

To: (NCEE) Doug Kramer

Subject: Review of Uploaded information for OAM2100NC - updated 04/15/02

Doug,

1) I have not seen an updated letter of confidentiality uploaded per my previous request. The letter of confidentiality must not simply state "operational, functional, and technical documentation". It must specifically list each exhibit confidentiality is requested on (i.e., schematics, block diagrams, internal photographs, theory of operation, etc.).

2) The theory of operation (page 5 & 6) states

"Note: iST expects all transmitters that are used as part of this system to send the proper identification preamble, have a transmit time of less than 10 microseconds, a transmission interval of 15 to 20 seconds and be certified for FCC part 15 compliance."

From the sample bitstream provided today, this appears like the transmission on time is more like 10 msec, not 10 us. Please confirm and correct any information if necessary.

3) How do we look at providing the plots showing the duty cycle of transmit is > 10 seconds. Because of the unique nature of this device, it would be recommended to show the input train and output train. The input train should be less than the 10 seconds in order to show that the EUT ignores or doesn't transmit any signals less than the 10 seconds, even if it receives such signals.

4) Upon reviewing the revised test report, I have the following comments.

a) For section 4.4, some of the limits are not correct. The limits should be as follows:
for a 318 MHz transmitter based upon table 15.231(e), the Fundamental has a peak limit of 87.8 dBuV and an average limit of 67.8 dBuV;
for the spurious or harmonics falling OUTSIDE of restricted bands, a peak limit of 67.8 and an average limit of 47.8 (unless 15.204 is less stringent);
and for items falling within restricted bands, the limits of 15.205. This will change several of the levels.

b) As long as all of the data is due to spurious emissions in this table, for 15.231 Transmitters, averaging may be applied even below 1 GHz. Therefore you only need to show peak and average measurements and remove the QP designator.

c) There is a concern with several data points that wasn't obvious during the first review since I needed clarification on how the measurements and correction factors were applied. If you compare peak to peak, or average to average, several data points when the unit is transmitting do not meet the following FCC regulation:

The field strength levels of spurious emissions at 954 MHz and those above 1 GHz exceed that of the fundamental at 318 MHz. This is in violation of Section 15.209(c) of the Commission's Rules.

Sincerely,

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