DUXNET

PRODUCT DATASHEET

DUX1000SX & SX-I

SFP, 1.0625/1.25Gbps, 850nm, MM, DDM, 7.5dB, 550m, C-temp & I-temp

OVERVIEW

The DUX1000SX is a high-performance 850 nm SFP transceiver optimized for Multimode fiber applications. It provides reliable connectivity for Gigabit Ethernet (GbE) and 1G Fibre Channel (1G FC) services, delivering seamless transmission over distances of up to 550 meters.

Designed for flexibility and ease of deployment, the DUX1000SX ensures consistent performance across short- and medium-range links, making it ideal for data centers, enterprise networks, and campus environments.

Equipped with digital diagnostics monitoring (DDM) via a 2-wire serial interface in accordance with the SFF-8472 specification, it enables real-time monitoring of key optical parameters to simplify network management and troubleshooting. For enhanced durability, the transceiver is offered in multiple temperature range options, including an industrial-grade model rated from -40°C to +85°C (-40°F to +185°F) — ensuring reliable operation even in challenging environments.

TECHNICAL DATA

Parameter	Value
Technology	Grey SFP
Transmission media	MM (2x LC)
Typical reach	550m@50/125µm OM3, 300m@62.5/125µm OM1
Nominal wavelength	1x 850nm
Bit rate support	1.0625Gbps / 1.25Gbps
Protocol support	GbE 1G FC
Power budget	0 – 7.5dB
Power consumption	< 1.0W
Operating temperature	0°C to +70°C -40°C to +85°C (-I)
Storage temperature	-40°C to +85°C
Safety/regulatory compliance	TUV/UL/FDA (contact Smartoptics for latest certification information) RoHS compliance

Parameter	Value
Transmitter data	
Output power	Min: -9.5dBm [1] Max: -3.0dBm [1]
Transmit wavelength	830 – 860nm
Receiver data	
Minimum input power	-17.0dBm [1] [2]
Overload (max power)	-3.0dBm [1]
Wavelength range	760 – 860nm
LOS assert	Min -35dBm
LOS de-assert	Max -18dBm
LOS hysteresis	Min 1dB
DDM	Yes
MSA compliance	SFF-8431, -8432, -8472
DUX1000SX	SFP, 1G Ethernet, 1G FC, MM 850nm, 550m@OM3, 7.5dB, LC
DUX1000SX-I	SFP, 1G Ethernet, 1G FC, MM 850nm, 550m@OM3, 7.5dB, I-temp, LC

[1] Average power.
[2] @ 1.25Gbps, BER≤ $1x10^{-12}$, PRBS 2^7-1, back-to-back.

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