SATELLINE®-3AS(d) 869

Wireless World - Local Solution

VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
OEM

The SATELLINE-3AS 869 is a high frequency version of the SATELLINE-3AS. It uses the European CEPT licence free 868…870 MHz band, allocated for narrow band telemetry, alarms and data transfer applications.

Each radio modem of the SATELLINE-3AS 869 network can be used as a repeater. The Message Routing function facilitates easy setup of even a large network with minimum investment in equipment.

Forward Error Correction (FEC) improves the functioning of the radio modem under interference. The SATELLINE-3ASd 869 product version is equipped with an LCD display of its own.

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®

Efficient transfer and correctness of messages secured

According to the recommendation CEPT/ERC/REC 70-03 common spectrum allocations for Short Range Devices (SRD) have been taken into use in the countries within the CEPT (The European Conference of Postal and Telecommunications Administrations). The licence-free 868 ... 870 MHz band is divided into subbands according to the allowable transmit power (max 0.5 W) and transmitter duty cycle.

Message Routing features a versatile radio protocol that takes care of routing messages across a radio modem network. Communication is completely transparent, which makes Message Routing directly compatible for most user protocols. Even though the network can cover large areas with multiple hops and repeater stations, only one radio channel is required.

In the SATELLINE-3AS 869 the error rate is minimised 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.

The setting of operating parameters and selection of mode and function is performed with a PC through the RS interface. The SATELLINE-3ASd 869 model is equipped with an LCD display and four push buttons. In addition to changing the setups of the radio modem, the display is used for testing the operating condition of the radio connection between two stations.

Expert's help always at hand

With over 20 years of experience, SATEL Oy has grown into 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 marke-ting, we now offer an extremely large selection of radio modems, and operate through an extensive and skilled distributor network all over the world.

SATEL Oy is an ISO 9001:2000 certified company. The quality of our operations and products is kept as flawless and at as high level as possible.

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 our expert help whenever you need it. SATELLINE radio modems have been used, for example, at airports, waterworks and electricity plants for various 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 the different ways of utilising SATEL radio modems in various applications. For further information about our products and their applications, please visit our home page www.satel.com or contact your local dealer.

Technical Specifications SATELLINE-3AS(d) 869

The equipment complies with the EN 300 220-1, ETS 300 683 and IEC 60950 specifications.

TRANSCEIVER	
Frequency Range	869.400 ... 869.650 MHz
Channel Spacing	25 kHz
Number of Channels	10
Frequency Stability	< ± 2.5 kHz
Type of Emission	F1D
Communication Mode	Half-Duplex
TRANSMITTER	
Carrier Power	10 mW... 500 mW / 50 ohm
Carrier Power Stability	+ 2 dB / - 3 dB
Adjacent Channel Power	according to EN 300 220-1
Spurious Radiation	according to EN 300 220-1
RECEIVER	
Sensitivity	< -115 dBm (BER < 10 E-3)*Note
Co-channel rejection	> - 12 dB
Adjacent channel selectivity	> 60 dB
Intermodulation attenuation	> 60 dB
Spurious radiation	< 2 nW
DATA MODEM	
Interface	RS-232, RS-485 or RS-422
Interface Connector	D15, female
Data speed of RS interface	300 - 38400 bps
Data speed of radio interface	19200 bps (25 kHz channel)
Data format	Asynchronous RS-232, RS-422, RS-485
GENERAL	
Operating voltage	+ 9 ...+ 30 Vdc
Power consumption	1.7 VA typical (Receive)
	4.0 VA typical (Transmit)
	0.05 VA typical (when DTR is "0")
Temperature range - Operating	-25 °C...+55 °C (tests acc. to ETSI standards)
	-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	137 x 67 x 29 mm
Installation plate	130 x 63 x 1 mm
Weight	260 g

Values are subject to change without notice.
*Note: Depending on Receiver settings.

Manufactured:

SATEL®

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