Preliminary brochure
Values are subject to change without a notice.

SATEL-EASy Pro+

SATEL-EASy Pro+ is a new IP67 (NEMA 6) classified UHF radio modem from SATEL product portfolio. It comes with a high power (up to 35 W) transmitter and wide 70 MHz tuning range.

According to the IP67 standard, the casing and connectors of the SATEL-EASy Pro+ are waterproof and secured against dust. And therefore it is particularly well suited for mobile field applications (land surveying, for instance) under varying weather conditions.

With the high contrast 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.

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

SATEL-EASy Pro+ is an IP67 classified UHF radio modem with a high power transmitter, wide tuning range (403...473 MHz) in one hardware and selectable channel spacing.

Supported AES128 (by default) / AES256 (as an order option) encryption on radio channel increases the data security. Due to the high transmitting power, connection distances more than 80 kilometres can be covered in favourable conditions. 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.

SATEL-EASy Pro+ is compatible with widely used SATELLINE-EASy and SATEL-EASy+ product families too.

Future options includes double antenna port supporting diversity reception to improve the reception quality, dual serial port capability supporting simultaneous data (RS232 by default, RS485/-422 data ports optional) and diagnostics output, as well as lower frequency band 320...380 MHz.

Dependable data transfer
In the SATEL-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 SATEL-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.

SATEL-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 SATEL-EASy Pro+
SATEL-EASy Pro+ complies with the EN 300 113, EN 301 489-1, -5, EN 62368--1 and FCC Part 90 specifications.

SATEL-EASy Pro+	
TRANSCEIVER	
Frequency	403…473 MHz (Future option: 320...380 MHz)
Tuning Range	70 MHz
Channel Width	12.5 / 20 / 25 kHz (Software selectable)
Frequency Error Tolerance	< 1 kHz
Communication Mode	Half-Duplex
TRANSMITTER	
Carrier Power	1, 5, 10, 25** or 35 W / 50 ohm (Default)
Carrier Power Stability	+ 2 dB / - 3 dB
TX Duty Cycle	TBD
RECEIVER	
Sensitivity (BER 10E-2), FEC ON	-115 dBm @ 12.5 kHz @ 4FSK -112 dBm @ 12.5 kHz @ 8FSK -113 dBm @ 25 kHz @ 4FSK -111 dBM @ 25 kHz @ 8 FSK
DATA MODEM	
Interface	RS-232 (Future option: RS-485/422/232)
Interface Connector	Waterproof IP67, 8-pin ODU (Future option: 2 x 8-pin ODU)
Data Speed of Serial Interface	9600 – 115200 bps
Data Speed of Radio Interface	9600 bps @ 12.5 kHz / 19200 bps @ 25 kHz (4FSK, FEC OFF) 7200 bps @ 12.5 kHz / 14400 bps @ 25 kHz (4FSK, FEC ON) 14400 bps @ 12.5 kHz / 28800 bps @ 25 kHz (8FSK, FEC OFF) 9600 bps @ 12.5 kHz / 19200 bps @ 25 kHz (8FSK, FEC ON) 14400 bps @ 12.5 kHz / 28800 bps @ 25 kHz (16FSK, FEC ON)
Data Format	Asynchronous RS-232

HW
- Improved LCD Display
- Improved MCU capacity

FW
- NMS Protocol Compatibility
(With routing, diagnostics and packet filters)
- DRM Feature support
(IP networking, Cyber-Security)
- FW Over-The-Air Update*

SW / DM
- Legacy support for SATEL NMS PC Software
- NETCO NMS compatibility
(Configuration and Monitoring)
- NETCO Mobile compatibility*

GENERAL	
Input Voltage	+9 ... +30 Vdc
Power Consumption	TBD
Temperature Ranges	Type Approval Conditions: -20 °C … +55 °C Functional: -30 °C … +60 °C (absolute min / max) Storage: -40 °C … +85 °C
Antenna Connector	TNC, 50 ohm, female (Future option: 2 x TNC)
Construction	Aluminium Enclosure
Size / Weight	TBD
IP Classification	IP67 (NEMA 6)

* Ask availability from SATEL
** Limited output power is available as on order option.

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Distributor:

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