Onix 8x8 Planar Matrix Series

Optical Switching Engines

The Onix 8X8 Planar Matrix Series is a collection of ultra high performance optical switching engines. By taking advantage of the latest developments in MEMS technology, Onix's 8X8 Planar Matrix Series uses micro-mirrors to seamlessly and transparently switch optical beams between input and output fiber arrays.

Single Crystalline Advantage

One of Onix's key advantages lies in the micro-mirror design. Each Onix 8X8 Planar Matrix uses single crystalline silicon for the mirror material, which offers superior mirror rigidity, planarity and thermal stability when compared to the polysilicon mirrors offered by competitors.

Telco-Level Reliability

Another patented design feature of the Onix 8X8 Planar Matrix guarantees uniform mirror positioning and registration, as well as mirror operation which is insensitive to shock and vibration. The unique features of the Onix 8X8 Planar Matrix offer telco-level reliability with extremely low insertion loss. Also adding to the reliability of the Onix 8X8 Planar Matrix is our latching operation feature. If power is ever cut to the switching matrix, the Onix 8X8 Planar Matrix will hold its last position for at least 24 hours.

Ideal Applications

The Onix 8X8 Planar Matrix Series is ideal for network protection and restoration, test and measurement, and dynamic network provisioning or reconfigurable Optical Add/Drop Multiplexers (OADM).

Features

- Uniformly low insertion loss
- Low operating power
- Millisecond switching time
- Insensitivity to shock, vibration and environmental disturbances
- Extremely compact design
- Epoxy-free optical path
- Tested to Telcordia standards
- Real-time switch status monitoring
- Automatic fault detection

4138 Lakeside Drive

Richmond

California

94806

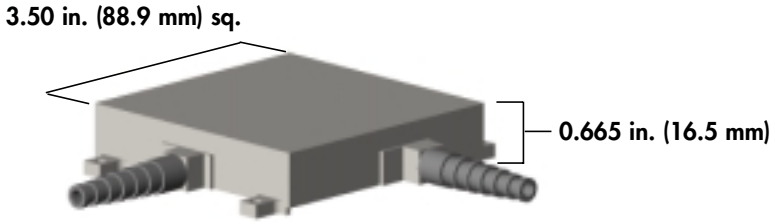
Phone: (510) 669-2020

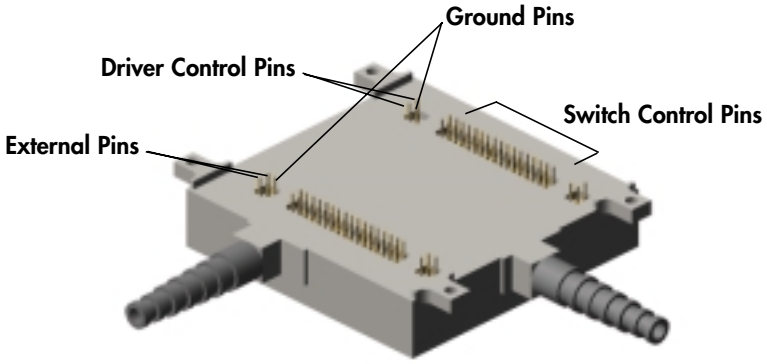
Fax: (510) 669-2025

www.onixmicrosystems.com

Onix 8x8 Planar Matrix Series

Optical Switching Engines





Parameter	Unit	Specification
Insertion Loss[1]	dB	3 typical, 4 max.
Back Reflection	dB	-60 max.
Cross Talk	dB	<-60
PDL	dB	<.1
Repeatability	dB	<.2
Durability		100 million cycle min.
Switching Time	ms	<10
Latching Period	hrs	24 after loss of power
Switching voltage	Vdc	5
Switching current (10 ms duration)	A	1
Operating power (steady state)	mW	<100
Optical Input Power	dBm	24 max
Operating Temperature	C°	-5 to 75
Storage Temperature	C°	-40 to 85
Humidity	RH	90% (non-condensing)
Control Interface		parallel
Telcordia Standards Compliance		TR-NWT-1073 GR-1221-core

[1]Measured at 1310nm and 1550nm, excluding connectors

Specifications subject to change

Rev 7/00