

# 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
<b>TRANSCEIVER</b>							
Frequency MHz	868...870	868...870	869.400 ... 869.650	360...470	370...470	360...470	370...470
Channel Spacing	25 kHz	25 kHz	25 kHz	25, 20, 12.5 kHz	25, 20, 12.5 kHz	25, 20, 12.5 kHz	25, 20, 12.5 kHz
No of Channels	74	74	10	80,100,160	80,100,160	80,100,160	80,100,160
<b>TRANSMITTER</b>							
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
<b>RECEIVER</b>							
Sensitivity (BER<10E-3)	<-108 dBm	<-108 dBm	<-110 dBm	<-115 dBm	<-115 dBm	<-115 dBm	<-115 dBm
<b>DATA MODEM</b>							
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							
<b>GENERAL</b>							
Operating Voltage Vdc	+8...+30	+8...+30	+9...+30	+9...+30	+11.8...+30	+9...+30	+11.8...+30
Power Consumption: RX	<0.90 VA	<1.1 VA	1.7 VA	1.8 VA	3 VA	1.4 VA	3 VA
TX	<1.65 VA	<3.55 VA	4.0 VA	6.0 VA	25 VA	6.0 VA	33 VA
When DTR is "0"	<0.006 VA	<0.004 VA	0.05 VA	0.05 VA	0.05 VA	0.05 VA	0.1 VA
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	-	-	-	-	1520 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 CRF47 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	3AS(d)	3AS(d) Epic NMS	3AS(d) NMS
Compatibility with Other Protocols	-	-	-	Pacific Crest, TRIMTALK**)	-	-	-

\*\*\*) TRIMTALK is a trademark of Trimble Navigation Ltd.

Values are subject to change without notice.

# SATELLINE® Radio Modem Comparison

	SATELLINE-3AS(d) VHF	SATELLINE-3ASd Epic Pro	SATELLINE-3ASd Epic Pro 35 W	SATELLINE-2ASc	SATELLINE-2ASxE		
<b>TRANSCEIVER</b>							
Frequency MHz	135...174 218...238	370...470	400...470	380...470	380...470		
Channel Spacing	25, 12.5 kHz	25, 20, 12.5 kHz	25, 12.5 kHz	25, 20 kHz	25, 20, 12.5 kHz		
No of Channels	1760 max.	80, 100, 160 x 2 *	80, 100, 160 x 2 *	80, 100	80, 100, 160		
*) With Dual Band feature							
<b>TRANSMITTER</b>							
Carrier Power / 50 Ω	0.1, 0.5, 1, 5 W	1, 5, 10 W	5, 10, 20, 25, 35 W	10...500 mW	10 mW...1 W		
<b>RECEIVER</b>							
Sensitivity (BER<10E-3)	<-115 dBm	<-115 dBm	<-115 dBm	-110...-115 dBm	<-115 dBm		
<b>DATA MODEM</b>							
Interface Level	RS-232 RS-422 RS-485	RS-232	RS-232	RS-232	RS-232		
Interface	Two ports: data and NMS	One port for data	One port for data	One port for data	One port for data		
Interface Connector	D15, female	8-pin ODU MINI-Snap	7-pin ODU or 8-pin LEMO	D15, female	D15, female		
Data Speed of RS Interface bps	1200...38400	300...38400	300...38400	300...4800 300...2400**	1200...9600 1200...4800**		
Data Speed of Radio Interface bps	19200/9600 **	19200/9600 **	19200/9600 **	Same as RS speed	Same as RS speed		
**) Depends on Channel Spacing							
<b>GENERAL</b>							
Operating Voltage Vdc	+9...+30	+11.8...+30	+9...+30***	+9...+30	+9...+30		
Power Consumption: RX	1.7 VA	<1.3 VA	1.3 VA	2.5 VA	1.7 VA		
TX	6.6 / 22 VA **	<30 VA	120 VA	6.6 VA	6.0 VA		
When DTR is "0"	0.07 VA	<0.1 VA	0.1 VA	0.05 VA	0.05 VA		
Antenna Connector 50 Ω	TNC, female	TNC, female	TNC, female	TNC, female	TNC, female		
Weight	265 g	1300 g	1640 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		
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 CRF47 Part 90	•	•	•	-	•		
Typical Line of Sight Communication Distance	30 km	30 km	>30 km	15 km	20 km		
Compatibility with Other SATELLINE modems	-	3AS(d), Epic	3AS(d), Epic	1AS, 1ASm2, 2AS, 2ASm2	2ASx, 2ASxm2		
Compatibility with Other Protocols	-	-	Pacific Crest, TRIMTALK	-	-		
*** Separate Operating Voltage Feeding through 4-pin ODU MINI-snap size1 connector							
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