	10.2	85%	466.3852	466.3874	466.3899
-20.0	12.0	100%	466.3852	466.3877	466.3899
-20.0	13.8	115%	466.3852	466.3871	466.3899
-10.0	10.2	85%	466.3852	466.3874	466.3899
-10.0	12.0	100%	466.3852	466.3874	466.3899
-10.0	13.8	115%	466.3852	466.3874	466.3899
0.0	10.2	85%	466.3852	466.3873	466.3899
0.0	12.0	100%	466.3852	466.3873	466.3899
0.0	13.8	115%	466.3852	466.3873	466.3899

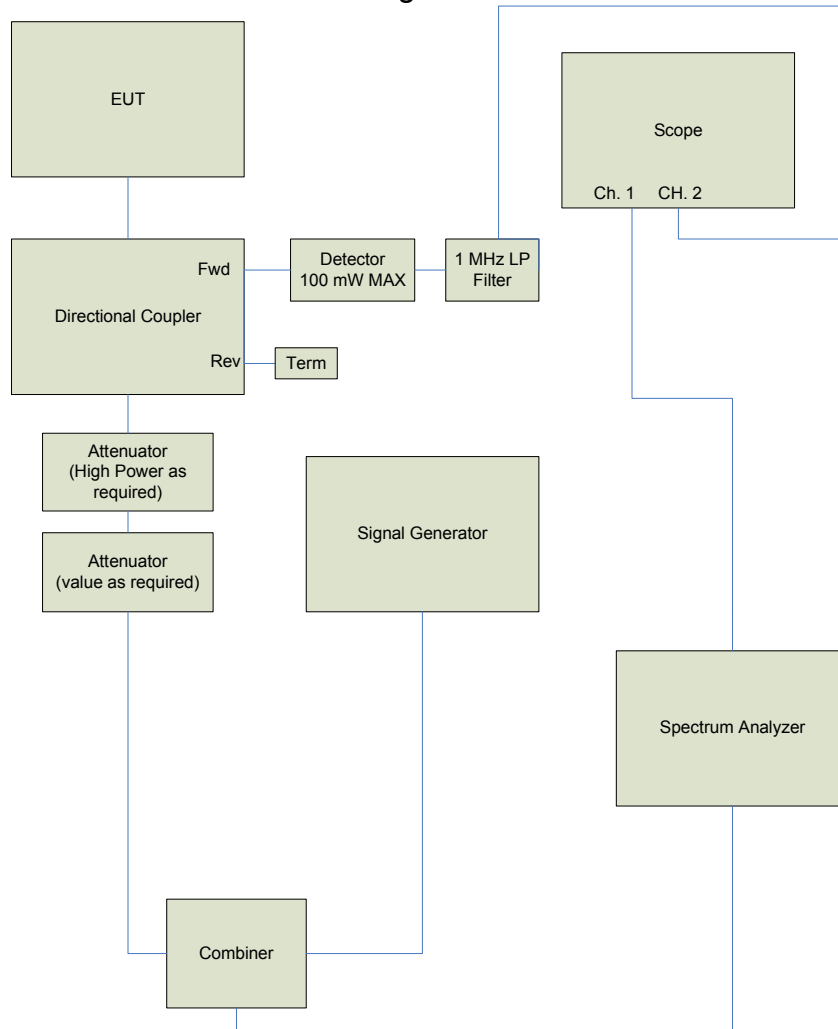
Test Method:	FCC Part 90.213 Frequency Stability				
Customer:	CRN Telemetry Devices, Inc.			Job No.:	R-12661
Test Sample	UHF Alarm System Transmitter				
Model Number	N/A				
FCC ID. Number	ITCCRNSBU				
Serial Number	N/A				
Operating Mode:	Continuously transmitting a CW signal at center frequency.				
Technician:	D. Lerner			Date:	December 9, 2008.
Notes:	Carrier Frequency: 466.3876 MHz Limit = +/- 5ppm $L=(f * 5\text{ppm}) / 10^6 = 2331.9 \text{ Hz}$				
Temperature	Input Voltage	% Nominal Input Voltage	Lower Limit Frequency	Meter Reading	Upper Limit Frequency
Degrees °C	V		MHz	MHz	MHz
10.0	10.2	85%	466.3852	466.3878	466.3899
10.0	12.0	100%	466.3852	466.3875	466.3899
10.0	13.8	115%	466.3852	466.3875	466.3899
20.0	10.2	85%	466.3852	466.3875	466.3899
20.0	12.0	100%	466.3852	466.3875	466.3899
20.0	13.8	115%	466.3852	466.3875	466.3899
30.0	10.2	85%	466.3852	466.3875	466.3899
30.0	12.0	100%	466.3852	466.3876	466.3899
30.0	13.8	115%	466.3852	466.3876	466.3899
40.0	10.2	85%	466.3852	466.3875	466.3899
40.0	12.0	100%	466.3852	466.3875	466.3899
40.0	13.8	115%	466.3852	466.3875	466.3899
50.0	10.2	85%	466.3852	466.3875	466.3899
50.0	12.0	100%	466.3852	466.3878	466.3899
50.0	13.8	115%	466.3852	466.3875	466.3899

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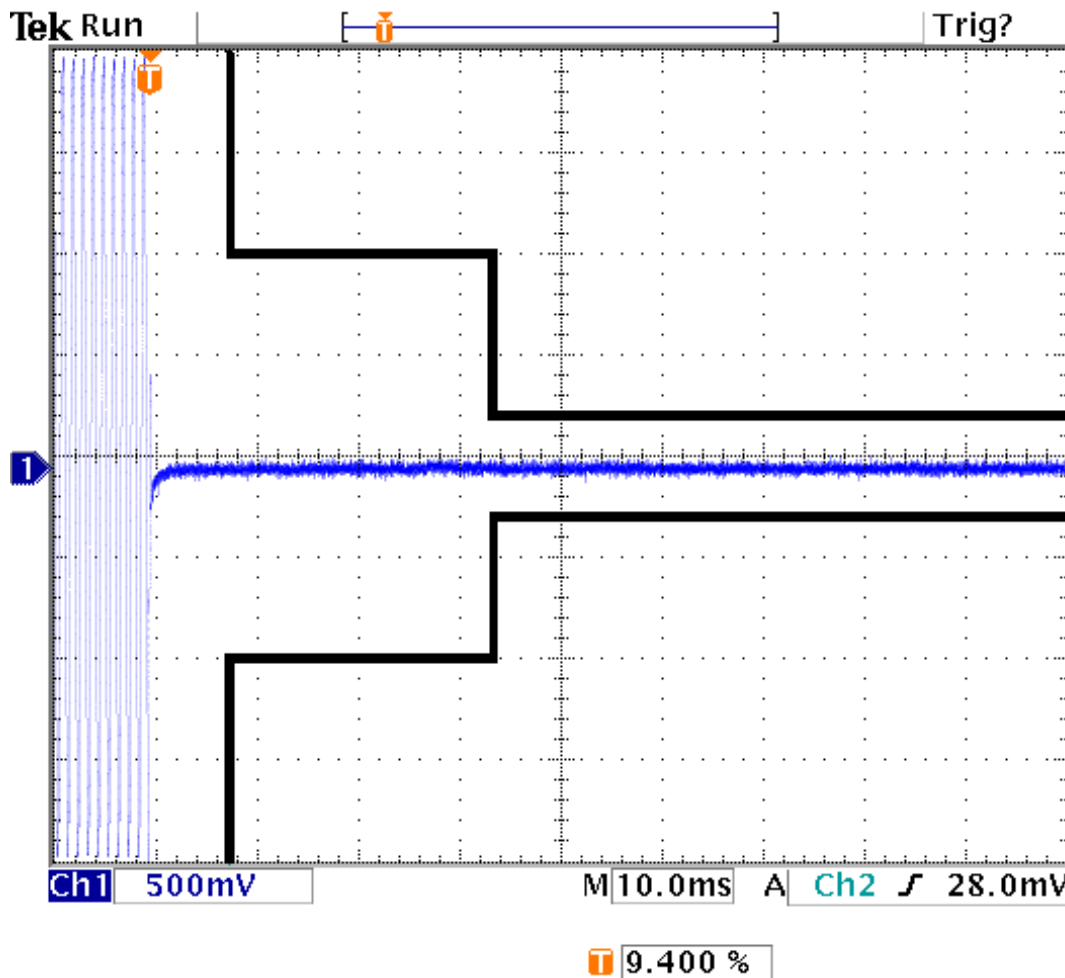
FCC 90.215, Transient Frequency Behavior

The RF output of the test sample was configured in the set up as shown in Figure 2 below. The test sample was activated and the transients were measured on the oscilloscope. Testing was performed in accordance with EIA/TIA-603.

Figure 2



**FCC Part 90.214 Transient Frequency Behavior
Test Data**



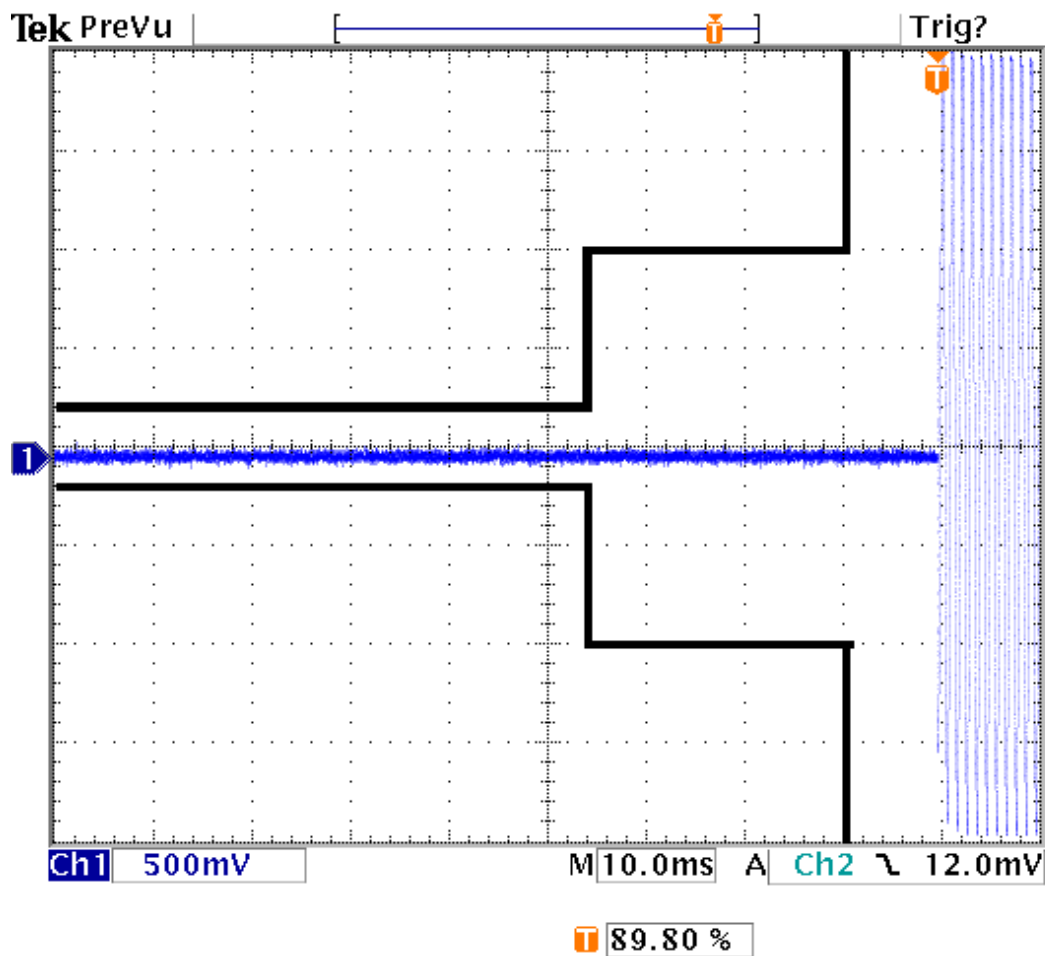
FCC Part 90.214 Transient Frequency Behavior

Note: Carrier frequency at 466.38 MHz.

Note: EUT transmitting audio modulated signal.

Note: Rising edge of transient.

Customer	CRN Telemetry Devices, Inc.		
Test Sample	UHF Alarm System Transmitter		
Part Number	N/A	FCC ID: ITCCRNSBU	
Date: December 5, 2008	Tech: DL / SJ	Sheet 1 of 2	



FCC Part 90.214 Transient Frequency Behavior

Note: Carrier frequency at 466.38 MHz.

Note: EUT transmitting audio modulated signal.

Note: Falling edge of transient.

Customer	CRN Telemetry Devices, Inc.		
Test Sample	UHF Alarm System Transmitter		
Part Number	N/A	FCC ID: ITCCRNSBU	
Date: December 5, 2008	Tech: DL / SJ	Sheet 2 of 2	

Retlif Testing Laboratories, Test Report R-12661, CRN Telemetry Devices, Inc.

FCC ID: ITCCRNSBY

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