SATEL-EASy+

SATEL-EASy+ is a new radio modem family from SATEL with modern technology. It has improved LCD to enable easy configuration, improved MCU capacity and variable physical interfaces available.

In addition to ordinary communication functions, SATEL-EASy+ offers configuration through radio, efficient diagnostics tools and accumulation of operation statistics data.

SATEL-EASy+ is compatible with many SATEL radios, including SATELLINE- EASy and -TR4+ based radios as well as with SATELLINE-3AS NMS modems.

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 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.

SATEL radio modems are type approved in over 50 countries.

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Mission-Critical Connectivity

Read more: www.satel.com

SATEL-EASy+ offers improved LCD and more memory, several interfaces are available from standard **serial (variant 1)** to **Ethernet / Bluetooth / USB (variant 2)**. Both are with the same functionality: Data transfer, diagnostics, configuration and updating the device. When using the ETH/BT/USB variant, all interfaces can be used at the same time, for example data can go through Ethernet, and USB or Bluetooth can be used for the device monitoring and configuration.

SATEL-EASy+ variant 2 supports both TCP and UDP, and can act as a server or a client. The host will extract the data payload from the IP frames and transfer them to the radio.

Bluetooth connectivity is provided by a dual-mode BT / EDR BLE module, and following operating modes are supported:
- Bluetooth Server using SPP (Serial Port Protocol)
- Bluetooth Client using SPP
- BLE peripheral

SATEL-EASy+ will only act as a USB Serial device, with the other device being the USB Host (that device sees the USB connection as a serial port).

SATEL-EASy+	Values are subject to change without a notice.
Frequency range	320 ... 380 MHz (only variant 1) / 403 ... 473 MHz
Tuning range	60 MHz (only variant 1) / 70 MHz
Channel spacing	6.25 / 12.5 / 20 / 25 kHz @ 320 ... 380 MHz (only variant 1) 12.5 kHz / 20 / 25 kHz @ 403 ... 473 MHz (20 kHz uses 12.5 kHz channel width)
Modulation	4FSK, 8FSK, 16FSK @ 320 ... 380 MHz (only variant 1) 4FSK, 8FSK, 16FSK, GMSK @ 403 ... 473 MHz
Sensitivity BER < 10E-2 (FEC ON)	-115 dBm @ 12.5 kHz (4FSK) / -113 dBm @ 25 kHz (4FSK) -102 dBm @ 25 kHz (16FSK)
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)
Carrier power	0.01 ... 1 W
Power consumption, typical	< 1.5 W (Receive) < 5.5 W (Transmit 1 W) < 0.01 W (Standby)
Communication mode	Half-Duplex
Type of emission	F1D
Electrical interface	RS-232, -422, -485 (variant 1) USB, ETH, Bluetooth (variant 2)
Connectors	D15 (variant 1) M8-ETH, M8-USB, M8-power (variant 2)
Data speed	Serial interface 1200 - 115200 bps (variant 1) Ethernet 10/100 Mbps, USB2.0 (variant 2)
Data format	Asynchronous data
Operating voltage range	+7 …+27.5 VDC (-15% / +20%)
Operating temperature	–20 … +55 °C (Complies with standards) –30 … +70 °C (Functional) –40 … +85 °C (Storage)
Antenna connector	TNC, 50 Ohm, female
Housing material	Aluminium
Size H x W x D / Weight	138 mm x 67 mm x 29 mm / < 350 g (variant 1) 146 mm x 67 mm x 29 mm / < 350 g (variant 2)
SWs to configure the radios / monitor the quality of the radio network	- SATEL NETCO DEVICE and SATEL NETCO DESIGN (Configuration) - SATEL Configuration Manager (Configuration) - SATEL NETCO NMS and SATEL NMS PC (Configuration and monitoring) - SaTerm (Terminal SW for SL commands or data transmit/reception) - SATEL Command (mobile app for Android and iOs)

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HW
- New generation mechanics
- Voltage range +7 …+27.5 VDC (-15% / +20%)
- Improved LCD Display
- Improved MCU capacity
- Variable physical interfaces (D15 / M8-ETH, M8-USB)

FW
- Network security, AES128 encryption support
- NMS Protocol Compatibility (With routing, diagnostics and packet filters)
- USB 2.0 compatible (Device mode)
- UDP and TCP/IP connectivity through Ethernet 10/100 Mbps
- BT/BLE connectivity
- DRM feature support (AES256)

The following variants are coming next:
- 1 W variant with SATEL-TR489 module
- BLE central to scan other BLE devices and read/ write offered services

Ask more from SATEL.

D15 (variant 1)

M8-power, M8-USB, M8-ETH (variant 2)

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