

...the broadest narrowband money can buy



Controller

Controller allows the MORSE network to be extended where a communication channel already exists (e.g. an IP network) and where there is no need to use radio or GRPS.

From the user's point of view and with respect to interface options controllers are also fully compatible with radio modems.



Typical areas of use

- **Complementing MORSE** networks in places, **where a communication channel already exists** (mainly IP networks)
- At points of the network where a **greater number of ports**, or digital/analog inputs/outputs are required

Benefits

- User **compatible** with radio modems
- Sleep mode with power consumption 2.5 mA
- Modular concept – **Ethernet**, **RS232** max 4×, **RS422/485** max 2×, **GPS**, **I/O** – 2×AI, 2×AO, 2×DI, 2×DO
- High mechanical ruggedness – metal casting
- Assembly on DIN rails or using 4×M4 screws
- **Programs** for remote control, set-up, and diagnostics provided **free of charge**
- Functionality proven in extreme climatic conditions in various parts of the world

Modules

Serial interfaces. Available variants – 2×RS232, 1×RS232, 1×RS232 (optically isolated), 1×RS422/485 optically isolated.

Ethernet. Fully-fledged Ethernet type interface automatically sets communication to a speed of 10 or 100 Mbit/s.

GPS. 16 channel GPS receiver with accuracy to 2.5 m. NMEA protocol output for connecting other devices. Configurable time pulse output (1 ms to 60 sec.)

T-port. This interface is an Ethernet converter (TCP, UDP) to the RS232 serial interface. The module automatically sets communication to a speed of 10 or 100 Mbit/s .

I/O. I/O input module is supplied as standard with 2×AI, 2×AO, 2×DI, 2×DO. A standard I/O module can be modified to order: a maximum of 5 bi-directional inputs/outputs and 3 outputs are available. Communication with the I/O board over protocol Modbus, IEC 870-5-2, DF1, other protocols are implemented as required.

...the broadest narrowband money can buy

Control and diagnostics

All MORSE system components are set up and controlled using programs supplied for MS Windows and Linux which RACOM provides free of charge. The programs communicate via the serial port or via Ethernet either directly with the connected device or remotely with any device in the network.

Control programs can be used for setting up or diagnosing the **radio part parameters**, **communication parameters**, **user interfaces**, provide **servicing services**, **monitore** operation on the radio channel and on user interfaces, obtain **statistics**, run diagnosis **tests**.

It is possible to save and load a file with the complete device configuration and firmware in equipment can be locked at several levels against unauthorised use.

Technical parameters

Optional modules	5 slots
MTBF(mean time between failures)	> 100,000 hours
Power supply	typically 13.8 V (10.8 – 15.6)
Consumption	180 mA (I/O +50 mA, GPS +15 mA)
Range of operating temperatures	-25 to +55 °C
Case dimensions	208 × 108 × 63 mm
Weight	1.2 kg
Compliant with standard for:	
EMC (electromagnetic compatibility)	ETSI EN 301 489-5 V 1.3.1
electrical safety	CENELEC EN 60 950:2000
use in mobile environments	UN Regulation No.10 (EHK No.10)