

# SATELLINE-EASy Pro



SATELLINE-EASy Pro is an IP67 (NEMA 6) classified UHF radio modem with a high power (up to 25 or 35 W) transmitter and wide 70 MHz tuning range. It is designed for easy mobile use in demanding field conditions. According to the IP67 standard, the casing and connectors of the SATELLINE-EASy Pro are waterproof and secured against dust.

In addition to the high output power and wide tuning range, the channel spacing is also selectable to be 12.5, 20 or 25 kHz. The SATELLINE-EASy Pro 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.

Setting up a local data transfer network is quick and cost effective with SATEL radio modems. The 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. SATEL radio modems are type-approved in over 50 countries.

SATEL 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.

SATEL 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.

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# SATEL

**Mission-Critical Connectivity**

# Heavy-duty tool for outdoor use



SATELLINE-EASy Pro is an IP67 classified UHF radio modem with a high power (up to 25 or 35 W) transmitter, wide 70 MHz tuning range (403 ... 473 MHz) in one hardware and selectable channel spacing.

SATELLINE-EASy Pro 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.

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.

SATELLINE-EASy Pro is compatible with SATELLINE-EASy family products too.

## Dependable data transfer

In the SATELLINE-EASy Pro 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-EASy Pro network, any substation can function as a repeater. 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-EASy Pro 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.

### Technical specifications SATELLINE-EASy Pro

SATELLINE-EASy Pro complies with the EN 300 113, EN 301 489-1, -5, EN 60950-1 and FCC Part 90 specifications.

SATELLINE-EASy Pro	
<b>TRANSCEIVER</b>	
Frequency	403...473 MHz
Tuning Range	70 MHz
Channel Width	12.5 / 20 / 25 kHz (Software selectable)
Frequency Error Tolerance	< 1 kHz
Type of Emission	F1D
Communication Mode	Half-Duplex
<b>TRANSMITTER</b>	
Carrier Power	10, 20, 25 or 35 W / 50 ohm (Default) 5, 10, 20 or 25 W / 50 ohm (Option *)
Carrier Power Stability	(+ 2 dB / - 3 dB)
TX Duty Cycle **	100 % ( 22 °C / 35 °C ) 40 % 20 min / 13 min no limit no limit / 50 min no limit
<b>RECEIVER</b>	
Sensitivity	< -114 dBm (BER < 10 E-3) ***
Co-channel Rejection	> -12 dB
Adjacent Channel Selectivity	> 47 dB @ 12.5 kHz / > 52 dB @ 25 kHz
Intermodulation Attenuation	> 60 dB
Spurious Radiation	< 2 nW
<b>DATA MODEM</b>	
Interface	RS-232
Interface Connector	Waterproof IP67, 8-pin ODU
Data Speed of Serial Interface	300 – 38400 bps
Data Speed of Radio Interface	19200 bps ( 25 kHz )      9600 bps ( 12.5 / 20 kHz )
Data Format	Asynchronous RS-232

GENERAL	
Input Voltage ****	+9 ... +16 Vdc
Operating voltage feeding	4-pin ODU MINI-Snap Size 1
Power Consumption (average)	1.8 W typical (Receive)
	120 W typical (Transmit 35W output power)
	100 W typical (Transmit 25W output power)
Temperature Range - Operating	-25 oC ... +55 oC
	-40 oC ... +75 oC (absolute minimum / maximum)
Temperature Range - Storage	-40 oC ... +85 oC
Antenna Connector	TNC, 50 ohm, female
Construction	Aluminium Enclosure
Size H x W x D	189 x 138 x 71 mm (w. connectors)
Weight	1420 g
IP Classification	IP67 (NEMA 6)

\* Limited output power is available as on order option.

\*\* 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

Values are subject to change without notice.

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