

Frequency Stability measurements for Temperature and Supply Voltages

Date: 3-22-01

ApexPro Transmitter NB1408432

Equipment used:

Russel temperature chamber # RT-1264 Model GD-8 105-105

HP 8561E spectrum analyzer

HP 6216B DC Power Supply

Fluke 37 Digital Voltage Meter

The frequency stability shall be measured with variation of ambient temperature as follows.

Temperature C	Frequency
-30	610,999,337
-20	610,999,735
-10	610,999,838
0	610,999,935
+10	610,999,977
+20	610,999,933
+30	610,999,875
+40	610,999,903
+50	611,000,035

Frequency drift is 698Hz.

For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacture.

The low battery message starts at 1.95V and end of life is 1.5V.

Test ApexPro transmitter with 3.0V and 1.5V record frequency drift.

Voltage on Battery terminal	Frequency of unit under test
3.0V	610,999,925
1.5V	610,999,915

Frequency drift is 10Hz

Total drift is 708Hz