

Temperature Stability Test Report:

Altistar Proxima LTE iRRH

FCC ID: NXP-44380400

SC_TR_154_A

Prepared for:

Altistar Inc.
100 Ames Pond Drive
Tewksbury
MA 01876
USA

Contents

1	Revision History	3
2	Purpose.....	3
3	Reference Documents	3
4	Test configuration.....	4
4.1	Test sample and Operating mode	4
4.2	Support equipment.....	4
5	Test Results.....	5
6	Test equipment and location	6

Tables

Table 1: Equipment under test	4
Table 2: Support Equipment	4
Table 3: Test results	5
Table 4: Test Equipment.....	6

Figures

Figure 1: Test Configuration.....	4
-----------------------------------	---

1 Revision History

Revision	Originator	Date	Comment
A	C Blackham	24 Feb 2015	1 st release

2 Purpose

This document details the Altiostar Proxima P4 LTE iRRH (intelligent Remote Radio Head), model number iRU44380400-1, designed to transmit in the 2110-2155 MHz band.

3 Reference Documents

[Ref 1]	47CFR2	Title 47 Code of Federal Regulations Part 2: frequency allocations and radio treaty matters; general rules and regulations
[Ref 2]	47 CRF27	Title 47 Code of Federal Regulations Part 27: Miscellaneous Communications Services
[Ref 3]	TIA-603-C	Land Mobile FM or PM – Communications Equipment – Measurement and Performance Standards

4 Test configuration

Proxima was configured to transmit a E-TM1.1 waveform at 2132/5 MHz and the EVM of the signal was measured using the Analyser.

In order for the Analyser to be able to accurately measure the EVM, it was locked to a reference signal from the Proxima unit. The transmit Frequency of Proxima is locked to GPS in typical install and 0.016 ppm was added to the EVM error as that represents the worst case baseband card frequency stability.

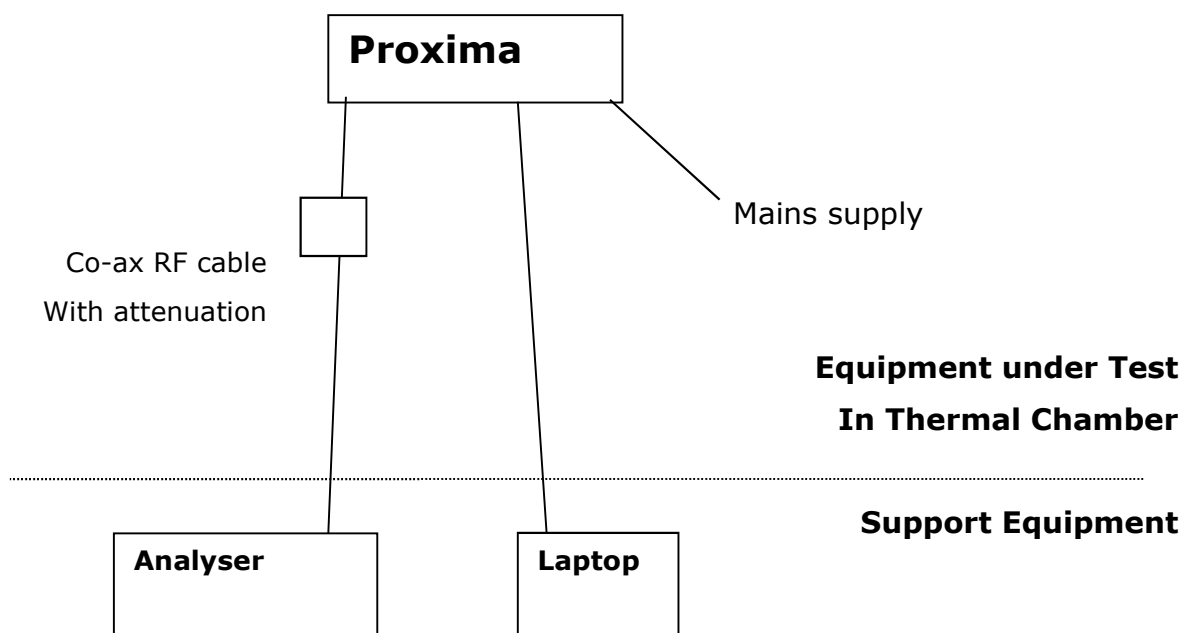


Figure 1: Test Configuration

4.1 Test sample and Operating mode

The equipment under test (EUT) was:

Manufacturer	Name	Model Number	Serial Number
AltioStar	Proxima P4	iRU44380400-1	4014681

Table 1: Equipment under test

4.2 Support equipment

The support equipment was:

Description	Manufacturer	Name	Serial Number
Laptop	HP	250	Dvt-mobile altioStar

Table 2: Support Equipment

5 Test Results

Temp (°C)	System Freq Error (ppm)
60.0	0.020
50.0	0.021
40.0	0.021
30.0	0.021
20.0	0.023
10.0	0.023
0.0	0.026
-10.0	0.027
-20.0	0.024
-30.0	0.029
-40.0	0.024

Table 3: Test results

Note : Varying mains input voltage by $\pm 15\%$ did not have any effect on the DC voltage output from the mains power supply nor on voltage rails within the product and the frequency error at 20°C is unchanged for variations in supply voltage.

6 Test equipment and location

Testing was performed at:

Altiostar Networks UK Ltd
6 Horizon Business Village
1 Brooklands Road
Weybridge
KT13 0TJ

Description	Manufacturer	Name	Serial Number	Calibration certificate
PXA Signal Analyser	Agilent	N9030A	MY541702228	4105006-4886110-1
Attenuator	Fairview Microwave	SA18N25WA-30	None	N/A for frequency measurements
RF cable	Times Microwave	SLU18-SMNM-01.75m	3716	

Table 4: Test Equipment