

# IPSeries Fixed Radio

**Model Number F32700N25**

## Operational Description

The IP Series 32-fixed digital transceiver is an intelligent mobile radio designed for the unique requirements of fixed site data applications. Mounted in road signs and other seldom moved applications, intelligent devices may connect to the serial port or Ethernet port for connectivity through the IPMobileNet mobile data infrastructure back to the Internet Protocol Network Controller (IPNC) and other application servers.

The mobile radio utilizes a high-performance, 4 level Frequency-Shift Keying (FSK) wireless data modem for 32 kbps operation in 25 kHz channels. A multi-layered approach is taken to maximize signal reliability including data scrambling, data interleaving, Forward Error Correction (FEC), and Viterbi soft-decision error correction algorithms. The result is increased performance in low signal-to-noise environments.

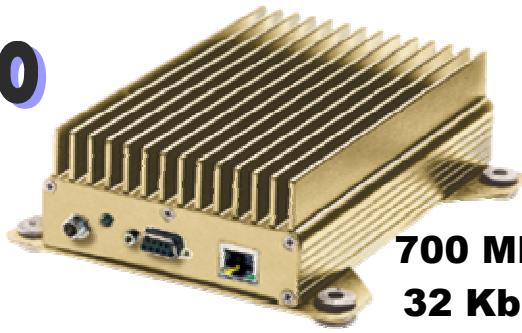
Built specifically for use in the licensed 700 MHz spectrum, this radio is both FCC and IC certified for use only on a 25 kHz General Use or State channel. Typical use is duplex operation in conjunction with the *IPSeries* 700 MHz Base Station for connectivity within the IPMobileNet mobile data infrastructure. Operation in any segment of the band where interoperability and / or trunking channels are reserved is disallowed by internal firmware.

The radio is equipped with an internal duplexer that allows for transmission and reception on a single antenna. A typical installation will use a high gain antenna directed towards the base station used to satisfy the RF link.

Its low power consumption allows for easy integration with solar panel power systems in locations where traditional power infrastructure is nonexistent or intermittent.

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**700 MHz**  
**32 Kbps**

## Specifications

### General

Certification	FCC and IC
Spectrum	700 MHz narrowband
Data Rate	32 kbps
Bandwidth	25 kHz
Number of Channels	50
Mode of Operation	Half – Duplex
Supply Voltage	13.8 VDC +/- 20%
Operating Current	3A max, 2.5A typ (TX) / 0.4A typ (RX)
Operating Temperature Range	-30C to +60C (-22F to 140F)
Data Interface	10BaseT Ethernet (RJ45) or Serial (RS232)
Antenna Connection	One (1) Type 'N' female (TX/RX)
Dimensions (H x W x D)	2" x 4.5" x 8"
Weight	2.5 lbs

### Transmit

Frequency Range	794 to 806 MHz
Power Output	5 Watts +/- .5W
Adjacent Channel Power	>80 dBc, 90 dBc typ
Paired RX Channel Emissions	>100 dBc, 104 dBc typ
Frequency Stability	0.5ppm max, 0.1ppm typ
Emission Designation	20K0F1D

### Receive

Distortion	3% max, 1.6% typ
SINAD 12 dB	-116 dB max, -120 dB typ