

The 12-90 is a simple to configure POCSAG paging transceiver with high sensitivity receiver combined with a 60mW transmitter. It operates over the frequency range of 440-479MHz decoding and encoding 512 or 1200 baud, alphanumeric or numeric messages. The 12-90 supports multiple message queueing and will queue upto four 73 character messages or multiple smaller messages.



12-90-0000 UHF Transceiver

- Can be controlled via an RS232 serial interface to provide numeric, alphanumeric and tone only POCSAG encoding;
- Enables a user to call a pager (over 2,000,000 codes), append an appropriate priority level (1 of 4) and add an alpha or numeric message;
- Supports full batching of serially queued and input messages;
- Can be configured to automatically respond with checksum information of the last received message.
- Uses an intelligent self-adjusting channel busy check to prevent message collision or corruption.



Key Features:

- Supports Salcom relay control protocol to control one on-board relay plus several "virtual outputs".
- Virtual outputs can be used to remotely trigger input or periodic messages and provide a mechanism to acknowledge reception of messages.
- 2 discrete inputs with different pre-programmed messages on high and/or low transition.
- Baud 512, 1200
- Can transmit the received signal strength of the last received message allowing the receiver positioning and system health to be monitored.
- FSK with NRZ Data
- 440-479 MHz—UHF (433MHz model available upon request).
- 60mW Output

Applications:

- **Paging Transceiver:** allowing both the encoding and decoding of paging messages.
- **Standalone Receiver.**
- **Standalone Transmitter:** With channel busy check function before transmissions.
- **Autonomous Store & Forward Paging Repeater** with duplicate message reject.
- **Point to Point raw serial link**
- **Simple Telemetry solution**

Technical Specification**12-90-0000 - UHF Transceiver and Store & Forward Repeater**

| | |
|---------------------------|---|
| Frequency Range | 440-479MHz - UHF |
| Frequency Selection | User configurable |
| Power Supply | +13.8V typical (11 to 15 VDC range) |
| Power Consumption | Standby: 33mA Transmit: 150mA |
| Transmit Power | 60mW |
| Channel Spacing | 10kHz, 12.5kHz |
| Modulation | FSK with NRZ data |
| Deviation | ±4.5kHz |
| Receiver Sensitivity | Approx -125 dBm |
| Receive Bandwidth | 10kHz (suitable for 12.5kHz channel operation) |
| Baud Rates | 512, 1200 |
| Message Format | POCSAG |
| Configuration Application | Salcom Configuration Tool |
| Programming Cable | 12-45-0000 (RJ12 to DB9) |
| Serial Port | 9600 , N, 8, 1; RS232 |
| Serial Protocols | Salcom |
| Discrete Inputs | 2 (Ground activated) |
| Discrete Outputs | 1 Relay Contact (1A @ 24Vdc) Note: Not suitable for 240VAC Connections |
| Connectors | Serial Port (RS232) = RJ12 (6P6C) |
| Power Connector | 2-way plug & socket, screw connections (supplied) |
| RF Connector | 50Ω BNC |
| Environmental Protection | Not suitable for outdoor use and should be protected from adverse environmental conditions |
| Operating Temperature | -10°C to +50°C (+14°F to +122°F) |
| Indicators | Power LED (Green) - Flashing (1s Freq) = Normal Operation Status LED (Red) - On = Transmitting - Flashing = Error Condition |
| Weight | 178g |
| Enclosure Dimensions | 70mm x 100mm x 30mm (WxDxH) |
| Enclosure Material | Extruded aluminium |
| Colour | Matt black |
| Type Approvals | AS/NZS 4769.1:2000 + Amendment 1:2002 (RF) EN 300-224-2 (RF) FCC CFR47 Part 90 (RF) FCC CFR47 Part 15 (EMC) EN 301 489-2 V2.1.0 (EMC) EN 60950-1:2006 (Safety) |

Programming software available for free download at: www.salcom.com

Support: Tel: +64 (0)3 379 2298

Email: sales@salcom.com

