SATELLINE®-3ASd Epic Pro 35 W

Wireless World – Local Solution

SATELLINE-3ASd Epic Pro 35 W is an IP67 (NEMA 6) classified UHF radio modem with a high power (35 W) transmitter. It was designed for easy mobile use in demanding field conditions. According to the IP67 standard, the casing and connectors of the SATELLINE-3ASd Epic Pro are waterproof and secured against dust.

The SATELLINE-3ASd Epic Pro 35 W is equipped with a Liquid Crystal Display (LCD) and a keypad, used to indicate the current operating status, as well as for changing the operating channel and power level of the radio modem.

VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
OEM

PRELIMINARY BROCHURE

With SATEL radio modems, setting up a local data transfer network is quick and cost effective. Your wireless network is independent and free of operator services. The cost of operation is either free of charge or fixed, depending on the frequency used. SATELLINE radio modems are type-approved in over 50 countries. For the latest information, please visit our website www.satel.com.

SATELLINE radio modems are always on line, and provide reliable, real-time data communications over distances ranging from tens or hundreds of metres up to around 80 kilometres. Thanks to a store and forward function, any radio modem in a network can be used as a master station, substation and / or repeater.

SATELLINE radio modem networks are flexible, easy to expand and can cover a wide variety of solutions from simple point-to-point connections to large networks comprising hundreds of modems. Even for expanded networks, only one operating frequency is required.

All SATELLINE radio data modems fulfil RoHS requirements (EU directives 2002/95/EC and 2002/96/EU) as of 1 July 2006.

SATEL®

Heavy-duty tool for outdoor use

SATELLINE-3ASd Epic Pro 35 W is particularly well suited for mobile field applications (land surveying, for instance) under varying weather conditions. Due to the high transmitting power, connection distances more than 80 kilometres can be covered in favourable conditions.

The SATELLINE-3ASd Epic Pro 35 W exhibits a special "Dual Band" feature. The transceiver of the radio modem offers as an option two 2 MHz frequency bands, tuned at the factory with maximum separation of 15 MHz between the highest and the lowest frequency. The radio modem can be reprogrammed to operate at any channel within those two bands.

With the Liquid Crystal Display (LCD) the user can monitor the current operating status (frequency, channel number) as well as condition (power level, voltage level, field strength) of the radio modem.

Dependable data transfer

In the SATELLINE-3ASd Epic Pro 35 W the error rate is minimized by means of advance checking and correction of the data packets. In Forward Error Correction (FEC), the data packets are split in several blocks. The radio modem adds correction information inside the blocks during transmission.

In a SATELLINE-3ASd Epic Pro 35 W network, any substation can function as a repeater, too. In this operating mode (store and forward), the radio modem receives a message, buffers the received data, and transmits it further to another substation, using the same radio channel as in reception.

SATELLINE-3ASd Epic Pro 35 W features embedded Message Routing software, which takes care of routing messages across a radio modem network automatically after proper settings have been made. Communication is completely transparent, which makes Message Routing directly compatible with most user protocols.

Expert's help always at hand

With an experience of over twenty years, SATEL Oy has grown to one of the leading radio modem manufacturers in the world. As a result of our persistent and innovative work in both product design and international marketing, we now possess extremely large selection of radio modems, and operate through an extensive and skilled distributor network all over the world. We have also accumulated a considerable amount of know-how in different radio modem applications. So, whatever your application is, do not hesitate to ask for expert's help whenever needed.

SATELLINE radio modems have been used, for example, at airports and in waterworks and electricity plants for different monitoring and control applications, as well as to set up location data based fleet management systems in cities.

SATEL Oy has prepared an extensive set of Application Notes describing different ways of utilising the SATEL radio modems in various applications. For further information about our products and their applications, please see our home page www.satel.com or contact your local dealer.

Manufactured:

SATEL®

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Technical specifications SATELLINE-3ASd Epic Pro 35 W

SATELLINE-3ASd Epic Pro 35 W complies with the following international standards: EN55022 and FCC CFR47 section 90.

TRANSCEIVER	
Frequency Range	400…470 MHz
Channel Spacing	12.5 kHz / 25 kHz
Number of Channels	320 / 160
Frequency Stability	< 1.5 kHz
Type of Emission	F1D
Communication Mode	Half-Duplex
TRANSMITTER	
Carrier Power	5, 10, 20, 25 or 35 W / 50 ohm
Carrier Power Stability	(+/- 2 dB)
TX Duty Cycle * 35 W 10 W	100 % (22 °C / 35 °C) 40 % 20 min / 13 min no limit no limit / 50 min no limit
RECEIVER	
Sensitivity	< -115 dBm (BER < 10 E-3) **
Co-channel Rejection	> -12 dB
Adjacent Channel Selectivity	> 60 dB @ 12.5 kHz / > 70 dB @ 25 kHz
Intermodulation Attenuation	> 65 dB
Spurious Radiation	< 2 nW
DATA MODEM	
Interface	RS-232
Interface Connector	Waterproof IP67 7-pin, ODU MINI-Snap Style G4, Size 0 or 8-pin LEMO HGA. 1B. 308. CLPP
Data Speed of RS Interface	300 – 38400 bps
Data Speed of Radio Interface	19200 bps (25 kHz)
	9600 bps (12.5 kHz)
Data Format	Asynchronous RS-232
FCC Call Sign ID	6 digits Morse code, once per 15 minutes
GENERAL	
Operating Voltage ***	+9 ... +16 Vdc
Operating voltage feeding	4-pin ODU MINI-Snap Size 1
Power Consumption (average)	1.3 VA typical (Receive)
	110 VA typical (Transmit)
	0.05 VA typical (when DTR is "0")
Temperature Range - Operating	-25 °C … +55 °C
	-40 °C … +75 °C (absolute minimum / maximum)
- Storage	-40 °C … +85 °C
Antenna Connector	TNC, 50 ohm, female
Construction	Aluminium Enclosure
Size H x W x D	165 x 138 x 73 mm
Weight	1640 g
IP Classification	IP67 (NEMA 6)

Values are subject to change without notice.
* If high output power is used continuously or with a high duty cycle, the equipment generates excess heat. The output power is automatically decreased when necessary to prevent overheating. Typical operating times are shown in the chart with different output powers and duty cycles @ 22°C and 35°C.
** Depends on receiver settings.
*** ≥ +12 Vdc @ 35 W output power

Distributor: