SATELLINE®-3AS(d)

Wireless World – Local Solution

The SATELLINE-3AS features a maximum data speed of 19.2 kbps and a number of advanced data transfer functions. Each radio modem of the network can be used as a repeater. The Message Routing function facilitates easy setup of large networks with minimum investment.

Forward Error Correction (FEC) improves the functioning of the radio modem under interference. The SATELLINE-3AS is compatible with the RS-232, RS-422 and RS-485 interfaces. The 3ASd product version is equipped with an LCD display of its own.

VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
OEM

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®

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

Large radio modem network

Message Routing features a versatile radio protocol that takes care of the routing of 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. Any radio modem in the network can act as a repeater station, keeping infrastructure expenses low. The SATELLINE-3AS is fully compatible with the model SATELLINE-3AS Epic. Thanks to its high transmission power (10 W) and diversity reception, the latter can be used for exceptionally long connection distances or under signal-fading conditions.

Correctness of messages secured

In the SATELLINE-3AS 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 into several blocks. The radio modem adds correction information inside the blocks during transmission.

The Data Transfer mode of the SATELLINE-3AS includes a Command Program function in which the radio channel and addresses can be changed online from the serial port of the radio data modem. The changes are effected by means of a specific programming package (SL command), which is entered amidst ordinary data.

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 infor-mation about our products and their applications, please visit our home page www.satel.com or contact your local dealer.

Manufactured:

SATEL®

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Technical specifications SATELLINE-3AS and SATELLINE-3ASd

The equipment complies with the EN 300 113-1, -2, EN 300 220-1, -3, EN 301 489-1, -5, IEC 60950 and FCC CFR47 section 90 specifications.

TRANSCEIVER

Frequency Range	360...470 MHz
Channel Spacing	12.5 kHz / 20 kHz / 25 kHz
Number of Channels	160 / 100 / 80 (or 2 x 160 / 100 / 80) *Note1
Frequency Stability	< ± 1.5 kHz
Type of Emission	F1D
Communication Mode	Half-Duplex

TRANSMITTER

Carrier Power	10 mW... 1 W / 50 ohm
Carrier Power Stability	+ 2 dB / - 3 dB
Adjacent Channel Power	according to EN 300 220-1 / EN 300 113-1
Spurious Radiations	according to EN 300 220-1 / EN 300 113-1

RECEIVER

Sensitivity	< -115 dBm (BER < 10 E-3) *Note2
Co-channel rejection	> - 12 dB
Adjacent channel selectivity	> 60 dB @ 12.5 and 20 kHz @ > 70 dB 25 kHz
Intermodulation attenuation	> 65 dB
Spurious radiations	< 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, 9600 bps @ 12.5 / 20 kHz
Data format	Asynchronous RS-232, RS-422, RS-485

GENERAL

Operating voltage	+ 9 ...+ 30 Vdc
Power consumption	1.5 VA typical (Receive)
	5.5 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.
*Note1: The Dual Band version operates on two separate 2 MHz frequency band.
*Note2: Depending on Receiver settings.

Distributor: