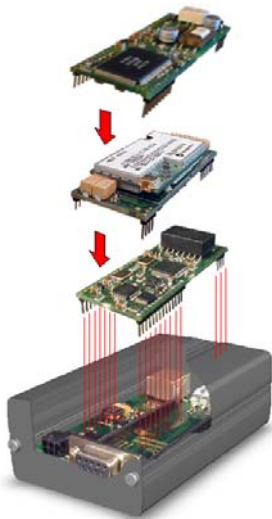




**SWISS HOME OF  
SOCKET MODEMS**




XMODUS SWISS GmbH is a successfully established Swiss company specializing in customer specific telecommunication solutions. Xmodus' professional execution extends from development onto production to sales entirely based in Switzerland. Providing a powerful portfolio of embedded and standalone modems, you can safely rely on our expertise to realize your GSM, ISDN, Analog and LAN communication projects.


XMODUS Socket Modems offer the highest flexibility for your cost efficient integration due to the socket design and pin-to-pin compatibility. All Socket Modems are complete ready-to-integrate, fully interchangeable devices, available as standard versions or precisely customized to your needs.


... from standard to customized



## ANALOG SOCKET MODEMS


AL2094S	Specification:	
	Dimensions:	53 x 20 mm (DIL40)
	Power Supply:	Single 3.3V <sub>DC</sub>
	Command Set:	Standard Hayes AT-command set and V.250, V.251 commands AT-command speed sensing from 300 to 115200 bps
	Data protocols:	ITU-T V.92 / V.34 / V.32bis / V.22bis / V.22 / V.21 and V.23 modulations V.22bis, V.22 fast connect and V.29 FastPOS supported V.44, V.42bis and MNP5 data compression, V.42 and MNP error correction protocols
	Interfaces:	Serial ITU-T V.24 TTL interface
	Features:	Full-duplex voice pass-through mode (u-law and A-law) Surge protection according ITU-T K.21 Line-in-use detection Line reversal detection Extension pickup detection and PPD (Parallel Phone Detection) Sleep mode (10mA) 2 year warranty
Approvals:		CE / TBR21 / EN 55024 / EN 55024 / EN 60950

AL3094S/AL4094S	Specification:	
	Dimensions:	64.5 x 26.5 x 5 mm (DIL64)
	Power Supply:	Single 5V <sub>DC</sub> (3.3V <sub>DC</sub> models on enquiry)
	Command Set:	Standard Hayes AT-command set and V.250, V.251 commands. Telephony/TAM functions with voice commands according V.253
	Data protocols:	ITU-T V.92 / V.34 / V.32 / V.22bis / V.22 / V.23 / V.21 / Bell 212A and Bell 103
	Fax protocols:	V.17 / V.29 / V.27ter EIA/TIA 578 Class 1 and T.31 Class 1.0
	Interfaces:	Serial ITU-T V.24 (EIA/TIA-232-E) 5V TTL Built-in host / DTE interface with speeds up to 115.2 kbps.
Features:	Serial asynchronous and synchronous data interface Full-duplex Speakerphone (FDSP), full-duplex voice send/receive (AT+VTR) supported V.42 and MNP error correction. V.44, V42bis and MNP 5 data compression. Lightning protection according to K.21 and FCC Part 68 on board. 2-bit and 4-bit ADPCM, 8-bit linear PCM and 4-bit IMA coding Concurrent DTMF, ring and caller ID detection Automatic format & speed sensing Worldwide operation (complies to TBR21 and other country requirements)	
Approvals:		CE / TBR21 / EN 55022/ EN 55024 / EN 60950

AL4200S	Specification:	
	Dimensions:	64.5 x 26.5 x 6 mm (DIL64)
	Power Supply:	5V <sub>DC</sub> or 3.3V <sub>DC</sub>
	Command Set:	Standard AT-Commands according to ITU-T V.250 Telephony/TAM functions with voice commands according V.253
	Data protocols:	V.92 / V.34 / V.32 / V.22bis / V.22 / V.23 / V.21 / Bell 212A / Bell 103
	Fax protocols:	V.34 / V.17 / V.29 / V.27ter / V.21 and Super G3 Fax class 1 (T.31) / Class2 / Class 2.1(T.32) and Fax ECM
	Interfaces:	Serial ITU-T V.24 (EIA/TIA-232-E) with 3.3V TTL level Hook Relay with 4-wire Line/Phone interface
Features:	Differential analog interface for great audio performance Built-in host / DTE interface with speed up to 230.4kbps Voice coding with 8-bit linear/A-law/u-law, 16-bit, ADPCM & G.729 with 7200, 8000, 11025 sampling rates Automatic format & speed sensing Flow control and speed buffering V.42 and MNP error correction and V.44, V42bis and MNP 5 data compression. Speakerphone (FDSP) supports full-duplex analog voice interface	
Approvals:		CE / TS 103021-1/2 / EN 55022 / EN 55024 and EN 60950




## ISDN SOCKET MODEMS

	<b>Specification:</b>	
	Dimensions: 64.5 x 26.5 x 16.2 mm (DIL64)	Interfaces: Optional analog voice interface supported by external PCM codecs
	Power Supply: 5V <sub>DC</sub> or 3.3V <sub>DC</sub>	<b>Features:</b> Asynchronous modes, 8 bit, no parity, 1 stop bit with speeds from 9600 to 115200 bps.  Programmable EAZ/MSN (Multiple Subscriber Number)  Advice of charge, charging in national currency  Firmware updateable  X.3 PAD integrated  Channel bundling with ML-PPP (optional)
	Command Set:: Standard AT-Command set with autobaud (speed sensing)	
	Data protocols: Euro-ISDN D-channel signaling protocol(CTR3)	
	V.110 rate adaption protocol with 4800, 9600 and 19200 bps	
	PPP protocol (RFC 1662 async/sync conversion)	
B-Channel protocols: X.75, V.120, X.31 and transparent	<b>Approvals:</b> CTR3, CTR3/A1 / TBR3 / EN 60950 / EN 50081 / EN 55022 / EN 55024 / EN 50082 and EN 61000	
X.25 / X.31 Case A & B protocols for D- and B-channel supported		
Interfaces: Serial ITU-T V.24 with TTL interface		
Externals IOM-2 Bus (AL5068SI-3V)		




## GSM SOCKET MODEMS

	<b>Specification:</b>	
	Dimensions: 64.5 x 26.5 x 10 mm (DIL64)	<b>Features:</b> Dual band 900/1800MHz GPRS Class 10 max. BR 85.6 Kbps (CS4) GPRS multi slot classes up to Class 10 GPRS Class B multiplexing CSD max. BR 14.4 Kbps Java open application interface with 1MB of memory (optional) EDGE multi slot class 10 with max. BR downlink 236.8 Kbps (optional) Embedded TCP/IP and UPD/IP protocol stack SMS services features MO/MT text and PDU modes RX sensitivity -106dBm Internal SIM card reader Extended temperature: -30° to +85° C
	Power Supply: 5V <sub>DC</sub> or 3.3V <sub>DC</sub>	
	Command Set:: AT-Command set interface protocol ETSI 07.07 and 07.05	
	Data protocols: Transparent, V.32bis and V.110 transmission protocols	
	Multiplexing protocol (ETSI 07.10) enables up to 4 virtual channels	
	Fax protocols: Automatic fax group 3 (Class 1)	
Interfaces: Integrated MMCX antenna interface		
Serial RS-232 interface with TTL levels	<b>Approvals:</b> GCF, EMC BABT, FTA, FCC and PTCRB	
External SIM card reader interface		








## LAN SOCKET MODEMS

	<b>Specification:</b>	
	Dimensions: 64.5 x 26.5 x 16.2 mm (DIL64)	<b>Features:</b> Serial interface supports DTE speeds up to 230.4 Kbps Transmit block size up to 4Kb supported Central site setup and monitoring of the remote modules HTTP server with web page allows monitoring and configuration with WEB browser Configurable I/O ports and ADC for monitoring & control Complete protocol stack: TCP/IP, UDP, ARP, ICMP, DHCP Flexible IP protocol stack allows integration of user application Device identification, password protection and security administration Flash memory to update the firmware with the latest code or custom features
	Power Supply: 5V <sub>DC</sub> or 3.3V <sub>DC</sub>	
	Command Set:: Command line interface for management and configuration over serial interface of Telnet	
	Data protocols: Data transmission modes are transparent or Telnet	
	Interfaces: Ethernet IEEE 802.3u interface with auto-negotiation of 10/100baseT, half/full-duplex and auto-crossover	
	Serial ITU-T V.24 TTL interface	
Optional SPI, CAN or USB interfaces		
Features: Trusted IP-address for Telnet dial-in	<b>Approvals:</b> EN 60950 / EN 55022 / EN 55024 and EN 61000	





## Evaluation Kit


	+		+		+		+	
		Doku CD		Cables		Antenna		Power Supply


# Box Modem

New Industrial Design Box Modem with metal chassis for tabletop or top-hat rail mounting connects serial devices to PSTN, ISDN, GSM and LAN networks. Based on Xmodus socket modems this is the ideal complement for a wide range of M2M applications, e.g. control systems, POS- terminals, remote diagnostics, data collection, remote maintenance, web-enabled devices, vending machines and more.

XM1210S - GSM	Specification:	
	Dimensions: 97 x 63 x 36 mm	Features: Dual-band 900/1800MHz, GPRS class 10 class B
	Power: 6 - 32V <sub>DC</sub> supply	According to socket module AL7024S
	Max. Power 250mA @ 9V	Ordering Information: GSM Box Modem including DC cable and GSM stubby antenna
	Interfaces: Serial V.24 (EIA/TIA-232-E) interface	Accessories: <i>AL-ANT-AP07</i> : Dual Band GSM antenna 900/1800MHz straight SMA (male)
	Power interface (Molex) for 6 - 32V <sub>DC</sub>	<i>AL-ANT-AP08</i> : Dual Band GSM antenna 900/1800MHz right-angle SMA (male)
	SMA connector for GSM antenna	<i>AL-HRM-001</i> : Top-hat rail mounting kit
SIM card interface reader	<i>AL-SPU-XYZ</i> : Power supply 9V <sub>DC</sub> / 0.56A Euro	
LEDs for power and connectivity display	Approvals: CE / R&TTE / EN60950 / EN55022 / EN55024 / EN61000 / EN60068 part 2-1/2/6/14/30	

XM1220S - ANALOG	Specification:	
	Dimensions: 97 x 63 x 36 mm	Features: V.92, V.34, V.32, V.22B, V.21 modem speeds
	Power: 6 - 32V <sub>DC</sub> supply	Data / Fax / Voice modem with speakerphone
	Max. Power 110mA @ 9V	All features according to socket module AL4094S
	Interfaces: Serial V.24 (EIA/TIA-232-E) interface	Ordering Information: PSTN Box Modem incl. phone and DC cables
	Power interface (Molex) for 6 - 32V <sub>DC</sub>	Accessories: <i>AL-HRM-001</i> : Top-hat rail mounting kit
	RJ45 connector for PSTN / ISDN / LAN	<i>AL-SPU-XYZ</i> : Power supply 9V <sub>DC</sub> / 0.56A Euro
LEDs for power and connectivity display	Approvals: CE / R&TTE / EN60950 / EN55022 / EN55024 / EN61000 / EN60068 part 2-1/2/6/14/30	

XM1230S - LAN	Specification:	
	Dimensions: 97 x 63 x 36 mm	Features: Ethernet 10/100base-T interface with Auto-MDX
	Power: 6 - 32V <sub>DC</sub> supply	TCP/IP, UDP, ARP, ICMP and DHCP stack
	Max. Power 150mA @ 9V	All features according to socket module AL6000S
	Interfaces: Serial V.24 (EIA/TIA-232-E) interface	Ordering Information: LAN Box Modem including Ethernet and DC cables
	Power interface (Molex) for 6 - 32V <sub>DC</sub>	Accessories: <i>AL-HRM-001</i> : Top-hat rail mounting kit
	RJ45 connector for PSTN / ISDN / LAN	<i>AL-SPU-XYZ</i> : Power supply 9V <sub>DC</sub> / 0.56A Euro
LEDs for power and connectivity display	Approvals: CE / R&TTE / EN60950 / EN55022 / EN55024 / EN61000 / EN60068 part 2-1/2/6/14/30	

XM1240S - ISDN	Specification:	
	Dimensions: 97 x 63 x 36 mm	Features: Euro-ISDN DSS-1 interface according to CTR3
	Power: 6 - 32V <sub>DC</sub> supply	V.110, V.120, X.31, X.75, PPP B-channel protocols
	Max. Power 110mA @ 9V	All features according to socket module AL5068S
	Interfaces: Serial V.24 (EIA/TIA-232-E) interface	Ordering Information: ISDN Box Modem incl. Phone cable and DC cable
	Power interface (Molex) for 6 - 32V <sub>DC</sub>	Accessories: <i>AL-HRM-001</i> : Top-hat rail mounting kit
	RJ45 connector for PSTN / ISDN / LAN	<i>AL-SPU-XYZ</i> : Power supply 9V <sub>DC</sub> / 0.56A Euro
LEDs for power and connectivity display	Approvals: CE / R&TTE / EN60950 / EN55022 / EN55024 / EN61000 / EN60068 part 2-1/2/6/14/30	