

A versatile radio modem with a number of user's choices

The SATELLINE-3AS Epic radio modem consists of a synthesized transceiver and a modem board, packed in a compact aluminum case. The modem SATELLINE-3ASd Epic is additionally equipped with a user interface Liquid Crystal Display (LDC).

SATELLINE-3AS Epic exhibits a maximum data speed of 19.2 kbps. Two different channel spacing, 25 kHz and 12.5 kHz are available. The corresponding numbers of radio channels are 80 and 160, respectively.

SATELLINE-3AS Epic is compatible with the three most widely used standard data interfaces RS-232, RS-422 and RS-485. The radio modem can be connected to a terminal with any one of these interfaces. The data speed is selectable within the limits 300...38 400 bps.

In the SATELLINE-3AS Epic 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 SATELLINE-3AS Epic the setting of operating parameters and selection of mode and function is performed with a PC through the RS interface. The model SATELLINE-3ASd Epic is equipped with a Liquid Crystal Display (LCD) and four push buttons. In addition to changing the setups of the radio modem, the display is used for testing operating condition of the radio connection between two stations.

The software of the SATELLINE-3AS Epic resides in a flash memory. The updating of the radio modem programs is entirely software-based. The flash memory is re-programmable through an RS interface.

SATELLINE-3AS Epic can be oper-

ated at a voltage range 11.8 ... 30 V. In practice this means that the radio modem is adaptable to both 12 Vdc and 24 Vdc systems.

3AS Epic is bigger than that of the standard unit.

Continuous transmission

In the standard unit the cooler of the SATELLINE-3AS Epic is designed for the transmit and receive in the relation of 10 / 90. The maximum duration of a continuous transmission is 1 min. SATELLINE-3AS Epic with the heat sink is the appropriate choice when continuous transmission is required. With the heat sink the size of SATELLINE-

Message Routing

SATELLINE-3AS Epic uses an embedded Message Routing software developed by SATEL Oy. Message Routing features a versatile radio protocol, which takes care of routing messages across a radio modem network automatically after proper settings made. Communication is completely transparent, which makes Message Routing directly compatible for most user protocols.

Technical Specifications • SATELLINE™-3AS Epic



The equipment complies with the ETS 300 113 and ETS 300 279 specifications.

TRANCEIVER

Frequency Range	400 ... 470 MHz
Channel Spacing	12,5 kHz / 25 kHz
Number of Channels	160 / 80
Frequency stability	< 1.5 kHz
Type of Emission	F1D
Communication Mode	Half-Duplex

Transmitter

Carrier Power	1 ... 10 W / 50 ohm
Carrier Power Stability	+2 dB / -3 dB
Adjacent Channel Power	According to ETS 300 113
Spurious Radiations	According to ETS 300 113

Receivers

Sensitivity	-116 ... -110 dBm (BER < 10 E-3)
Co-channel Rejection	> -12 dB
Adjacent Channel Selectivity	> 60 dB / > 70 dB
Intermodulation Attenuation	> 65 dB
Spurious Radiations	< 2 nW
Diversity Scheme	Space diversity, selection combining

DATA MODEM

Interface	RS-232 or RS-485, RS-422
Interface Connector	D15, female
Data Speed of RS Interface	300 - 38400 bps
Data Speed of Radio Interface	19200 bps (25 kHz channel) 9600 bps (12.5 kHz channel)
Data Formats	Asynchronous data

GENERAL

Operation Voltage	+11.8 ... +30 Vdc
Power Consumption	3 VA typical (Receive) 25 VA typical (Transmit) 0.05 VA typical (when DTR is "0")
Temperature Range	-25 °C ... +55 °C
Antenna Connectors	TNC, 50 ohm, female
Construction	Aluminium Enclosure
Size H x W x D	151 x 123 x 31 mm
Weight	550 g

Manufacturer:



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