

# Supreme reliability and security



**IP RADIO  
ROUTER**  
SATEL XPRS Optimum

**SATELxprs**

**Mission-Critical Connectivity**



# IP RADIO ROUTER

SATEL XPRS Optimum IP radio router provides the cost-efficient core for the SATEL XPRS mission-critical connectivity solution. It is an excellent choice for data transfer in applications requiring long range, security and stability of the private radio network. It provides high available connectivity, with reliable radio technology, allowing savings in infrastructure costs. In addition to IP communications, support for serial connectivity is included as well. With its advanced coding technologies, excellent sensitivity and performance values, the SATEL XPRS Optimum IP radio router, is the market leader in the spectral efficiency.



## MISSION-CRITICAL CONNECTIVITY REQUIREMENTS

- High available, long range connectivity
- Easy and error free deployment
- Serial and IP networking support
- Enhanced cyber security



## EASY CONFIGURATION

- NETCO centralized configuration software
- Over-the-air remote management and firmware updating
- Firmware and configuration uploads via USB
- Error free configuration and automated parameter calculation
- Up to 80% savings by reduced deployment time



## CYBER SECURITY

- Data encryption
- User authentication
- SATEL cyber security auditing procedure
- Confidentiality
- Integrity
- High availability

**Spectral  
efficient**

**Long  
range**

**Cyber  
secure**

**NETCO**

**Remote  
configuration**

**Cost-effective**

**UHF**

## TECHNICAL SPECIFICATIONS

Model / Type identification	SATELLAR RU-Q / TA-26			
SATEL order code	YF0410 with encryption support YF0415 without encryption support			
Frequency MHz	360-405 400-445 (Others, ask for availability)			
Tuning range	45 MHz			
Channel width	12.5 kHz / 25 kHz ( programmable )			
TX power (nominal)	37 dBm (5 W) mean: average 30 dBm (1 W), max 32 dBm (1.5 W) PEP: average 37 dBm (5 W), max 38 dBm (6.6 W)			
Modulations	2, 4, 8, 16 QAM			
RX sensitivity (BER 10E-6)	Air speed	Channel width	Modulation	Sensitivity (10E-6)
	40.3 kbps	25 kHz	4QAM	-111 dBm
	20.2 kbps	12.5 kHz	4QAM	-113 dBm
	80.6 kbps	25 kHz	16QAM	-105 dBm
	40.3 kbps	12.5 kHz	16QAM	-106 dBm
Interface	RS-232, -422 / -485, USB, Ethernet			
Operating voltage	+ 10.6 Vdc ... +30 Vdc			
Temperature ranges	-25 ...+55 °C complies with the radio standards -30 ...+70 °C functional -40 ... +85 °C storage			
Power consumption TX / RX	<20 W / 5.2 W			
Mounting parts (Order separately)	DIN rail (side or back) Direct on flat surface			
Standards compliance				
Radio	RED 2014/53/EU			
EMC	EN 301 489-1, -5			
Safety	EN 60950-1			

Values are subject to change without a notice.

## FEATURES

Included	Order separately	Explanation
Routed mode Bridge broadcast mode Transparent mode for serial	Proxy ARP	IP routing to remote networks in the same LAN or IP address range
Firewall (iptables, ebtables)	NMS to Modbus	Diagnostics with Modbus protocol
SSH access	Application routing	DNP3 IP to serial, Modbus TCP to Modbus RTU, Serial IP, UDP/TCP Proxy, Sinaut S7, custom protocol etc
VLAN support	IEC104/IEC101 conversion	Protocol master is using IEC 60870-5-104 RTUs operate on IEC 60870-5-101
Encryption AES128, AES256	Redundant routing	IP routing table enhancement: Automatic route selection VRRP and other related features for high-availability
Link specific modulation (Each remote can operate on separate modulation)	Adaptive modulation	Radio interface automatically adapts to SNR level
SNMPv1, 2, 3	Upgrade 16QAM to 32QAM	To achieve higher radio bit rate, upto 101 kbps
USB diagnostics port	Upgrade 16QAM to 64QAM	To achieve higher radio bit rate, upto 121 kbps
	Upgrade 32QAM to 64QAM	To achieve higher radio bit rate, upto 121 kbps



**SATEL** is one of the world's leading experts and innovators in independent radio networking technology. Our solutions are used in wide range of industrial applications. We are known for our high quality, expertise, service and support.

## Contact us

You can contact us directly or get in touch with your local distributor.

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