



American Telecommunications Certification Body Inc.  
6731 Whittier Ave, McLean, VA 22101

April 9, 2003

RE: Shure Incorporate

FCC ID: DD4MX692

I have a few comments on the above referenced Application.

- 1) Please supply the following exhibits:
  - a) Users Manual
  - b) DC voltages were provided in the operational description. Please provide the currents applied into the several elements of the final radio frequency amplifying device for normal operation over the power range.
  - c) Test Setup Photographs as a separate exhibit.
- 2) The operational description explains the device is capable of 50 mW (+17 dBm), but only 2.52 mW (3.4 mW for other model) was measured. This is a difference of 13 dB. Please note that the measured value is expected to be within 0.5 dB of the tune up procedure or manufactures claimed value for conducted power measurements. Please explain. Additionally, the test procedure 2.0 mentions directly connecting to a Spectrum Analyzer for the measurements, but it appears the data may have been taken using the substitution method as shown on page 24. Please clarify. Note that the technical requirements of 74.861 mention measuring at the output terminals so a direct connection method is the preferred method.
- 3) If the device was not properly operating at full output power and requires retesting, then measurements of spurious emissions will be required also due to the increase of output power.
- 4) Please provide the curves referenced by page 25 of the test report. Note: The FCC expects each filing to be self sufficient, therefore copies of data may be provided where appropriate.
- 5) Section 7.0 uses the rated value for the attenuation value. This should be the measured value. Also, the maximum spurious emissions allowed should be 94 dBuV/m or -13 dbm.
- 6) The test report seems to present spurious test data following typical radiated methods such as ANSI C63.4 and then calculating TX power via far field equations. Please note that when the limits are given in dBc ( $40 + 10 \log P$ ) then the device must be tested following substitution methods specified in EIA/TIA 603. Please reference email interpretation from Frank Coperich that defined this policy provided in a separate attachment. The FCC usually is interested in points within 20 dB of the limit. Given the nature of the results obtained on this device, only the highest 1 or 2 points need be verified (i.e., 2<sup>nd</sup> and 4<sup>th</sup> harmonics).
- 7) The assigned frequency given in section 8.0 & 9.0 of the report appears incorrect. Please explain. Additionally, please provide a copy of the data referenced in the section of the report.

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The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the sender.