

1) Form 731 Section III, item 4(a) should cite TNB as equipment type.

Answer: Revised the Form731 to be TNB type.

2) Please justify the use of the DoC labeling information (FCC Logo). This labeling is reserved for particular approvals that do not appear to apply to this application (PC Peripheral, Stand alone RX, etc.)

3) The label contains the information for 15.19(a)(3). However it would seem the information required by 15.19(a)(1) would be more appropriate. Please review and correct as necessary.

Answer:Keep the logo and statement.

4) The schematics may be incomplete. Please confirm the RF circuitry is included in the schematics.

Answer: Pls find the file “Spec & Schematics” The RF circuitry for downlink and uplink portions are shown in the sheet 1 and 2 .

5) Please provide a Tune up procedure over the power range provided (2.1033(c)(9)).

Answer:Pls find the file “Coiler Turn on procedure”.

6) The manual appears to cover several modulations, however only one modulation appears to be tested in entirety. For many tests, the FCC expects each type of modulation to be tested, if the device is being approved for those modulations. Please refer to the attached information. Will this device be used for other modulations? If so, tests such as Power and input/output bandwidth should be included for each intended modulation.

Answer:

No,the device under test only supports the CDMA2000 system.

The User Manual “Broadband Repeater TX Series GSM / DCS / PCS / CDMA / WCDMA” is an universal manual for a series of repeater produced by coiler. The model of TX-800 only supports the CDMA 2000 whose the working frequency range for up-link is 824~849 MHz, and 869~894 MHz for down-link.. The detailing information about the operation is found by “OPERATIONAL DESCRIPTION OF TX-800”.

Additionally, some tests in the test report mentions GSM. Please explain.

Answer: Revised the test report. The input signal was CDMA for testing, not GSM.

7) Please provide information regarding both antenna's used with the device (including the gain). Please note that the back of the manual suggests 9 dBi for the donor antenna.

Answer: Pls respectively find the files ” Tx 800 ANT SPEC ” and “Tx 800 Donor ANT SPEC” for internal and external antenna gain.

8) Per FCC guidelines for repeaters and boosters (see attached), please justify the input drive level used (why was the level selected, was it the maximum input rating and maximum gain set and then used for all tests). Please confirm testing was done as maximum output levels the device is capable of.

Answer: Yes,all of test items were based on the maximum output power.

Before all testings, firstly adjusted the gain by pushing the keypads either in up-link or down-link. to hit the maximum gain checked by network analyzer,(See the figure in test report:Out of band Rejection: Filter Frequency Response),then recorded the setting values for maximum gain. Followed by this value,compared the measured maximum output power with specification for maximum input level.

Prevent saturation method:

There is also a methods of Auto Shut Down (ASD) preventing the EUT operation from saturation,while the maximum output power exceed the spec.of shutdown as shown in “TX-800 schem”.For example,the DUT will automatically shut down once the output power exceeds the +8dBm at downlink path .More detail information about the SAD function,pls see the manual “OPERATIONAL DESCRIPTION OF TX-800”.

9) The application does not appear to contain information regarding both DC voltages AND currents applied into the several elements of the final radio frequency amplifying device for normal operation over the power range been provided? (2.1033(c)(8)).

Answer: Pls find the test report.

10) In the past, typically these types of devices were listed as conducted power. However recently, the FCC has been insistent that these should be reported as ERP. Please update the report to also show ERP based upon conducted power and antenna gains. Optionally, please measure ERP.

Answer: Pls find the test report.

11) FCC requires applicant to understand their responsibilities under Sections 22.383 for related booster/inbuilding operations. Please confirm applicant understands their responsibilities under this section of the rules.

Answer: Pls find the file ”Declaration “.

12) FYI....Please review amplifier/booster/repeater guidance from the FCC and ensure all information is provided within the application as required.

Answer: Yes.

13) Please confirm if power is single channel or composite power. If necessary, please explain how the device handles multi-channel power (i.e. power per channel is reduced, but composite power is constant). Please provide or kindly explain.

Answer: Composite power .

There is an Auto Shut Down (ASD) function so as to prevent over driving form DUT . More detail information about the SAD function,pls see the manual “OPERATIONAL DESCRIPTION OF TX-800”.