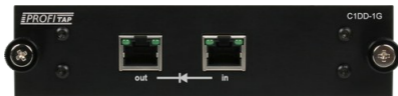




C1DD-1G

Gigabit Network Data Diode



CUSTOMER SUPPORT INFORMATION

To order or for technical information support:

Phone: +31 (0) 40 782 0880

Mail order: Profitap HQ B.V.

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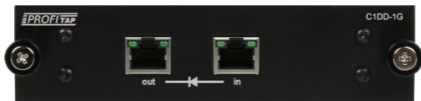
Website: www.profitap.com

E-mail: info@profitap.com

This package includes:

- 1 x C1DD-1G main unit
- 1 x 100–240 VAC PSU

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1. General information

Profitap C1DD-1G Gigabit Network Data Diode is a data diode for Ethernet links. It provides physical isolation by blocking all data transmission in one way, while providing full data connectivity in the other. Forward transmission exhibits best-in-class performance with a low constant latency. Profitap C1DD-1G provides diode function for 1 link in a 1/3U rack space (up to 3 in 1U). It is non-intrusive, undetectable, unalterable, and has no IP address. It features redundant power inputs for optimal uptime.

2. Functional description

2.1. Interface connectors

C1DD-1G features 2 RJ45 ports, for 1 diode link.

The diode link ports are labeled *IN* and *OUT*. Ports *IN* and *OUT* are connected in-line, with communication allowed from *IN* to *OUT*, but not the other way around.

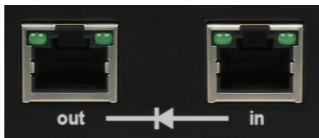
2.2. LEDs: Speed/Link/Activity

LEDs indicate Speed, Activity and Link for each port. Speed LEDs light up when a link is detected on the port, and blink when a signal is detected.

2.3. Power

C1DD-1G features two 12 VDC barrel jack (center positive) inputs at the rear of the unit. Each input corresponds to one 100–240 VAC PSU. Connect a power supply to one input for normal operation. To make use of the C1DD-1G's redundant powering feature, connect each input to a separate power line. Redundant powering ensures maximum uptime of the unit.

3. Installation



1. Connect the network using category 5e UTP cables.

Connect *IN* first, and verify that the LEDs light up. Connect *OUT*, and verify that there is a link. If *OUT* cannot connect, verify that the device connected to *OUT* supports the speed defined by *IN*.

Connection state and speed are forwarded from *IN* to *OUT*. Connecting *IN* activates *OUT*. Disconnecting *IN* deactivates *OUT*. Disconnecting *OUT* does not affect *IN*. The only speed authorized on *OUT* is the connected link speed of *IN*.

2. Power the device by connecting either PSU 1 or PSU 2 to a power line. For redundant powering, connect both PSU 1 and PSU 2, to separate power lines.

Safety notes:

- Use only power cords and power outlets with proper earthing connection.
- The power outlets shall be kept easily accessible after installation.

After negotiation of the speed, the ports LEDs indicate the network speed:

- Left LED for a 10M connection
- Right LED for a 100M connection
- Both LEDs for a 1G connection

Fast blinking LEDs on *IN* and *OUT* indicate network activity.

Network traffic received by *IN* will be sent to *OUT*. All packets are transferred from *IN* to *OUT* without being altered.

Network traffic received by *OUT* will **NOT** be sent to *IN*. Physical isolation prevents packets being transferred from *OUT* to *IN*.

The maximum distance between any of the connected devices is 100 meters.

4. Technical specifications

Connectors	2 x RJ45, 8-pin, gold plated
LEDs	4 x Link/Activity/Speed
Power inputs	2 x 12 VDC barrel jack (center positive)
Power consumption	4 W
MTBF	250,000 hours
Latency (IN-OUT)	1 Gbps: 425 ns 100 Mbps: 700 ns 10 Mbps: 6000 ns
Enclosure	Steel and aluminum
Dimensions (WxDxH)	113 x 128 x 30 mm — 4.4 x 5 x 1.2 in
Weight	320 g — 0.71 lb
Operating temperature	0°C to 50°C
Storage temperature	-20°C to 70°C
Humidity	10 to 90%, non-condensing
Certifications	RoHS — CE — FCC class A IEEE 802.3 — UL 62368-1

5. Safety

- This equipment is not suitable for use in locations where children are likely to be present.

ציוד זה אינו מתאים לשימוש במקומות שבהם סביר שיהיו ילדים.



- This device features more than one power supply unit. Disconnect ALL power cords before servicing the device, to avoid any risk of electrical shock.
- מכשיר זה כולל יותר מיחידת אספקת חשמל אחת. יש לנתק את כל כבלי החשמל לפני הטיפול במכשיר, כדי למנוע סכנת התחשמלות.



- Do not push or force any objects through any opening in the chassis frame, as it could result in electrical shock or fire.
- אין להכניס חפצים דרך כל פתח במסגרת השלדה, מכיוון שהדבר עלול לגרום להתחשמלות או לשריפה.

- Avoid spilling liquid onto the device, as it could cause electrical shocks or damage the device.

הימנע משיפכת נוזלים על המכשיר, מכיוון שהוא עלול לגרום להתחשמלות או לפגיעה במכשיר.

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