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TECHNICAL REPORT

FOR THE

REFLEX TELEMETRY DEVICE, OMNIDATA, MODEL PT1005-A

FCC PART 24 SUBPART D AND
FCC PART 15 SUBPART B SECTION 15.109 CLASS B

COMPLIANCE

DATE OF ISSUE: AUGUST 14, 2002

PREPARED BY:

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This report contains a total of 4 pages.

DESCRIPTION OF THE EQUIPMENT UNDER TEST

PerComm OMNIDATA Telemetry Device is a transceiver designed for two-way wireless communication over a ReFLEX network. OMNIDATA is built on a single PCB containing both the RF and base-band circuitry. The device is provided with an SMA RF connector for an external antenna and a 10 pins connector for a host serial interface and power supply attachment. Percomm does not provide the external antenna and no antenna is supplied with the unit. The external antenna recommended by PerComm meets E.R.P. limits.

Technical characteristics

1. Output Power 1 Watt
2. Frequency Range
   - Transmitter 896-902 MHz
   - Receiver 929-941 MHz
3. Channel Spacing
   - Transmitter 12.5 kHz in 6.25Khz steps
   - Receiver 6.25, 10 and 12.5 kHz
4. Data rates
   - Transmitter 800, 1600, 6400 and 9600 bits per second
   - Receiver 1600, 3200 and 6400 bits per second
5. Modulation
   - Transmitter 4-level continuous phase frequency shift keying
   - Receiver 2-level and 4-level CPFSK
6. Frequency deviation +/- 800 and +/-2400 Hz
7. Frequency stability 1 ppm

EQUIPMENT UNDER TEST

ReFLEX Telemetry Device

Manufacturer:	PerComm, Inc
Model Name:	OMNIDATA
Model Number:	PT1005-A
FCC ID	NNT1005 (pending)

PERIPHERAL DEVICES

The EUT was not tested with peripheral devices.

2.1033(c)(3) USER'S MANUAL

The necessary information is contained in a separate document.

2.1033(c)(4) TYPE OF EMISSIONS

The emission designator is 10K0F1D.

2.1033(c)(5) FREQUENCY RANGE

The device operates in the frequency range of 901-902 MHz.

2.1033(c)(6) OPERATING POWER

The Pout is 1watt.

2.1033(c)(7) MAXIMUM POWER RATING

Per FCC Part 24.132(a) stations transmitting in the 901-902 MHz band are limited to 7 watts E.R.P.

2.1033(c)(8) DC VOLTAGES

The OMNIDATA Telemetry Device operates at an input voltage from 5 to 16 VDC. The input voltage is regulated down to 3.6V by a linear regulator. The 3.6V line is applied directly on the PA. The DC current consumption in the PA's stage is typical 800 mA.

2.1033(c)(9) TUNE-UP PROCEDURE

There is no tune-up procedure for the output power as it is fixed to the maximum output power supplied by the final RF power amplifier stage. The voltage on the power amplifier can be lowered and as a consequence the output power diminishes.

2.1033(c)(10) SCHEMATICS AND CIRCUITRY DESCRIPTION

The necessary information is contained in a separate confidential document.

2.1033(c)(11) LABEL AND PLACEMENT

The necessary information is contained in a separate document.

2.1033(c)(12) SUBMITTAL PHOTOS
The necessary information is contained in a separate document.

2.1033(c)(13) MODULATION INFORMATION
The necessary information is contained in a separate document.

2.1033(c)(14)/2.1046/24.132(a) RF POWER OUTPUT

The necessary information is contained in a separate document.

2.1033(c)(14)/2.1047(d)/24.131 MODULATION CHARACTERISTIC

The necessary information is contained in a separate document.

2.1033(c)(14)/2.1049(i)/24.131 OCCUPIED BANDWIDTH

The necessary information is contained in a separate document.

2.1033(c)(14)/2.1051 SPURIOUS EMISSIONS AT THE ANTENNA TERMINAL

The necessary information is contained in a separate document.

2.1033(c)(14)/2.1053/24.133 FIELD STRENGTH OF SPURIOUS RADIATION

The necessary information is contained in a separate document.

2.1033(c)(14)/2.1055/24.135 FREQUENCY STABILITY

The necessary information is contained in a separate document.

15.109 RADIATED EMISSIONS

The necessary information is contained in a separate document.