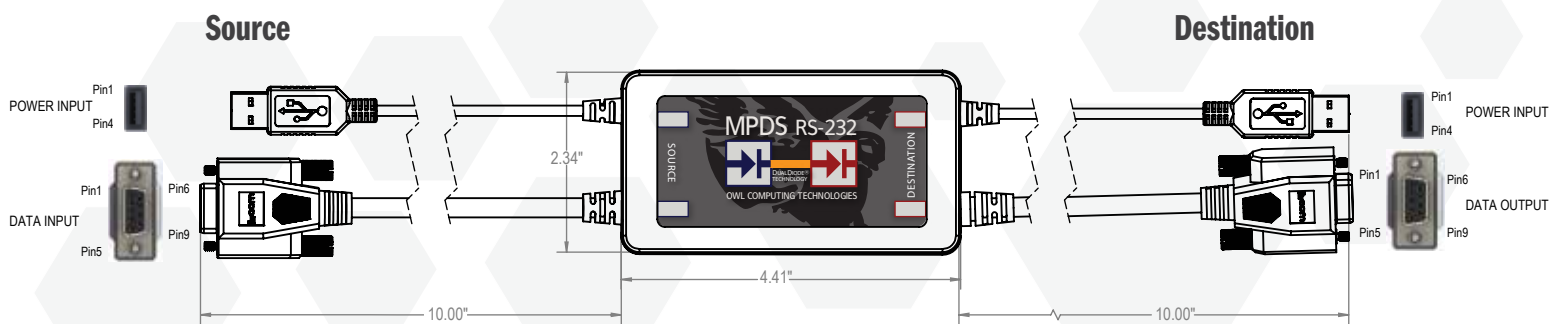


Owl Miniaturized Perimeter Defense Solution

In order to meet the increasing demand for secure serial communications, Owl has adapted its single-board computed DualDiode Technology® to support RS-232 communication lines. Many industrial environments have existing RS-232 infrastructure that can benefit from the DualDiode technology. Owl has miniaturized its proprietary DualDiode™ technology in such a platform, to deliver a reliable, cost-effective product with the bandwidth and speed required for deployment.

The Owl Solution

- ◆ This product provides security to a RS-232 communication link by utilizing Owl's patented DualDiode Technology® to provide a reliable One-Way transfer over an industrial optical isolator. The MPDS securely isolates all RS-232 pins with a hardware enforced circuit. From low to high, one-way security policy absolutely assures the confidentiality of the destination high security domain. From high to low, one-way security policy prevents penetration of the source high-security domain, assuring that data transfer can only be initiated from the high side.

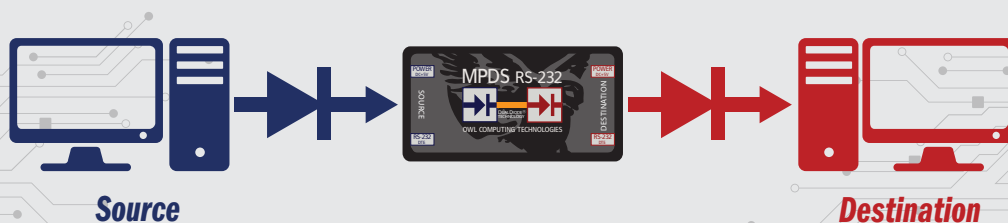


RS-232 Communication Details

As with the higher end Owl Perimeter Defense Systems the MPDS RS-232 maintains power separation between the source and destination side of the device circuitry. In this case the MPDS provides USB Type A plug on the source and destination side for power input. The MPDS is not a USB device and the USB connection is only used to supply power. The MPDS device requires less than 100mA, which is a normal unit load in the USB 2.0 specification.

The MPDS will assume the role of data terminal equipment (DTE) and wired to be connected to data communication equipment (DCE). Industry standard DB-9 cables can be used to extend the cable length. Specifically a DTE to DCE straight cable which has a one to one mapping of the pins is used.

The default configuration of the MPDS is 9600 baud, 8 bits, and no parity. It also uses a 5 wire RS-232 connection consisting only of transmit data, receive data, request to send, clear to send, and ground. Hardware flow control RTS/CTS is supported and only required in custom configurations that enable data filtering or have higher baud rates. If a different configuration is required, please call for more information.



DualDiode Technology

A pair of Owl Communication Cards (Send-only and Receive-only), with Owl internally developed drivers, forms a Dual in-line Diode; each card is manufactured to permit one-way-only data transfer. Security for the one-way transfer is enforced at both the send and receive nodes in this exclusive Owl design - neither diode requires a trusted state with the other. Application-specific software (for files, TCP packets, etc.) completes the individual Owl product offering.

Owl One-Way DualDiode Technology design securely protects the send- and receive-network domains. No information of any kind, including handshake protocols (TCP/IP, SCSI, USB, serial/parallel ports, etc.), pass from the destination computer/network back to the source computer/network. Owl's one-way transfer is a dedicated point-to-point link and requires no additional machine configuration (such as IP). This "trust-nothing" design ensures that data residing on each isolated network is fully protected.

Technical Specifications

Standards:

RS-232(EIA232)
9600 baud, 8 data bits, no parity

Connectors:

USB Type A connectors
for 5V DC power
DB9-Female connectors for RS-232
connections;
10" (25.4cm) Cable length

Input Power:

5V USB-host power
Current Consumption:
Operational:
Max 47mA on Source
and Destination

Dimensions:

Enclosure 4.41"X 2.38"X 1.22";
(11.2cm X 6.04cm X 3.09cm)
aluminum enclosure;
black powder-coated finish

Weight:

8oz.

Operating Temperature:

-40 to 70°C

Operating Humidity:

Max 95% non-condensing



About Owl

For over 16 years Owl Computing Technologies has been implementing next generation cybersecurity solutions for critical networks. Owl's DualDiode Technology®, a proprietary data diode, boasts 24 technology patents and has over 2,000 successful deployments globally across intelligence, government, military, financial services, utility, energy, and other critical infrastructure networks. Owl's hardware-enforced technology ensures secure networks and enables the reliable and robust transfer of all data types and file sizes.

