

DATA SHEET

Stretch DisplayPort™ DisplayPort1.4 Active Optical Cable DPOC-14N

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Optolinks

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■ Description

DisplayPort 1.4 Active Optical Cable, DPOC-14N, enables to transmit up to 8K DSC(7680x4320) at 60Hz signal up to 100m (328feet). It avoids any scaling or data compression for lessening a burden of data transmission.

DPOC-14N provides slim, light, easy installation like a general copper DisplayPort cable. It holds firmly distinctive performance advantage as it requires absolutely no external power to operate. It solely utilizes TX and RX of the cable to function without any additional setting requirements.

■ Features

- Extends up to 8K DSC(7680x4320) at 60Hz
- Transmits DisplayPort1.4 data up to 100m (328feet) over hybrid cable
- Supports up to 32.4Gbps data rate with 8.1Gbps/lane(HBR3)
- Offers different jacket type of cables as Plenum graded, LSZH or TPU.
- Easy Plug and Play Feature
- Operates with absolute no external power
- Supports 3D contents transmission
- Bi-directional hardware handshake with voltage assertion for DPCP, EDID
- Multi-channel Audio, Dolby true-HD, DTS-HD Master Audio

■ Applications

- Home AV system
- Digital Signage
- Control room
- Conference room
- Rental Staging
- Flight Simulation

■ Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Functional operation of the device is not implied at these of any other conditions in excess of those given in the operational sections of the datasheet. Exposure to absolute maximum ratings for extended periods can adversely affect device reliability.

Parameter	Symbol	Min	Typ	Max	Units
Storage Temperature ¹	T _{ST}	-30		70	°C
Supply Volt ¹	V _{CC}	3.0	3.3	4.0	V
Relative Humidity ²	RH	5		85	%
Electrostatic Discharge	ESD				KV

■ Recommended Operating Conditions

Parameter	Symbol	Min	Typ	Max	Units
Bitrate/Channel	B	50		8500	Mbps
Operation Temperature Range	T _O	0		50	°C
Supply Voltage	V _{CC}	3.0	3.3	3.5	V
Operating Current	I _{CC}	130		330	mA
Differential Impedance	R	90	100	110	ohm

■ Physical Characteristics

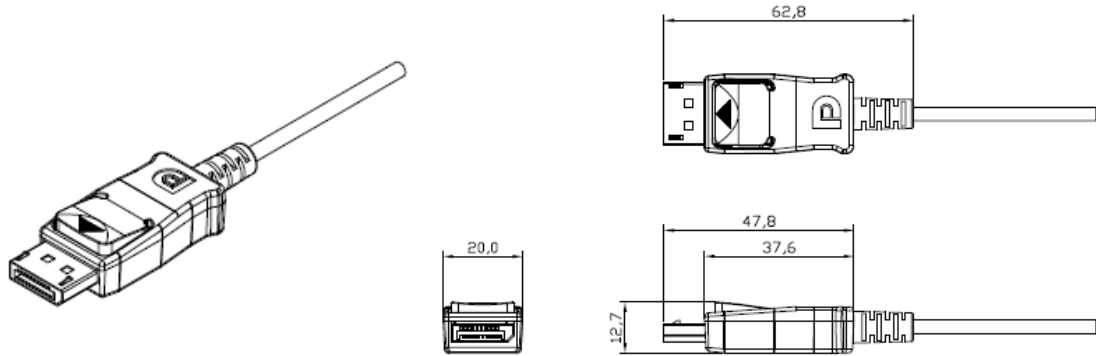
Parameter	Description
Cable Type	Hybrid Cable MMF(OM2) + 6C Electrical Wires
Cable Jacket	Plenum & LSZH: 3.4mm(±0.2) TPU: 4.5mm(±0.3)
Cable Dimensions(LWH)	47.8 x 20 x 12.7 mm
Pull Strength	10 Kg
Minimum Bend Radius	6mm(Plenum & LSZH) 9mm(TPU)

■ DisplayPort PIN Description

Source(TX)			Display (Rx)		
Pin Number	Symbol	Functional Description	Pin Number	Symbol	Functional Description
1	ML_Lane 0(p)	Lane 0 Positive	1	ML_Lane 3(p)	Lane 3 Positive
2	GND	Ground	2	GND	Ground
3	ML_Lane 0(n)	Lane 0 Negative	3	ML_Lane 3(n)	Lane 3 Negative
4	ML_Lane 1(p)	Lane 1 Positive	4	ML_Lane 2(p)	Lane 2 Positive
5	GND	Ground	5	GND	Ground
6	ML_Lane 1(n)	Lane 1 Negative	6	ML_Lane 2(n)	Lane 2 Negative
7	ML_Lane 2(p)	Lane 2 Positive	7	ML_Lane 1(p)	Lane 1 Positive
8	GND	Ground	8	GND	Ground
9	ML_Lane 2(n)	Lane 2 Negative	9	ML_Lane 1(n)	Lane 1 Negative
10	ML_Lane 3(p)	Lane 3 Positive	10	ML_Lane 0(p)	Lane 0 Positive
11	GND	Ground	11	GND	Ground
12	ML_Lane 3(n)	Lane 3 Negative	12	ML_Lane 0(n)	Lane 0 Negative
13	Config 1	Connected to ground	13	Config 1	Connected to ground
14	Config 2	Connected to ground	14	Config 2	Connected to ground
15	AUX ch (p)	Auxiliary channel	15	AUX ch (p)	Auxiliary channel
16	GND	Ground	16	GND	Ground
17	AUX ch (n)	Auxiliary channel	17	AUX ch (n)	Auxiliary channel
18	Hot plug	Hot plug detect	18	Hot plug	Hot plug detect
19	Return	Return for power	19	Return	Return for power
20	DP_PWR	3.3V	20	DP_PWR*	Not connected

* It is disconnected from the inside of the cable to prevent back drive.

■ Dimensions



Dimensions (L*W*H): 48.5 x 20 x 12.7 mm

■ Connection Diagram

