

2.1055 Frequency stability

95.621 (b)

Temperature and voltage tests were performed to verify that The frequency remains within the 0.0005%, 5 ppm specification limit. The test was conducted as follows : The transmitter was placed in the temperature chamber at 25 degrees C and allowed to stabilize for one hour. The transmitter was keyed ON for one minute during which four frequency readings were recorded at 15 second intervals. The worse case number was taken for temperature plotting. The assigned channel frequency was considered to be the reference frequency. The temperature was then reduced to - 30 degrees C after which the transmitter was again allowed to stabilize for one hour. The transmitter was keyed ON for one minute, and again frequency readings were noted at 15 second intervals. The worst case number was recorded for temperature plotting. This procedure was repeated in 10 degree increments up to + 50 degrees C.

Reading were also taken at battery end point 6.0 V/dc

MEASUREMENT DATA:

Assigned Frequency (Ref. Frequency): 462.6375

TEMPERATURE	FREQUENCY(MHz)	ppm	LIMIT(ppm)
REFERENCE	462.6375	0	
-30	462.63655	-2.05	5
-20	462.6372	-0.65	2.5
-10	462.63766	0.35	2.5
0	462.638	1.08	2.5
10	462.63785	0.76	2.5
20	462.63732	-0.39	2.5
30	462.6373	-0.43	2.5
40	462.6369	-1.30	2.5
50	462.63709	-0.89	2.5

Battery end point 5.1 v/dc 462.63705 -0.97 2.5

Note: This EUT meets the frequency stability requirement for a FRS: +/-2.5ppm over temp range of -20 degrees C to + 50 degrees C. It also meets the GMRS frequency stability requirements : +/- 5ppm over the temp range -30 degrees C to +50 degrees C.