

**Occupied Bandwidth Measurements
(FCC Rule 73.317)**

K262DD 100.3 MHz Twin Falls, ID
K269HA 101.7 MHz Twin Falls, ID
K273DG 102.5 MHz Twin Falls, ID

Common Antenna and Combiner System
Flat Top Butte, Jerome, ID

On May 24th, 2019, RF Technical, LLC made measurements of K262DD, K269HA, and K273DG Twin Falls, ID to show compliance with Special Operation Conditions regarding spurious emission measurements. The measurements described here were made following the installation of a common antenna and combining system for K262DD, K269HA, and K273DG at the CBoI tower facility on Flat Top Butte in Jerome, ID. All stations having use of this site were operating at the time of these measurements.

All measurements were made utilizing a Connecticut Microwave Model 260066 Directional Coupler with RF Sample Port which was temporarily placed in line following the multi-station combining system and prior to the facility's common antenna system. The coupler exhibits a rising output level versus frequency characteristic. The amount of increase is approximately equivalent to $20 \times \text{Log}$ of the observed frequency divided by the carrier frequency.

An Anritsu MS2721B spectrum analyzer was used for the measurements in this report.

Par Electronics VHF Notch Filters tuned to 100.3 MHz, 101.7 MHz, and 102.5 MHz were used ahead of the spectrum analyzer to prevent signal overload and subsequent erroneous intermodulation products. The amplitude versus frequency response of these filters is shown on pages four and five.

The reference plots were observed for an approximate 10-minute period. Other measurements were observed for several minutes each. This was done to observe possible short duration signals. These plots are show on pages six through twelve.

Although a number of signals were observed. Most of these signals were identified. The signals observed were from other broadcast stations near this site and are believed to be coming back down the transmission line from the common antenna. When a signal could not be identified the transmitters were turned off to show that the signal was not a product of the combined system.

Absolute carrier levels established for the reference plot, transmitter output power, and required attenuation of spurious emissions below carrier level ($43 + 10 \times \text{Log}$ of the power in watts)for K262DD, K269HA, and K273DG are tabulated below.

Call Sign	Absolute Carrier Level	Transmitter output Power	Required Attenuation
K262DD	9.57 dBm	221 Watts	-66.5 dBc or -57 dBm
K269HA	9.80 dBm	260 Watts	-67 dBc or -57.5 dBm
K273DG	5.61 dBm	98 Watts	-63 dBc or -57.5 dBm

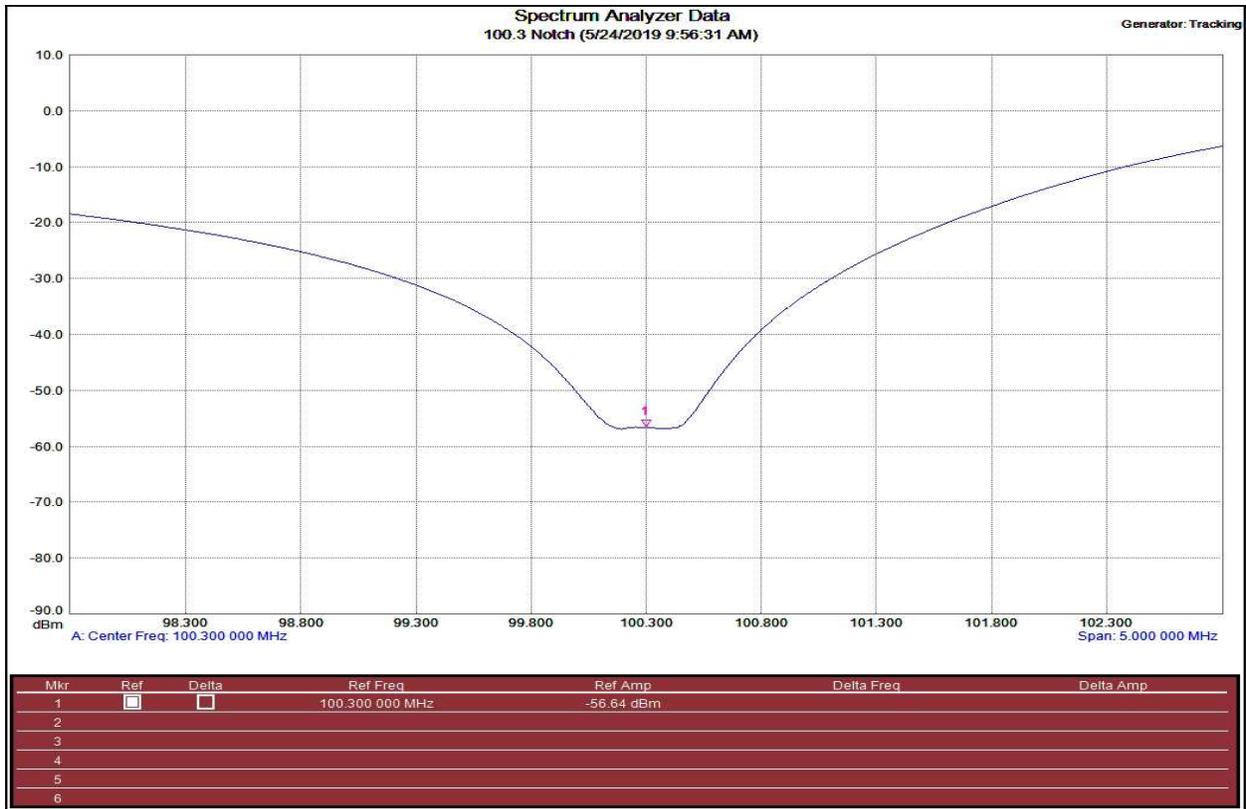
No harmonic emissions, intermodulation products, or other spurious emissions from the combined system at levels less than the required attenuation below the fundamental carrier frequency were observed. It is believed that K262DD, K269HA, and K273DG are in full compliance with section 73.317 of the commission's rules.

All information contained in this report was gathered by the undersigned. I certify that the preceding is true and correct to the best of my knowledge and ability.

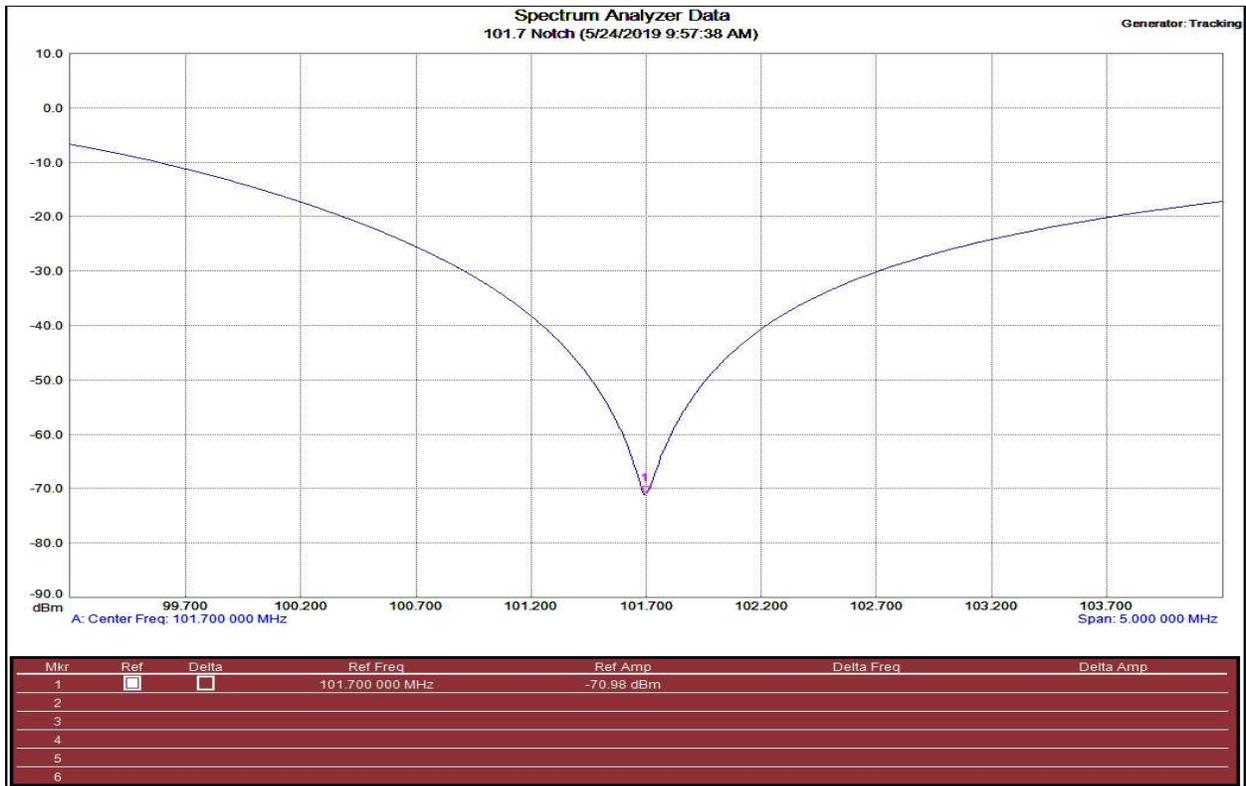
Respectfully,

A handwritten signature in black ink, appearing to read 'Dustin Pamplona', with a long horizontal flourish extending to the right.

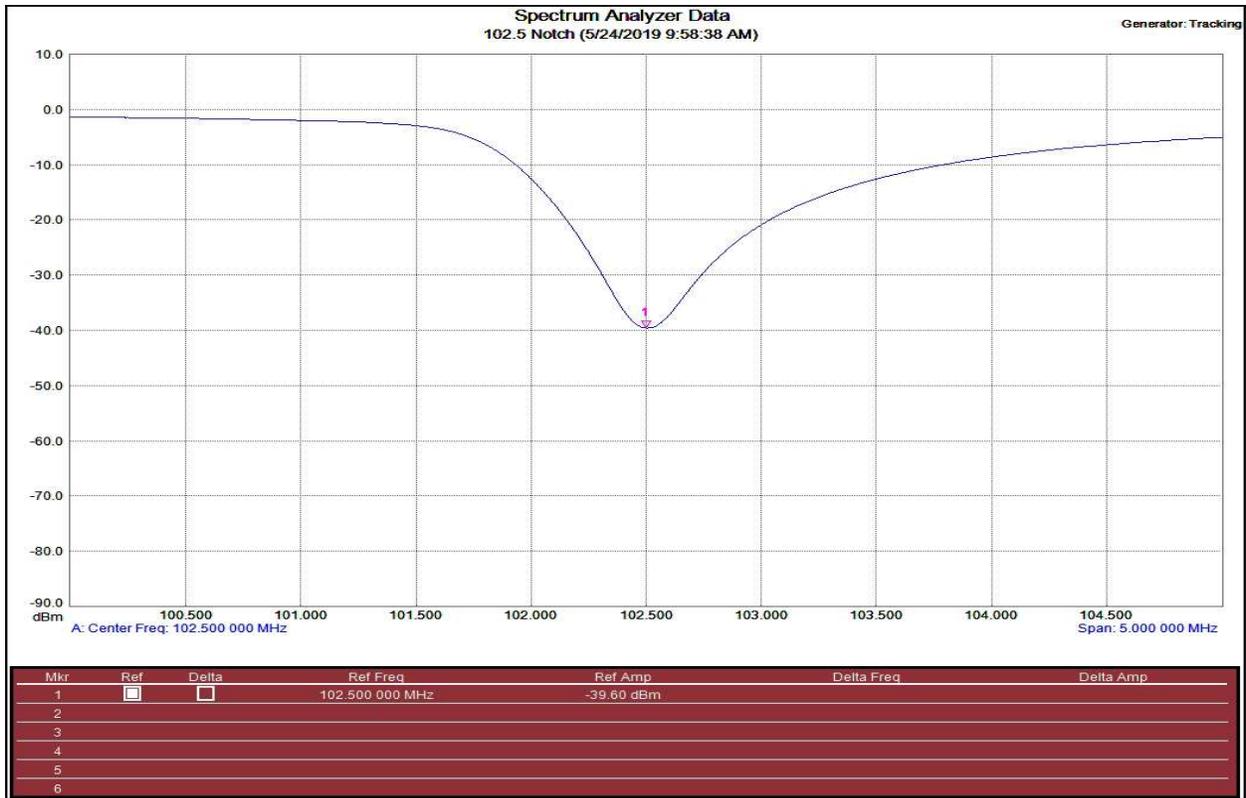
Dustin Pamplona
RF Technical, LLC



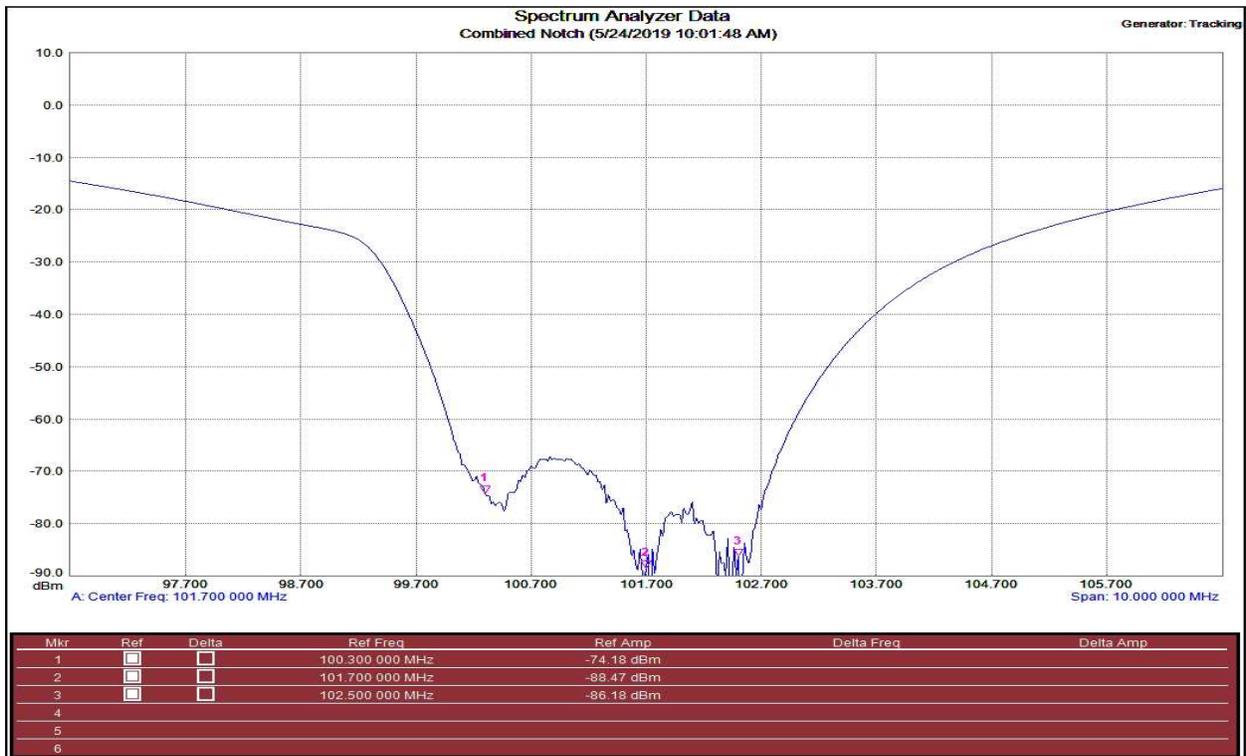
100.3 MHz Notch Filter



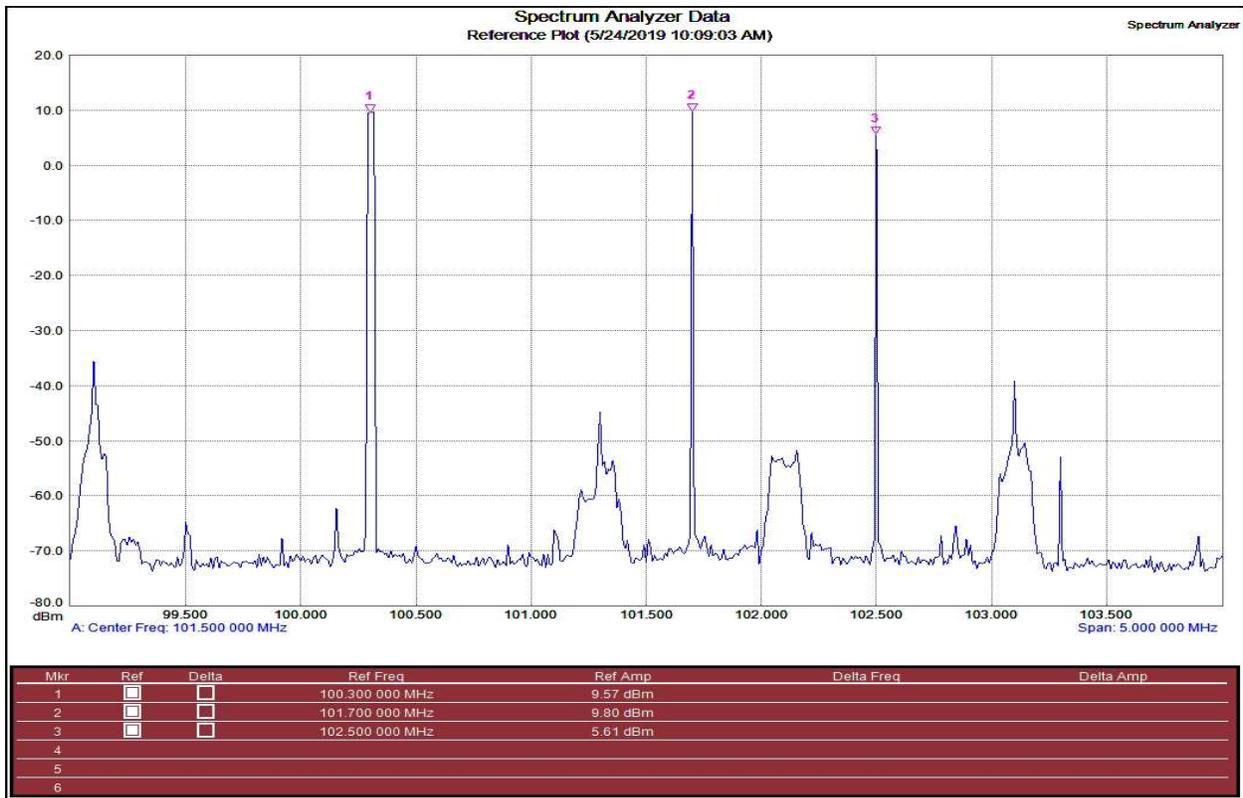
101.7 MHz Notch Filter



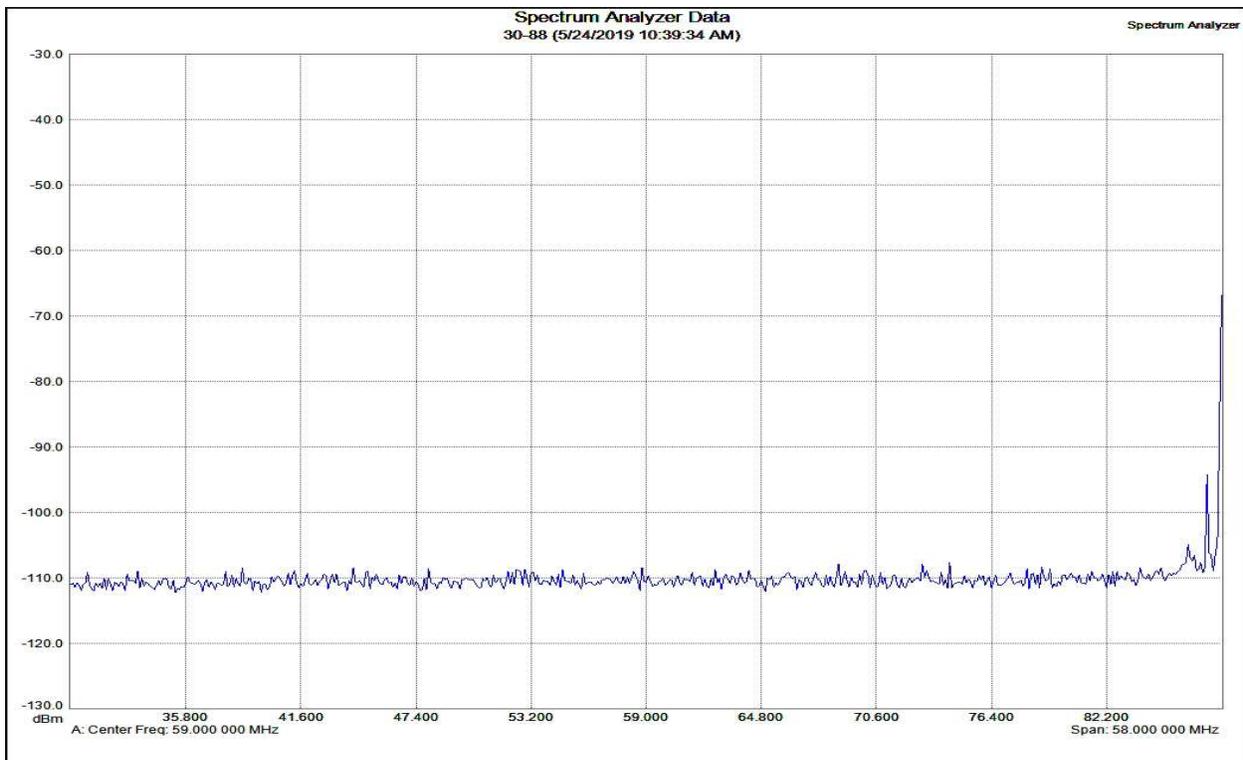
102.5 MHz Notch Filter



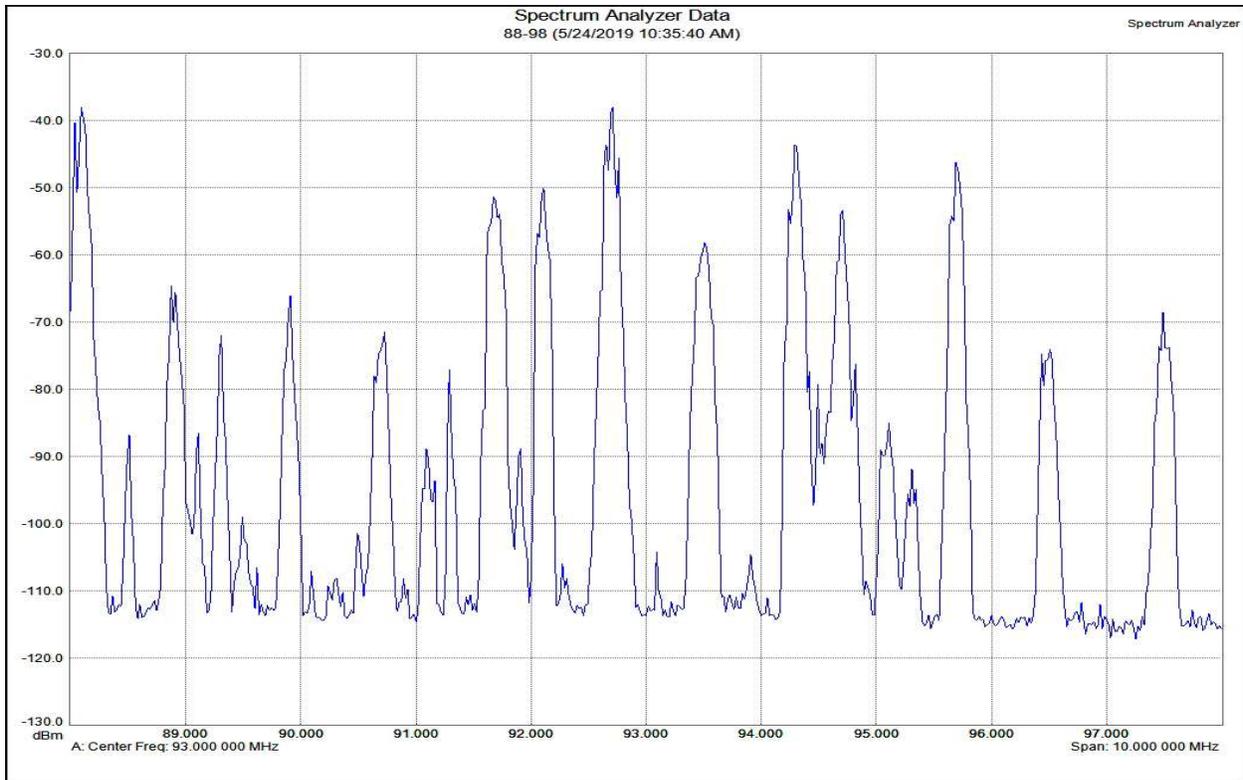
Combined Notch Filter



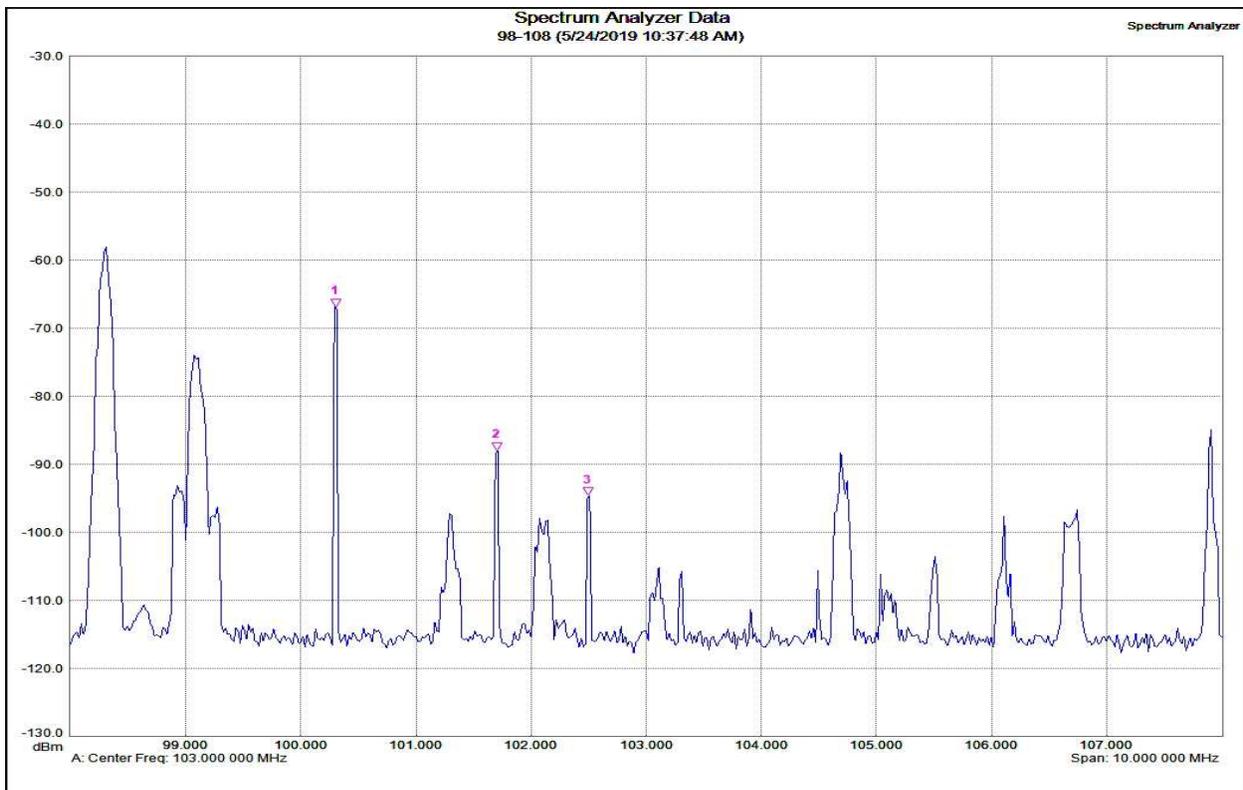
Reference Plot



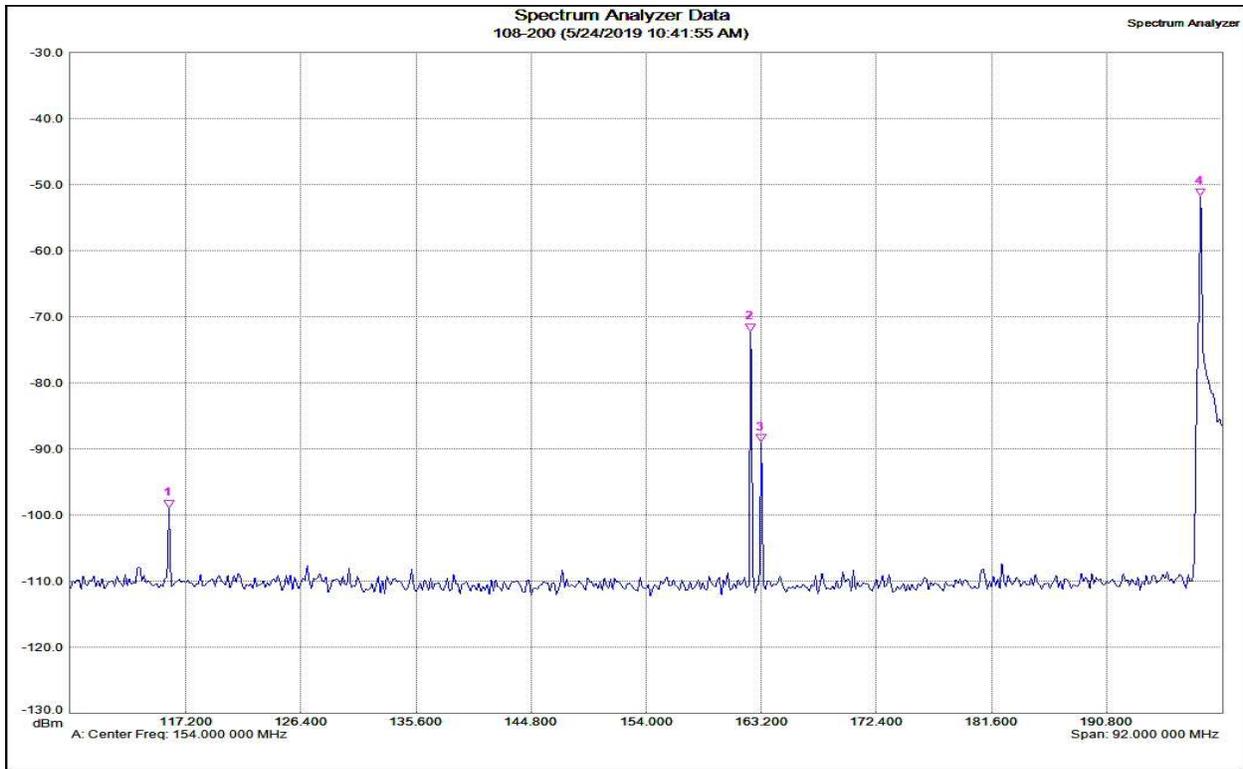
Plot showing occupied bandwidth 30-88 MHz



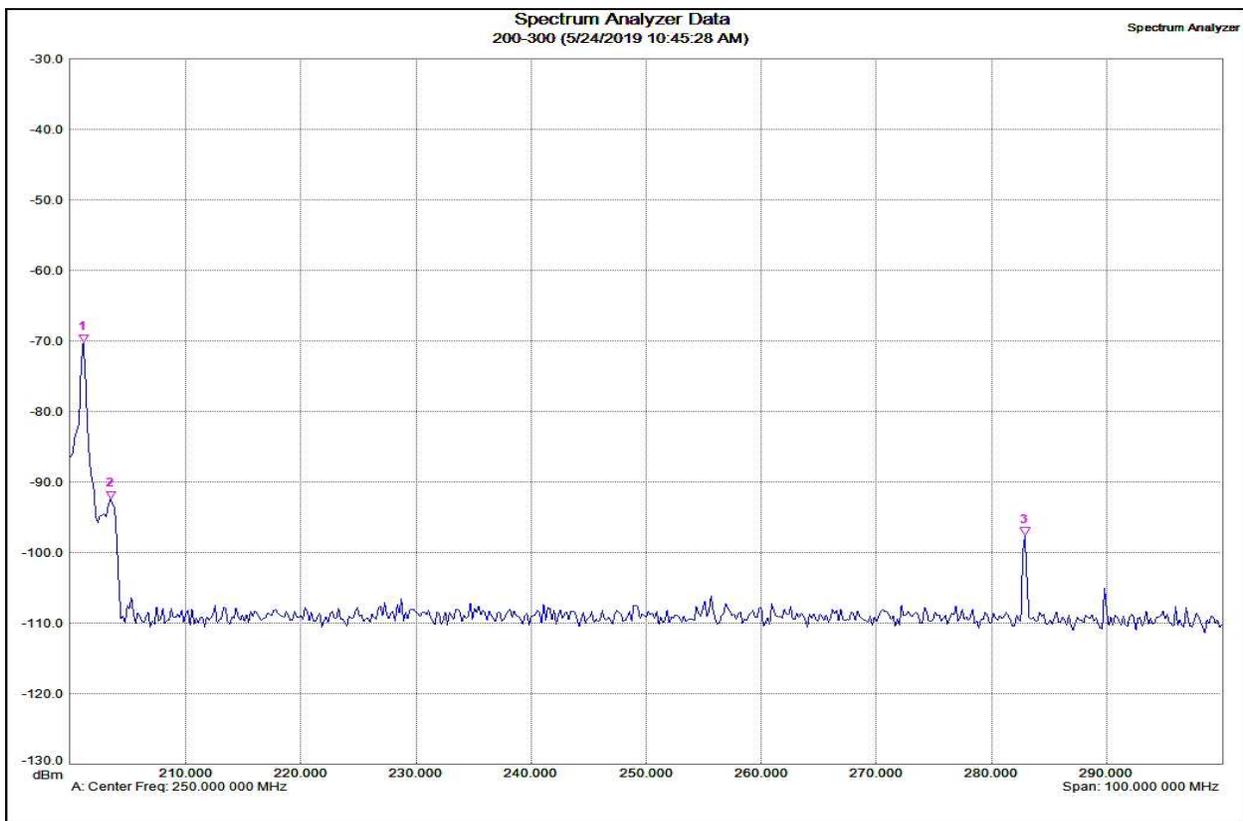
FM Broadcast Band 88 to 98 MHz (All signals were identified. No spurious emissions)



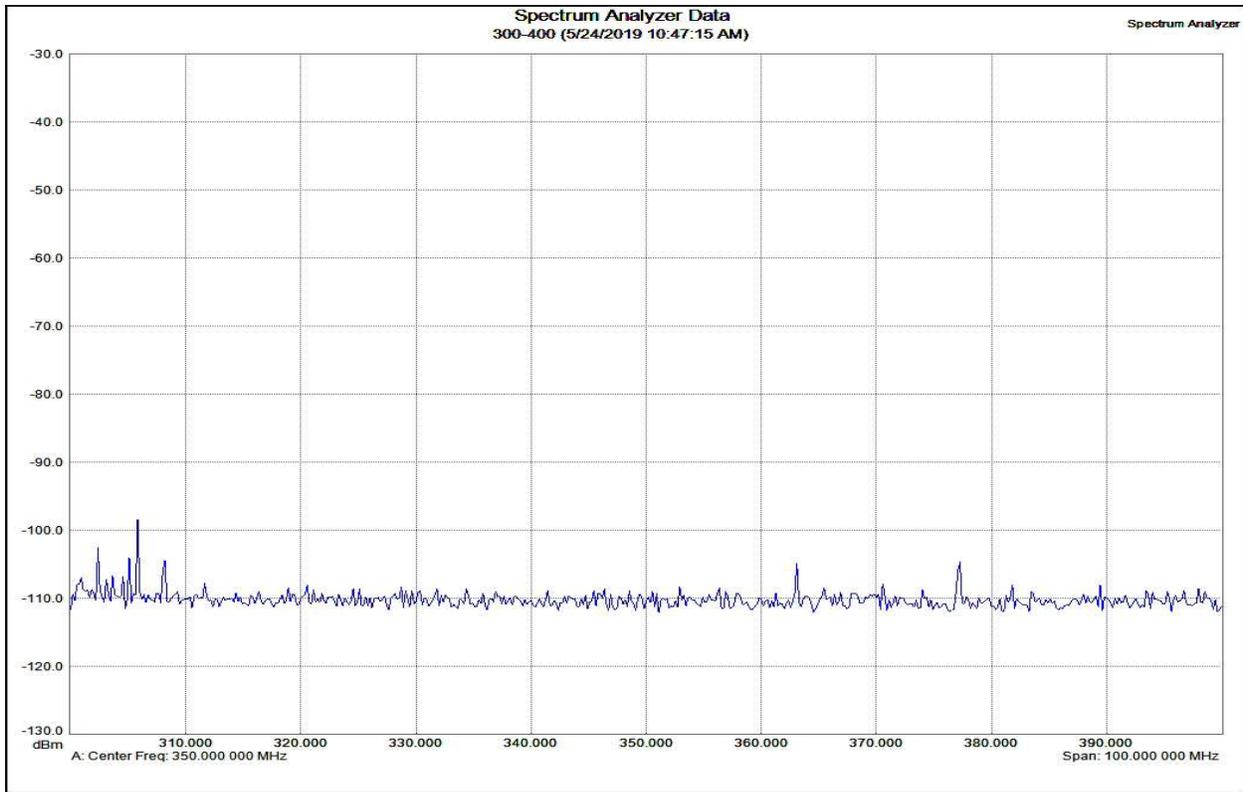
FM Broadcast Band 98 to 108 MHz (All signals were identified. No spurious emissions)



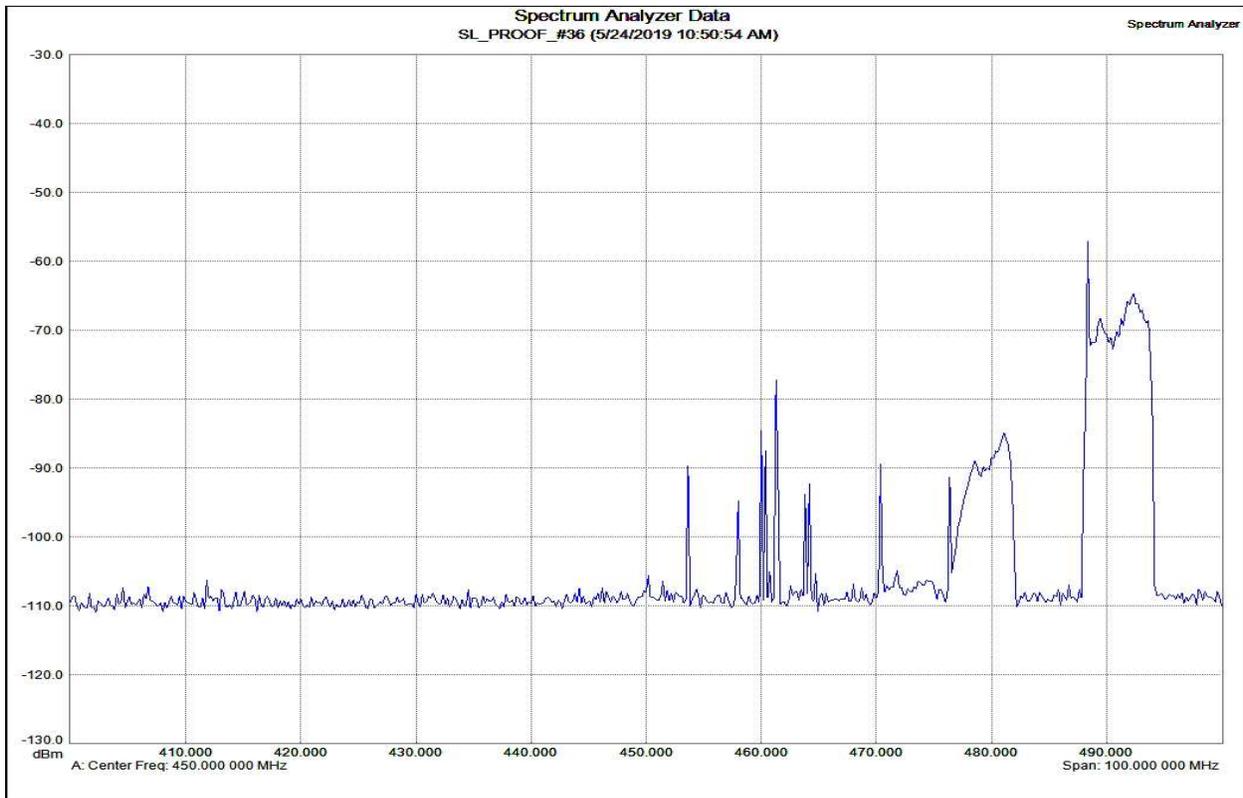
Plot showing occupied bandwidth 108-200 MHz



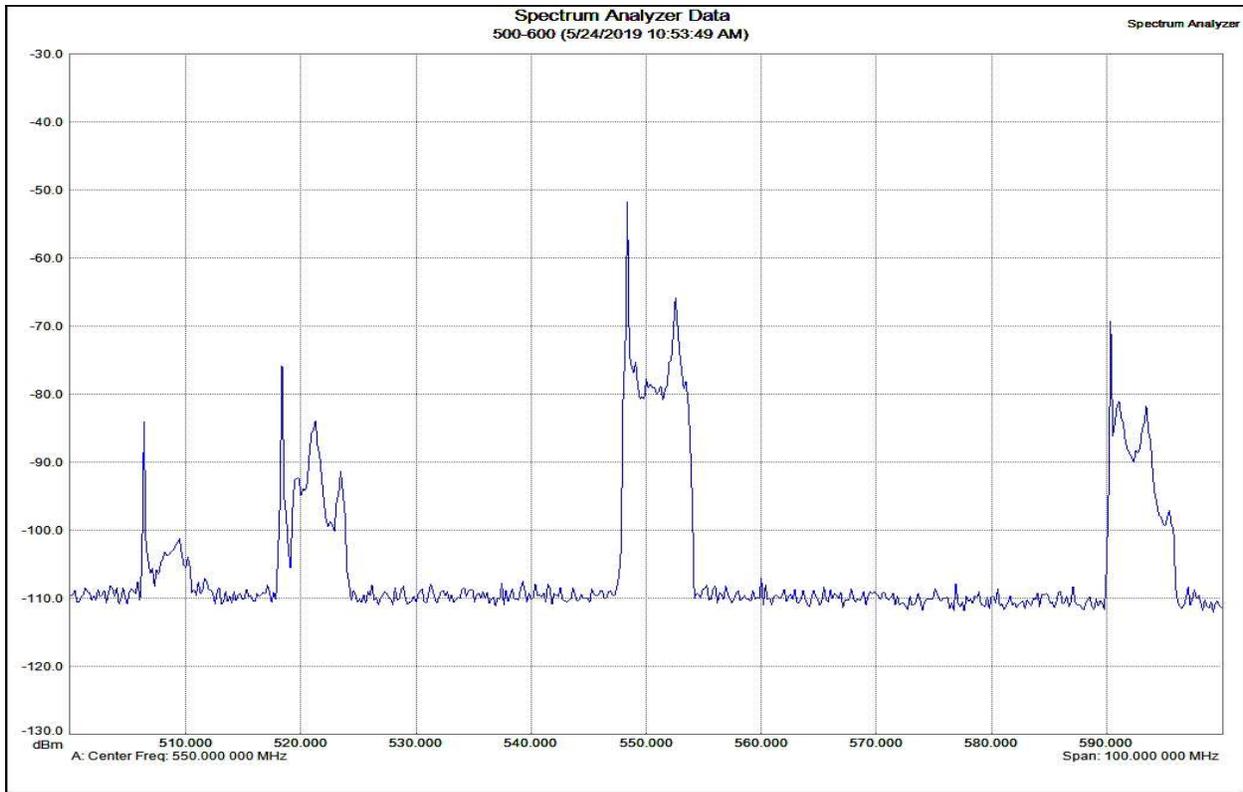
Plot showing occupied bandwidth 200-300 MHz



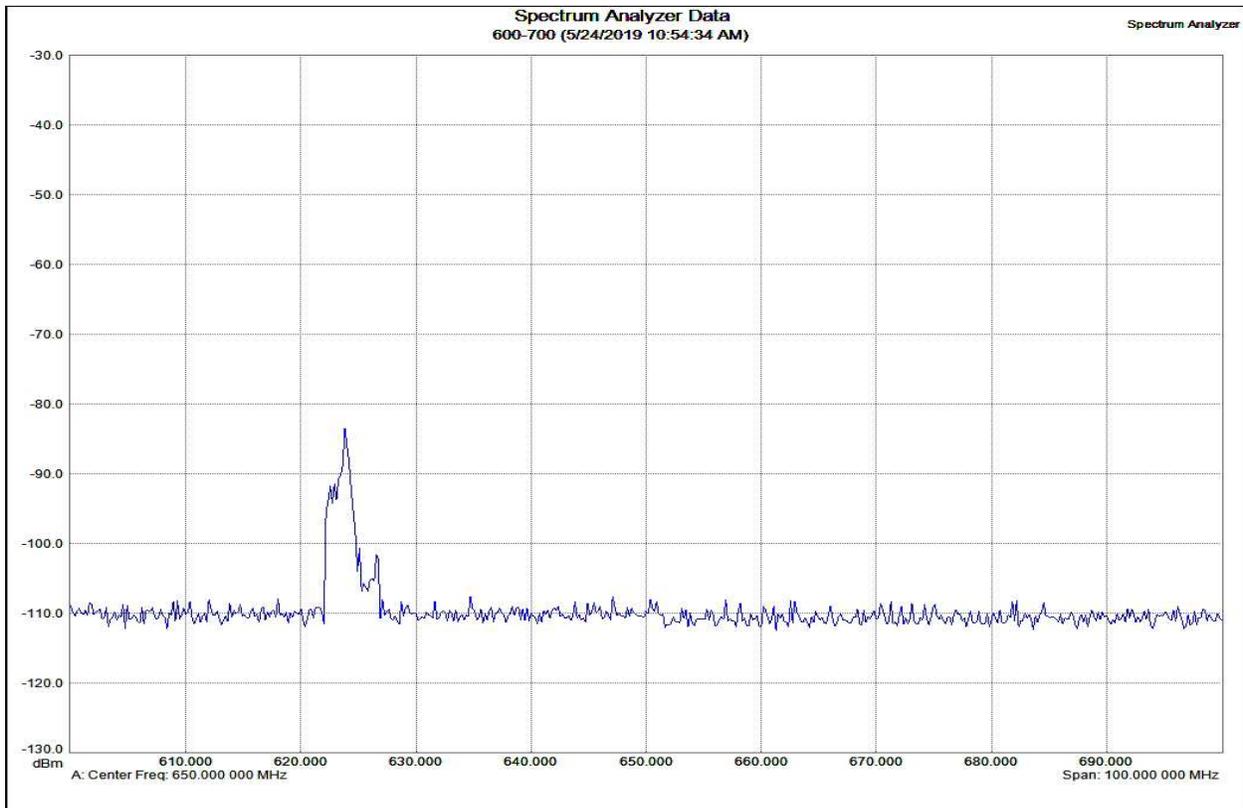
Plot showing occupied bandwidth 300-400 MHz



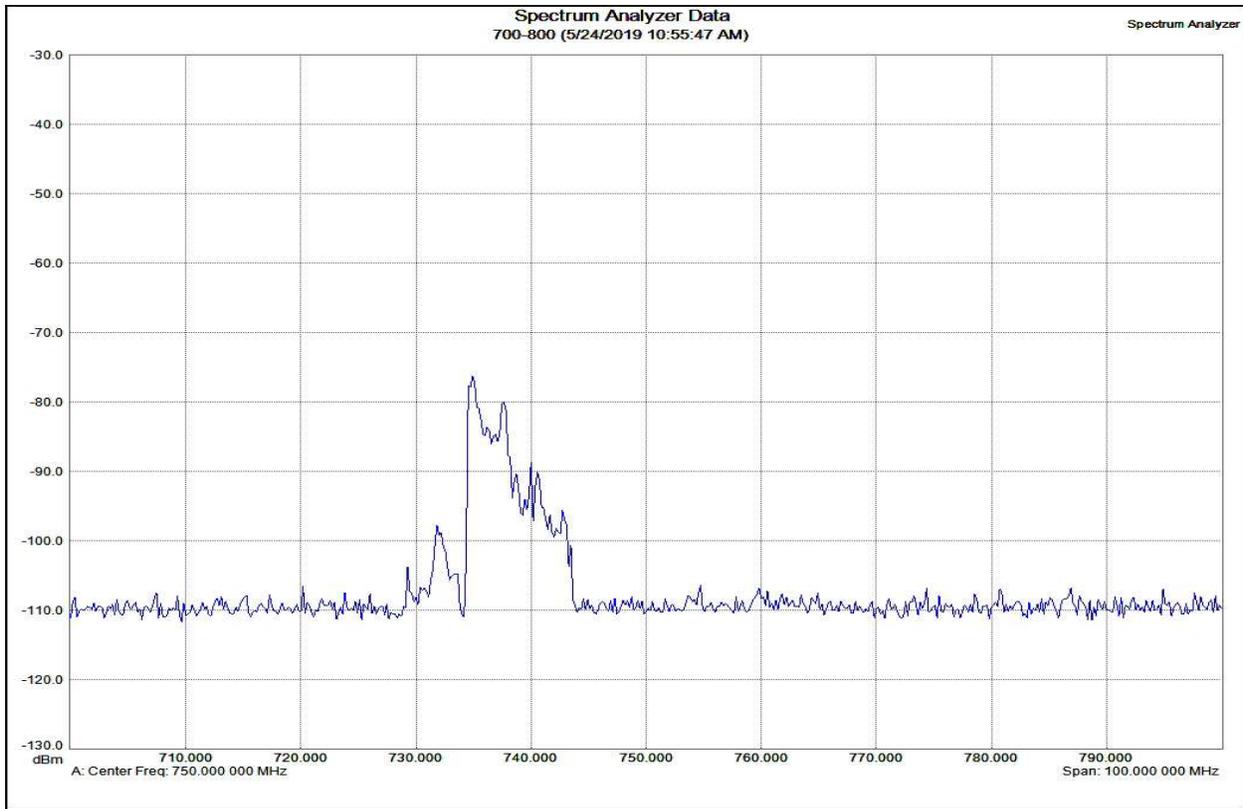
Plot showing occupied bandwidth 400-500 MHz



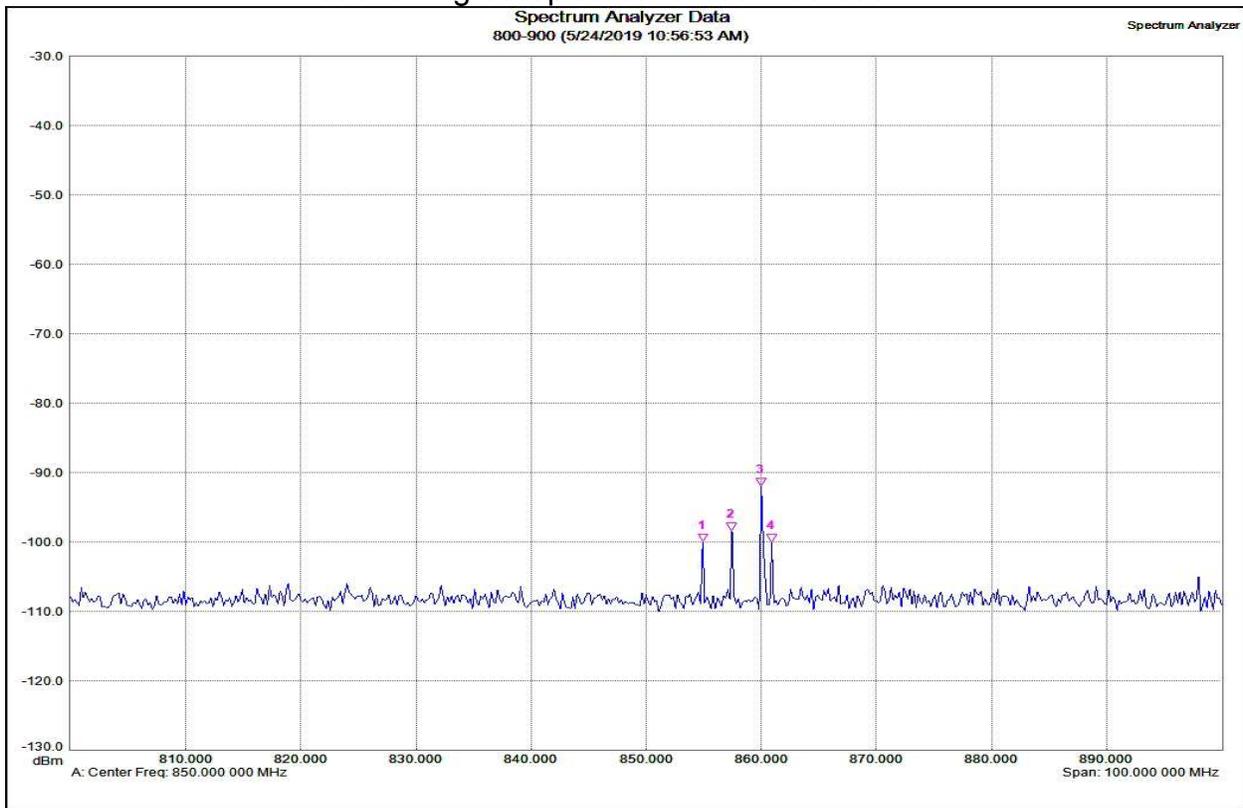
Plot showing occupied bandwidth 500-600 MHz



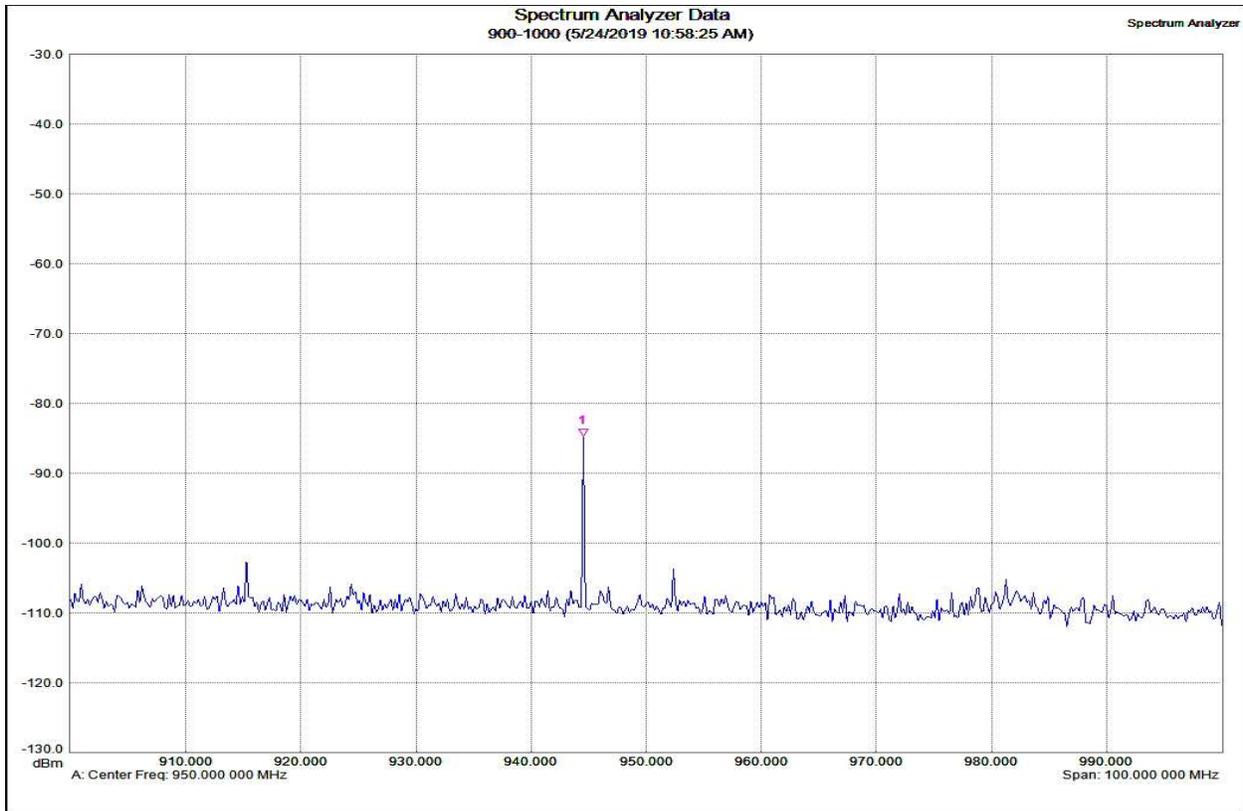
Plot showing occupied bandwidth 600-700 MHz



Plot showing occupied bandwidth 700-800 MHz



Plot showing occupied bandwidth 800-900 MHz



Plot showing occupied bandwidth 900-1000 MHz