Proof of performance for

WMPA 93.1 FM

Ferrysburg, MI.

Facility ID Number 189472

Prepared By
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Proof of performance for

WMPA 93.1 FM

The purpose of this report is to establish that the operation authorized in this construction permit is in compliance with the spurious emissions requirements of 47 C.F.R. Sections 73.317 (b) Any emission appearing on a fre-quency removed from the carrier by be-tween 120 kHz and 240 kHz inclusive must be attenuated at least 25 dB below the level of the unmodulated carrier. Compliance with this require-ment will be deemed to show the occu-pied bandwidth to be 240 kHz or less. (c)Any emission appearing on a fre-quency removed from the carrier by more than 240 kHz and up to and in-cluding 600 kHz must be attenuated at least 35 dB below the level of the unmodulated carrier. (d)Any emission appearing on a fre-quency removed from the carrier by more than 600 kHz must be attenuated at least 43 + 10 Log10(Power, in watts) dB below the level of the unmodulated carrier, or 80 dB, whichever is the less-er attenuation. All measurements where made with all stations simultaneously utilizing the shared antenna system. A Anritsu MS2721A Spectrum Analyzer witch has a calibration certification as of 05/21/2012 was used in all measurements. The fallowing analyzer displays demistrate compliance with 73.317FM transmission system re-quirements. All measurements in this report are true and completed to the best of my ability.

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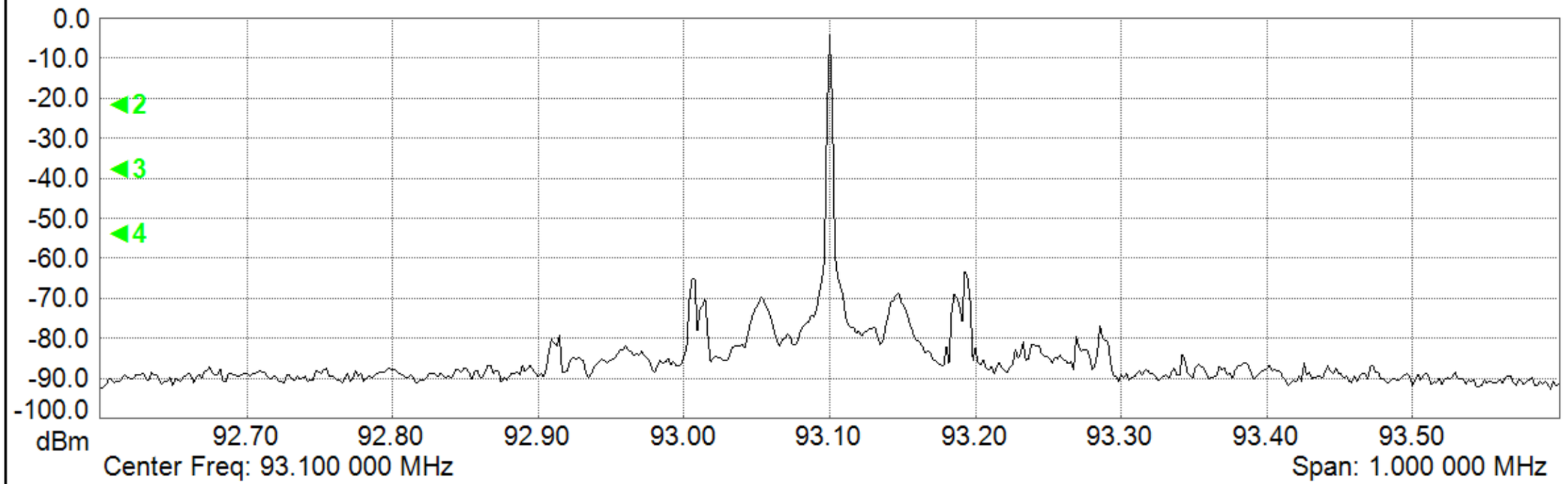
Spectrum Analyzer Data WMPA 93.1 FM

7/21/2012

Spectrum Analyzer

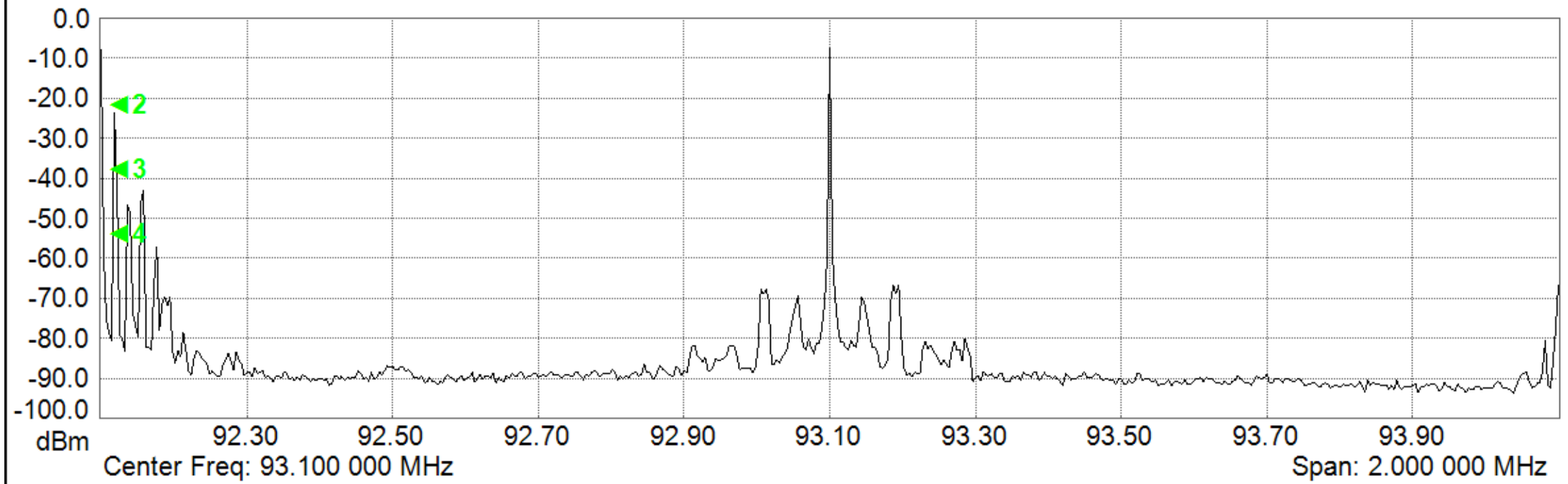


Trace Mode = Normal	VBW = 30.0 Hz	Scale = 10.0 dB/div
Trace Mode = Normal	Detection = RMS	Serial Number = 514100
Preamp = OFF	Center Frequency = 93.100 000 MHz	Base Ver. = V1.78
Min Sweep Time = 5E-05 S	Start Frequency = 92.600 000 MHz	App Ver. = V1.79
Reference Level Offset = 0 dB	Stop Frequency = 93.600 000 MHz	Date = 7/21/2012 12:01:36 AM
Input Attenuation = 20.0 dB	Frequency Span = 1.000 000 MHz	Device Name =
RBW = 1.0 kHz	Reference Level = 0.000 dBm	

Spectrum Analyzer Data WMPA 93.1 FM

7/21/2012

Spectrum Analyzer

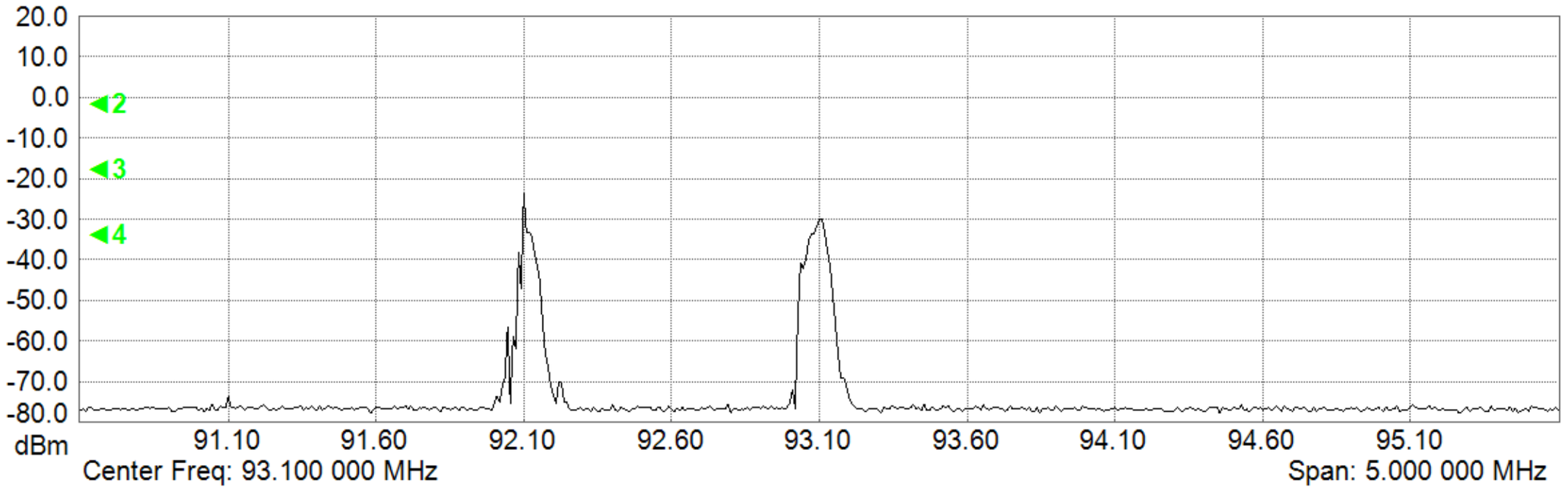


Trace Mode = Normal	VBW = 30.0 Hz	Scale = 10.0 dB/div
Trace Mode = Normal	Detection = RMS	Serial Number = 514100
Preamp = OFF	Center Frequency = 93.100 000 MHz	Base Ver. = V1.78
Min Sweep Time = 5E-05 S	Start Frequency = 92.100 000 MHz	App Ver. = V1.79
Reference Level Offset = 0 dB	Stop Frequency = 94.100 000 MHz	Date = 7/21/2012 12:03:17 AM
Input Attenuation = 20.0 dB	Frequency Span = 2.000 000 MHz	Device Name =
RBW = 1.0 kHz	Reference Level = 0.000 dBm	

Spectrum Analyzer Data WMPA 93.1 FM

7/20/2012

Spectrum Analyzer



Trace Mode = Normal	VBW = 30.0 Hz	Scale = 10.0 dB/div
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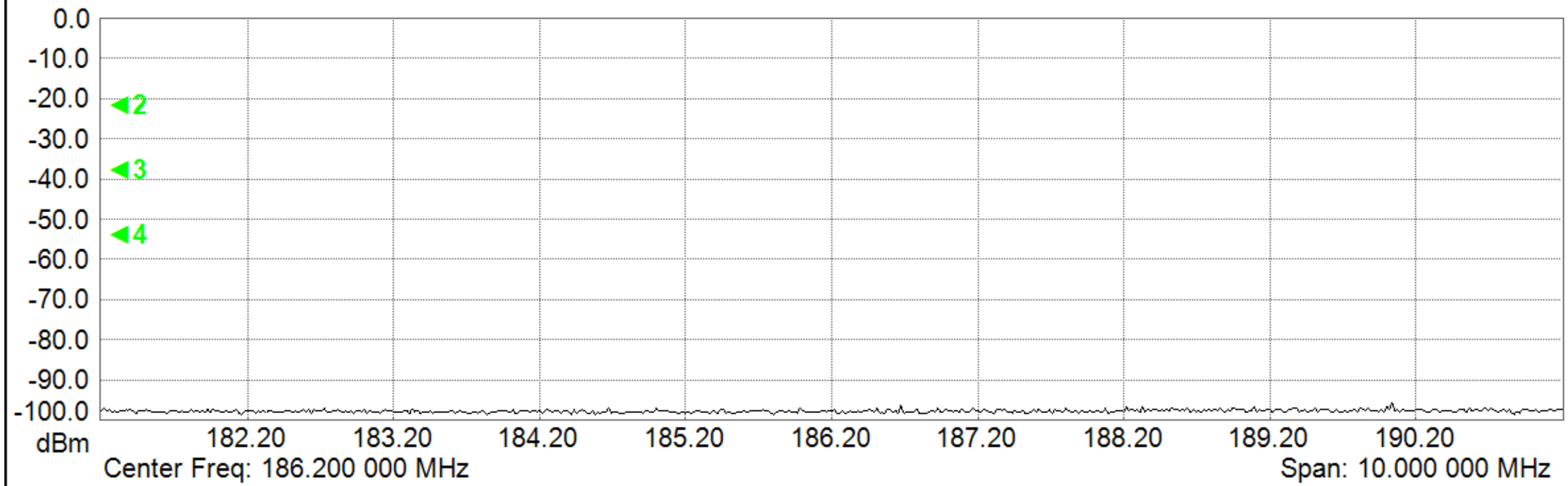
Preamp = OFF	Center Frequency = 93.100 000 MHz	Base Ver. = V1.78
Min Sweep Time = 5E-05 S	Start Frequency = 90.600 000 MHz	App Ver. = V1.79
Reference Level Offset = 0 dB	Stop Frequency = 95.600 000 MHz	Date = 7/20/2012 11:54:58 PM
Input Attenuation = 40.0 dB	Frequency Span = 5.000 000 MHz	Device Name =
RBW = 1.0 kHz	Reference Level = 20.000 dBm	

Spectrum Analyzer Data WMPA 93.1 FM

7/21/2012

Spectrum Analyzer

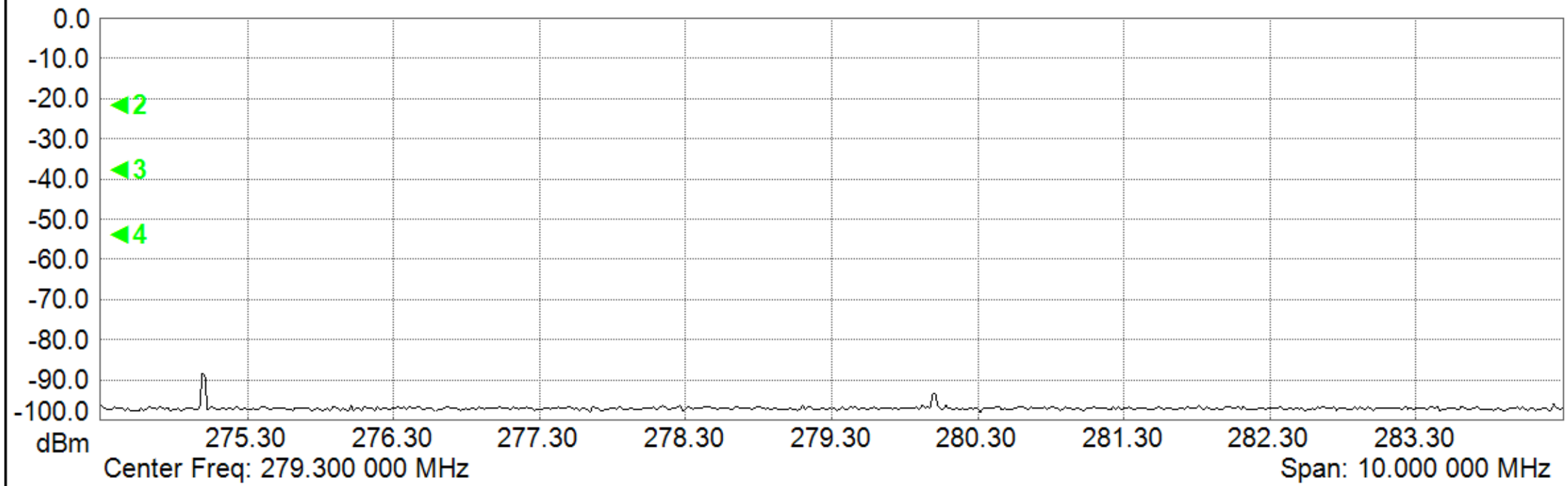


Trace Mode = Normal	VBW = 30.0 Hz	Scale = 10.0 dB/div
Trace Mode = Normal	Detection = RMS	Serial Number = 514100
Preamp = OFF	Center Frequency = 186.200 000 MHz	Base Ver. = V1.78
Min Sweep Time = 5E-05 S	Start Frequency = 181.200 000 MHz	App Ver. = V1.79
Reference Level Offset = 0 dB	Stop Frequency = 191.200 000 MHz	Date = 7/21/2012 12:07:32 AM
Input Attenuation = 20.0 dB	Frequency Span = 10.000 000 MHz	Device Name =
RBW = 1.0 kHz	Reference Level = 0.000 dBm	

Spectrum Analyzer Data WMPA 93.1 FM

7/21/2012

Spectrum Analyzer

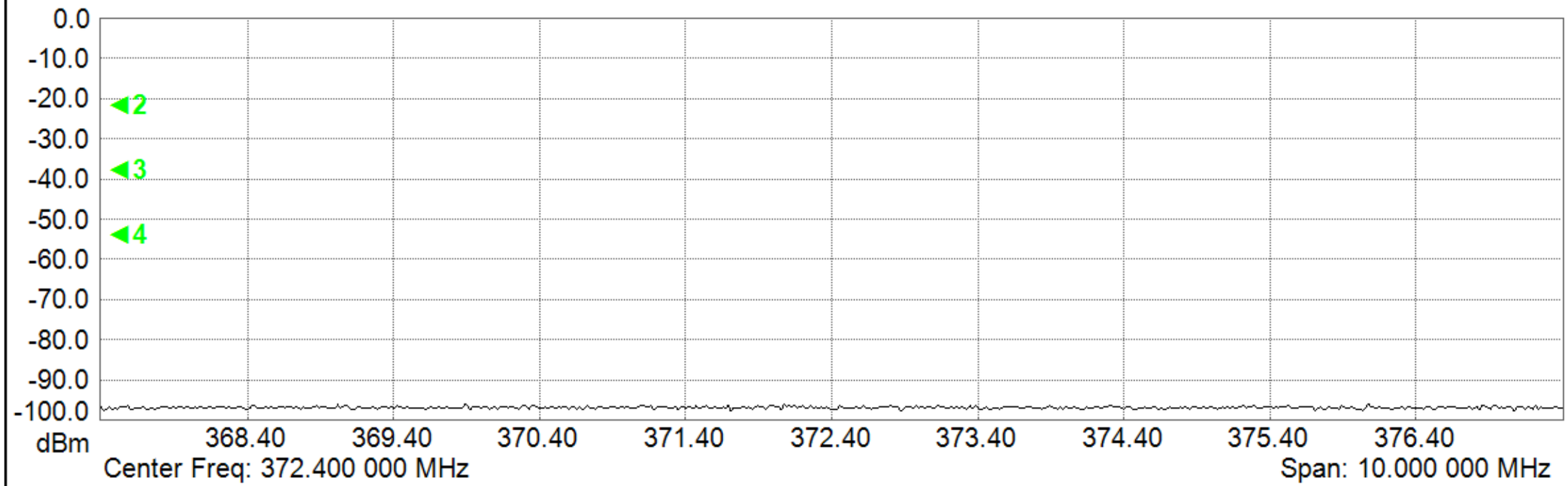


Trace Mode = Normal	VBW = 30.0 Hz	Scale = 10.0 dB/div
Trace Mode = Normal	Detection = RMS	Serial Number = 514100
Preamp = OFF	Center Frequency = 279.300 000 MHz	Base Ver. = V1.78
Min Sweep Time = 5E-05 S	Start Frequency = 274.300 000 MHz	App Ver. = V1.79
Reference Level Offset = 0 dB	Stop Frequency = 284.300 000 MHz	Date = 7/21/2012 12:08:24 AM
Input Attenuation = 20.0 dB	Frequency Span = 10.000 000 MHz	Device Name =
RBW = 1.0 kHz	Reference Level = 0.000 dBm	

Spectrum Analyzer Data WMPA 93.1 FM

7/21/2012

Spectrum Analyzer



Trace Mode = Normal	VBW = 30.0 Hz	Scale = 10.0 dB/div
Trace Mode = Normal	Detection = RMS	Serial Number = 514100
Preamp = OFF	Center Frequency = 372.400 000 MHz	Base Ver. = V1.78
Min Sweep Time = 5E-05 S	Start Frequency = 367.400 000 MHz	App Ver. = V1.79
Reference Level Offset = 0 dB	Stop Frequency = 377.400 000 MHz	Date = 7/21/2012 12:09:16 AM
Input Attenuation = 20.0 dB	Frequency Span = 10.000 000 MHz	Device Name =
RBW = 1.0 kHz	Reference Level = 0.000 dBm	