

ASM-11

Async Short Range Modem



FEATURES

- Asynchronous operation
- Full or half duplex
- Selectable data rates up to 19.2 kbps
- Extended range up to 39 km (24 miles)
- Differential diphase modulation
- Carrier control for multipoint operation
- V.54 diagnostics including unattended remote test
- Line protection circuits
- Compatible with ASM-10/8, SRM-8 async mode, and CMN-C11 card

DESCRIPTION

- The ASM-11, Short Range Modem, operates full or half duplex. Line communication is synchronous over unconditioned lines. ASM-11 provides an extended range of 39 km (24 miles) and operates at eight selectable rates, up to 19.2 kbps (see *Table 1*).
- Conditioned differential diphase modulation (EUROCOM Std.D1) provides immunity from background noise, eliminates normal line distortion and enables efficient transmission and reception of serial data over twisted pair cable. Coupling to the line through isolation transformers, in conjunction with other circuitry, protects against AC or DC overvoltages. The protection circuitry enables operation, even when DC is connected to the line.

- Transmit level and impedance are independently selectable. ASM-11, however, performs async to sync conversion in compliance with ITU V.22 bis standard.
- ASM-11 features V.54 diagnostic capabilities for performing local analog loopback and remote digital loopback. The operator at either end of the line may test both modems and the line in the loopback mode. The loopback is controlled by either a front panel switch or via pin 18 and pin 21 of the V.24/RS-232 interface.
- ASM-11 is available as a desktop unit. It is compatible with the CMN-C11 card of the CMN-16, 19" card cage, carrying up to 16 of the CMN-C11 cards (see *CMN-16 data sheet* for details).

ASM-11

Async Short Range Modem

SPECIFICATIONS

Transmission Line

Type:

Unloaded twisted pair
19 to 26 gauge

4-wire for full or half duplex

Range: see *Table 1*

Level: 0 dBm, -6 dBm

Impedance:

Transmit: 150Ω or low

Receive: 150Ω or high

Return loss: greater than 15 dB

Carrier:

Controlled by RTS or
constantly ON

Modulation: Differential
diphase EUROCOM Std.

D1

Connector: RJ-45

Digital Interface

Type: RS-232/V.24

Connector: 25-pin D-type,
female Data rates:

Selectable for 1.2, 2.4, 3.6,
4.8, 7.2, 9.6, 14.4,
19.2 kbps

RTS/CTS Delay:

Strap-selectable to 0, 8 or
68 msec

Diagnostics

Comply with V.54 standard

Remote digital loopback:

REM, activated by a manual
switch or by DTE interface
signal, pin 21

Analog loopback:

Local (ANA), activated by
manual switch or by DTE
interface signal, pin 18

GENERAL

Indicators

TD (yellow): Transmit Data

RD (yellow): Receive Data

RTS (yellow): Request to Send

DCD (yellow): Data Carrier
Detect

TEST (red): Test

PWR (green): Power

Power Supply

100, 115 or 230V (±10%)

47 to 63 Hz; 3W

Protection

AC/DC overvoltage protection
circuits are connected via
transformers to transmit and
receive lines

Physical

Height: 4.5 cm / 1.8 in

Width: 20.5 cm / 8.0 in

Depth: 11.1 cm / 4.4 in

Weight: 0.53 kg / 1.2 lb

Environment

Temperature: 0-50°C / 32-

122°F Humidity: up to 90%,
non-condensing

Data Rate kbps	19 Gauge (0.9mm)		24 Gauge (0.5mm)		26 Gauge (0.4mm)	
	km	miles	km	miles	km	miles
192	18	11	8	5.0	6.0	3.5
144	20	13	9	5.5	6.5	4.0
96	25	15	11	6.5	8.3	5.0
72	27	17	12	7.5	9.0	5.5
48	31	19	14	8.5	11.0	6.5
36	34	21	15	9.3	11.0	7.0
24	36	22.5	16	10.0	12.0	7.5
12	39	24	17.5	11.0	13.0	8.0

Table 1. Approximate Range

ORDERING

ASM-11/*

Short Range Modem, standalone
unit with internal power supply

* Specify voltage supply

100 for 100 VAC

115 for 115 VAC

230 for 230 VAC

CMN-C11

Async modem module card for the
CMN-16 card cage

APPLICATIONS

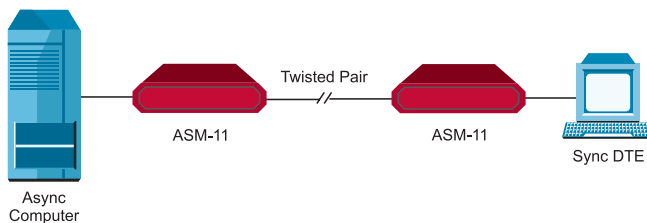


Figure 1. Point-to-Point Application

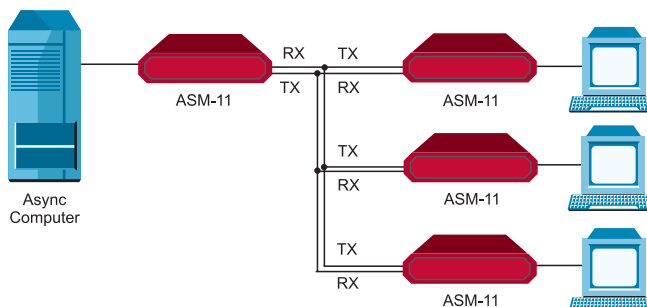


Figure 2. Multipoint Application

RAD

data communications

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