

# Radio data modem CDA 70

## Radio data equipment



we are wave experts...

ETHERNET  
RS232  
RS485  
MBUS  
CIO

SCADA AND TELEMETRY APPLICATIONS

INTERCONNECTION OF CONTROLLING MACHINES (PLC)

DATA COLLECTION FROM METERS

MOBILE APPLICATIONS

### Description

Radio data modem CDA 70 is communication equipment for wireless data transmission. It is designed for creating large data networks in vast geographical areas mainly in industrial and mobile applications. The modem can be used for data collection and transmission in great number of technological processes. CDA 70 is also advantageous alternative for backing up of important points in cable networks.

### CDA 70 main features

- Frequency bands 143 – 174 MHz or 403 – 470 MHz
- Output power from 10 mW to 5W
- Communication rate up to 21700 bps
- On-line packet data transmission
- High level of data protection and compression
- Supports more than 50 communication protocols for industrial controlling systems, metering devices and other equipment (MODBUS, S-BUS, AT modem, MBUS etc.). It is also possible to implement new protocol on request of customer.

### CDA 70 modem network features

- Low operating costs – no matter on data volume
- Every radio data modem CDA 70 can work as an end point and relay station at the same time
- Data packet transmission by Store and Forward method
- Communication among random network points
- Fixed or automatic data packets routing in network – modems developing routing tables at the base of network traffic information. Network responds automatically while failure in transmission occurs or a new station is added.
- Possible integration into GPRS networks, Internet etc.

### User interface

- Communication ports  
PORT 1 – RS232, optional MBUS  
PORT 2 – RS232, optional RS485  
PORT 3 – RS232  
PORT ETHERNET 10/100  
PORT CIO – five signals that is possible to configure as analogue inputs, binary inputs or binary outputs
- Every interface can communicate by different speed and different communication protocol

### Diagnostics and service functions

- Full remote administration and configuration from any point of network
- Diagnostics on VF channel and communication interfaces – detailed records stored for last 4 days
- Event log (8000 records, cca 300 types of events)
- Software configuration of all CDA 70 modem parameters, radio channel signal level measuring, inner temperature and supply voltage measuring

waterworks  
engineering

energetics

heating  
service

transport



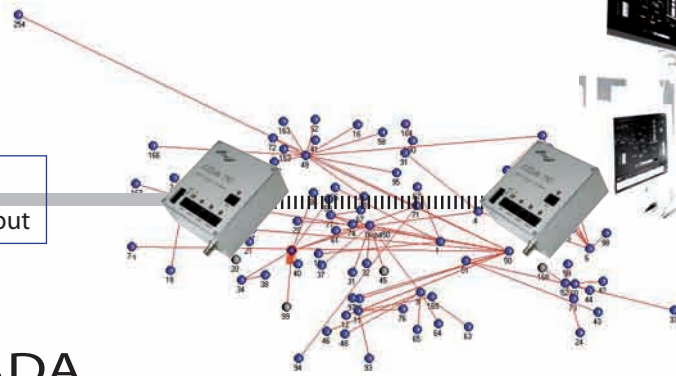
PLC  
RS485



Flowmeter  
MBUS



Water pump  
CIO – relay output



SCADA

## Telemetry • SCADA

- monitoring and dispatcher's control of large technology in waterworks engineering, energetics, heating service, oil and gas industry, transport • etc.

## Industrial automation

- interconnection of industrial control systems and information systems
- remote inputs/outputs (I/O) • etc.

## Data collection from measuring devices

- heating meters • electrometers • water meters • gas meters • meteorological sensors • etc.

## Remote control and monitoring

- information boards (road signs, parking boards etc.) • streetlight • car park • camera handling • public lights • etc.

## Mobile and transactional networks

- rail transport and road vehicles • public transport • boats • financial service terminals and online lottery terminals • etc.

### TECHNICAL SPECIFICATION

Frequency range	143 – 174 MHz (version CDA 70V) 403 – 470 MHz (version CDA 70U)
Adjustment of working frequency	programmable (step 1 Hz)
Adjustment of channel spacing	12,5 • 25 kHz (version CDA 70V) 12,5 • 20 • 25 kHz (version CDA 70U)
Output power	0,5 • 1 • 2 • 3 W (version CDA 70V) 0,01 • 0,05 • 0,1 • 0,25 • 0,5 • 1 • 2 • 3 • 4 • 5 W (version CDA 70U)
Receiver sensitivity	<-111 dBm (12 dB SINAD) for channel 25/20 kHz <-117 dBm (12 dB SINAD) for channel 12,5 kHz
Reception/transmission switching time	< 4 msec
Maximal communication speed	21,7 kbit/sec for channel spacing 20 a 25 kHz 10,8 kbit/sec for channel spacing 12,5 kHz
Type of modulation	FFSK, GMSK
Comply standards	EN 300 113-1: V1.5.1 • EN 300 113-2: V1.2.1 EN 301 489-5: V1.3.1 • EN 60 950-1:2001
Temperature range	storage from -40 °C to +85 °C • operation from -25 °C to +55 °C
Supply voltage	from +10,8 V to 15,6 V DC
Current	reception <200 mA, transmission 1 W <900 mA transmission 5 W <1500 mA
Dimensions	43 × 104 × 98 mm (fitting DIN35 mm ledge)
Weight	500g
Antennal connector	BNC – 50 Ohm
Interface	RS232, RS485, MBUS, ETHERNET 10/100, I/O (CIO)

#### Conel s.r.o.

Sokolska 71  
562 04 Usti nad Orlici  
Czech Republic  
Phone: +420 465 521 020  
Fax: +420 465 521 021  
E-mail: info@conel.cz  
Web: www.conel.cz