

From: ext Timothy R. Johnson [tjohnson@AmericanTCB.com]
To: Kojola Ilkka (NMP/Salo); Soderholm Hannu (NMP/Salo)
Subject: Review of FCC ID: PYANHL-4

Question 1:

Please provide close up photographs of the top and bottom of the main PCB board w/o the shields installed.

Answer:

Photos are uploaded to ATCB website to folder Internal Photographs
831_close up pictures_2.pdf

Question 2:

Pages (6 of 22 & 6 of 74) of the EMC reports states that this is a Triband GSM phone (900/1800/1900), while only one band appears to have been tested. The tune up procedure also mentions procedures for various bands. Please comment.

Answer:

Phone includes also GSM900 and GSM1800 bands, which are not part of this filing. They are intended to other marketing area and do not operate in USA.

Question 3:

Please upload an exhibit for the operational description. Note that the theory of operation /description of circuitry referenced in the confidentiality letter does not appear to have been provided.

Answer:

Unfortunately Theory of Operation/Description of Circuitry was uploaded into RF exposure info folder. Please change folder for this document respectively.

Question 4:

This project was originally canceled (or put on hold) on July 11, 2002 because of possible modifications/changes that could affect compliance. However, we have only received one schematic on July 9, 2002. Please confirm if this schematic is correct, or if a new one should be provided.

Answer:

The changes that were made did not change the schematic.

Question 5:

A complete EMC report was provided for a model NHL-4 and a partial second EMC report was provided for a model NHL-4U. Please explain the difference between these models.

Answer:

Only differences between products are different front and back covers, different UI board, where locations of key domes and LEDs are slightly moved, and key mat. Backside of UI board is solid ground in both boards and they can be considered to be electrically identical

Question 6:

Please upload test configuration photographs as a separate exhibit.

Answer:

Test setup photos are uploaded to folder Test Setup Photos.
831_test configuration photographs_2.pdf

Question 7:

Radiated Spurious Emissions appear to have been performed by calculating Field Strength from the received power. The FCC no longer accepts calculated "radiated" power output measurements for these type of transmitters. These must be performed using the substitution method specified by EIA/TIA 603 section 2.2.17.

Answer:

Radio Frequency Investigation Ltd. delivered documents to prove that substitution method is used and these documents are uploaded to Test report folder.
determination of radiated field strength limit.doc
eirp substitution measurement methods.doc

Question 8:

Please provide a plot of the occupied bandwidth.

Answer:

RFI delivered addition to test report and that is uploaded to Test report folder.
transmitter occupied bandwidth measurements.doc

Question 9:

Please provide information to show compliance with 2.1047.

Answer:

GSM product using phase modulation and modulation does not affect the deviation of signal.

Question 10:

There is no emission designator description provided with this application as required by CFR 1.1033(c)(4). Please see 2.202 for examples and instructions. Please provide sample calculations for the necessary bandwidth.

Answer:

Emission designator (256KGXW) is provided in form 731. 256k is commonly used for theoretical GSM 99% OBW.