

6a.5 Land Mobile Frequency Stability -- Pursuant to 47 CFR 2.1055(a)(1), §2.1055(d)(2), and §24.135

Frequency stability measurements were made as described in paragraph 7.4. Because of the transmitter's dependence on the stability of the base station oscillator, it is not possible to provide stability data for this transmitter as is commonly supplied for certification per 47 CFR 2.1055 for a radio with a locally stabilized oscillator. The following data was collected in a setup comprising of a base station simulator and it represents the absolute frequency error of the transceiver under test versus the base station frequency reference.

Frequency Stability (in ppm) at 813.5125 MHz, Voltage = 4V_{DC}	
TEMP (°C)	Error (ppm)
-30	0.033
-20	0.045
-10	0.031
0	0.027
10	0.028
20	0.028
30	0.032
40	0.036
50	0.034
60	0.036

Table 6a-5.1. Transmitter Frequency Stability vs. Temperature in 800 MHz SMR Band.

Frequency Stability in PPM at 900.98125 MHz, Voltage = 4V_{DC}	
TEMP (°C)	Error (ppm)
-30	0.066
-20	0.058
-10	0.087
0	0.045
+10	0.058
+20	0.062
+30	0.061
+40	0.051
+50	0.050
+60	0.068

Table 6a-5.2. Transmitter Frequency Stability vs. Temperature in 900 MHz SMR Band.

Frequency Stability in PPM at 901.49230 MHz, Voltage = 4V_{DC}		
TEMP (°C)	Frequency Error (Hz)	Error (ppm)
-30	72.98	0.081
-20	73.88	0.082
-10	81.99	0.091
0	76.58	0.085
10	45.95	0.051
20	36.94	0.041
30	51.36	0.057
40	58.56	0.065
50	52.26	0.058
60	54.06	0.060
70	41.45	0.046

Table 6a-5.3. Transmitter Frequency Stability vs. Temperature in 900 MHz NBPCS Band.

Frequency Stability in PPM at 813.5125 MHz, Temperature = 25°C	
Power Supply Output Voltage	PPM
3.6	0.017
3.7	0.033
3.8	0.018
3.9	0.045
4	0.013
4.1	0.017
4.2	0.029
4.3	0.03

Table 6a-5.4. Transmitter Frequency Stability vs. Voltage in 800 MHz SMR Band.

Frequency Stability in PPM at 900.98125 MHz, Temperature = 25°C	
Power Supply Output Voltage	PPM
3.6	0.033
3.7	0.037
3.8	0.029
3.9	0.033
4	0.026
4.1	0.03
4.2	0.042
4.3	0.041

Table 6a-5.5. Transmitter Frequency Stability vs. Voltage in 900 MHz SMR Band.

Frequency Stability in PPM at 901.49230 MHz, Temperature = 25°C		
Power Supply Output Voltage	Frequency Error in Hz	PPM
3.6	63.07	0.070
3.7	56.76	0.063
3.8	58.56	0.065
3.9	57.66	0.064
4.0	74.78	0.083
4.1	68.47	0.076
4.2	45.05	0.050
4.3	58.56	0.065

Table 6a-5.6. Transmitter Frequency Stability vs. Voltage in 900 MHz NBPCS Band.