SATELLINE®-1915

Wireless World - Local Solution

VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
OEM

The SATELLINE-1915 uses the ISM licence free frequency band 902…928 MHz. In the design of the radio modem, special attention was paid on the dependability of the transferred data. Good receiver sensitivity and selectivity as well as use of Frequency Hopping Spread Spectrum (FHSS) technology, minimise effectively the interference from other radio communication.

The carrier power of the SATELLINE-1915 can be set in steps between 1 mW and 1000 mW, making the radio modem suitable for various indoor as well as medium-range applications. Connection ranges of up to about 900 metres are achieved in an urban environment. In more open terrain, distances beyond 20 kilometres are not uncommon.

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®

Focus on versatility and reliable data transfer

According to the regulations of the U.S. Federal Communications Commission, telecommunication devices operated within the 902…928 MHz band must apply frequency hopping (FHSS) technology, using at least 50 hopping frequencies, the average occupancy of each being not greater than 0.4 seconds within a 20 second period.

To ensure reliability of communication, the SATELLINE-1915 checks the correctness of data transfer by repeating the transmission a given number of times until an acknowledgement from the receiving radio modem is received, or by sending every data packet multiple times in a row. Security of the messages can be provided through data encryption.

Building a SATELLINE-1915 network is easy and straightforward. A pair of radio modems is all you need to set up a data link - no configuration is required. If more functionality is needed, the modem can be easily configured using standard AT and binary commands. To save energy, the radio modem can be operated in Sleep mode, meaning that the power level is kept at a minimum when there is no reception or transmission.

The wide spectrum of applications possible with the SATELLINE-1915 includes, among others, industrial and housing complexes, vehicle fleet monitoring, surveillance and control of remote objects, and securing of private property.

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 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 or contact your local dealer.

Technical Specifications SATELLINE-1915

The SATELLINE-1915 complies with FCC CFR47 section 15 standard.

TRANSCEIVER	
Frequency Range	902 ... 928 MHz
Spread Spectrum	FHSS (Frequency Hopping Spread Spectrum)
Channel Capacity	10 hop sequences share 50 frequencies
Communication Mode	Half-Duplex
Encryption	128-bit AES Encryption
TRANSMITTER	
Carrier Power	1, 10, 100, 500, 1000 mW
RECEIVER	
Sensitivity	-110 dBm (9600 bps) / -100 dBm (115200 bps)
Selectivity	60 dB (1 MHz away from carrier)
DATA MODEM	
Interface	RS-232
Interface Connector	DIN41651-16pin (male)
Data speed of RS interface	10 - 230400 bps (including non-standard baud rates)
Data speed of radio interface	9600 bps / 115200 bps
Data format	Asynchronous RS-232
GENERAL	
Operating voltage	+ 8 ...+ 30 Vdc
Power consumption (average)	0.72 VA (60 mA @ 12 V) Receive
	1.1 VA (90 mA @ 12 V / 10 mW) Transmit
	5.0 VA (420 mA @ 12V / 1000 mW) Transmit
	0.024 VA (2 mA @ 12 V) Sleep
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	Reverse Polarity SMA, 50 ohm, male
Construction	Aluminium / Plastic
Size H x W x D	125 x 57 x 19 mm
Installation plate	130 x 63 x 1 mm
Weight	115 g

Values are subject to change without notice.

Manufactured:

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