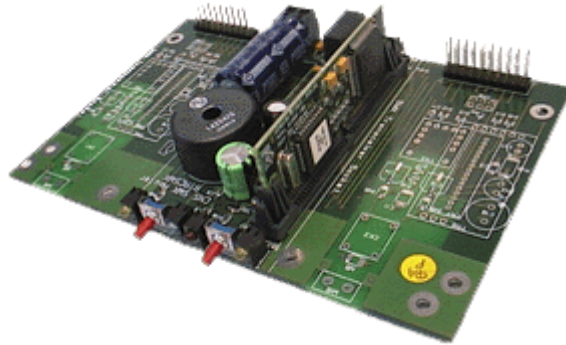




Features

- ❖ Board level product available for embedding into OEM systems
- ❖ RTR-10 based product
- ❖ Transparent media and channel support
- ❖ Reduces development cost by providing easy to fit solution
- ❖ Reduces programming requirements. SMX format utilises pre-defined transceiver parameters when attached to the RTR-10 saving the need to store the transceiver parameters in the RTR-10 for Echelon standard transceivers
- ❖ Unlimited number of network variables forwarded
- ❖ Up to 2.5ms delay through router at 10MHz operation. Side B of RTR-10 jumper selectable to 10MHz or 5MHz operation
- ❖ Choice of four routing algorithms allowing trade-off between ease of installation and network performance
- ❖ Improves system reliability by physically isolating one channel from another
- ❖ Packet forward LED display
- ❖ Reset and Service buttons provided with power LED and service LED's for both sides of the router
- ❖ 10-40V AC/DC
- ❖ Will take any SMX format transceivers and can be supplied with any combination of two of the following:
 - ❖ Radio 418 MHz, 433 MHz Transceivers (Part No CNSRFSMX418, 433)
 - ❖ 1.25Mb/s Fibre Optic transceivers for 3Km and 40 Km distances
 - ❖ 78Kb/s bus and Free Topology, 1.25Mb/s Bus Topology, RS 485 and Power Line transceivers





Description

These products team Echelon's RTR-10 router with a pair of either SMX format or standard transceivers to allow users to quickly implement complete LonWorks routers. The Router is an integrated device that connects two communication channels and routes LonTalk messages between them. Routers enable the installation of networks with multiple channels and from two to thousands of nodes. The variety of transceivers available allow interconnection of twisted pair networks on 1.25Mb/s and 78Kb/s, free topology networks on 78Kb/s, mains borne networks, RF networks, Fibre Optic and others (all types available from CNS).

The CNSRTRC consists of a motherboard with an RTR-10 mounted together with its own +5v regulated power supply, switches, LED's and space for two SMX format transceivers to be mounted either side of the RTR-10. Operating frequency of Side A of the RTR-10 is fixed at 10MHz, but provision has been made to switch Side B of the RTR-10 from 10MHz to 5MHz via a jumper setting, if required by the transceiver fitted to side B. Service LED's for both sides are included along with a power LED and a packet forward LED mounted along the front of the board. Reset and Service buttons are also provided. Provision for termination of the FTT10 transceiver types via a jumper setting has also been included.

The board level product can be supplied with or without SMX transceivers fitted. All that remains is to provide an enclosure and an unregulated 10-40V AC or DC to be up and running, ready for network installation. Strong ground connections are provided on the board via mechanical mounting points for both the SMX transceivers and the board itself. These should be assembled using metal pillars and bolts to ensure a good electrical ground contact and EMC compliance.

CNS can supply this board fitted into a specially designed enclosure and supplied with or without transceivers, fully tested and configured for your application. Please see CNSRTRCSMX-Boxed Datasheet.

For all transceiver types except powerline, a simple 0.5A power cube is required. For powerline transceivers a 1.5A or 3A supply is required to support one or two SMX transceiver types.

Hardware Overview

See CNS Router Products Guide



Specifications

Overall Dimensions Width 140mm, Length 91mm

Power Supply 10 – 40v AC/DC, 500mA (Non PowerLine Transceivers only, see above), (see Engineering note reference on Power Supply Wiring Diagram for Mains Power Neutral/Earth connection systems)

Power Connector 2.1mm Jack Plug or on board PCB Screw Terminals

Temperature 0 to +40°C, operating

Humidity

(Non-condensing) All products 10 to 95%RH @ 40°C, operating

Ordering Information

CNSNSMX/Transceiver Side A/Transceiver Side B

FTT10A = 1, TPT1250 = 2, RS485 = 3, PLM22 = 4, RF433 = 5, Fibre 880 = 6, Fibre 1320 = 7, Fibre 1310 = 8

For example; Part number CNSNSMX-1/5 describes a boxed SMX router with Side A fitted with FTT-10A transceiver and Side B fitted with a LonWireless 433Mhz radio transceiver.

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