



INTRODUCTION

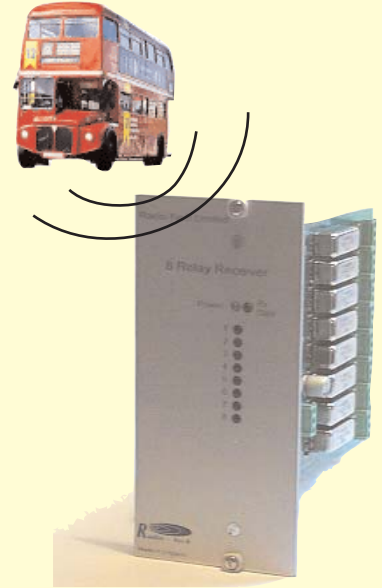
The TAA 50-220 8-Relay Bus Telematics Receiver provides a complete solution for the reception of bus information and telematics services broadcast on PMR Band III channels for traffic light controller pre-emption, sequence advance and clear down.

The receiver supplied in a 3U high Euro Card format compatible with most traffic light controllers. It requires nothing other than a power supply and antenna to operate. Data decoding, power supply filtering, watchdog protection, brown out protection, voltage regulation, channel selection, FFSK to base-band demodulation, data error detection and address filtering are all contained within the receivers comprehensive architecture.

Upon receipt of an error free and correctly addressed message the receiver activates the respective relay for a pre-programmed interval - calling the sequence advance. A LED is also provided to mimic the status of the relay. The receiver is capable of operating with either our widely deployed proprietary RTcom™ Bus Information Protocol or the emerging RTIG standard.

The receivers output is fully isolated via high speed reed-changover relays affording maximum isolation and EMC protection in the traffic control environment. The on-air baud rate and number of data bits etc are factory preset whilst the receivers address and channel frequency may be field re-programmed using nothing more than a Windows™ PC or Laptop with a serial port and programming cable.

Receivers can be supplied for operation from 24V ac, 12V dc or 24V dc.



The receivers R.F. performance is to the highest standards. It has been built around double conversion superhet architecture, with the first I.F. frequency at 45MHz and the second I.F. at 455KHz.

The receiver mixer is PLL controlled and referenced to a highly stable temperature compensated reference oscillator.

Blocking performance, adjacent channel selectivity, EMC immunity and local oscillator leakage is within the requirements of the PMR radio standards MPT1327 and EN-300-113.

Generic Specification

- Operating frequencies: 50-220MHz in 10MHz bands or 8MHz duplex pairs or single channels.
- UK Official OFCOM licenced channel @ 188.175MHz
- I.F. Frequencies 1st = 45MHz, 2nd = 455KHz
- Local Oscillator: PLL controlled 2.5ppm -30 to +70C
- Antenna Connector SMA (others to order)
- Enclosure: 3U Eurocard open rack card, RF 100% EMC screened plated steel
- Dual CPU: On-board RISK with FLASH & RAM
- On-board brown-out protected
- Watchdog timer protected
- Relay Interface: 8 x Chanegover relays 100V ac 0.5A.
- EMC: Exceeds EN-300-220-3, EN60950
- Firmware: RTcom™- Bus Information Protocol or RTIG.
- on-air baud rate 1200 FFSK or 2400 FFSK
- Operating Voltage 10.5 to 30V dc. 5V dc to special order.

Order Code Examples

TAA-50-220-xxx-8-Relay Bus Telematics Receiver - v
 Where xxx = operating frequency
 v = operating voltage i.e. 12V dc, 24Vdc or 24V ac
 Please specify output data rate, on-air protocol standard, FFSK data modulation rate etc.
 Interface via D-type male connector.
 RF Connector SMA unless otherwise specified
 Cable assemblies supplied to specific customer order.

Accessories Available

- Wall mounting die-cast IP65 enclosure
- Covert bus stop antenna
- Compressed VHF helical antenna
- Traffic Light 4" pole cap antenna
- Whip antenna
- SMA to N-Type cable assemblies
- PC Programming lead
- Combined Power & Data Cables



Trailer Location



Traffic Counting



Bus Information



Custom Systems



Light Pre-emption



Wireless Data Links



Dynamic Advertising

