Jun 2004 Rev 0.0

# MultiConnect Version 1.1 with applicable ECOs

## General Description

The Multiconnect is an external modem capable of communicating to the host via an RS232 interface. Some of its features include:

- Small and rugged plastic enclosure.
- Monitor port allows debugging while host is connected.
- Several internal wireless modems are available (Mobitex, CDPD, iDEN, Cellemtry, Spread Spectrum, CDMA, GSM, GPRS)
- LED indicators located on front.
- Remote power on/off control.

## Key Specifications

- Supply Voltage

| | |
|---|---|
| Typical | 12 V |
| Min | 9 V |
| Max | 36 V |

- Current Consumption

| | |
|---|---|
| Standby[1] | 0.7 mA |
| Typical[2] | 25 mA |
| Maximum | 3.0 A |

- Operating Temperature[3]

| | |
|---|---|
| Min | -30 °C |
| Max | 60 °C |

## Standard Features

- Interfaces easily to an MDC
- RJ45 monitor port
- External SMA antenna connector

## Optional Features

- Wide input voltage range (9V-36V)

1. Unit off but connected to power.
2. Typical current will vary depending on what kind of modem is installed. Value shown is for no modem.
3. Operating the Multiconnect beyond the given temperature specifications is not recommended and may reduce lifespan. Some modems have a narrower temperature range than that mentioned above.

Multiconnect Front View


Multiconnect Rear View

## Host Interface

| PIN NO. | NAME | I/O Type | MIN | TYP | MAX | UNIT | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | Vin | Voltage In | 9 | 12 | 36 | V | Power Input |
| 2 | GND | Ground | | | | | Ground connection |
| 3 | IGN_ON | Voltage In | 0 | 12 | 18 | V | Ign Sense. High level turns on the unit. |
| 4 | N/C | | | | | | No connect |
| 5 | TX1 | RS232 Input | +/-3 | +/-7 | +/-15 | V | Receives RS232 data from an external device. |
| 6 | RX1 | RS232 Output | | +/-5 | | V | Transmits to external device at RS232 levels. |
| 7 | RTS | RS232 Input | +/-3 | +/-7 | +/-15 | V | Receives RS232 data from an external device. Line has an internal pull up. |
| 8 | DCD | RS232 Output | | +/-5 | | V | Transmits to external device at RS232 levels. |
| 9 | ModeSel | Digital Input | 0 | 0 | Float | V | Line has an internal pull up. Normally connects to an open drain on the host side. |
| 10 | CTS | RS232 Output | | +/-5 | | V | Transmits to external device at RS232 levels. |
| 11 | P_CTRL | Digital Input | 0 | 0 | Float | V | Line has an internal pull up. Normally connects to an open drain on the host side. |
| 12 | DSR | RS232 Output | | +/-5 | | V | **Not currently implemented**. |
| 13 | DTR | RS232 Input | +/-3 | +/-7 | +/-15 | V | Receives RS232 data from an external device. |
| 14 | N/C | | | | | | No connect |
| 15 | N/C | | | | | | No connect |
| 16 | N/C | | | | | | No connect |
| 17 | N/C | | | | | | No connect |
| 18 | GND | Ground | | | | | Ground connection |

Note: Host interface connector mates with Molex 43025-1800 or AMP 1-794617-8.

## Monitor Port

| PIN NO. | NAME | I/O TYPE | MIN | TYP | MAX | UNIT | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | DSR | RS232 Output | | +/-5 | | V | **Not currently implemented**. |
| 2 | DCD | RS232 Output | | +/-5 | | V | Transmits to external device at RS232 levels. |
| 3 | DTR | RS232 Input | +/-3 | +/-7 | +/-15 | V | Receives RS232 data from an external device. |
| 4 | GND | Ground | | | | | Ground connection |
| 5 | RX | RS232 Output | | +/-5 | | V | Transmits to external device at RS232 levels. |
| 6 | TX | RS232 Input | +/-3 | +/-7 | +/-15 | V | Receives RS232 data from an external device. |
| 7 | CTS | RS232 Output | | +/-5 | | V | Transmits to external device at RS232 levels. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8 | RTS | RS232 Input | +/-3 | +/-7 | +/-15 | V | Receives RS232 data from an external device. Line has an internal pull up. |

Note: Monitor port connector mates with male 8-pin RJ45 connector.
See schematic for more information on host and monitor port operation.
The current consumed by the Multiconnect and all peripheral devices must not exceed 3A.