



## Central Research Technology CO.

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RE: Teletronics Technology Co., Ltd.

FCC ID: R5ITT-136

### **Answers to ATCB comments:**

**Q1.:**Both the main unit Ethernet cable and the AC adapter appear to require ferrites. Please note that the FCC expects the ferrites to already be placed on the cables in a permanent manner (i.e. molded) and the cables provided to the end user. Note that snap on ferrites are typically not allowed. The FCC does not want the burden of compliance to rest with the user, or for the user to easily remove. However if the system is professionally installed only (see additional question below about professional installation) then the installer may install these if the professional installation manual clearly show them how. Please explain how the manufacturer will address this issue.

**A1.:The manner provided by the manufacturer is to fix the ferrites on the cables with conductive tape. The ferrites are glued to the cables and can't be easily removed or slide up and down along the cables after fixed. Please refer to the exhibit “photo for the ferrites fixed on the cables.jpg “ (exhibit type:Cover letter).**

**Q2.:**No letter of confidentiality has been provided. Please provide if this request is desired on confidential parts of the application such as schematics and/or block diagram. If not, then please confirm this fact.

**A2.:The letter of confidentiality has been uploaded, please refer to “Confidentiality Request letter (revised).pdf” exhibit (exhibit type:Cover letter).**

**Q3.:**Some of the internal photographs are actually external photographs (EUT, POE, Antennas, etc). Additionally, please include photographs of the antennas for sale with

the system and being approved with this application as part of the external photographs exhibit. Please adjust these exhibits as necessary.

**A3.:Revised, please find the “ External Photos (revised)” & “Internal Photo 1 (revised).pdf” & “Internal Photo 2 (revised).pdf” exhibits.**

**Q4.:** The operational description mentions 3 different versions of this device. What are the differences? Do any of these differences affect the RF testing?

**A4.: Please refer to “Answer to Q4 listed on the comments for R5ITT-136.pdf “exhibit (exhibit type:Correspondence).**

**Q5.:** The block diagram and schematics are not for the PCMCIA Card. Note that a block diagram and schematic for the TX portion of the device is required as specified 2.1033(b)(5) for the RF section. Please provide a block diagram and schematic for the PCMCIA card or as an alternative, you may provide a parts list that lists that shows that this part is provided by another manufacturer. Please provide either a schematic or parts list as specified. If necessary, please update the confidentiality letter to include the parts list if provided.

**A5.:The schematics for PCMCIA card has been uploaded. For the block diagram for WLAN card, has been uploaded, too. Please refer to “(TTN-11-208)Schematics for PCMCIA card.pdf “ exhibit and “block diagram for WLAN card.pdf “exhibit.**

**Q6.:** This system appears to use standard N connectors for the antennas. To meet the requirements of 15.203 using a standard connector, this device will be limited to Professional Installation only. If this device will only be professionally installed, this requires a cover letter justifying professional installation to be provided. The letter should address the following 3 items:

a) Marketing

example: The device cannot be sold retail, to the general public or by mail order. It must be sold to dealers or have strict marketing control.

b) Requires professional installation

examples:

- installation must be controlled.

- installed by licensed professionals ( EUT sold to dealer who hire installers)

- installation requires special training ( special programming, access to keypad, field strength measurements made) What is unique, sophisticated, complex, or specialized about your equipment which REQUIRES it to be installed by a professional installer?

c) Application

example:

-The intended use is generally not for the general public. It is generally for industry

**A6: This device is limited to professional installation. Please refer to “Answer to Q6 listed on the comments (R5ITT-136).pdf “exhibit (exhibit type:Cover letter) for more details.**

**Q7:**The device appears to be able to function on channels beyond those allowed in the U.S. Please explain how the device will be build such that the end user in the U.S. does not have the capability to select these channels (CFR Part 15.15)

**A7: The manufacturer will cancel the function of channel selection on the firmware (the content for the test report is also revised) . That is to say, this function is impossible to be shown to the end user. If they don't have this choice, of course they don't have the capability to select those channels. Please refer to the revised test report for more details. The file names are: Test report-1 (revised) & Test report-2.11 (revised) & Test report -2.12 & Test report-2.2 (revised) & Test report-3 (revised). The file size is too large, so we separate it into 5 files.**

**Q8.:**Upon reviewing the test report, several sections complained that the font would not display. Please reconvert the test report and embedding the font into the PDF or correct all the fonts to a standardized font.

**A8:Please see the revised test report.**

**Q9.:**Please explain why some plots (page 61, 65, 69, 97, 101, 105,) show emissions at or over the limits, but the tables appear to show lower values.

**A9: The plots show the spectrum of the preliminary test (i.e. peak value) and the preliminary test is used to pick up the frequencies with high emission level by using a spectrum analyzer. The tables show the final test data (i.e. quasi-peak value) by using a test receiver.**

**Q10:** For emissions > 1 GHz the EUT must meet both the peak and average limits. Therefore if any peak emission exceeds the average limit, average measurements must also be made. This does not appear to be done in all cases. For instance, page 120 @1704 MHz & 2686 MHz, page 124 @ 1788 MHz, page 126 @ 1880 MHz & 2695 MHz & 16886 MHz, page 128 @ 1048 MHz, page 130 @ 1086 MHz, page 134 @ 1048 MHz & 1746 MHz & 2796 MHz).

**A10 :Please see the revised test report.**

**Q11.:**Many of the average readings are 15 – 20 dB below the peak readings > 1 GHz. The TX appears to maybe have had a duty cycle present during some tests. Normally these tests are expecting the device to be placed into 100% TX mode of operation with NO duty cycle. Note that the use of 10 Hz VBW for average measurements expects the device to be placed into 100% TX with no associated duty cycle. Please provide information regarding the TX on/off time and period or if the TX had no duty cycle. Note that normally the peak/average delta for these types of devices is about 8-11 dB.

**A11 :After checking the duty cycle, its duty is 100% during the test.**

**Q12.:FYI....**For PSD tests, the VBW should be > RBW, not = 3 kHz (with RBW set to 3 kHz). Please be careful of this in future applications.

**A12 :Noted, thank you for your info.**

**Date uploaded: August 16, 2004**

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