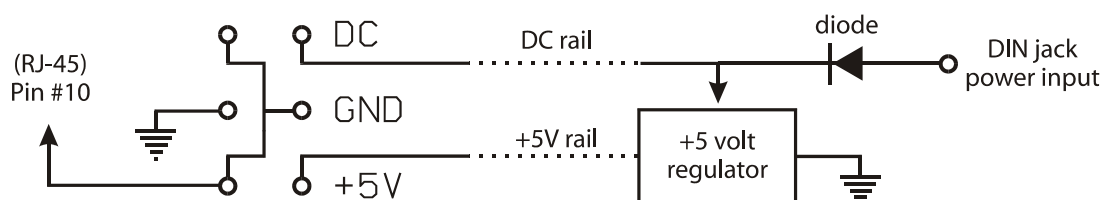


Jumpering Pin #10 on the Ether-Serial Link RJ-45 serial port connector

General:

Ether-Serial Link devices have an RJ-45 10-pin connector with a jumper-selectable power input/output option at Pin #10. A jumper is located on the interface board (I/F board), to the right of the RJ-45 10-pin connector, to configure this pin.

Jumper pin connections (viewed looking onto the component side)



Pin #10 can be used to supply power to serial devices attached to the RJ-45 serial port, or to supply power to the Ether-Serial Link through the serial port.

Pin #10 is separately jumpered for each RJ-45 connector on the Ether-Serial Link. Consequently, each port can be configured independently of the others.

Jumper settings:

Four jumpering options are possible:

[no jumper]



This is the factory default jumper setting. When the connector is unjumpered, Pin #10 is unconnected.

[DC]



When the jumper is in this position, Pin #10 is connected to the power input pcb trace. Three scenarios for configuring Pin #10 for DC power exist:

1. Power can be supplied to the Ether-Serial Link via the DIN connector. In this case, the input voltage (after the diode) is present at Pin #10. Voltage can be drawn from Pin #10 to power some external equipment that is connected to the RJ-45 10-pin connector. When drawing power from a multi-port Ether-Serial Link, consider the total possible power draw of the external equipment being connected and powered.

Note: The DIN power input has a protective input diode connected in series with the center pin of its connector (as diagrammed above). The cathode of the diode is connected to the power input pcb trace.

- Power can be supplied to the Ether-Serial Link via Pin #10 of the RJ-45 connector. If no voltage is supplied to the DIN connector, power can be supplied via Pin #10 to the ESL. **Careful consideration must be given to the implications of supplying power to the system in this manner. Consult Lava Engineering before attempting this configuration.**

Note: Pin #10 *does not* have a protective input diode connected to its connector.

- Power can be supplied to the Ether-Serial Link via both Pin #10 of the RJ-45 connector and the DIN connector at the same time. If voltage is supplied both at the DIN connector and at Pin #10 (i.e.: battery back-up), current to power the Ether-Serial Link (150-200ma) will be drawn from the higher-voltage source. **Careful consideration must be given to the implications of supplying power to the system in this manner. Consult Lava Engineering before attempting this configuration.**

Note: Pin #10 *does not* have a protective input diode connected to its connector.

[GND]



When the jumper is in this position, Pin #10 is connected to the Ether-Serial Link common ground.

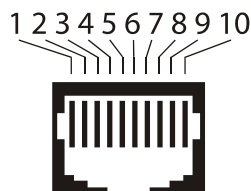
[+5V]



When the jumper is in this position, Pin #10 is connected to the output of the +5 volt internal power regulator circuit. Voltage of +5 VDC can be accessed by an external device (current limited to ____ ma. max.)

If the internal power regulator circuit is not installed, then a +5 regulated voltage can be supplied to the Ether-Serial Link at Pin #10.

RJ-45 Pinout



- #1 Ring Indicator (RI)
- #2 Data Carrier Detect (DCD)
- #3 Request to Send (RTS)
- #4 DCE Ready/Data Set Ready (DSR)
- #5 Transmit Data (TD)
- #6 Receive Data (RD)
- #7 Signal Ground/Common (GND)
- #8 Clear to Send (CTS)
- #9 DTE Ready/Data Terminal Ready (DTR)
- #10 DC Power I/O (jumper select)