

To: Bruno Clavier, Rhein Tech Laboratories Inc.
From: Martin Perrine
mperrine@fcc.gov
FCC Application Processing Branch
Re: FCC ID O7KPL150
Applicant: Topaz3, L.L.C.
Correspondence Reference Number: 20897
731 Confirmation Number: EA102136

In regards to your recent application referenced above we kindly request that you provide the following additional information.

1) Justification for your certification request of CFR Parts 22 & 74. How and where will the device be used under these Rule Parts. Also, this unit cannot be Granted under Section 95(A) because there are no VHF frequencies available for that Radio Service.

[The certification request is made for Part 90, Part 22\(F\) Non Cellular and Part 74 Subpart \(H\) Low power auxiliary station.](#)

2) Clarification of test frequencies. Test report sections 5.2, and 7.2 at points mention test frequencies from 450.0125 to 489.9875 MHZ. This is outside of the EUT operating range.

[These were typographical errors and the correct frequencies are now included.](#)

3) Photograph of the substitution antenna used for radiated RF power, and spurious radiated emissions test, test report section 6 and 8.

[Photographs of the substitution antennas used for radiated RF and spurious emissions are included in the test photographs.](#)

4) Clarification of actual radiated power output ERP. Table 6-2 in the test report reports a maximum ERP of .89 W while other points in the test report as well as the grant discuss other power levels including 2.2 W ERP.

[It has been demonstrated that the radiated ERP measurements of Table 6-2 have lower power measurements due to a mismatch with the antennas used, a ¼ wave dipole was used to inform our client of this, and the levels approached those of the antenna conducted measurements. The radiated levels are taken with antennas, which will be provided with the radios; conducted antenna power values have been used throughout the report since they were considered worst case, including the values used for the calculations of the limits.](#)

5) Updated Occupied BW plot. Confirm frequency mask drawn in plot 9-2. Also, confirm that the unmodulated power (reference point) is 27.9 dBm for this test.

[Plot has been retaken to accurately show unmodulated power as 33.2dBm. Programming ability was provided by the client to change from a wideband to a narrowband mode for the channels.](#)

6) The reference (on channel) power level measurement for the measurements taken in test report section 7.2 and 8.2.

[The reference power level \(conducted\) has now been included in the heading for the measurements taken in report sections 7.2 and 8.2](#)

7) Block diagram, tune-up information, final amplifier stage DC voltage and current information, and description of all circuitry and devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation, and for limiting power, per CFR 47 Section 2.1033 (c).

[Please see attachments uploaded 10-17-01.](#)

8) Additional frequency stability measurement data which includes the lower and mid range frequencies. Additionally, the unit should be exercised to the battery end point which is stated at 3.3 V on test report page 24, per CFR 47 section 2.1055d(2). Plot 10-2 shows that measurements were made only down to 6.2 V.

[Battery end-point was measured incorrectly. Per manufacturer's specifications remeasurement yielded 5.5 VDC @ - 0.53 ppm](#)

FYI

1) For licensed transmitters part 15 testing is not required. The part 15 tests will not be evaluated.