DUXNET

PRODUCT DATASHEET

DUX10GELR & LR-I

SFP+, 10G Multirate, 1310nm, SM, DDM, 6.2dB, 10km

OVERVIEW

The DUX10GELR and DUX10GELR-I transceivers deliver exceptional versatility and performance for high-speed optical networks. Operating at 1310 nm, they support a broad range of data formats and are fully compliant with IEEE 802.3ae LR/LW standards. Designed for reliability and reach, they provide seamless connectivity over distances of up to 10 km for both 10GbE-LAN (10GBASE-LR) and 10GbE-WAN (10GBASE-LW) applications. With no minimum distance requirement, the DUX10GELR/ DUX10GELR-I is perfectly suited for intra-office and short-reach deployments, eliminating the need for external attenuators and simplifying network design. Built for intelligent performance, the transceiver features digital diagnostics monitoring (DDM) via a 2-wire serial interface, enabling real-time insight into operating parameters as defined by the SFF-8472 specification. For maximum flexibility, it's available in multiple temperature range options, including an industrial-grade version rated from -40°C to +85°C (-40°F to +185°F) — ensuring dependable operation even in the most demanding environments.

TECHNICAL DATA

Parameter	Value
Technology	Grey SFP+
Transmission media	SM (2x LC)
Typical reach	10km
Nominal wavelength	1310nm
Bit rate support	0.6Gbps to 11.3Gbps
Interface standards	10GBASE-LR, 10GBASE-LW
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 – 6.2dB
Dispersion penalty	Max 3.2dB
Power consumption	< 1W
Operating temperature	-0°C to +70°C (-LR)
	-40°C to +85°C (-LR-I)
Storage temperature	-40°C to +85°C

Parameter	Value
Transmitter data	
Output power	Min: -8.2dBm [1]
	Max: +0.5dBm [1]
Transmit wavelength	1270nm – 1355nm
Receiver data	
Minimum input power	-14.4dBm [1] [2]
Overload (max power)	+0.5dBm [1]
Wavelength range	1260nm – 1565nm
LOS assert	Min -28dBm
LOS de-assert	Max -16dBm
DDM	Yes
MSA compliance	SFF-8431, -8432, -8472
Safety/regulatory compliance	TUV/UL/FDA (contact Smartoptics for latest certification information)
	RoHS compliance
DUX10GELR	SFP+, 10G Multirate, 1310nm, SM, DDM, 6.2dB, 10km
DUX10GELR-I	SFP+, 10G Multirate, 1310nm, SM, DDM, 6.2dB, 10km, I-temp

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

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Free Telephonic Support

Limited Lifetime Warranty