

XM9000S

Smart and highly integrated PLC (Power Line Communication) socket modem for embedded and M2M applications. With network layer and HomePlug C&C ready Data Link Layer (DLL) protocol stack. Complies with Cenelec, FCC and ARIB bands.

Benefits:

- Enables any device to send and receive data via the Power Line using the Cenelec, FCC or ARIB bands.
- Yitran's patented DCSK spread spectrum modulation enables extremely robust communication with data rates up to 7.5Kbps.
- Pre-programmed with Yitrans Y-Net network layer and HomePlug C&C ready Data-Link-Layer (MAC) protocol stack.
- Compatible with global regulations. Full home coverage even under adverse line conditions.

Functions:

- Europe Indoor (CENELEC Band B) supported in the standard version of the XM9000S.
- Europe Outdoor (CENELEC Band A, A2 and A3) , US (FCC) and Japan (ARIB) optionally available.
- Differential Code Shift Keying (DCSK) patented modulation technique provide robust communication.
- High immunity to signal fading, various noise, impedance modulation and phase/frequency distortion.
- High in phase and cross-phase reliability.
- Forward error correction mechanism and CRC16.
- Proprietary command line interface for configuration.
- UART interface with fixed 38400bps supported.

Applications:

- Home Automation and Remote sensing.
- Energy management systems.
- Power distribution control.
- Traffic control systems.

Protocol Software:

- Data Link Layer (DLL) protocol stack supports packet transmission and reception with back-off and collision avoidance. Up to 2'047 nodes/network.
- Network Layer (Y-Net) protocol stack supports Plug&Play network setup in different configurations (peer-to-peer, master-slave).

Specifications:

- Compact Size: 64.5x26.5x17.2 mm
- Single 5V or 3.3V Supply (550mA).
- UART interface with 5V tolerant inputs.
- Conforms to EN50065-1, EN60950-1:2001, EN55022 and EN61000-6-1.
- 2 Year warranty.

Ordering:



XM9000S
XM9000S-3V

Pin Diagram				Pin No	Name	Pin No	Name
1	AC-P	NC	64	1	AC (Phase)	64	NC
		GND	63	2	No Pin	63	GND
		NC	62	3	No Pin	62	NC
4	AC-N	VCC	61	4	AC (Null)	61	VCC
				5 - 9	NO PIN	60	NO PIN
				10 - 20	NO PIN	45 - 59	NO PIN
				21	NO PIN	44	NO PIN
				22	NO PIN	43	NO PIN
				23	NO PIN	42	NO PIN
				24	RESET	41	GND
				25	SAFE MODE	40	DTR
				26	GND	39	DCD
				27	NC	38	CTS
				28	NC	37	DSR
				29	LINK LED	36	RI
24	RESET	GND	41	30	RXD LED	35	TXD
25	SAFE	DTR	40	31	NC	34	RXD
26	GND	DCD	39	32	TXD LED	33	RTS
27	NC	CTS	38				
28	NC	DSR	37				
29	LINK-LED	RI	36				
30	RX-LED	TXD	35				
31	NC	RXD	34				
32	TX-LED	RTS	33				

Operating Conditions	Symbol	Limits	Units
Supply Voltage 5V Version	VDD	+ 4.75 to + 5.25	VDC
Supply Voltage 3V Version (-3V version)	VDD	+ 3.15 to + 3.45	VDC
Operating Ambient Temperature		0 to + 70	°C
Extended temperature (ET Version)		on demand	

Power Requirements	Typical Current (mA)	Max. Current (mA)
Idle mode, normal data connection	TBD	TBD
Online mode, data transfer	TBD	TBD
Sleep mode		

Product Documentation	Doc Nr.
Designers Guide	XM9000S-E00-100
AT Command Manual	XM9000S-A00-100
Additional Documentation	www.xmodus.ch

Contact Information	
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