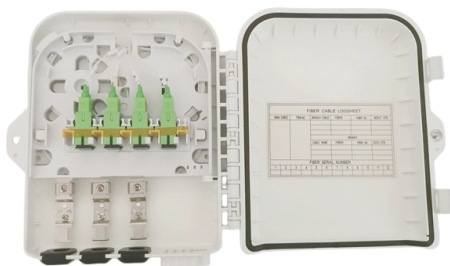


Detailed Parameter Table of Optical Module



Article Overview

Optical modules are defined by key parameters such as form factor, wavelength, transmission distance, laser type, and receiver sensitivity, which determine compatibility, performance, and reliability.

Key Optical Module Parameters

Parameter	Description	Typical Values / Notes	Form Factor	Physical size and interface type of the module
Connector Type	Interface to fiber cable	LC Duplex, SC Duplex, MPO/MTP; must match patch cables	SFP, SFP+, SFP28, QSFP, QSFP28, QSFP56, QSFP-DD; determines switch/port compatibility	
Transmission Rate	Maximum supported data speed	1G, 10G, 25G, 40G, 100G, 400G	Wavelength	Light color used for transmission
Wavelength	Light color used for transmission	850nm (MMF, short distance), 1310nm (SMF, medium distance), 1550nm (SMF, long distance)	Fiber Type	Type of fiber supported
Fiber Type	Type of fiber supported	Single-mode (SM), Multi-mode (MM)	Transmission Distance	Maximum reach without amplification
Transmission Distance	Maximum reach without amplification	MMF: 500-550m; SMF: 15km, 40km, 80km, 120km	Transmitter Type	Laser technology used
Transmitter Type	Laser technology used	VCSEL (MMF), DFB/EML (SMF); affects cost, power, and distance	Receiver Type	Photodetector technology
Receiver Type	Photodetector technology	PIN photodiode, APD; determines sensitivity and reliability	Receiver Sensitivity	Minimum optical power detectable
Receiver Sensitivity	Minimum optical power detectable	Measured in dBm; higher data rates generally require higher sensitivity	Transmitted Optical Power	Output power of the transmitter
Transmitted Optical Power	Output power of the transmitter	Measured in mW or dBm; must match receiver sensitivity	Extinction Ratio	Ability to distinguish between "1" and "0" signals
Extinction Ratio	Ability to distinguish between "1" and "0" signals	Measured in dB; higher ratio indicates better signal quality	Overload Optical Power	Maximum optical power the receiver can handle
Overload Optical Power	Maximum optical power the receiver can handle	Exceeding this may damage the receiver	Digital Diagnostics Monitoring (DDM/DOM)	Real-time monitoring of module parameters
Digital Diagnostics Monitoring (DDM/DOM)	Real-time monitoring of module parameters	Temperature, vol...		

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TECHNICAL SPECIFICATIONS ing table encapsulates the primary classifications an capabilities of the catalog. For detailed, model

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TI DLP® System Design: Optical Module Specifications

Developers can use Table 4-2 to accelerate communication with DLP Display projection optical module manufacturers. Optical

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What are the detailed parameters of the optical module

What are the detailed parameters of the optical module? Optical module center wavelength, transmission distance, loss

Contact Us

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