DUXNET

PRODUCT DATASHEET

DUX10GESR & -SR-I

SFP+, 10G Multirate, 850nm, MM, DDM, 5.1dB, 300m@OM3/550m@OM4

OVERVIEW

The DUX10GESR and DUX10GESR-I are high-performance 850 nm multimode transceivers designed for flexible, high-speed data transmission across a variety of traffic formats. Fully compliant with IEEE 802.3ae SR/SW standards, they delivers reliable connectivity for 10GbE-LAN (10GBASE-SR) and 10GbE-WAN (10GBASE-SW) applications — providing distances of up to 300 meters over OM3 and 550 meters over OM4 fiber. With no minimum distance requirement, the DUX10GESR/DUX10GESR-I is ideal for intra-office and short-reach connections, eliminating the need for additional attenuators and simplifying deployment.

For optimal performance, OM3 or higher-grade fiber is recommended. The transceiver also features digital diagnostics monitoring (DDM) via a 2-wire serial interface, as defined by the SFF-8472 specification, allowing real-time monitoring of key operating parameters. To meet diverse environmental requirements, it is offered in multiple temperature range options, including an industrial-grade version rated from -40°C to +85°C (-40°F to +185°F), ensuring dependable performance even under harsh conditions.

TECHNICAL DATA

Parameter	Value
Technology	Grey SFP+
Transmission media	MM (2x LC)
Typical reach	300m@OM3 / 550m@OM4
Nominal wavelength	850nm
Bit rate support	0.6Gbps to 11.3Gbps
Interface standards	10GBASE-SR, 10GBASE-SW
Protocol support	GbE, 10GbE-LAN, 10GbE-WAN
	OTU1, OTU2, OTU2e
	STM-64/OC192
	STM-16/OC48, STM-4/OC12
	1G, 2G, 4G, 8G, 10G FC
	CPRI Opt, 1, 2, 3, 4, 5, 6, 7, 7A, 8
	OBSAI 1x, 2x, 4x, 8x
Power budget	0 – 5.1dB
Dispersion penalty	Max 3.9dB
Power consumption	< 1W
Operating temperature	-0°C to +70°C (-SR)
	-40°C to +85°C (-SR-I)
Storage temperature	-40°C to +85°C

Parameter	Value
Transmitter data	
Output power	Min: -6.0dBm [1]
	Max: -1.0dBm [1]
Transmit wavelength	840nm – 860nm
Receiver data	
Minimum input power	-11.1dBm [1] [2]
Overload (max power)	-1.0dBm [1]
Wavelength range	840nm – 860nm
LOS assert	Min -25dBm
LOS de-assert	Max -12.5dBm
DDM	Yes
MSA compliance	SFF-8431, -8432, -8472
Safety/regulatory compliance	TUV/UL/FDA (contact Smartoptics for latest certification information)
	RoHS compliance
DUX10GESR	SFP+, 10G Multirate, 850nm, MM, DDM, 5.1dB, 300m@OM3 / 550m@OM4
DUX10GELR-I	SFP+, 10G Multirate, 850nm, MM, DDM, 5.1dB, 300m@OM3 / 550m@OM4, I-temp

[1] Average power.
[2] @ 10.3Gbps, BER 1x10-[12], PRBS 2[31]-1, back-to-back.

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Limited Lifetime Warranty