



COMPANY NAME: COM NET ERICSSON.
EUT: UHF-M SPLIT 450-488 MHz PANTHER 300M
CLIENT REFERENCE NUMBER: QRTL00-257
WORK ORDER NUMBER: 2000279
FCC ID: OWDTR-0005-A

6.0 FCC Rules and Regulation Part 2 §2.1055: Frequency Stability

6.1 Test Procedure

ANSI/TIA/EIA-603-1992, section 2.2.2

The carrier frequency stability is the ability of the transmitter to maintain an assigned carrier frequency.

The EUT was evaluated over the temperature range -30°C to +50°C.

Note: Com Net Ericsson has requested that the range be extended to 60°C.

The temperature was initially set to -30°C and a 2-hour period was observed for stabilization of the EUT. The frequency stability was measured within one minute after application of primary power to the transmitter. The temperature was raised at intervals of 10 degrees centigrade through the range. A ½ an hour period was observed to stabilize the EUT at each measurement step and the frequency stability was measured within one minute after application of primary power to the transmitter.

Additionally, the power supply voltage of the EUT was varied from 85% to 115% of the nominal voltage.

The worst-case test data are shown.

6.2 Test Data

6.2.1 Frequency stability/Frequency variation

Limit is 2.5 ppm for device with a 12.5 kHz channel bandwidth

Limit is 5 ppm for device with a 25 kHz channel bandwidth

40 Watt, 30 Watt, and 20 Watt radios were tested with 12.5kHz and 25 kHz channel bandwidth.

The worst-case temperature deviation is show below.



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Assigned Frequency 487.975 MHz

Temperature (C)	Frequency (MHz)	Voltage (13.8V +/- 85-115%)	ppm
-30	487.975400	11.56	0.82
-30	487.975350	13.60	0.72
-30	487.975391	15.64	0.80
-20	487.975341	11.56	0.70
-20	487.975375	13.60	0.77
-20	487.975375	15.64	0.77
-10	487.975241	11.56	0.49
-10	487.975258	13.60	0.53
-10	487.975258	15.64	0.53
0	487.975241	11.56	0.49
0	487.975183	13.60	0.38
0	487.975225	15.64	0.46
10	487.975116	11.56	0.24
10	487.975116	13.60	0.24
10	487.975141	15.64	0.29
20	487.975041	11.56	0.08
20	487.975033	13.60	0.07
20	487.975016	15.64	0.03
30	487.975016	11.56	0.03
30	487.974983	13.60	-0.03
30	487.974983	15.64	-0.03
40	487.975066	11.56	0.14
40	487.975083	13.60	0.17
40	487.975100	15.64	0.20
50	487.975200	11.56	0.41
50	487.975191	13.60	0.39
50	487.975208	15.64	0.43
60	469.974975	11.56	-0.06
60	469.974992	13.60	-0.02
60	469.974975	15.64	-0.06

6.2.2 Frequency Stability/Voltage Variation

See above test data.

6.3 Test Equipment

Temperature Chamber Tenney TH65 s/n 11380

Frequency Counter HP8901A (Frequency Mode) s/n 2545A04102