

**duTec**Division of Electronic Solutions Inc.  
INNOVATIVE I/O SINCE 1977**BAUDMASTER™****Converts**

RS-232 to RS-422 and RS-485  
 RS-422 to RS-232 and RS-485  
 RS-485 to RS-232 and RS-422

**Isolates and Protects**

BaudMaster™ eliminates **ground loops** that destroy computer ports and reduce serial communication reliability. Provides 1200 volts isolation between a computer and equipment, using optical and transformer technology. All communication lines are transient protected.

**No Jumpers or Switches**

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

**Painless RS-485**

BaudMaster™ automatically controls RS-485 transmitters eliminating the need for software handling. The new technology, which makes this possible is covered by US patent 5,729,547 and virtually guarantees that RS-485 networks will work the first time.

**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.

**PROBLEM SOLVER  
RS-232/422/485****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 notebook computer (see reverse page diagram), live RS-422/ 485 traffic can be monitored. Now you can see what's happening on communication lines.

**9-24 Volt AC/DC Powered**

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.

**duTec**

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Email: info@duTec.net Website: http://www.baudmaster.com

# Specifications

- Isolation:** 1200V, Equipment -to- Line -to- Power
- Baud Rates:** Up to 115K baud
- Range:** 4,000 feet (1220 meters) @ 38.4K baud with 24 AWG twisted pair
- Drive:** Up to 32 RS-422/ 485 receivers
- Compliance:** CE, FCC Class A
- Power:** 9 - 24 Vac/dc @ 170 mA nominal
- Enclosure:** Stainless Steel; weight 11 oz (308 gms)  
3" H x 5" W x 1" D  
76 mm x 127 mm x 25 mm

## Connections

|                       |                   |                      |
|-----------------------|-------------------|----------------------|
| Equipment Side        | RS-232            | DB9F                 |
|                       | RS-422/ 485       | #16 screw terminals  |
| Line Side             | RS-422/ 485       | #16 screw terminals  |
| Termination resistors |                   | Not included         |
| Biasing resistors     |                   | 10K ohms             |
| Power                 | Wall-plug adapter | Power Jack, 0.1" dia |
|                       | Direct            | #16 screw terminals  |

## Indicators

|                |        |          |
|----------------|--------|----------|
| Power          |        | Red LED  |
| Line Side      | Rx, Tx | Red LEDs |
| Equipment Side | Rx, Tx | Red LEDs |

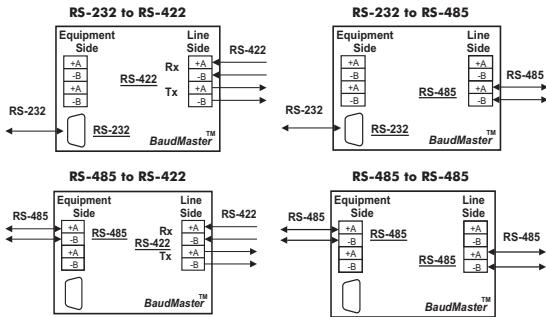
# Ordering Information

| Item           | Part Number | Item                         | Part Number |
|----------------|-------------|------------------------------|-------------|
| BaudMaster     | BM-100      | Wall-plug Adapter, 120 Vac*  | BM-PS120    |
| BaudMaster CE* | BM-100CE    | Wall-plug Adapter, 220 Vac*  | BM-PS220    |
|                |             | Wall-plug Adapter, Universal | BM-PSU      |

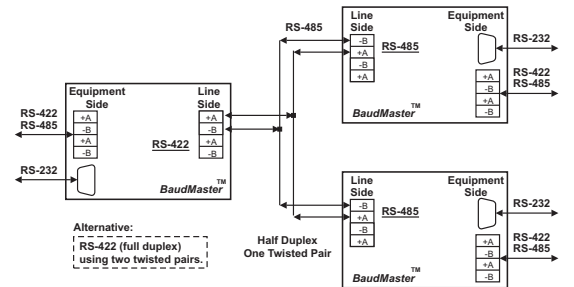
\*Includes snap-on EMI limiting Ferrite that *must* be attached to dc power leads from BM-PS120 or BM-PS220 power supplies to meet CE requirements.

# Typical Applications

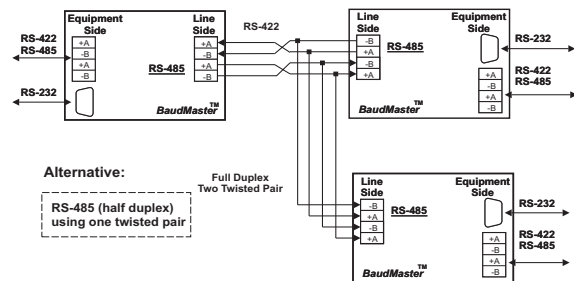
### Isolators / Converters



### Y Networks

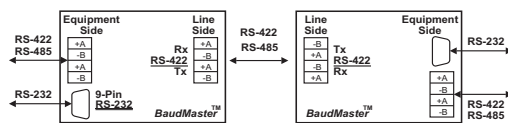


### Multipoint Networks

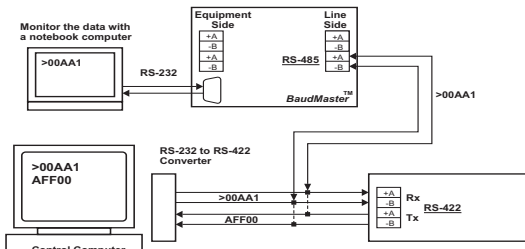


### Range Extender / Short Haul Modem

4000 Feet (1220 Meters) per Extender



### A Troubleshooting Tool



Connect to either the Rx pair or Tx pair to monitor the RS-422 data at any point on the lines. Use a BaudMaster on an RS-485 network to monitor bidirectional data to any piece of equipment. Just add a parallel set of wires from the Baudmaster to the RS-485 connection

### BAUDMASTER to I/O Plexer Connections

