



# Data Diode DDSFX-10G

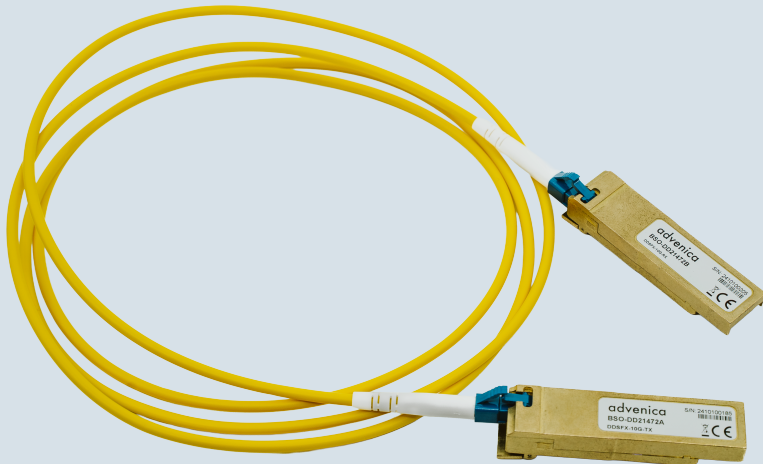
## Quick Guide

# A

## Data Diode DDSFX-10G Overview

The DDSFX-10G is a hardware-based data diode, purpose-built for secure, one-way data transfer over 10Gbit optical fiber. Complying with the SFP+ MSA specification, it ensures plug-and-play compatibility with standard networking equipment and seamlessly integrates into standard network environments.

With physically separated transmit and receive paths, the DDSFX-10G guarantees absolute data flow isolation, ensuring that data only can move in a single direction. It has the ability to transmit data over distances of up to 10 kilometers, supporting 10Gbps line speed.



*DDSFX-10G SFP+ Transmitter & Receiver modules*

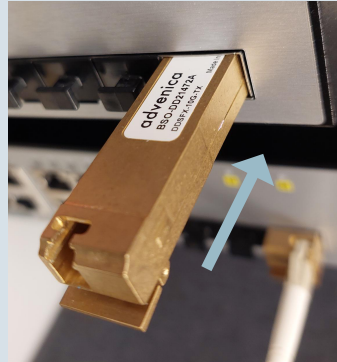
### Package Contents

- 1 Data Diode DDSFX-10G SFP+ Transmitter module
- 1 Data Diode DDSFX-10G SFP+ Receiver module

## B

### Installation

Insert the TX SFP+ module into an available SFP slot on the network equipment to be used for communication.

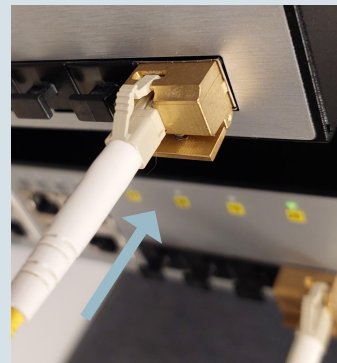


Push the SFP+ module all the way in, until it locks into position.

Connect a single mode fiber cable Single LC connector to the TX SFP+ module.

Repeat the above steps for the RX SFP+ module.

*Note that host machine configuration adjustments might be required.*



*It is extremely important to make sure the correct network (sending) is connected to the transmitting SFP+ module, or data may be sent in an unintended direction.*



## Technical Specifications

### **Model characteristics**

Device type  
Standards compliance  
Device Size  
Device Weight  
Casing material  
Operating voltage/power input  
Power  
Operating case temperature  
Storage and transport  
Compatibility

### **Data Diode DDSFX-10G-TX/RX**

SFP+ modules, TX (transmitter) and RX (receiver)  
SFP MSA SFF-8074i, SFF-8431, SFF-8472, SFF-8079  
56.5 mm (D) x 13.7 mm (W) x 12 mm (H)  
22.7 g  
Milled brass  
Single +3.3 VDC (typ)  
1216 mW (typ), 1410 mW (max)  
-40°C to +85°C, 5-95% RH non-condensing  
-40°C to +85°C, 5-95% RH non-condensing  
Verified compatibility with several NICs and switches with support for 10G SFP+ ports  
Please contact Advenica for guidance

### **Optical characteristics**

Data interface  
Connector  
Data rate  
SONET/SDH/IEEE  
Wavelength  
Transmitter power  
Receiver sensitivity  
TX Jitter (JT<sub>Xp-p</sub>)  
Max distance at max data rate

### **Data Diode DDSFX-10G-TX/RX**

Optical fiber, singlemode  
Single LC  
10 Gbps  
OC192/10G  
1310 nm  
-8.2 dBm (min), +0.5 dBm (max)  
-14.4 dBm  
200 ps  
10 km

### **Regulatory compliance**

CE  
ESD, electrical pins  
ESD, duplex LC receptacle  
EMI  
Immunity  
Laser Eye Safety  
Environmental

### **Data Diode DDSFX-10G-TX/RX**

Compliance with applicable directives for EU  
MIL-STD-883 Method 3015  
IEC 61000-4-2  
FCC Subpart 15B Class B,  
EN55022 Class B (CISPR 22B), VCCI Class B  
IEC 61000-4-3  
FDA 21CFR 1040.10 and 1040.11 EN60950,  
EN/IEC 60825-1,2  
REACH, RoHS, WEEE

**D****SFP Pinout****Pin Transceiver/BiDi (MSA)**

1	VEE
2	TX_FAULT [VEE]
3	TX_DIS
4	MOD_DEF(2)-SDA
5	MOD_DEF(1)-SCL
6	MOD_DEF(0)-PRESENCE [VEE]
7	Rate [NC]
8	LOS
9	VEE
10	VEE

**Pin Transceiver/BiDi (MSA)**

11	VEE
12	RD-
13	RD+
14	VEE
15	VCC
16	VCC
17	VEE
18	TD+
19	TD-
20	VEE

