Noise Power Ratio (NPR) Test Report for Flex-6600M

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The following are the results obtained from a receiver NPR test which the author conducted on a Flex-6600M, kindly loaned by Allan Buckshon VE7SZ and Gordon Hamilton VE7ON. Only SCU0 was tested. HW Version: 2.3.9.112; SW Version 2.3.9.43. *(See Ref. 1 for description of NPR testing.)*

1. **NPR (Noise power ratio)**, tested in SSB mode (2.4 kHz) at 0 dB RF gain. Receiver A tuned to notch center in all cases. Noise loading set just below onset of ADC clipping (-1 dBFS). NPR read off spectrum scope (noise level outside notch minus noise level at bottom of notch.)

Table 2: V1.3.8 NPR test data.

USB/LSB	Bandstop kHz	Bandpass kHz	MDS dBm	Noise loading dBm	NPR dB	Calc. NPR (ADC)[b]
L	1940[d]	60-2044	-101	+5	64[a]	80.5
L	3886[d]	60-4100	-106	+3	74	77.4
L	4650[c]	60-5600	-109	-3	70	76.1
U	5340[c]	60-5600	-109	-3	72	76.1
L	7600[c]	12-8160	-109	-3	70	74.4
U	11700[c]	316-12360	-110	-2	72	72.7
U	16400[c]	316-17300	-112	-2	70	71.4

Notes on NPR test:

a. Note NPR degradation as compared to average WIDE values. This may indicate some passive IMD (PIM) in 160m preselector. Normally, NPR should *increase* with the preselector in-line.

b. The calculated NPR value for the ADC is the theoretical value for the ADI AD9467 ADC, normalized to the noise bandwidth (bandpass filter BW) used in each test case. *(Ref. 2).*

c. WIDE only (no preselector at these test frequencies).

d. 7-pole preselector filter.

References:

1. http://www.ab4oj.com/test/docs/npr_test.pdf
2. http://www.ab4oj.com/test/docs/16bit_npr.pdf