

# SATELLINE® -2ASxE

## Wireless World - Local Solution

The SATELLINE-2ASxE is a general-purpose radio modem with a number of user choices. Fully compatible with its predecessor, the SATELLINE-2ASx, it features a selection of all the commonly used channel widths (12.5 / 20 or 25 kHz). The transmission power of 1 Watt gives a connection range of 4 to 40 kilometres, depending on the topology.

With SATELLINE-2ASxE radio modems, a network operating in a Polling mode can be conveniently set up. The radio modem has three modes of operation: the Data transfer mode, the Programming mode and the Test mode. The operations menu also includes a Store and Forward function, which is useful in extending the connection ranges or securing risky connections.



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](http://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.

VHF with NMS

UHF with NMS

**UHF**

Licence Free

IP67

OEM



## Local area data communications

In case it is necessary to extend the coverage of the radio modem network, SATELLINE-2ASxE modems can be used as repeater stations. By using the Store and Forward function, the radio modem buffers the received data and transmits it further using the same radio frequency as in reception.

The radio modems included in a local area network can be given addresses for the purpose of identification. The Data transfer mode of the SATELLINE-2ASxE 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) entered amidst ordinary data.

In the Programming mode, the radio modem is configured from a PC via the RS-232 interface. The Test mode offers the possibility to test the radio connection through data packet transfer or carrier detection.

### Expert's help is 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 marketing, 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](http://www.satel.com) or contact your local dealer.

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### Technical specifications SATELLINE-2ASxE

The equipment complies with the EN 300 113-1, EN 300 279 and IEC 60950 specifications.

#### TRANSCEIVER

Frequency Range	370...470 MHz
Channel Spacing	12.5 kHz / 20 kHz / 25 kHz
Number of Channels	160 / 100 / 80
Frequency Stability	< ± 1.5 kHz
Type of Emission	F1D
Communication Mode	Half-Duplex
Method of Modulation	FSK

#### TRANSMITTER

Carrier Power	1 W / 50 ohm
Carrier Power Stability	+ 2 dB / - 3 dB
Adjacent Channel Power	according to EN 300 220
Spurious Radiation	according to EN 300 220

#### RECEIVER

Sensitivity	< -115 dBm (BER < 10 E-3)
Co-channel rejection	> - 12 dB
Adjacent channel selectivity	> 60 dB / 12.5 and 20 kHz / > 70 dB 25 kHz
Intermodulation attenuation	> 65 dB
Spurious radiation	< 2 nW

#### DATA MODEM

Interface	RS-232
Interface Connector	D15, female
Data speed	1200 - 4800 bps (12.5 / 20 kHz channel)
Data speed	1200 - 9600 bps (25 kHz channel)
Data formats	Asynchronous data
	Character length 10 or 11 bits

#### GENERAL

Operating voltage	+ 9 ... + 30 Vdc
Power consumption	2.5 VA typical (Receive)
	6.6 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	250 g

Values are subject to change without notice.

Distributor: