

Barry,

Below are the responses to the issues raised. I hope you are feeling better after your bout with the flu.

Regards,

Tom

> -----Original Message-----

> From: Barry C. Quinlan [SMTP:certification@curtis-straus.com]

> Sent: Thursday, December 21, 2000 7:59 AM

> To: Tom Tidwell

> Subject: FCC ID: NT3BDA-8087-52C

>

> Hi Tom,

>

> We have conducted our review of the application and the following issues
> need to resolved before we can proceed:

>

> 1. The rated power on page 5 of the test report is 0.316W. The form 731
> states 0.1W. Please clarify.

[Tom Tidwell] The single channel power was presented only to show maximum distortion. Single channel is not a realistic configuration since the EUT is a broadband amplifier. FCC requires that a broadband amplifier be rated for multiple signals since there is no guarantee that it would only see one channel at any given time. When the EUT is installed, the ALC is set for 100 mW maximum composite rf output power, thus insuring that the distortion products are below the -13 dBm limit. The power output should be granted as .1 W only.

>

> 2. Please submit a plot of the three signal test.

[Tom Tidwell] You will find these plots on pages 23 - 26 of the test report. The channels chosen are the primary and secondary channels plus one extra channel identified by IS-95.

>

> From the FCC: "We consider that Intermodulation (IM) products are
> spurious emissions and are covered by the general emissions limitations
> (mask) in each radio service. This normally refers to the IM products
> produced by the transmitter / amplifier carrying two or more signals at
> the same time.

>

> Section 2.1051 requires that measurements be made for spurious emissions
> at the antenna terminals while the transmitter is modulated. (Note we
> consider an amplifier to be a transmitter - since it is transmitting and
> is licensed. The word amplifier does not exist in Part 2 and many of the
> licensed radio services.)

>

> We normally require that the IM test(s) be done with three signals of
> equal magnitude - at their highest rated output level - for each type
> of modulation. The signals are spaced so that two are near to each other

> at one edge of the pass band and the other signal is alone at the other
> edge of the pass band. This placement will potentially produce both in -
> band and out - of - band IM products.

>

> Our FCC Rules Part 2 does not provide guidelines for a specific IM test.
> However, Canadian RSS-131 deals with this issue. "

>

> 3. The spurious radiated data is taken utilizing a procedure similar to

>

> ANSI C63.4. This will not be acceptable in the future and may not be
> acceptable now. The FCC has stated that it is branch policy to require
> the measurements be made in accordance with ANSI/TIA/EIA-603-1992
> Section 2.2.12 substitution method. We believe that the FCC has
> expressed some clemency and will accept a few more applications with
> test data taken in this mode, but they could decide not to accept
> non-substitution data at any time. In light of these developments, you
> may wish to submit substitution based measurements for this device.

[Tom Tidwell] <<FSofSpurious.pdf>>

>

> 4. Please submit the a statement about the DC currents and voltages in
> the final amplifier stage.

[Tom Tidwell] The final amplifier stage operates with 12 Vdc, 300
mA

>

> 5. Please tell us the power range available and the means to vary the
> power.

[Tom Tidwell] The power range is not variable. The only power
adjustment is setting the ALC. This is done as a fine adjustment upon
installation.

> 6. Please submit a statement concerning the devices compliance with
> section 22.933 and OET Bulletin 53.

[Tom Tidwell] Since this equipment is only an amplifier, this
attestation is normally not required. This attestation deals with the
network protocol for AMPS.

>

> 7. Please submit an MPE calculation showing the minimum safe distance.

[Tom Tidwell] <<MPE PREDICTION FOR NT3BDA.pdf>>

>

> 8. Antenna spurious emissions must be done at the highest power and
> repeated at the lowest power. It appears that the device contains
> attenuators for setting power level. We appear to have plots for the
> highest power in the report. If the device does have a lower power
> setting, please submit plots for the lowest power level.

[Tom Tidwell] The EUT is intended for 100 mW operation only.

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> 9. Please supply schematics.

[Tom Tidwell] <<schem1_fcc.jpg>> <<schem2_fcc.jpg>>

>

> FYI I am out of the office on Friday and all of next week. Jon Curtis will
> cover for me.

>

> Best wishes for the holiday season.

>

> Best regards

>

> Barry C. Quinlan

> Certification Manager

> Curtis-Straus LLC