

*KiloModem*TM 2-Wire/4-Wire Baseband Modem



The Patton Model 1092A

FEATURES

- ◇ Synchronous data rates of 9.6, 19.2, 32, 56, 64 and 128 kbps in all clock modes (Asynchronous data rates to 38.4 kbps)
- ◇ Full duplex operation over one or two twisted pairs (**2 or 4 wires**)
- ◇ 4-Wire distances up to **11 miles/18km** (all data rates) on 19 AWG twisted pair
- ◇ Replaceable interface modules: G.703, V.35, X.21, RS-422/530, V.24 (RS-232), Ethernet WAN bridge & data + voice
- ◇ **2B1Q** Modulation
- ◇ In-Band and Out-of-Band **remote management** capabilities

The **Patton Model 1092A KiloModemTM** supports point-to-point, synchronous or asynchronous communication over one or two twisted pairs (2 or 4 wires). Offering switch selectable synchronous data rates of 9.6, 19.2, 32, 56, 64 and 128 kbps, the *KiloModemTM* also support asynchronous speeds up to 38.4 kbps. The *Kilo-ModemTM* is an excellent choice for connecting two bridge/routers, or for similar networking applications at distances up to 11.4 miles/18.2 km (4 wires).

Using a 2B1Q modulation scheme, the *KiloModemTM* is able to send remote management information on the "D" channel. This means that a terminal connected to the *KiloModem's* RS-232

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DESCRIPTION

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control port can be used to send in-band configuration and control commands to both the local and remote *KiloModems*.™ In addition the *KiloModem*™ is able to send an out-of-band alarm signal through its control port.

The *KiloModem*™ incorporates local analog and remote digital loopback test modes, as well as a V.52 BERT pattern generator. Eight front panel LED indicators (TD, RD, CTS, CD, DTR, No Signal,

Error and Test Mode). Extended distances are accomplished using automatic equalization, gain control and echo cancellation. Data integrity is enhanced by transformer isolation and surge protection. Synchronous clocking options include internal, external and receive recovered clock. For flexible connection of WAN hardware, the *KiloModem*™ accepts replaceable *QuikConnect*™ interface modules. These modules adapt to a variety of popular terminal interfaces (see below). Standard AC power supply options include 120/230 VAC (switchable) or 85-256VAC (universal). A 48VDC power supply is also available.

SPECIAL FEATURE

QuikConnect™ Interface Modules

Patton *QuikConnect*™ DTE interface modules allow a single Patton *KiloModem*™ base unit to connect to RS-232, V.35, X.21, RS-422/530 or 64k/G.703 WAN hardware. Our Ethernet WAN bridge module lets two peered Ethernet LANs communicate over two wires, eliminating the need for stand-

alone bridges. And with our voice + data module, a pair of *KiloModem*™ can extend fax modem and data communications over 2 or 4 wires. Patton *QuikConnect*™ modules can be installed and removed without tools, and they can be paired in different combinations. The possibilities are almost endless!



64K G.703



Ethernet Bridge



Voice + Data



V.35



X.21



RS-232, 422, 530



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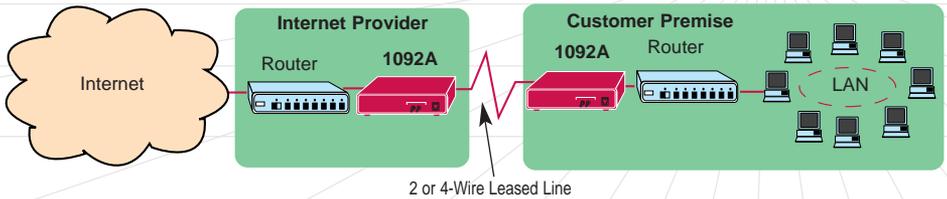
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APPLICATIONS

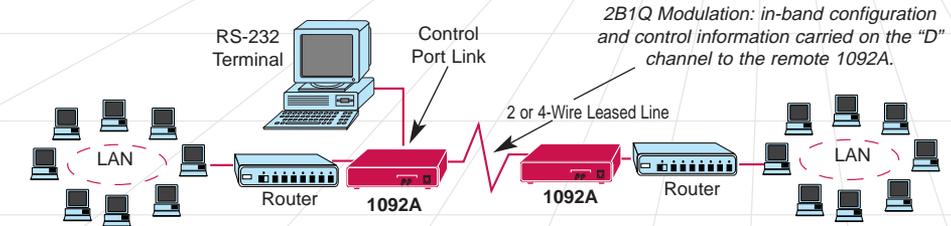
The Patton Model 1092A *KiloModem*[™] combines long distance 2/4-wire performance with convenient *QuikConnect*[™] interface modules and remote configuration/control capabilities. Using 2B1Q modulation, the Model 1092A is able to

send configuration/control commands on the "D" channel, so that both the local and remote unit can be programmed from a local RS-232 terminal. In addition, the Model 1092A control port provides an alarm function whereby a local modem can be prompted to dial the stored number of a remote modem if an alarm condition exists.

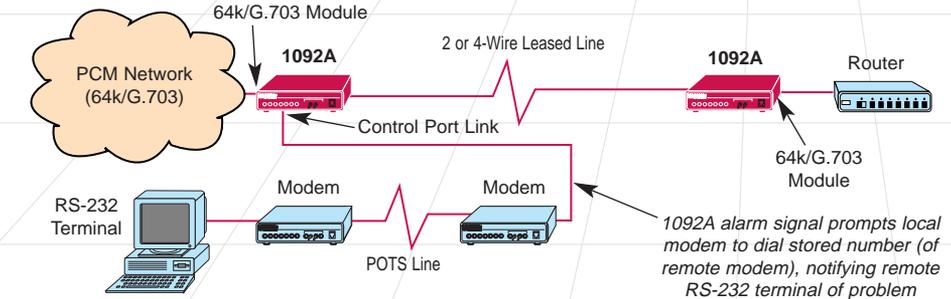
High Speed Internet Access via Leased Line:



LAN to LAN Connection with In-Band Remote Management:



Last Mile Access with Out-of-Band Remote Management:



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SPECIFICATIONS

Transmission Format: Sync or Async

Transmission Line: Full duplex over one or two unconditioned twisted pairs (2 or 4 wires)

Line Encoding: 2B1Q with Integrated Echo Cancellation.

Clocking: Internal, external or receive loopback

Distance: Up to 11.4 m/18.2 km (see table below)

Data Rates: 9.6, 19.2, 32, 56, 64, 128, synchronous (switch selectable); 0 - 38.4 kbps, asynchronous

Carrier Control: "Constantly on" or "Contr. by RTS"

RTS/CTS Delay: no delay, short delay (4-8 ms), or long delay (33-58 ms)

Diagnostics: local analog loopback, remote digital loopback, V.52 compliant bit error rate pattern (511/511E pattern) generator and detector with error injection mode

LED Status Indicators: Dual red/green LEDs for TD, RD, CTS and DC; green for DTR; red for ER, TM and NS

Isolation & Protection: 1500V RMS (gas tube surge protection optional)

DTE Interface: Depends upon interface module

Twisted Pair Interface: RJ-45 jack

Power: 120/230 VAC (switch selectable), 50/60 Hz; 100 - 240 VAC, 50/60 Hz (universal input option); 48 VDC (option). 5 watts.

Compliance: CE Marked per EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC. UL and cUL Safety Approvals.

Dimensions: 7.3" x 6.6" x 1.62" (185mm x 168mm x 41mm)

Weight: 2.02 lbs.

Model 1092A 2-Wire Distances - Miles (Km)

Data Rate (kbps)	Wire Gauge (AWG/mm)			
	19 (.7mm)	22 (.6mm)	24 (.5mm)	26 (.4mm)
128	10.8 (17.3)	7.2 (11.5)	5.0 (8.0)	3.4 (5.5)
64	10.8 (17.3)	7.2 (11.5)	5.0 (8.0)	3.4 (5.5)
56	10.8 (17.3)	7.2 (11.5)	5.0 (8.0)	3.4 (5.5)
32	10.8 (17.3)	7.2 (11.5)	5.0 (8.0)	3.4 (5.5)
0 - 38.4	10.8 (17.3)	7.2 (11.5)	5.0 (8.0)	3.4 (5.5)

Model 1092A 4-Wire Distances - Miles (Km)

Data Rate (kbps)	Wire Gauge (AWG/mm)			
	19 (.7mm)	22 (.6mm)	24 (.5mm)	26 (.4mm)
128	11.4 (18.2)	7.6 (12.1)	5.3 (8.5)	3.6 (5.7)
64	11.4 (18.2)	7.6 (12.1)	5.3 (8.5)	3.6 (5.7)
56	11.4 (18.2)	7.6 (12.1)	5.3 (8.5)	3.6 (5.7)
32	11.4 (18.2)	7.6 (12.1)	5.3 (8.5)	3.6 (5.7)
0 - 38.4	11.4 (18.2)	7.6 (12.1)	5.3 (8.5)	3.6 (5.7)

ORDERING INFO

Factory Part Numbers:

1 0 9 2 A / I M / P S / Z



Interface Modules:

IM = A = V24, DB25F
B = RS422/RS530, DB25F
C = V35, M34F
D = X21, DB15F

Examples:

1092A/A/120/A (V.24 DB-25F interface module, 120 VAC power supply, US power cord)

1092A/E/230/D (G.703 RJ-48S interface module, 230 VAC power supply, UK power cord)

Model 1092A KiloModem™, 2/4-wire, sync/async baseband modem

F = G703, RJ45

G = V.24, DB-25F (Async 57.6/115.2 kbps)

I = Ethernet WAN Bridge, RJ-45F

J = Data + Voice Combination (modular ports)

Power Supplies:

PS = 120 = Switchable 120/230 Configured 120V
230 = Switchable 120/230 Configured 230V
UI = Universal Input Supply 100-240VAC
48 = 48 VDC

Power Cord Sets:

K=American, **A**=European CEE 7, **D**=United Kingdom,
C=Australia, **E**=Denmark, **F**=France/Belgium, **G**=India,
H=Israel, **J**=Japan, **L**=Switzerland. (Others Available)



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