RFInnovations

Leaders in Wireless Data

an STI Engineering product

VHF POCSAG Paging Data Receiver

The RFI-148 OAD is a VHF POCSAG Paging Off-Air-Decoder used for paging message confirmation in large paging systems.

The receiver provides decoded POCSAG messages and performance statistics for the purpose of diagnosing paging network performance. It can also be used to log or forward received messages in rebroadcast applications.

Features

- Switching Bandwidth 148 MHz – 174 MHz
- Capcode and Group Independent decoded POCSAG output
- Serial and Ethernet Communications Ports
- Multi-mode LED front panel display for diagnostics, including RSSI meter
- Forward Error Correction (FEC) for high decode integrity
- High receive isolation and adjacent channel blocking for RF-noisy environments
- Windows-based GUI support for configuration and diagnostics
- Two configurable relay outputs

Applications

The RFI-148 OAD is a multifunction POCSAG receiver which increases the functionality of paging networks. The unit can decode POCSAG messages off-air and perform a number of user functions from message confirmation, rebroadcast messages, detailed statistics reporting or message translation for third party systems.

The receiver is built on the successful Crescendo series with more than a decade of proven reliable performance in harsh applications in the Utilities, Mining, Agriculture and Transport industries.

The receiver is specifically suited for high interference environments with exceptional selectivity and blocking performance.

STI Engineering

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Specifications

Switching Bandwidth	The user can select any 6.25kHz or 5kHz raster frequencies with the easy-to-use inbuilt menu or Windows configuration software.
Data Reliability	Superior receiver sensitivity and blocking performace for critical appliations
Diagnostics at a Glance	The front panel LEDs display diagnostic information indication such as Receive Signal Strength (RSSI), transmit power, radio temperature, RS232 port status and message decode progress.
Customisation	The receiver has a high speed processor which can run customised firmware. So the unit can be changed to operate to specific customer requirements.
Advanced Performance Diagnostics	The receiver can be configured to report the RSSI level and integrity of the decoded message including whether FEC was used to reconstruct bit errors.
Relay Outputs	Two relay outputs can be activated on configurable capcode received, or internal diagnostics.
Easy Network Configuration	The Cruise Control software allows the user to configure, save and upload radio configuration settings. This allows for numerous receivers to be configured more efficiently.

PHYSICAL
Dimensions: 188mm x 102mm x 47mm
Weight: 900g
Contruction: Chromate coated aluminium

MODEM
Serial Data: RS-232 Asynchronous with handshaking
Interface Speed: 110bps to 115200bps software selectable
Error Rate:
-119 dBm for 99% decode (512 bps)
-117 dBm for 99% decode (1200 bps)
-114 dBm for 99% decode (2400 bps)

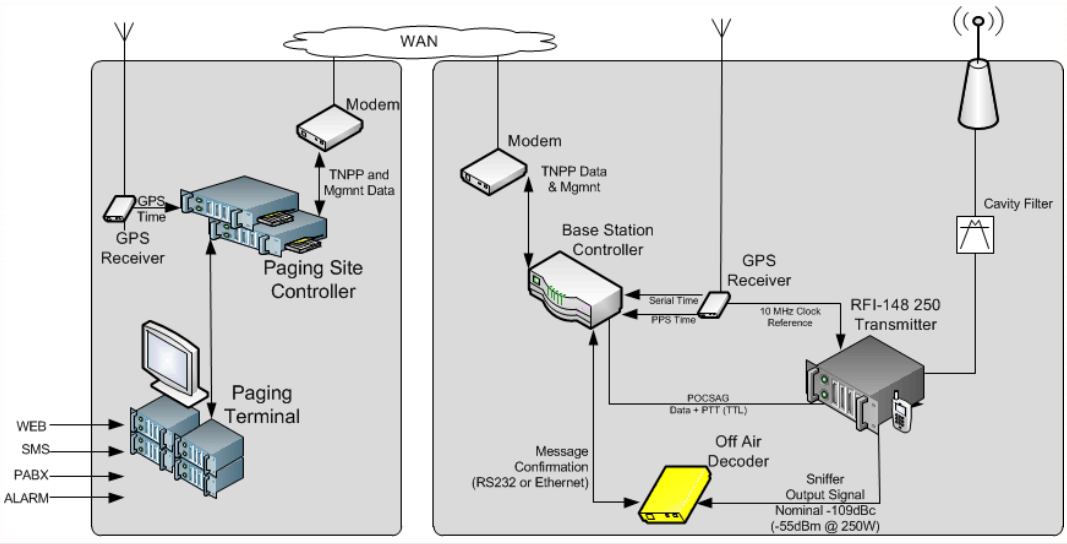
GENERAL
Operating Voltage: 10V to 30V DC (negative ground)
Operating Current:
- Receive @12.5V 78mA nominal
Operating Temp: -20 to + 60°C
Operating Temp Stability: < 2 ppm
Operating Humidity: Up to 90% non-condensing relative humidity

CONNECTORS
Antenna: BNC Female (50 Ohm),
Serial: 1 x DB9 RS-232 Female
Ethernet: RJ45
I/O: 5 way Terminal, Phoenix Part 1843826
Power: Amphenol MS3102R 10SL-35

RADIO
Frequency Range: 148 MHz to 174 MHz software programmable
Air Data Rate: 512 to 2400bps (FSK)
Duty Cycle: 100%
Channel Bandwidth: 12.5kHz or 25kHz (model specific)
Sensitivity: Better than -120dBm 12dB SINAD
Spurious Response: > 60 dB
Adjacent Channel: > 60 dB
Blocking: > 77dB
Compliance: Designed to ACA, and FCC
RSSI: -116 dBm to -46dBm within +/- 3dB

DATA
FEC: Selectable 0,1 or 2 bits for sync and messages

RELAY
Output: 2 x Normally Open and Common terminals
Voltage: 5V output provided



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