

BaudMaster™

duTec

INNOVATIVE I/O SINCE 1977

3-in-1 Signal Conversion

Multi-mode operation: RS-232 to RS-422 and RS-485; RS-422 to RS-232 and RS-485; RS-485 to RS-232 and RS-422. All modes are automatically sensed. No jumpers or switches to set.

Isolates and Protects

BaudMaster™ Eliminates ground loops that destroy computer ports and reduce serial communications reliability. **Omni-isolation™** provides four-way full galvanic isolation. Guarantees 2000 volts isolation from Equipment-to-Line, Equipment-to-Power, Line-to-Power and Circuit-to-Chassis. Galvanic isolation breaks the signal, power and ground paths using transformer and optical technology by allowing data to flow between systems, but not electrical current. This eliminates all grounding problems. All communication and power lines are transient protected.

Extends Range to 4,000 Feet

BaudMaster™, operating as a range extender, allows networks to grow in 4,000 foot increments. When used in pairs, Baudmasters become short haul modems for RS-232.

RS-422/485 Y Networks

Where continuous RS-422/485 networks are not feasible, BaudMaster™ provides the means to implement Y networks.

Troubleshooting Tool

Transmit and receive LEDs on both the equipment and line sides of the BaudMaster™ confirm that data transmission and reception are occurring. When used with a laptop computer (see reverse page diagram), live RS-422/485 traffic can be monitored. Now you can see what's happening on communication lines.



Automatic Data Flow Control

ADFC™ (Automatic Data Flow Control), uses a technique protected by U.S. patent no. 5,729,547 that automatically senses and controls the direction of RS-485 data eliminating the need for software control.

Wide Supply Voltage Range

The BaudMaster™ incorporates special power converter circuitry that allows it to be powered by a wide range of AC or DC power. BaudMaster uses any 9-24 volt, AC or DC power source. Wall-plug adapters are available from duTec or others. Screw terminals are also provided for use with other power supplies.

No Jumpers or Switches

BaudMaster™ automatically adapts to all rates up to 115K baud and varying word length. There are no jumpers or switches to set.

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Specifications

Isolation

2000V, Equipment-to-Line-to-Power-to-Chassis
Hi-Pot: 2000VRMS for 1 minute, 5500 VDC
for 1 second. Leakage Current: Less than 50uA@
2000 VAC/60 Hz: 5500 VDC

Baud Rates

0 to 115.2K bps

Range

4,000 feet (1220 meter) @ 38.4K baud with
24 AWG twisted pair

Power

9 to 24 volts AC or DC @ 170mA (max)
Connector: Power Jack, 0.1" dia. For Wall-Plug
Adapter and Pluggable Terminal Block (#16 to
#24 AWG).

Indicators (LEDs)

Equipment Side: +5V, RxD, TxD
Line Side: +5V, RxD, TxD

Enclosure

18 Gage Stainless Steel
Weight: 12.8 oz (363 gms)
4.60" h x 4.16" w x 1" d
117mm x 106mm x 25mm

Ordering Information

BM485 - U I P

TYPE

U = Multi-mode Converter/Repeater
C = RS-232 to RS-485/422 Converter
R = RS-485/422 Repeater/Converter

RS-485/422 TERMINATION PLUG

P = Parallel Entry
V = Vertical (Perpendicular) Entry

ISOLATION

I = Isolated
N = Not Isolated

Optional Equipment

Part No.	Description
DA-01	DIN Rail Adapter Kit
BM-PS120	Wall Plug Adapter, 120VAC @ 3W
BM-PS220	Wall Plug Adapter, 220VAC @ 3W
BM-PSU	Wall Plug Adapter, Universal 90-264VAC @ 3W
GC-9M	Gender Changer, 9 pin D-sub Male/Male
CA-9F9M	Cable, DB-9 Serial Male/Female (for RS-232)

RS-485/422

Supports RS-422, 4 or 2 wire and RS-485, Auto Detect
Input Resistance: 12K to 15K ohms (1 unit load)
Drive: Up to 32 unit loads (1 unit load = 12K ohms)
Connector: Pluggable Terminal Blocks (#16 to #24 AWG)
Biasing Resistors: Selectable 100K or 1.2K ohms
Terminating Resistors: Selectable NONE, AC or DC

RS-485 Enable

Automatic. Patented ADFC™ technology automatically
controls data direction flow.

RS-232

Supports TxD, RxD, DTR, DSR, RTS, CTS, DCD;
Connector: DB9 Male or Female
DCE or DTE selectable

Operating Temperature

-20°C to +80°C

Compliance

Pending (CE, FCC Class A, CUL, UL Safety Class II)

Surge Protection

600 Watt Transient Voltage Suppression on RS-485/422
inputs and outputs, RS-232 inputs and outputs and
Power input.