

# RE400 Transparent Radio Modem

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RE400 is the "easiest" radio modem in RACOM product range. It gets very close to being a true Plug-and-play device, as close as ever possible in private radio networks. The minimum settings necessary are all accessible from one simple web browser screen.

RE400 works as a standard IP network bridge, i.e. it is fully transparent. Every unit can serve as the central master or as a remote terminal and it can also simultaneously operate as a repeater.

The modern digital solution of the radio part (Software Defined Radio) of the RE400 radio modem allows for a wide frequency range and a SW configurable channel spacing.

- ✓ 400 MHz
- ✓ 6.25, 12.5, 25 kHz
- ✓ 11 kbps / 25 kHz
- ✓ 2W
- ✓ 1x ETH, 1x RS232
- ✓ PoE or 10 – 30 V DC
- ✓ Transparent bridge
- ✓ Plug and play

### Applications

- ✓ Polling type networks

- ✓ Water
- ✓ Oil & Gas
- ✓ Electricity
- ✓ Smart grid POS &ATM
- ✓ Lottery
- ✓ Weather

Fully transparent

- ✓ Standard IP network bridge functionality is implemented in the RE400 radio modem, i.e. the ETH interfaces of all the radiomodems in a network are interconnected according to bridge principles.
- ✓ When a COM interface is used, every frame received over a COM is simply broadcast to COM interfaces of all units in the network.

Easy to configure and maintain

### [AT Communication ©](#)

- ✓ Web interface
- ✓ All configuration parameters within one page
- ✓ Basic IP knowledge is sufficient
- ✓ CLI via SSH

Security

- ✓ Licensed radio bands
- ✓ FEC, interleaving, proprietary data compression
- ✓ CRC32 data integrity control on Radio channel
- ✓ Password-protected access, https web interface

Coverage

- ✓ 400 MHz band
- ✓ Line of sight is not required
- ✓ Carrier output power adjustable 0,5 or 2W
- ✓ Exceptional data sensitivity
- ✓ High resistance to multipath propagation and interference
- ✓ Any unit can work simultaneously as a repeater

Reliability

- ✓ Every single unit tested in a climatic chamber as well as in real traffic
- ✓ Military or industrial components
- ✓ Industrial rugged die-cast aluminum case

Others

- ✓ Local and remote diagnostics
- ✓ DIN rail mounting
- ✓ L-bracket, flat-bracket, direct mounting

✓ CE approval





	Radio	RS232	Ethernet
<b>Product</b> Type: RE410 Ser 7368807 No.: FW 2.0.49.0 ver.:	<b>Frequency</b> MHz kHz Hz 410 000 000	<b>Baud rate</b> 9600 -	<b>IP</b> 192 168 131 232
	<b>Channel spacing</b> 25 kHz / 10.4 kbps -	<b>Data bits</b> 8 -	<b>Mask</b> 255 255 255 0
	<b>RF Power</b> Low -	<b>Parity</b> None -	<b>GW</b> 192 168 131 254
	<b>Fragment [bytes]</b> 1480	<b>Stop bits</b> 1 -	
<b>Diagnostics</b> <a href="#">Ping</a>	<b>Repeater</b> No -	<b>Idle [bytes]</b> 10	
	<b>Repeated packets</b> Discarded -	<b>MTU [bytes]</b> 4000	
<b>Settings</b> <a href="#">RE400 config</a>		<b>Handshake</b> None -	

Open file:

### Technical parameters

Radio parameters	
Frequency bands	373.25–484 MHz Models: 373-402; 400-420; 417-447; 435-466; 462-484 MHz
Channel spacing	6.25 / 12.5 / 25 kHz
Frequency stability	+/- 1.0 ppm

Modulation	2CPFSK
RF Data rate	10.4 kbps / 25.0 kHz 5.2 kbps / 12.5 kHz 2.6 kbps / 6.25 kHz
FEC (Forward Error Correction)	No
<b>Transmitter</b>	
Carrier Output power	0.5 or 2 W
Duty cycle	50%
Rx to Tx Time	< 1.5 ms
<b>Receiver</b>	
Sensitivity	better than -107 dBm
<b>Electrical</b>	
Primary power	10.8 - 30 V DC or PoE (38 - 57 V DC)
Rx	430 mA; 145 mA/48 V
Tx	0.5 W: 700 mA/13.8V; 230 mA/48V 2.0 W: 950 mA/13.8V; 310 mA/48V
Sleep mode	No
<b>Interfaces</b>	
Ethernet	10/100 Base-T Auto MDI/MDIX RJ45
COM	RS232 DB9F 300-115200 bps
Antenna	50 Ohms SMA female
LED panel	Power, Tx, Rx, ETH, 232, Status
<b>Environmental</b>	
Operating temperature	-25°C to +55°C
Humidity	5 to 95% non-condensing
Storage temperature	-35°C to +85°C
<b>Mechanical</b>	
Casing	Hard aluminium
Dimensions	31 H x 96 W x 137 D mm
Weight	0.3kg Mounting DIN rail, flat-bracket
<b>SW</b>	
Operating modes	Bridge
Data integrity control	CRC32
Encryption	No
<b>Diagnostic and Management</b>	
Radio link testing	Ping + RSS
<b>Approvals</b>	
Radio	CE ETSI EN 300 113-1 V 1.6.2 (2009-11)
EMC (electromagnetic compatibility)	ETSI EN 301 489-1 V 1.6.1
Electrical Safety	EN 60950-1 ed. 2:2006

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