



Class II Permissive Change Certification Application - Additional Information

May 2, 2003

American Telecommunications Certification Body, Inc.
6731 Whittier Avenue
Suite C110
McLean, VA 22101

RE : Class II Permissive Change Certification Application
FCC Tx ID : AB6NT800MFRM2

Dear Sir/Madam

This letter is to respond the additional information that requested by ATCB. The answers to your requests are listed below:

Question 1) The description of changes mentions that there have been changes made regarding clocks, the amplifier, and TX Lo, etc. However, it can not be adequately determined if these changes will be allowed under a permissive change. Please provide further justification to support the following below.

Please note that 2.1043 states the following regarding Permissive changes:

Changes to the basic frequency determining and stabilizing circuitry (including clock or data rates), frequency multiplication stages, basic modulator circuit or maximum power or field strength ratings shall not be performed without application for and authorization of a new grant of certification.

Variations in electrical or mechanical construction, other than these indicated items, are permitted provided the variations either do not affect the characteristics required to be reported to the Commission or the variations are made in compliance with the other provisions of this section.

Answer: The design changes mentioned in the application letter were:

- (i) Modified the Tx LO distribution amplification circuitry.
- (ii) Fine-tuned the Tx circuitry by modifying discrete values.
- (iii) Changed distribution of digital reference clock.
- (iv) Changed the RF discrete attenuation pad to ceramic chip attenuator in the PA..
- (v) Cleaned up barnacles and fine-tuned the matching network in the PA.
- (vi) Improved the manufacturability of the PA.

The design changes mentioned above are to centerize the design, improve the yield, or/and improve the manufacturability of the radios.

The design change in (i) doesn't affect the frequency determining and stabilizing circuitry and only the LO level has been altered.

The design change in (ii) and (iv) made no impact on the overall maximum power or field strength rating of the radios.

The design change in (iii) is to change the distribution of the digital reference clock that being used for both digital and RF circuitry. The frequency of the digital clock being used by the basic frequency determining and stabilizing circuitry is the same as the original filing.

The design changes in (v) and (vi) are to improve the manufacturability of the radios.

Question 2) Please provide better photographs of the bottom of the PA board(s) without the "heat sink".

Answer: Since the bottom of the PA board is glued down to the heat sink and no component is at the bottom side of the PA board, it seems that to provide a picture with the heat sink attached should be sufficient to satisfy the FCC requirements.

Question 3) *Please provide a clearer or higher resolution copy of the label. The characters must be easily distinguished.*

Answer: As suggested, the label has been updated to clearly show the Part 22 information. The updated label information has been submitted as "Exhibit 4 - label info.pdf" to the ATCB web site under "Additional Information".

Question 4) *Please explain all the N/A's given in table 42. and a few of the other N/A's seen for 8 PSK and QPSK modulations.*

Answer: When the test plan was first written up, it covered all the different scenarios and situations. After we had started performing the tests, we found out that different modulation schemes made no significant changes on the emission performances. Therefore, some of the tests were dropped. When the data were compiled to form the tables, there were no data for some scenarios. To make the table complete, we just put down "N/A" - "NOT AVAILABLE" in the tables.

Question 5) *Table 56 appears to have an incorrect calculation for ppm at 50 degrees, please correct.*

Answer: As suggested, the table 56 of the test report has been updated to rectify the mistakes we made in the previous version. The updated test reports have been submitted as "Exhibit 2 - MFRM2 Test report summary.pdf" and "Exhibit 2A - Test Report Provided by Nortel.pdf" to the ATCB web site under "Additional Information".

Question 6) *Please provide information regarding the emission designator that should be used for new modulations of QPSK, 8PSK, and 16QAM.*

Answer: Emission designator for one carrier mode should be 1M25D9W, for 2 carrier mode should be 2M50D9W, and for 3 carrier mode should be 3M73D9W. The updated Form 731 has been submitted as "Exhibit 1 - ATCB Form 731 for AB6NT800MFRM2.pdf" to the ATCB web site under "Additional Information".

Question 7) *FYI. The references in the test report from Sanmina-SCI to 22.917(e) are incorrect. This section of the rules was changed since issuance of the New FCC Part 22 rules effective on Feb 18, 2003:*

Answer: Thanks for you information.

Please contact me for further information if necessary.

Sincerely,


Signature

Thomas Wong,
Regulatory Prime
Wireless Division, Nortel Networks
Tel: 403-769-2425 Fax: 403-769-7806
Email: thomaswg@nortelnetworks.com