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Sent: Thursday, October 06, 2011 8:49 AM

To: dharmajit@ultratech-labs.com

Subject: Response to Inquiry to FCC (Tracking Number 237712)



Office of Engineering and Technology

Inquiry:

We are reviewing a Part 15.247 application for single modular approval. Applicant has provided the following response to show compliance with shielding requirement of section 15.212(a)(1).

1. "The modular transmitter must have its own RF shielding." The transmitter radio section of the RFSC1 module consists of RF shielding that is RF/EMI suppression tape. The properties of this material include a conductive grid printed with metallic ink. The grid size is 0.1 inch square; affecting all energies below 80 GHz. The shielding material comes with a 1.9 mil acrylic-based adhesive that adherers the shield to the top and sides of the transmitter radio section. Also, to ensure that the sides remain covered, an additional layer of acrylic-like adhesive is applied to the shield to firmly secure it in place. The PCB is an integral part of the shield, being designed with solid ground planes under and surrounding the transmitter. This shielding method has been tested to completely comply with the requirement to prevent the transmitter from RF coupling with the host platform.

This is non traditional type of shielding cage. Please advise if the above shielding type and method proposed by the applicant is acceptable to FCC? We have attached the specification of suppression tape proposed by the applicant and external photograph of the EUT for your review and consideration.

Response:

The shielding you are proposing may be acceptable with the additional statements required when you submit your filling.

- 1. You must indicate in your filling that the shielding is a permanent part of the module and not easily removed. The shield is not to be independently applied by the host manufacture.
- 2. Provide statements to state that the shielding has been placed on the RF section by design. By design we mean the shield is engineered to be an effective shield for providing a terminating or conducting surface for reducing

unwanted fields, entering and exiting the RF section. Basically saying that its placement and grounding is by design using good engineering practice and not just stuck on the module.

3. Your host manufacturing instructions say that the shielding cannot be removed.

Note: We are going to discuss this question at the October 2011 TCB workshop in Baltimore. So we may end up providing more guidance related to this subject in KDB 996369.

Specification of RF suppression tape External Photo of the Module

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