

To: Bruno Clavier, Rhein Tech Laboratories Inc.
From: Martin Perrine
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FCC Application Processing Branch

Re: FCC ID ATH2425110
Applicant: E F Johnson Company
Correspondence Reference Number: 21681
731 Confirmation Number: EA649893

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

1) Bandwidth justification for 8 KHz and 16 KHz emissions.

The emission for C4FM modulation is 8.1kHz per EIA/TIA-102.BAAA standard. The 99% emission bandwidth was measured in accordance with EIA/TIA-102.CAAA section 2.2.5 Modulation emission spectrum. The plot was provided in the test report, Plot-5-1 page 16.

The necessary bandwidth for analog 12.5 kHz and 25kHz emission were calculated per Carson's rules in section 1.3 of the test report.

2) DC currents and voltages in the final amplifier stage, Block diagram and Tune-up procedure, per CFR47 2.1033(c).

The DC voltage is 7.2 Volts and the current is 2200 mA. This is the current into the final amplifier module at 5 Watts output. Since the amplifier is a module, and consists of four stages, the current is for the complete module (not just the final transistor). Block diagrams and tuning procedures are given in our manual (which you have).

3) Confirmation that power can only be set to two possible levels 1.2 W or 5.8 W.

The power can only be set to the specified levels: 1.2 W and 5.8 W

4) A description of the Project 25 digital mode mentioned in the users manual. If appropriate a detailed description of the digital modulation system, per CFR 47 section 2.1033 (j13).

Please refer to "011002 Modulation Information

5) Test setup photographs for the radiated tests which contain the substitution antenna inserted. Per Section 2.947(e).

Please refer to "011002 Test Report"

6) Modulation limiting response data for the 12.5 KHz spacing mode. Data for the 25 KHz spacing mode was found in the test report.

Modulation limiting curves for 12.5 kHz channel spacing were added in the "011002 Test Report".

7) Sample calculation for the radiated spurious data from section 4 of the test report.

Refer to "011002 Test Report"

8) Modulating signal details for Digital Modulation P25 Occupied BW plot 5-4 in the test report.

See attached file. Revised test report.

9) Confirmation that the EMC test report with exhibit 6 title "Revised Test Report" is the test report submitted for review. There is a second test report under exhibit 6 with slightly different information. Please clarify which is the correct report.

This will be irrelevant since the most updated report will be "011002 Test Report"