

RIDGELINE BROADCAST SERVICES, LLC

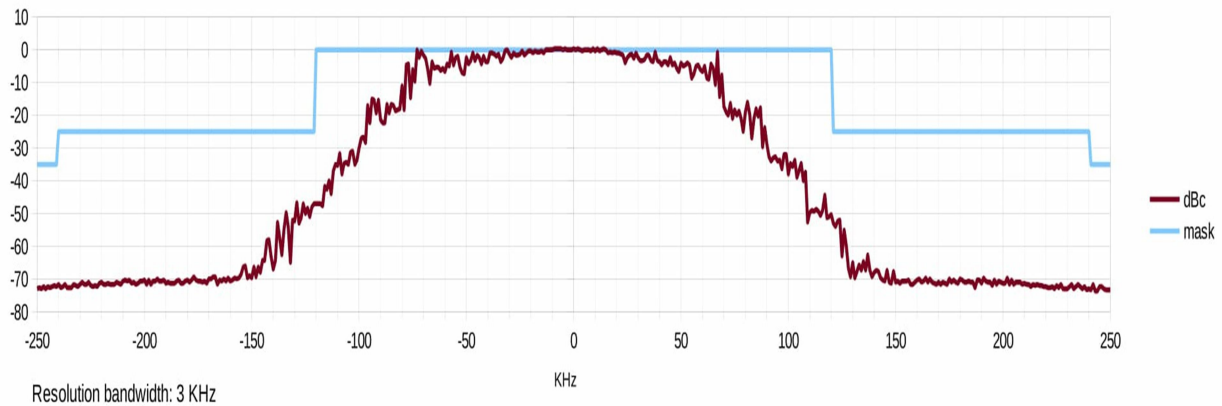
39341 Howard Road
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K259DE Cottage Grove, Oregon Emissions Measurements

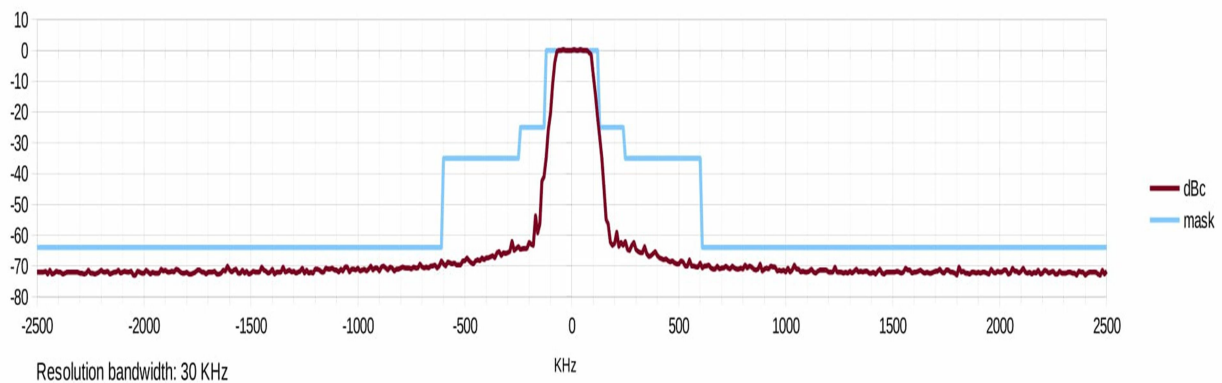
6/16/2021

Dylan Hicks

Emissions +/- 250 KHz at 99.7 MHz



Emissions +/- 2.5 MHz at 99.7 MHz



Notes:

Measurements were taken at output of transmitter, through a 40dB, high power attenuator. The analyzer's maximum hold feature was used for four minutes, with the transmitter modulated by normal program audio.

2nd Harmonic

f MHz	d MHz	dBm	dBc	mask dBc	description	notes	RBW
99.7	0	49.6667	0	0	Unmodulated carrier		
199.4	99.7	-23	-72.6667	-64	2nd harmonic		3000

Notes:

Measurements were taken at output of transmitter, through a 40dB high power attenuator.

Heterodyne Products

f MHz	d MHz	dBm	dBc	mask dBc	description	notes	RBW
99.7	0	48.2981	0	0	Unmodulated carrier		
191.2	91.5	-35.6935	-83.9916	-64	K218AE heterodyne	Below noise floor of analyzer.	3000
198.2	98.5	-36.0268	-84.3249	-64	K253CF heterodyne	Below noise floor of analyzer.	3000
201.6	101.9	-36.3601	-84.6582	-64	K270BJ heterodyne	Below noise floor of analyzer.	3000

Notes:

There are seven other FM stations on the same hilltop as K259DE. Three of these stations were selected for measurement of the heterodyne products of K259DE. The FM stations 98.5 and 91.5 MHz, were selected from the strongest backfeeds into the K259DE transmitter output.

Measurements were taken at the forward port of a directional coupler at the transmitter output. Transmitter output is connected to the antenna line.

Compensation is made for frequency-dependent coupling of the directional coupler

Final Notes

The instrument used for all measurements is a Tektronix 2712 spectrum analyser with tracking generator.

During all measurements, the transmitter output power was held at 120 watts, as indicated on a Bird model 43 watt meter.

Wherever shown, the "mask" is derived from the CFR, 74.317(d).

I certify that the spurious emissions from FM translator K259DE fall within the specification 47 C.F.R. Sections 73.317(b) through 73.317(d).



Daniel Mooney
Consulting Engineer