



Wireless world – Local solution

OUR MISSION IS TO HELP OUR CUSTOMERS SOLVE THEIR LOCAL AREA WIRELESS DATA COMMUNICATION NEEDS.

SATEL has specialized in designing and manufacturing radio modems for over 25 years. We provide wireless data communication solutions for almost every device and application type.

The SATELLINE radio modem family has proven its reliability in locations ranging from Mount Everest to nuclear power plants and from professional motor sports to runway telemetry at airports.

The SATELLAR Digital System radio modem family broadens our offering to TCP/IP-based applications. The SATELLAR's Linux OS and modular construction allow customers to integrate their own applications for the radio modem.

Our cornerstones have always been excellent RF performance and lasting product reliability.

WIDE SELECTION OF PRODUCTS

A product for almost every need and for nearly every application you could imagine. Just pick the one that's most suitable for your needs! Our distributor network serves you in over 100 countries. Local support whenever you need it – in your own language.



WITH SATEL YOU WILL SUCCEED

- Wide selection of radio modems
- Reliable data transfer
- Excellent RF performance
- Long connection distances
- Easy to install and use
- User's own operator-free network
- Worldwide distribution network
- Skilful technical support and network design
- Good availability of products

WHEEL OF SATEL DESIGNS

- IP67 (NEMA 6) classified
- Heavy-duty housing
- With display
- Connectors: ODU / TNC female
- Product example: SATELLINE-3ASd Epic Pro



- Small, compact size
- Excellent for internal applications within factories
- Connectors: DIN41650-16pin / SMA female
- Product example: SATELLINE-1870

- Diversity reception
- For long distances
- With or without display
- Connectors: D15 female / TNC female
- Product example: SATELLINE-3AS Epic



- Proven track record
- With or without display
- Connectors: D15 female / TNC female
- Product example: SATELLINE-3AS


- Modular construction
- Colour display and keypad
- Side or back mounting
- Connectors: D9 female / RJ-45 / USB / TNC female
- Product example: SATELLAR-2DSd

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SELECTION GUIDE

	SATELLAR-1DS, -1DDS	SATELLAR-2DS, -2DDS	SATELLINE-3AS VHF, -3ASd VHF	SATELLINE-3AS NMS, -3ASd NMS	SATELLINE-3AS Epic NMS, -3ASd Epic NMS	SATELLINE-2ASxE	SATELLINE-3AS, -3ASd	SATELLINE-3AS Epic, -3ASd Epic	SATELLINE-EASY	SATELLINE-3AS 869, -3ASd 869	SATELLINE-1915	SATELLINE-1870, 1870E	SATELLINE-3ASd Epic Pro	SATELLINE-EASY Pro 35W	Customised radio modems	SATEL I, C-, I-LINK	SATEL IP-LINK
Frequency range																	
UHF	•	•		•	•	•	•	•	•				•	•	•		
VHF			•													•	
Pan-European licence free										•		•			•		
ISM licence free											•						
Interfaces																	
RS-232	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
RS-422	•	•	•	•	•		•	•	•	•					•		
RS-485	•	•	•	•	•		•	•	•	•					•		
TTL / LV-TTL									•						•		
Ethernet		•															•
USB		•															
Digital / Analog I/O																•	
Pulse counter																•	
Tuning range																	
4 MHz				•	•	*)	•	•		*)		*)	*)	*)	•		
20 MHz			*)														
45 MHz	•	•															
70 MHz								•							•		
FHSS											•						
Channel spacing																	
Fixed (12.5 or 20 or 25 kHz)			•	•	•	•	•	•		•		•	•	•	•	•	•
Selectable (12.5 / 20 / 25 kHz)	*)	*)							•								
FHSS											•						
Max. TX power																	
500 mW										•		*)					
1 W	•	•		•		•	•		•	•	•				•		
5 W			•														
10 W				•				•					•				
35 W														•			
Operating voltage range																	
+3 ... +9 Vdc or +6 ... +30 Vdc									•							•	
+9 ... +16 Vdc														•			
+9 ... +30 Vdc	•	•	•	•		•	•			•	•	•			•		
+10 ... +14 Vdc																	
+11.8 ... +30 Vdc					•			•					•				
Housing																	
Aluminium IP44			•	•	•	•	•	•	•	•	•	•					
Aluminium IP52	•	•															
Aluminium IP67													•	•			
Sheet metal aluminium / Stainless steel																•	•
Module: PCB card only																•	
Interface connector																	
RJ-45		•															
D9	•	•															
D15			•	•	•	•	•	•	•	•					•	•	•
ODU 8 pin													•	•			
26 pin header / 26 pin strip																•	
DIN41650-16 pin											•	•					
Variant with display		•	•	•	•		•	•	•	•			•	•			
COMPATIBILITY																	
Software																	
Configuration Manager									•								•
SATELLINK PC Pro			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SaTerm			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
NMS PC			•	•	•												
FCS							•	•	•	•			•	•	•		
Accessories																	
SATEL-321			•	•		•	•		•	•							
SATEL I-LINK											•	•					
SATEL IP-LINK							•	•	•	•	•	•				•	
SATEL C-LINK			•	•	•	•	•	•	•	•	•	•				•	
SATEL I-LINK 100, 200, 300			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SATEL RS-LINK												•					

*) Check product details

SMART UHF RADIO MODEMS

SATELLAR-1DS / 10DS

SATEL order code	
- 1 W radio unit	YF0010
- 10 W radio unit	YF0040
Frequency	360 ... 485 MHz (Ask for other frequencies)
Tuning range	45 MHz
Channel spacing	12.5 / 25 kHz selectable
RX Sensitivity / TX Power (max. values)	-116 dBm (4-FSK), -102 dBm (16-FSK) / 1W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption	
- 1 W radio unit RX / TX	3 W / 8.5 W
- 10 W radio unit RX / TX	4.2 W / 35 W



Smart UHF
VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
Customised radio modems
I/O converters
Other equipment

COMBINED PRODUCT PACKAGES

SATELLAR-2DS


SATEL order code	
- without / with display	YF0020 / YF0030
Frequency	360 ... 485 MHz (Ask for other frequencies)
Tuning range	45 MHz
Channel spacing	12.5 / 25 kHz selectable
RX Sensitivity / TX Power (max. values)	-116 dBm (4-FSK), -102 dBm (16-FSK) / 1W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption	
- 1 W radio unit without display RX / TX	4.4 W / 9.9 W
- 1 W radio unit with display RX / TX	5 W / 10.5 W
Data speed radio (max values) / serial	38400 bps / 57600 bps
Notes	Linux OS, Ethernet, USB Radio Unit and Central Unit with / without display



SATELLAR-20DS

SATEL order code	
- without / with display	YF0050 / YF0060
Frequency	400 ... 485 MHz (Ask for other frequencies)
Tuning range	45 MHz
Channel spacing	12.5 / 25 kHz selectable
RX Sensitivity / TX Power (max. values)	-116 dBm (4-FSK), -102 dBm (16-FSK) / 10W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption	
- 10 W radio unit without display RX / TX	5.6 W / 36.4 W
- 10 W radio unit with display RX / TX	6.2 W / 37 W
Data speed radio (max values) / serial	38400 bps / 57600 bps
Notes	Linux OS, Ethernet, USB Radio Unit and Central Unit with / without display



Serial 57.6 kbps	Ethernet 10/100 Mbps	 Linux OS
DSP Signalling	SNMP	Air data rate 19.2 / 28.8 / 38.4 kbps
1W / 10W RF-power	USB 2.0	SERIAL - IP
MODULAR	AES-128 encryption	360...485 MHz
SATELNET Packet Routing		

VHF RADIO MODEMS WITH NMS*

SATELLINE-3AS VHF

SATEL order code	YM5000
Frequency	135...174 / 218...238 MHz
Tuning range	135...155, 138...160 MHz 155...174, 218...238 MHz
Channel spacing	12.5 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 5 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.7W / 6.6W @ 1W, 22W @5W
Data speed radio (max values) / serial	19200 / 38400 bps

SATELLINE-3ASd VHF

SATEL order code	YM5010
Frequency	135...174 / 218...238 MHz
Tuning range	135...155, 138...160 MHz 155...174, 218...238 MHz
Channel spacing	12.5 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 5 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.7W / 6.6W @ 1W, 22W @5W
Data speed radio (max values) / serial	19200 / 38400 bps

SATELLINE-3AS VHF C

SATEL order code	YM5020
Frequency	135...174 / 218...238 MHz
Tuning range	135...155, 138...160 MHz 155...174, 218...238 MHz
Channel spacing	12.5 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 5 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.7W / 6.6W @ 1W, 22W @5W
Data speed radio (max values) / serial	19200 / 38400 bps

SATELLINE-3ASd VHF C

SATEL order code	YM5030
Frequency	135...174 / 218...238 MHz
Tuning range	135...155, 138...160 MHz 155...174, 218...238 MHz
Channel spacing	12.5 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 5 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.7W / 6.6W @ 1W, 22W @5W
Data speed radio (max values) / serial	19200 / 38400 bps



* Network Management System

UHF RADIO MODEMS WITH NMS*

SATELLINE-3AS NMS

SATEL order code	YM1070
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 1 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.4 W / 6 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Dual Band variant available



Smart UHF
VHF with NMS
UHF with NMS
UHF
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Customised radio modems
I/O converters
Other equipment

SATELLINE-3ASd NMS

SATEL order code	YM1075
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 1 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.4 W / 6 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Dual Band variant available



SATELLINE-3AS Epic NMS

SATEL order code	YM3010
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 10 W
Interface	RS-232, 422, 485
Operating voltage	+11.8 ... +30 Vdc
Power consumption RX / TX	1.6 W / 36 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Diversity reception, Dual Band variant available



SATELLINE-3ASd Epic NMS

SATEL order code	YM3011
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 10 W
Interface	RS-232, 422, 485
Operating voltage	+11.8 ... +30 Vdc
Power consumption RX / TX	1.6 W / 36 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Diversity reception, Dual Band variant available



* Network Management System

SATELLINE-3AS Epic C NMS

SATEL order code	YM3012
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 10 W
Interface	RS-232, 422, 485
Operating voltage	+11.8 ... +30 Vdc
Power consumption RX / TX	1.6 W / 36 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Diversity reception, Dual Band variant available



SATELLINE-3ASd Epic C NMS

SATEL order code	YM3013
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 10 W
Interface	RS-232, 422, 485
Operating voltage	+11.8 ... +30 Vdc
Power consumption RX / TX	1.6 W / 36 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Diversity reception, Dual Band variant available



UHF RADIO MODEMS

SATELLINE-2ASxE

SATEL order code	YM0236
Frequency	380 ... 470 MHz
Tuning range	±1 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 1 W
Interface	RS-232
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.7 W / 6 W
Data speed radio (max values) / serial	9600 / 9600 bps



SATELLINE-2ASc

SATEL order code	YM0246
Frequency	380 ... 470 MHz
Tuning range	±1 MHz from central freq.
Channel spacing	20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 1 W
Interface	RS-232
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	2.5 W / 6.6 W
Data speed radio (max values) / serial	4800 / 4800 bps



SATELLINE-3AS

SATEL order code	YM1011
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 1 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.8 W / 6 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Dual Band variant available

SATELLINE-3ASd

SATEL order code	YM1016
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 1 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.8 W / 6 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Dual Band variant available

SATELLINE-3AS Epic

SATEL order code	YM3000
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 10 W
Interface	RS-232, 422, 485
Operating voltage	+11.8 ... +30 Vdc
Power consumption RX / TX	1.6 W / 32 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Diversity reception, Dual Band variant available

SATELLINE-3ASd Epic

SATEL order code	YM3001
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 10 W
Interface	RS-232, 422, 485
Operating voltage	+11.8 ... +30 Vdc
Power consumption RX / TX	1.6 W / 32 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Diversity reception, Dual Band variant available

SATELLINE-3AS Epic C

SATEL order code	YM3002
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 10 W
Interface	RS-232, 422, 485
Operating voltage	+11.8 ... +30 Vdc
Power consumption RX / TX	1.6 W / 32 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Diversity reception, Dual Band variant available



Smart UHF
VHF with NMS
UHF with NMS
UHF
Licence Free
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Customised radio modems
I/O converters
Other equipment

Smart UHF
VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
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I/O converters
Other equipment

SATELLINE-3ASd Epic C

SATEL order code	YM3003
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 10 W
Interface	RS-232, 422, 485
Operating voltage	+11.8 ... +30 Vdc
Power consumption RX / TX	1.6 W / 32 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Diversity reception, Dual Band variant available



SATELLINE-EASY

SATEL order code	YM6500 w/o display YM6550 with display
Frequency	403 ... 473 MHz
Tuning range	70 MHz
Channel spacing	12.5 / 20 / 25 kHz selectable
RX Sensitivity / TX Power (max. values)	-114 dBm / 1 W
Interface	Port1: RS-232 fixed Port2: LVTTTL or TTL or RS-232/422
Operating voltage	+3 ... +9 / +6 ... +30 Vdc
Power consumption RX / TX	1.2 W / 7W
Data speed radio (max values) / serial	19200 / 38400 bps



LICENCE FREE RADIO MODEMS

SATELLINE-3AS 869

SATEL order code	YM1021
Frequency	869.4125 ... 869.6375 MHz
Tuning range	10 channels
Channel spacing	25 kHz
RX Sensitivity / TX Power (max. values)	-108 dBm / 500 mW
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.7 W / 4 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	For pan-European licence free band



SATELLINE-3ASd 869

SATEL order code	YM1023
Frequency	869.4125 ... 869.6375 MHz
Tuning range	10 channels
Channel spacing	25 kHz
RX Sensitivity / TX Power (max. values)	-108 dBm / 500 mW
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.7 W / 4 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	For pan-European licence free band



Smart UHF
VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
Customised radio modems
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SATELLINE-1915

SATEL order code	YM1915
Frequency	902 ... 928 MHz
Channel spacing / Tuning range	FHSS, 10 hop sequences share 50 frequencies
RX Sensitivity / TX Power (max. values)	-110 dBm / 1 W
Interface	RS-232
Operating voltage	+8 ... +30 Vdc
Power consumption RX / TX	0.72 W / 1.1W@10mW, 5.0 W@1W
Data speed radio (max values) / serial	115200 / 230400 bps
Notes	For ISM licence free frequency band

SATELLINE-1870 / SATELLINE-1870E

SATEL order code	YM4000 SATELLINE-1870 YM4010 SATELLINE-1870E
Frequency	868 ... 870 MHz
Tuning range	2 MHz
Channel spacing	25 kHz
RX Sensitivity / TX Power (max. values)	-108 dBm / 100 mW SATELLINE-1870
RX Sensitivity / TX Power (max. values)	-108 dBm / 500 mW SATELLINE-1870E
Interface	RS-232
Operating voltage	+8 ... +30 Vdc
Data speed radio (max values) / serial	9600 / 19200 bps
Notes	For pan-European licence free band

POWER CONSUMPTION SATELLINE-1870 / SATELLINE-1870E

INPUT VOLTAGE (V)	OPERATION MODE (typical values)					
	Receive (mA)	Transmit on different power levels (mA)			Power save (mA)	Standby (µA)
		500 mW	100 mW	5 mW		
8	136	444	244	168	25	55
12	89	296	166	105	19	62
30	40	128	76	47	13	1717

IP67 RADIO MODEMS

SATELLINE-3ASd Epic Pro

SATEL order code	YM3040
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 10 W
Interface	RS-232
Operating voltage	+11.8 ... +30 Vdc
Power consumption RX / TX	1.6 W / 32 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Dual Band variant available

SATELLINE-EASy Pro 35W

SATEL order code	YM6803
Frequency	403 ... 473 MHz
Tuning range	70 MHz
Channel spacing	12.5 / 20 / 25 kHz selectable
RX Sensitivity / TX Power (max. values)	-114 dBm / 35 W
Interface	RS-232
Operating voltage	+9 ... +16 Vdc (≥ +12 Vdc @ 35 W)
Power consumption RX / TX	1.8 W / 110 W
Data speed radio (max values) / serial	19200 / 38400 bps



- Smart UHF
- VHF with NMS
- UHF with NMS
- UHF
- Licence Free
- IP67
- Customised radio modems
- I/O converters
- Other equipment

- Smart UHF
- VHF with NMS
- UHF with NMS
- UHF
- Licence Free
- IP67
- Customised radio modems
- I/O converters
- Other equipment

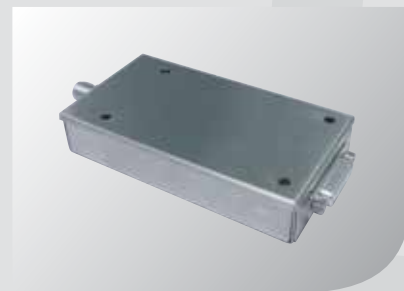
CUSTOMISED RADIO MODEMS

Examples of the customised radio modems. Ask your local SATEL distributor about the various options.

Smart UHF
VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
Customised radio modems
I/O converters
Other equipment

SATELLINE-M3 UHF

SATEL order code	YM1015
Frequency	330 ... 470 MHz
Tuning range	±2 MHz from central freq.
Channel spacing	12.5 / 20 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 1 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.8 W / 6 W
Data speed radio (max values) / serial	19200 / 38400 bps



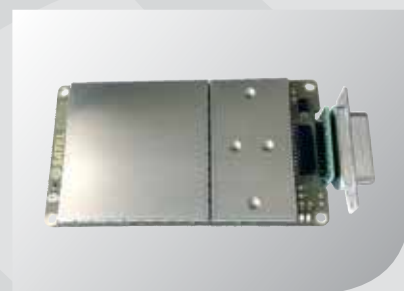
SATELLINE-M3 VHF

SATEL order code	YM6000
Frequency	135...174 / 218...238 MHz
Tuning range	135...155, 138...160 MHz 155...174, 218...238 MHz
Channel spacing	12.5 / 25 kHz fixed
RX Sensitivity / TX Power (max. values)	-115 dBm / 1 W
Interface	RS-232, 422, 485
Operating voltage	+9 ... +30 Vdc
Power consumption RX / TX	1.7 W / 6.6 W
Data speed radio (max values) / serial	19200 / 38400 bps



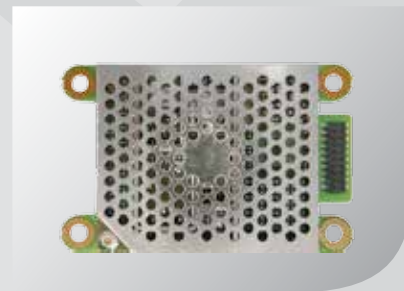
SATELLINE-M3-TR1

SATEL order code	YM6300
Frequency	403 ... 473 MHz
Tuning range	70 MHz
Channel spacing	12.5 / 20 / 25 kHz selectable
RX Sensitivity / TX Power (max. value)	-114 dBm / 1 W
Interface	RS-232, RS-422, LVTTTL, TTL
Operating voltage	+3 ... +9 / +6 ... +30 Vdc
Power consumption RX / TX	1.2 W / 3W@0.5W, 7W@1W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Transceiver



SATELLINE-M3-R3

SATEL order code	YM6240
Frequency	403 ... 470 MHz
Tuning range	67 MHz
Channel spacing	12.5 / 20 / 25 kHz selectable
RX Sensitivity (max. value)	-115 dBm
Interface	RS-232, LVTTTL, TTL
Operating voltage	+7 ... +30 Vdc
Power consumption RX	1.2 W
Data speed radio (max values) / serial	19200 / 38400 bps
Notes	Receiver only



SATELLINK I/O CONVERTERS

SATEL I-LINK 100

SATEL order code	YI0007
Digital I/Os	4
Analogue I/Os	2
Connectors, switches	Screw connectors / D15m / D15f / DIP
Notes	Modbus RTU-compatible variant available



Smart UHF
VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
Customised radio modems
I/O converters
Other equipment

SATEL I-LINK 200

SATEL order code	YI0009
Digital I/Os	4
Analogue I/Os	2
Connectors, switches	Screw connectors / D15m / D15f / DIP.
Notes	Extension module for I- and C-LINK Modbus RTU-compatible variant available



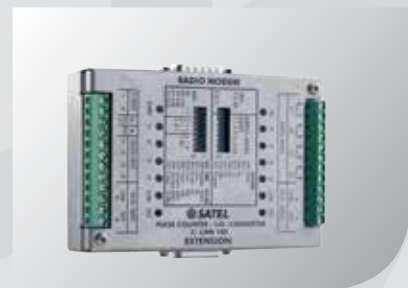
SATEL I-LINK 300

SATEL order code	YI0010
Digital I/Os	6
Connectors, switches	Screw connectors / D15m / D15f / DIP
Notes	Extension module for I- and C-LINK Modbus RTU-compatible variant available



SATEL C-LINK

SATEL order code	YI0015
Digital I/Os	4
Pulse counter	•
Connectors, switches	Screw connectors / D15m / D15f / DIP
Notes	Modbus RTU-compatible variant available



SATEL i-LINK

SATEL order code	YI0090
Digital I/Os	2
Pulse counter	•
Connectors, switches	Screw conn. / 16-pin 2x8 f / DIP
Notes	Modbus RTU-compatible variant available



OTHER EQUIPMENT

Smart UHF
VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
Customised radio modems
I/O converters
Other equipment

SATEL RS-LINK 100

SATEL order code	YI0485
Description	RS-232 to RS-485 / 422 converter
Connectors, switches	Screw conn. / 16-pin 2x8 f / DIP



SATEL IP-LINK

SATEL order code	YI0020
Description	IP router
Connectors, switches	D15m / D9m / RJ-45



SATEL-321

SATEL order code	YP0321
Description	Battery bag
Operating time	8 – 10 hours (typically)



SOFTWARE (MS WINDOWS COMPATIBLE)

SaTerm

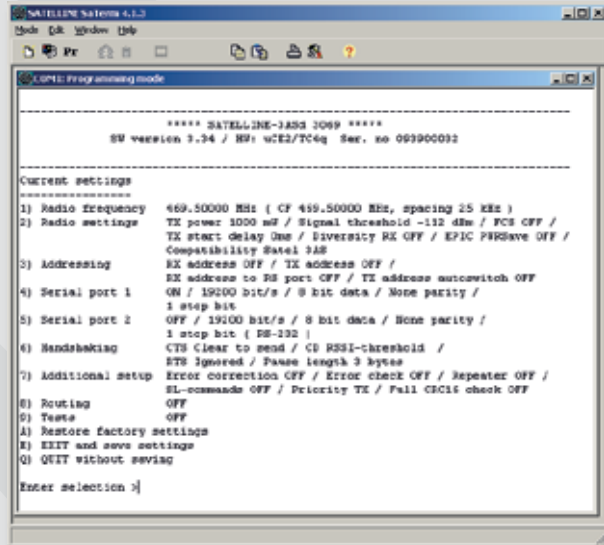
SaTerm is software, which can be used for configuration, testing, reprogramming and for updating the firmware of the SATELLINE-2ASc, 2ASxE, -3AS, -3ASd, -3AS Epic, -3ASd Epic, -EASy, 3ASd Epic Pro and -EASy Pro 35W radio modems.

SaTerm Lite

SaTerm Lite is software, which can be used for configuration, testing and reprogramming of the SATELLINE-3AS NMS, -3ASd NMS, -3AS Epic NMS, -3ASd Epic NMS, 3AS VHF and -3ASd VHF radio modems.

SaTerm 1915

SaTerm 1915 is software, which can be used for configuration, testing and reprogramming of the SATELLINE-1915 radio modems.



SaTerm

The diagram illustrates a network of four radio modems (labeled 1, 2, 3, and 4). Each modem has two antennas. Solid lines represent physical links between the modems, while dashed lines represent virtual links. A key indicates that a dashed line is a 'Virtual Link' and a solid line is a 'Physical Link'. Below the diagram is a laptop displaying the 'SATELLINK PC Pro v1.61g' software interface. The interface shows two windows: 'Main Config' and 'FACTORY 3'. The 'Main Config' window has tabs for 'Operation' and 'FACTORY 3'. The 'Operation' tab shows settings for 'Sub-relay 1', 'Sub-relay 2', 'Sub-relay 3', and 'Main alarm Out', each with a 'Switch' and 'ON-OFF' button. The 'FACTORY 3' window shows settings for 'Magnet valve 1', 'Magnet valve 2', 'Magnet valve 3', and 'Main alarm Out', each with a 'Level switch' and 'Level switch 1-4' buttons. The interface also displays various sensor readings like 'Moisture [%]', 'Water flow [L/min]', 'Yield [kg/h]', 'Level set [cm]', 'Feedback [cm]', 'Pressure [Pa]', and 'Pressure [Pa]'. At the bottom, it shows 'Main address 0' and 'Port Keycode[00000000]'.

SATELLINK PC Pro

SATELLINK PC

Point-to-multipoint program for driving SATEL I-LINK, C-LINK and i-LINK I/O-converters. Operate systems, which are connected to the I/O-ports, change values, collect pulses and monitor the radio link. For max. 16 slaves.

SATELLINK PC Pro

Point-to-multipoint program for driving SATEL I-LINK, C-LINK and i-LINK I/O-converters. Operate systems, which are connected to the I/O-ports, change values, collect pulses and monitor the radio link. For max. 127 slaves.

SATEL NMS PC

Network Management System software for creating and managing SATELLINE-3AS NMS, -3ASd NMS, -3AS Epic NMS, -3ASd Epic NMS, -3AS VHF and 3ASd VHF networks, including the graphical design of topology and message routing or repeater functions, remote modification of settings, and logging and trending of field data.

Configuration Manager

SATEL Configuration Manager (CM) is available for SATELLINE-M3-T1, M3-R1, M3-TR1, -EASy and -EASy Pro 35W products. The program makes it possible to edit the modem settings and update the firmware (FW).

Help Editor

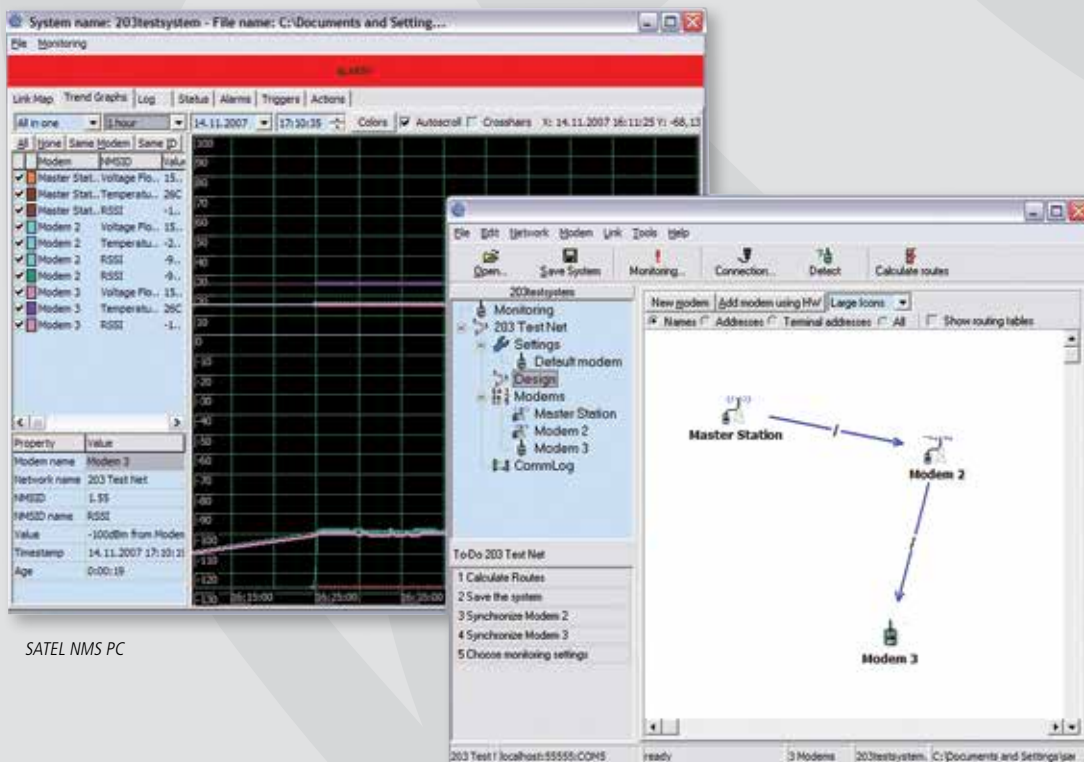
Help Editor can be used for creating and editing different language versions for Configuration Manager.

FCS Monitor

Free Channel Scanning Monitor program can be used for setting the FCS parameters and for loading them to modems and for monitoring the channels for noise or interference.

Channel list editor

Channel list editor program can be used for creating the channel list for Epic Pro modems.



SATEL NMS PC

ANTENNAS

We can offer the following antenna types for your solutions: Half Wave, Quarter Wave, Helix, Directional and Omnidirectional. Visit www.completech.fi in order to get more information of the antennas.

We can also provide for you interface and RF cables, many different types and lengths.

Ask your local SATEL distributor about the various options.



PROTOCOLS

SATEL radio modems are compatible with all commonly used industrial protocols. Here are some examples of the protocols: ANSI, ASCII, CACTUS, COMLI, DNP 3.0, 4 Exoline, HostLink, IEC 60870-101, IEC 60870-104, IEC 61850, Mewtocol, Modbus ASCII, Modbus RTU, Profibus DP, R-com, RP-570, RP-571, SATELLINK, S-bus, Siemens 3946 (R), SNP, TCP/IP etc.

Ask for more information from your local distributor.

Smart UHF
VHF with NMS
UHF with NMS
UHF
Licence Free
IP67
Customised radio modems
Alarm transfer
I/O converters
Other equipment


DISCLAIMER

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IMPORTANT
 SATEL PRODUCTS HAVE NOT BEEN DESIGNED, INTENDED NOR INSPECTED TO BE USED IN ANY LIFE SUPPORT RELATED DEVICE OR SYSTEM RELATED FUNCTION NOR AS A PART OF ANY OTHER CRITICAL SYSTEM AND ARE GRANTED NO FUNCTIONAL WARRANTY IF THEY ARE USED IN ANY OF THE APPLICATIONS MENTIONED.

TYPICAL APPLICATIONS FOR SATEL PRODUCTS

	SATELLAR-1DS, -10DS	SATELLAR-2DS, -20DS	SATELLINE-3AS VHF -3ASd VHF	SATELLINE-3AS NMS, -3ASd NMS	SATELLINE-3AS Epic NMS, -3ASd Epic NMS	SATELLINE-2ASxE	SATELLINE-3AS, -3ASd	SATELLINE-3AS Epic, -3ASd Epic	SATELLINE-EASY	SATELLINE-3AS 869, -3ASd 869	SATELLINE-1915	SATELLINE-1870, 1870E	SATELLINE-3ASd Epic Pro	SATELLINE-EASY Pro 35W	SATEL I-, C-, i-LINK	SATEL IP-LINK
TRAFFIC (public transportation, vehicle tracking)																
Parking house displays		•		•												
Passenger information systems	•						•	•	•							
Traffic light priority	•						•	•	•							
ENVIRONMENT																
Weather stations			•	•	•											
Radiation watch on nuclear power plants		•	•	•												
SCADA UTILITY DISTRIBUTION (water, electricity, gas, oil, heat)																
Clean / Waste water systems		•	•	•	•										•	•
Smart Grid		•	•	•	•											
Oil / gas pipeline control		•	•	•	•										•	•
AMR (automated meter reading)		•	•	•	•	•						•				
DGPS LAND SURVEY																
Construction surveying									•				•	•		
Machine control	•						•	•	•				•	•		
Construction monitoring									•							
SECURITY																
Alarm systems		•										•				
Passage control		•										•				
Railway level crossing control		•	•	•	•											
AUTOMATION (factory, agriculture)																
Automated guided vehicles	•	•					•		•							
Process control	•	•								•	•	•				
Snow gun remote control		•	•	•	•								•			
Irrigation systems				•	•	•	•		•				•			
M2M		•					•		•		•					•
FLEET MANAGEMENT																
Railways	•			•	•		•	•	•				•			
Airports	•	•		•	•		•	•	•				•			
Emergency vehicles	•			•	•		•	•	•				•			
LOGISTICS																
Warehouses	•	•		•	•		•	•	•	•	•	•				
Container handling	•	•	•	•	•		•	•	•				•			
MILITARY																
Troops' training	•		•				•	•	•				•			
Target systems	•		•				•	•	•				•			
SPORT SCORE SERVICE																
Athletics		•					•	•	•	•	•	•				
Orienteering	•		•	•	•		•	•	•				•			
Car / boat racing	•						•	•	•		•	•	•			

TYPE APPROVALS

COUNTRY	SATELAR	SATELINE-3AS VHF	SATELINE-3AS / SATELINE-3AS NMS	SATELINE-3AS Epic / SATELINE-3ASd Epic Pro	SATELINE-E5y	SATELINE-3AS 869	SATELINE-1870	SATELINE-1870E	SATELINE-1915	SATELINE-E5y Pro 35W
Australia										
Austria										
Belgium										
Brazil										
Bulgaria										
Canada										
China										
Croatia										
Cyprus										
Czech										
Denmark										
Estonia										
Finland										
France										
Germany										
Greece										
Hong Kong										
Hungary										
Iceland										
India*										
Indonesia										
Ireland										
Israel										
Italy										****
Kazakhstan*										
Korea**										
Latvia										
Lithuania										
Luxembourg										
Malaysia										
Malta										
Mexico										
Netherlands										
Norway										
Oman										
Poland										
Portugal										
Romania										
Russia										
Saudi Arabia***										
Singapore										
Slovak Republic										
Slovenia										
South Africa										
Spain										
Sweden										
Switzerland										
Thailand										
Taiwan*										
Turkey										
UK										
Ukraine										
United Arab Emirates										
USA										
Vietnam										

TYPE APPROVALS

SATEL radio modems are type approved globally. Type approvals ensure frequency compatibility with other uses of the radio spectrum in a given country. The table on this page shows where SATEL modems are currently type-approved. If you would like to use a product that is not currently type-approved with your national government, contact your local distributor. Your distributor may already be in the process of securing approval.

*Project approval to be applied case-by-case.
 **Special versions only for Korea available.
 *** Import licence for all SATEL modems
 **** Max. TX power 25W

