



RF INNOVATIONS

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Tuesday, August 31, 2004

TO:

Federal Communications Commission (FCC)

Equipment Authorisation Division
7435 Oakland Mills Road
Columbia, MD 21046
USA

Dear Sir/Madam,

Pursuant to DA 00-1407 "Part 15 Unlicensed Modular Transmitter Approval", RF Innovations hereby seeks modular approval for its:

- RFI-9256 OEM radio transceiver module;
- FCC Identifier P5M9256OEM;

for operation under Part 15 of the Commission's Rules.

Our FCC Registration Number (FRN) is 0011306867.

Responses to each of the questions 1 to 8 in the DA 00-1407 FCC Public Notice are provided below.

Best regards,

Carlos M. Tomaz
Engineering Manager, RF Innovations.

RESPONSE TO QUESTION 1.

The modular transmitter has its own RF shielding.

All RF circuitry is shielded by an OEM metal can.

Within this shielded area, a separate VCO metal can isolates the high-level VCO output signals from other RF circuitry.

RESPONSE TO QUESTION 2.

The modular transmitter has buffered data inputs.

The symbol rate is fixed to 115Ksamples/s with 2-level FSK encoding.

Modulation deviation is factory preset. Baseband data is pre-shaped (Gaussian shaping) prior to being applied to the RF modulator. Symbol pre-shaping is not under user control, thus there is no possibility for the user to change FM deviation or over-deviate the FM-modulated carrier.

RESPONSE TO QUESTION 3.

The modular transmitter has its own power supply regulation.

The transmitter can operate with DC voltages between 9 and 30V.

RESPONSE TO QUESTION 4.

The modular transmitter complies with the antenna requirements of Section 15.203 and 15.204(c).

The modular transmitter has a unique antenna connector and has been tested with a specific named antenna.

RESPONSE TO QUESTION 5.

The modular transmitter was tested in a standalone configuration, with no additional shields or cases. It was found to comply with Part 15 emission limits under these circumstances.

The modular transmitter was tested and found to comply with AC line conducted requirements in Section 15.207. No ferrites were attached to AC or DC power lines or data input/output lines. The length of these lines was in excess of the mandatory 10cm.

All accessories, peripherals and support equipment connected to the module during testing were unmodified or commercially available, as per requirements in Section 15.31(i).

RESPONSE TO QUESTION 6.

The modular transmitter is labeled with its own FCC ID (P5M9256OEM).

The User Manual contains a warning that, when used in modular applications, the device where the module is fitted will display on the outside and in a clearly visible area the notice: "Contains FCC ID: P5M9256OEM".

RESPONSE TO QUESTION 7.

The modular transmitter complies with relevant rules and operating requirements applicable to the transmitter, namely for operation as a FHSS device under Part 15.247.

A User Manual has been provided for type approval.

A note is made in the User Manual against non-authorised changes, as per requirements in Part 15.21.

A note is made in the User Manual regarding compliance against Unintentional Radiators regulations, Part 15.105(b).

A warning is made in the User Manual against co-location of this transmitter with other transmitters.

A note is made in the User Manual that the unit is to be operated with the antenna supplied by RF Innovations. The maximum transmit power is factory set to ensure maximum radiated power limits are met.

It is understood that the radio modem will be approved for use with the antenna supplied for type approval testing and that use of other antennas will require a Class II permissive change from the FCC.

RESPONSE TO QUESTION 8.

The modular transmitter and supplied antenna have been tested and found to comply with the relevant RF exposure requirements in Part 15.247(b).

The User Manual contains a note to users that the antenna should be kept at a minimum distance of 20cm.