

Miniature Optical Isolator

CORNING

Features and Benefits

Wide Optical Wavelength and Temperature Range

Low Insertion Loss

High Isolation

Compact Size

Ultra Low PDL and PMD

Corning offers miniature single-stage and dual-stage optical isolators which minimize back reflection and back scattering in the reverse direction at any state of polarization. The Polarization Insensitive Isolator (PII) is a low cost model with excellent performance including low insertion loss, high isolation, high return loss, and low PDL and PMD. The miniature size package enables devices to be integrated in very tight modules.

Standards

RoHS	Free of hazardous substances according to RoHS2011/65/EU
Design and Test Criteria	Product is qualified to Telcordia GR-1209-CORE and GR-1221-CORE



Miniature Optical Isolator

CORNING

Specifications – Miniature Optical Isolator

Parameters	Single-Stage		
	Ultra	Premium	Standard
Center Wavelength (λ_c)	1310, 1550, or 1590 nm		
Isolation ($\lambda_c \pm 15$ nm, 23°C, All SOP), Minimum	30 dB	30 dB	30 dB
Isolation ($\lambda_c \pm 15$ nm, 0-70°C, All SOP), Minimum	21 dB	21 dB	20 dB
Insertion Loss (λ_c , 23°C, All SOP), Typical	0.30 dB	0.35 dB	0.40 dB
Insertion Loss ($\lambda_c \pm 20$ nm, 0-70°C, All SOP), Maximum	0.40 dB	0.50 dB	0.60 dB
PDL, Maximum	0.05 dB	0.05 dB	0.10 dB
PMD, Maximum	0.30 ps	0.30 ps	0.30 ps
Return Loss (Input/Output), Minimum	60/60 dB		
Power Handling	500 mW		
Operating Temperature	0°C to +70°C		
Storage Temperature	-40°C to +85°C		

Shipping Package		
Packaging Dimensions	Fiber Type	Pigtail Length
(Φ) 3 mm x (L) 26 mm Including boots	Corning® MF-28e®; 250 μ m Fiber	1 m (Standard)



Miniature Optical Isolator

CORNING

Specifications – Miniature Optical Isolator (PMD Compensated Single- and Dual-Stage)

Parameters	Single-Stage PMD Compensated			Dual-Stage PMD Compensated		
	Ultra	Premium	Standard	Ultra	Premium	Standard
Center Wavelength (λ_c)	1310, 1550, 1590 nm			1310, 1550, 1590 nm		
Peak Isolation, Minimum	-	-	-	60 dB	58 dB	55 dB
Isolation ($\lambda_c \pm 15$ nm, 23°C, All SOP), Minimum	30 dB			55 dB	-	-
Isolation ($\lambda_c \pm 15$ nm, 0-70°C, All SOP), Minimum	21 dB	21 dB	20 dB	42 dB	38 dB	34 dB
Insertion Loss (λ_c , 23°C, All SOP), Typical	0.30 dB	0.35 dB	0.40 dB	0.40 dB	0.40 dB	0.60 dB
Insertion Loss ($\lambda_c \pm 20$ nm, 0-70°C, All SOP), Maximum	0.50 dB	0.50 dB	0.60 dB	0.55 dB	0.55 dB	0.70 dB
PDL, Maximum	0.05 dB	0.05 dB	0.10 dB	0.05 dB	0.05 dB	0.10 dB
PMD, Maximum	0.02 ps	0.05 ps	0.05 ps	0.05 ps	0.05 ps	0.07 ps
Return Loss (Input/Output), Minimum	60/60 dB	60/60 dB	60/55 dB	60/60 dB	60/55 dB	60/55 dB
Power Handling, Maximum	500 mW			500 mW		
Operating Temperature	0°C to +70°C			0°C to +70°C		
Storage Temperature	-40°C to +85°C			-40°C to +85°C		

Ordering Information

Miniature Optical Isolator

I S - 2 - 0 A

1
2
3
4
5
6

1 Select Type
 2: PMD Compensated Single-Stage
 3: PMD Compensated Dual-Stage

2 Select Wavelength
 31: 1310 nm
 55: 1550 nm
 59: 1590 nm

3 Select Grade
 1: Standard
 2: Premium
 3: Ultra

4 Select Fiber Type
 0: 250 μ m Bare Fiber

5 Select Connector*
 A: None

6 Select Customization
 000: Running number used for special types or custom made

These part numbers are specific to Corning Optical Communications OEM Solutions Business Unit. Please contact OEM sales at +1-408-736-6900 or oesales@corning.com and visit www.corning.com/opcomm/oem for sales support.



Corning Optical Communications LLC • PO Box 489 • Hickory, NC 28603-0489 USA

800-743-2675 • FAX: 828-325-5060 • International: +1-408-736-6900 • www.corning.com/opcomm/oem • Email: oesales@corning.com

Corning Optical Communications reserves the right to improve, enhance, and modify the features and specifications of Corning Optical Communications products without prior notification. A complete listing of the trademarks of Corning Optical Communications is available at www.corning.com/opcomm/trademarks. All other trademarks are the properties of their respective owners. Corning Optical Communications is ISO 9001 certified.

© 2016 Corning Optical Communications. All rights reserved.

Spec Sheet CAH-143_AEN
 Page 3 | Revision date 2016-12-13

CORNING