

# Supreme reliability and security

SATELLAR

**IP RADIO  
ROUTER**

The heart of SATEL XPRS

**SATEL**xprs

**Mission-Critical Connectivity**



# IP RADIO ROUTER

SATELLAR IP radio router, the heart of the SATEL XPRS communications solution, is an excellent choice for data transfer in mission-critical applications requiring long range, security and stability of the private radio network. It provides high available connectivity, with reliable radio technology and switchover functionality. Redundant routing with other, adjacent, technologies is also provided. In addition to IP communications, support for serial components is ensured by serial modes of operation as well as protocol conversions. With its advanced coding technologies, excellent sensitivity and performance values, the SATEL XPRS' IP radio router, SATELLAR, is the market leader in the spectral efficiency.



## MISSION-CRITICAL CONNECTIVITY REQUIREMENTS

- High available, long range connectivity
- Easy and error free deployment
- Integrated serial and IP networking support and conversions
- Protect the legacy investments
- Combine with with adjacent technologies:
- automated switch overs with redundant routing protocols
- Avoid costs of endangered cyber security



## EASY CONFIGURATION

- NETCO centralized configuration software
- Web browser based user interface
- SNMP for remote management
- SATEL NMS for serial networking
- 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
- Avoid human configuration errors



## CYBER SECURITY

- Data encryption according to AES-128 / AES-256 standards
- Built-in firewall
- User authentication
- SATEL cyber security auditing procedure
- Data and management network separation
- Secure browser access

Long range	VLAN	SATEL NMS	Bridge mode	NETCO	Redundant routing	SNMP monitoring	Radio data up to 230 kbps	
Protocol conversions	IEC-104/101, DNP3, Modbus TCP/RTU		Firewall	0.1-5 W TX-power	Interoperability	Serial over IP	Cyber security	UHF

**SATELLAR XT 5R**

**SATELLAR XT 5RC**

**SATELLAR XT 5RC  
w. DISPLAY**


Name	XT 5R (FSK)		XT 5RC (FSK)		XT 5R (QAM)		XT 5RC (QAM)	
Model / Type identification	SATELLAR RU / TA-26		SATELLAR RU / TA-26		SATELLAR RU-Q / TA-26		SATELLAR RU-Q / TA-26	
SATEL order code with display	YF0100		YF0110 YF0120		YF0200		YF0210 YF0220	
Frequency MHz	360-405 400-445 440-485				360-405 400-445			
Modulations	4, 8, 16 FSK				2, 4, 8, 16, 32, 64 QAM			
Tuning range			45 MHz					
Channel width	12.5 kHz / 25 kHz / 150 kHz				12.5 kHz / 25 kHz			
Data speed radio ( max. )	19.2 kbps @ 12.5 kHz 38.4 kbs @ 25 kHz (16FSK) 230 kbps @150 kHz (16FSK)				28.1 kbps @6.25 kHz (64QAM) 60.5 kbps @ 12.5 kHz (64QAM) 121 kbps @ 25 kHz (64QAM) Max.coded.			
RX sensitivity (BER 10E-6)	Air speed	Channel width	Modulation	Sensitivity (10E-6)	Air speed	Channel width	Modulation	Sensitivity (10E-6)
	230.4 kbps	150 kHz	16FSK	-82 dBm	121 kbps	25 kHz	64QAM	-98 dBm
	38.4 kbps	25 kHz	16FSK	-94 dBm	60.5 kbps	12.5 kHz	64QAM	-100 dBm
	19.2 kbps	12.5 kHz	16FSK	-97 dBm	28.1 kbps	6.25 kHz	64QAM	-102 dBm
	115.2 kbps	150 kHz	4FSK	-97 dBm	20.2 kbps	25 kHz	2QAM	-114 dBm
	19.2 kbps	25 kHz	4FSK	-108 dBm	10.1 kbps	12.5 kHz	2QAM	-116 dBm
	9.6 kbps	12.5 kHz	4FSK	-114 dBm	4.7 kbps	6.25 kHz	2QAM	-118 dBm
TX power (nominal)	37 dBm (5 W)				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)			
Interface	RS-232, -422 / -485		RS-232, -422 / -485, USB, Ethernet		RS-232, -422 / -485		RS-232, -422 / -485, USB, Ethernet	
Operating voltage	+ 10.6 Vdc ... +30 Vdc				+ 10.6 Vdc ... +30 Vdc			
Temperature ranges			-25 ...+55 °C complies with the radio standards -30 ...+75 °C functional -40 ... +85 °C storage					
Mounting			DIN rail (side or back) Direct on flat surface					
Standards compliance								
Radio			EN 300 113-1, -2 EN 302 561		EN 300 113-1, -2 EN 301 166-1, -2			
EMC	IEC 6100-6-2 IEC 6100-6-4		EN 301 489-1, -5		EN 301 489-1, -5			
Safety			EN 60950-1		EN 60950-1			
Power consumption without display TX / RX with display TX / RX	17.9 W / 2.8 W		19.3 W / 4.2 W 19.9 W / 4.8 W		14.4 W / 3.8 W		15.8 W / 5.2 W 16.4 W / 5.8 W	

\*) Ask the availability

PRBS (Pseudorandom Binary Sequence), measured with 30 V add 2.5 W for connected USB devices



**SATEL** is one of the world's leading experts and innovators of radio modems for wireless data communication. 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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