



October 6, 2006

Request for FCC Certification (modular approval)

RF Transceiver Module eQ-3 TRX916

FCC ID RNT-TRX916

Dear Sir or Madam,

eQ-3 Limited, Hong Kong is seeking an equipment authorisation for modular transmitters of the following device:

RF Transceiver Module eQ-3 TRX916

Attached please find:

- 1) 731 form
- 2) FCC ID label sample
- 3) FCC ID label location information
- 4) External Photos
- 5) Internal photos
- 6) Operational description
- 7) Block diagrams
- 8) Schematics
- 9) Test Report
- 10) Users manual
- 11) Parts List
- 12) RF Exposure Information
- 13) Confidentiality Request Letter
- 14) Antenna Specification

The **RF Transceiver Module eQ-3 TRX916** meets the requirements for modular approval as described in FCC Public Notice DA 00-1407. Compliance to each of the listed requirements is described below:

1. “The modular transmitter must have its own RF shielding.”

The transceiver module has its own RF shielding. All components, excluding the antenna and the connector ST1, are covered by the shielding. The shielding is installed at the factory.

For details please see external photos “eQ-3_TRX916_ExtPho.pdf”.

2. “The modular transmitter must have buffered modulation/data inputs.”

The transceiver module has its own buffered data inputs. The data input is buffered in a FIFO memory. The data rate is programmed using SPI interface during start up sequence and independent to the FIFO memory access during operation.

For details please see operational description “eQ-3_TRX916_OpDes.pdf”.

3. “The modular transmitter must have its own power supply regulation.”

The transceiver module has its own power supply regulation. The single chip transceiver contains several on-chip linear voltage regulators. These voltage regulators are invisible to the user and can be viewed as integral parts.

For details please see operational description “eQ-3_TRX916_OpDes.pdf”.

4. “The modular transmitter must comply with the antenna requirements of section 15.203 and 15.204(c).”

The transceiver module meet the antenna requirements of the FCC rules. The antenna is permanently attached.

For details please see antenna specification “eQ-3_TRX916_AntSpec.pdf” and operational description “eQ-3_TRX916_OpDes.pdf”.

5. “The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing.”

The transceiver module was tested in stand-alone configuration. The EUT was mounted on the testing board ”TRX 916 TEST TOOL”, which represents a typical terminal equipment for the transceiver module.

For details please see test report “eQ-3_TRX916_TestRpt.pdf” and test setup photos “eQ-3_TRX916_Tsup.pdf”.

6. “The modular transmitter must be labeled with its own FCC ID number, and, if the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module.”

The transceiver module is labeled with FCC ID: RNT-TRX916. This label is permanently fixed in the solder mask. If the module is mounted inside of the terminal equipment, the label will not be visible. In this case the terminal equipment will be labeled with an exterior label containing the expression “Contains Transceiver Module FCC ID: RNT-TRX916” or “Contains FCC ID: RNT-TRX916”.

For details please see label location information “eQ-3_TRX916_LabelLoc.pdf” and user manual “eQ-3_TRX916_UserMan.pdf”.

7. “The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements.”

The transceiver module complies with all applicable FCC rules. Instructions to ensure the FCC requirements are given in the user manual.

For details please see user manual “eQ-3_TRX916_UserMan.pdf” and test report “eQ-3_TRX916_TestRpt.pdf”.

8. “The modular transmitter must comply with any applicable RF exposure requirements.”

The transceiver module meets all applicable RF exposure requirements. The EUT operates under the provisions of FCC Part 15, section 15.249 with a maximum allowed field strength of 50,000 $\mu\text{V/m}$ equivalent to 0,8 mW EIRP.

For details please see user manual “eQ-3_TRX916_UserMan.pdf” and test report “eQ-3_TRX916_TestRpt.pdf”.