

# BT-SFP-DAC-10G-2M

## 10G SFP+ Direct Attach Copper Cable



### Ideal for:



Telecom



Hotels & Resorts



Universities



Healthcare



Public Places



Airport



Transport



Industries

## OVERVIEW

SFP+ Direct Attach Cables are compliant with the SFF-8431, SFF-8432 and SFF-8472 specifications. Various choices of wire gauge are available from 30 to 24AWG with various choices of cable length (up to 7m).

## FEATURES

- Compliant with SFF-8431, 8432 and 8472.
- Up to 10.3125Gbps data rate per channel
- Up to 7m transmission
- Operating temperature: 0 to + 70°C
- Single 3.3V power supply
- RoHS compliant

## BENEFITS

- Cost-effective copper solution
- Lowest total system power solution
- Lowest total system EMI solution
- Optimized design for Signal Integrity

## APPLICATIONS

- 10G ETHERNET

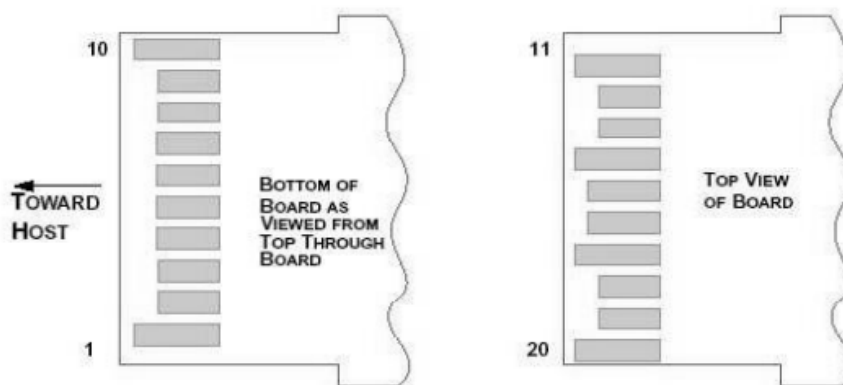
## PIN FUNCTION DEFINITION

Pin	Logic	Symbol	Name/Description
1		VeeT	Module Transmitter Ground
2	LVTTL-O	TX_Fault	Module Transmitter Fault
3	LVTTL-I	TX_Disable	Transmitter Disable; Turns off transmitter laser output
4	LVTTL-I/O	SDA	2-wire Serial Interface Data Line (Same as MOD-DEF2 in INF-8074i)
5	LVTTL-I/O	SCL	2-wire Serial Interface Clock (Same as MOD-DEF1 in INF-8074i)
6		MOD_ABS	Module Absent, connected to VeeT or VeeR in the module
7	LVTTL-I	RS0	Rate Select 0, optionally controls SFP+ module receiver
8	LVTTL-O	RX_LOS	Receiver Loss of Signal Indication (In FC designated as Rx_LOS and in Ethernet designated as Signal Detect)
9	LVTTL-I	RS1	Rate Select 1, optionally controls SFP+ module transmitter
10		VeeR	Module Receiver Ground

11		VeeT	Module Receiver Ground
12	CML-O	RD-	Receiver Inverted Data Output
13	CML-O	RD+	Receiver Non-Inverted Data Output
14		VeeR	Module Receiver Ground
15		VccR	Module Receiver 3.3 V Supply
16		VccT	Module Transmitter 3.3 V Supply
17		VeeT	Module Transmitter Ground
18	CML-I	TD+	Transmitter Non-Inverted Data Input
19	CML-I	TD-	Transmitter Inverted Data Input
20		VeeT	Module Transmitter Ground

# BT-SFP-DAC-10G-2M

## 10G SFP+ Direct Attach Copper Cable



## GENERAL PRODUCT CHARACTERISTICS

**SFP+ DAC Specifications**

Number of Lanes	Tx & Rx
Channel Data Rate	10.3125 Gbps
Operating Temperature	0 to + 70°C
Storage Temperature	-40 to + 85°C
Supply Voltage	3.3 V nominal
Electrical Interface	20 pins edge connector
Management Interface	Serial, I2C

## HIGH SPEED CHARACTERISTICS

Parameter	Symbol	Min	Typ.	Max	Unit	Notes
Differential Impedance	Zd	90	100	110	Ω	
Differential Input Return Loss	SDDXX	<-12+2* SQRT (f) with f in GHz			dB	0.01~4.1GHz
		<-6.3+13* Log10/(f/5.5) with f in GHz			dB	4.1~11.1GHz
Common Mode Output Return Loss	SCCXX	< -7+1.6*f with f in GHz			dB	0.01~2.5GHz
					dB	2.5~11.1GHz
Difference Waveform Distortion Penalty	dWDPc			6.75	dB	
VMA Loss	L			4.4	dB	
VMA Loss to Crosstalk Ratio	VCR	32.5			dB	

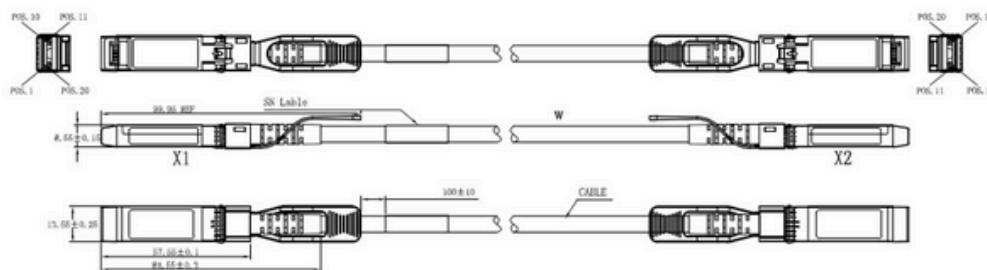
# BT-SFP-DAC-10G-2M

## 10G SFP+ Direct Attach Copper Cable



## MECHANICAL SPECIFICATIONS

The connector is compatible with the SFF-8432 specification.



Length (m)	Cable AWG
1	30
2	30
3	30
5	24
7	24

## REGULATORY COMPLIANCE

Feature	Test Method	Performance
Electrostatic Discharge (ESD) to the Electrical Pins	MIL-STD-883C Method 3015.7	Class 1(>2000Volts)
Electromagnetic Interference(EMI)	FCC Class B	Compliant withStandards
	CENELEC EN55022 Class B	
	CISPR22 ITE Class B	
RF Immunity(RFI)	IEC61000-4-3	Typically Show no Measurable Effect from a 10V/m Field Swept from 80 to 1000 MHz
RoHS Compliance	RoHS Directive 2011/65/EU and it's Amendment Directives 6/6	RoHS 6/6 compliant



C/o Blake and Ernst 25 Cabot Square,  
14th Floor, London, England, E14 4QA



<https://borneelectronics.com>



info@borneelectronics.com



<https://borneelectronics.com>