



## XM3092S

Embedded Data/Fax/Voice dial-up modem module with V.92 (56K). The new generation of analog modem modules for embedded and M2M applications. Pin compatible with ISDN, LAN and GSM socket modules.

### Benefits:

- Enables any device to send and receive data via analog telephone (PSTN) line.
- Complete, ready-to-integrate analog modem, suited for a wide range of M2M applications.
- Solid modem quality. V.56bis testing standard used, which defines a series of line impairment combinations based on worldwide telephone line surveys. The TAS equipment was used for testing, with live-line torture tests validating the modem quality. Test results are readily available

### Features:

- Standard Hayes AT-Command Set, V.250, V.251 Commands.
- ITU-T V.92, V.34, V.32, V.22bis, V.22, V.23, V.21, Bell 212A and 103. V.29 FastPOS and V.22 fast connect.
- SIA Protocol and ContactID for alarm equipment.
- Call waiting (CW) detection for selected countries.
- Built-in UART interface with speeds up to 115.2 kbps.
- Automatic Format and Speed sensing.
- Hardware and Software flow control, speed buffering.
- Serial asynchron and V.80 synchron access mode.
- V.42 and MNP error correction.
- V.44, V.42bis and MNP 5 data compression.
- Full-duplex 8/16-bit PCM voice pass-through mode.
- Serial NVRAM for country profiles and code updates.
- Embedded and upgradable 63 country profiles.
- Telephony / TAM functions, V.253 voice commands.
- 2-bit and 4-bit ADPCM, 4-bit IMA, 8/16-bit linear PCM, u-law and A-law PCM coding. 8kHz sampling.
- Concurrent DTMF, ring and Caller ID detection.

### Features:

- Fax Modem send / receive up to 14.4kbps (V.17, V.29, V.27ter). Fax protocols EIA/TIA 578 Class 1/1.0 and T.31 Class 2 supported.
- Worldwide operation: complies to TBR21, FCC Part 68 and other country requirements.
- Type I and Type II Caller ID (CID) detection.
- Type II Caller ID snooping.
- Extension pick-up detection.
- Sleep mode supported (6mA).

### Specifications:

- Compact Size: 64.5 X 26.5 X 5 mm.
- Single 3.3V or 5.0 VDC supply variants.
- Typical power use: 84mA (435mW)
- Serial UART, 5-Volt tolerant inputs, TTL interface.
- Approved for Europe (CE). R&TTE directive.
- Meets specification TS103021-1/2 (TBR21) .
- Safety according EN60950, IEC60950-1.
- EMC according EN55022, EN55024.
- Supports 3750V isolation.
- Lightning protection according K.21 and FCC Part 68
- Conforms to the RoHS directive.
- 2 Year warranty.

### Ordering:



**XM3092S-5V**  
**XM3092S-3V**

Pin Diagram				Pin No	Name	Pin No	Name
1	TIP	SPKR	64	1	TIP	64	SPEAKER
2	RING	GND	63	2	RING	63	GND
		NC	62	3..17	NO PIN	62	NC
		VCC	61	18	NO PIN	61	VCC
				19	NO PIN	60	NO PIN
				20	NO PIN	59	NO PIN
				21	NO PIN	58	NO PIN
				22	NO PIN	57	NO PIN
				23	NO PIN	56...40	NO PIN
				24	RESET	41	GND
				25	NC	40	DTR
				26	GND	39	DCD
				27	NC	38	CTS
				28	NC	37	DSR
				29	NC	36	RI
				30	NC	35	TXD
				31	NC	34	RXD
				32	NC	33	RTS
24	RESET	GND	41				
25	NC	DTR	40				
26	GND	DCD	39				
27	NC	CTS	38				
28	NC	DSR	37				
29	NC	RI	36				
30	NC	TXD	35				
31	NC	RXD	34				
32	NC	RTS	33				

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

Power Requirements	Typical Current (mA)	Max. Current (mA)
Off-hook, normal data connection	82	84
On-hook, idle, waiting for ring	71	72
Sleep Mode	5	6

Product Documentation	Doc Nr.
Designers Guide	XM3000S-E00-100
AT Command Manual	XM3000S-A00-100
Additional Documentation	<a href="http://www.xmodus.ch">www.xmodus.ch</a>

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