

# Supreme reliability and security

SATELLAR  
**RADIO  
DATA**

The heart of SATEL XPRS

**SATEL**xprs

Mission-Critical Connectivity



# RADIO DATA

SATELLAR Radio Data, 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' Radio Data 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 procedur
- 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



MODEL : SATELLAR-RU TYPE : SATEL-TA26	XT 5R (FSK)		XT 5RC (FSK)		XT 5R (QAM)		XT 5RC (QAM)	
SATEL order code with display	YFo100		YFo110 YFo120		YFo200		YFo210 YFo220	
Frequency MHz	320-365				320-365*			
	360-405				360-405*			
	400-445				400-445			
	440-485				440-485*			
	480-520				480-520*			
Tuning range	45 MHz							
Channel width (programmable)	12.5 kHz / 25 kHz / 150 kHz				6.25 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