

## TIMCO ENGINEERING INC.

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## TCB & FCB

*FCC Approvals*  
*Industry Canada Approvals*  
*Notified Body for Europe*

TO WHOM IT MAY CONCERNED

SUBJECT: Answer for FCC Part 15.239 Questions

Applicant: CNAPS.  
Product: FM Transmitter  
Model: F4H  
FCC ID: X8OF4H

### FM Transmitters

#### 1. How does this device operate?

**Answer:** Sound plug of this EUT is connecting to audio output port of Navigation or MP3, PMP, small Notebook PC etc. and it(sound or short voice guide) is FM modulation to Radio frequency(88.1 MHz ~107.9 MHz), after modulated RF signal is radiation by Cable antenna with in connected sound plug. Modulated RF signal is transmit to Rod antenna which is installed back side of Mobile Car. It is connected with feeder line of FM Car stereo speaker set installed in Car's driver front side

FM channel is selected 0.1MHz step by a left/right push up/down button on the EUT

1.5 Vdc Cell battery(AAA Size) is insert to battery case installed back side of EUT and also optionally 5 Vdc power is supplied by used USB Cable from sound device(MP3, PMP etc.)

For more detailed How-to operation about EUT. Please see a user manual

#### 2. Provide inform on the device and its antenna

**Answer:** This device(or product) is named FM Transmitter(Model name: F4H) and it is designed for listening music and short voice guide from car stereo speaker installed inner Car. Antenna is cable type and length is 100 mm. Please see the below fixture and addition to uploading a antenna specification



### 3. How is it installed ?

**Answer:** This product with used to other sound device(MP3, Navigation, small Notebook PC etc.) is properly location which is comfortable useful around front side of drive Car. No other installation is required.

please see the below fixture



### 4. What test procedure was used?

**Answer:** it was tested in accordance with ANSI C63.4-2003

### 5. If tested in a car, how was it configured?

**Answer:** it was not tested in a mobile Car . It was tested in a 3 meter semi-anechoic chamber and open test area site as shown in Appendix 1. Test setup photos.

### 6. Was the tuning range properly verified? The test lab should indicate in the report that the tuning controls were manually adjusted to verify the maximum tuning range.

**Answer:** Per about question, please see the test report (6/17)page and user manual.

### 7. Was the bandwidth properly tested with the maximum audio input? The test lab should describe the audio input signal (use a typical audio file from a typical device- DO NOT use 1 KHz tone from signal generator as specified under ETSI EN 301 357-1)

**Answer:** as maximum audio input, We played a MP3 song from a Note book PC as required by the applicant.

### 8. Does the device operate in a vehicle? Please state that this was verified.

**Answer:** It was not test in a Vehicle.

Best Regards

Rio

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Rio Lee / Junior system engineer