

SATELLINE® Radio Modem Comparison

	SATELLINE-1870	SATELLINE-1870E	SATELLINE-3AS(d) 869	SATELLINE-3AS(d)	SATELLINE-3AS(d) Epic	SATELLINE-3AS(d) NMS	SATELLINE-3AS(d) Epic NMS
TRANSCEIVER							
Frequency MHz	868...870	868...870	869.400 ... 869.650	330...470	330...470	330...470	330...470
Tuning Range	2 MHz	2 MHz	10 channels	+/-2 MHz from central freq.	+/-2 MHz from central freq.	+/-2 MHz from central freq.	+/-2 MHz from central freq.
Channel Spacing kHz	25	25	25	25, 20, 12.5	25, 20, 12.5	25, 20, 12.5	25, 20, 12.5
TRANSMITTER							
Carrier Power / 50 Ω	5...100 mW	5...500 mW	10...500 mW	10 mW...1 W	1...10 W	10 mW...1 W	1, 2, 5, 10 W
RECEIVER							
Sensitivity (BER<10E-3)	<-108 dBm	<-108 dBm	<-110 dBm	<-115 dBm	<-115 dBm	<-115 dBm	<-115 dBm
DATA MODEM							
Interface Level	RS-232	RS-232	RS-232 RS-422 RS-485	RS-232 RS-422 RS-485	RS-232 RS-422 RS-485	RS-232 RS-422 RS-485	RS-232 RS-422 RS-485
Interface	One port for data	One port for data	One port for data	One port for data	One port for data	Two ports: data and NMS	Two ports: data and NMS
Interface Connector	DIN41651-16pin male	DIN41651-16pin male	D15, female	D15, female	D15, female	D15, female	D15, female
Data Speed of RS interface bps	300...19200	300...19200	300...38400	300...38400	300...38400	1200...38400	1200...38400
Data Speed of Radio Interface bps	9600	9600	19200	19200/9600*	19200/9600*	19200/9600*	19200/9600*
*) Depends on channel spacing 25 kHz / 12.5 and 20 kHz							
GENERAL							
Operating Voltage Vdc	+8...+30	+8...+30	+9...+30	+9...+30	+11.8...+30	+9...+30	+11.8...+30
Power Consumption: RX	<0.9 W	<0.9 W	1.7 W	1.8 W	1.6 W	1.4 W	1.6 W
TX	<1.7 W	<3 W	4.0 W	6.0 W	32 W	6.0 W	36 W
When DTR is "0"	<0.006 W	<0.006 W	0.05 W	0.05 W	0.1 W	0.05 W	0.1 W
Antenna Connector 50 Ω	SMA, female	SMA, female	TNC, female	TNC, female	TNC, female	TNC, female	TNC, female
Weight	125 g	125 g	260 g	260 g	580 g	260 g	580 g
with Heat Sink	-	-	-	-	1480 g	-	1480 g
Size H x W x D mm	57 x 125 x 16	57 x 125 x 16	137 x 67 x 29	137 x 67 x 29	154x123x29	137 x 67 x 29	154x123x29
with heat Sink	-	-	-	-	154x151x77	-	154x151x77
Standards:							
EN 300 113 (radio)	-	-	-	•	•	•	•
EN 300 220 (radio)	•	•	•	•	•	•	•
EN 301 489 (EMC)	•	•	•	•	•	•	•
IEC 60950 (safety)	•	•	•	•	•	•	•
FCC CFR47 Part 90	-	-	-	•	•	•	•
Typical Line of Sight Communication Distance	<10 km	<10 km	<10 km	20 km	30 km	20 km	30 km
Compatibility with Other SATELLINE modems	1870E	1870	-	3AS(d) Epic, EASy modems	3AS(d), EASy modems	3AS(d) Epic NMS	3AS(d) NMS
Compatibility with Other Manufacturer's Protocols	-	-	-	•	•	-	-

Values are subject to change without notice.

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	SATELLINE-3AS(d) VHF	SATELLINE-3ASd Epic Pro	SATELLINE-EASy Pro 35W	SATELLINE-2ASc	SATELLINE-2ASxE	SATELLINE-EASy
TRANSCEIVER						
Frequency MHz	135...174 218...238	330...470	403...473	380...470	380...470	403...473
Tuning Range MHz	135...155, 138...160, 155...174, 218...238	+/-2 MHz from central freq	70 MHz	+/-1 MHz from central freq	+/-1 MHz from central freq	70 MHz
Channel Spacing kHz	25, 12.5	25, 20, 12.5	25, 20, 12.5 *)	25, 20	25, 20, 12.5	25, 20, 12.5 *)
*) Selectable						
TRANSMITTER						
Carrier Power / 50 Ω	0.1, 0.5, 1, 5 W	1, 2, 5, 10 W	10, 20, 25, 35 W	10 mW...1 W	10 mW...1 W	0.1, 0.2, 0.5, 1 W
RECEIVER						
Sensitivity (BER < 10E-3)	<-115 dBm	<-115 dBm	<-114 dBm	-110...-115 dBm	<-115 dBm	-114 dBm
DATA MODEM						
Interface Level	RS-232 RS-422 RS-485	RS-232	RS-232	RS-232	RS-232	RS-232 LVTTTL, TTL RS-422
Interface	Two ports: data and NMS	One port for data	One port for data	One port for data	One port for data	One port for data
Interface Connector	D15, female	8-pin ODU	8-pin ODU	D15, female	D15, female	D15, female
Data Speed of RS Interface bps	1200...38400	300...38400	300...38400	300...4800 300...2400**	1200...9600 1200...4800**	300...38400
Data Speed of Radio Interface bps	19200/9600 **	19200/9600 **	19200/9600 **	Same as RS speed	Same as RS speed	19200/9600 **
**) Depends on Channel Spacing						
GENERAL						
Operating Voltage Vdc	+9...+30	+11.8...+30	+9...+16***	+9...+30	+9...+30	+3...+9 / +6...+30
Power Consumption: RX	1.7 W	1.6 W	1.8 W	2.5 W	1.7 W	1.2 W
TX	6.6 W @ 1W 22 W @ 5W	32 W	110 W	6.6 W	6.0 W	7.0 W
When DTR is "0"	0.07 W	0.1 W	0.4 W	0.05 W	0.05 W	0.005 W
Antenna Connector 50 Ω	TNC, female	TNC, female	TNC, female	TNC, female	TNC, female	TNC, female
Weight	265 g	1300 g	1640 g	250 g	250 g	250 g
with Heat Sink	550 g	-	-	-	1520 g	-
Size H x W x D mm	137 x 67 x 29	-	-	137 x 67 x 29	137 x 67 x 29	137 x 67 x 29
with heat Sink mm	137 x 80 x 56	165x138x57	165x138x73	-	-	-
Standards:						
EN 300 113 (radio)	•	•	•	-	•	•
EN 300 220 (radio)	-	-	-	•	-	-
EN 301 489 (EMC)	•	•	•	•	•	•
IEC 60950 (safety)	•	•	•	•	•	-
FCC CFR47 Part 90	•	•	•	-	•	•
Typical Line of Sight Communication Distance	30 km	30 km	>30 km	15 km	20 km	20 km
Compatibility with Other SATELLINE modems	-	3AS(d), Epic, EASy modems	3AS(d), Epic, EASy	1AS, 1ASm2, 2AS, 2ASm2	2ASx, 2ASxm2	3AS(d), Epic, EASy Pro 35W
Compatibility with Other Manufacturer's Protocols	-	•	•	-	-	•
*** Separate Operating Voltage Feeding through 4-pin ODU MINI-snap size1 connector						
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