2018
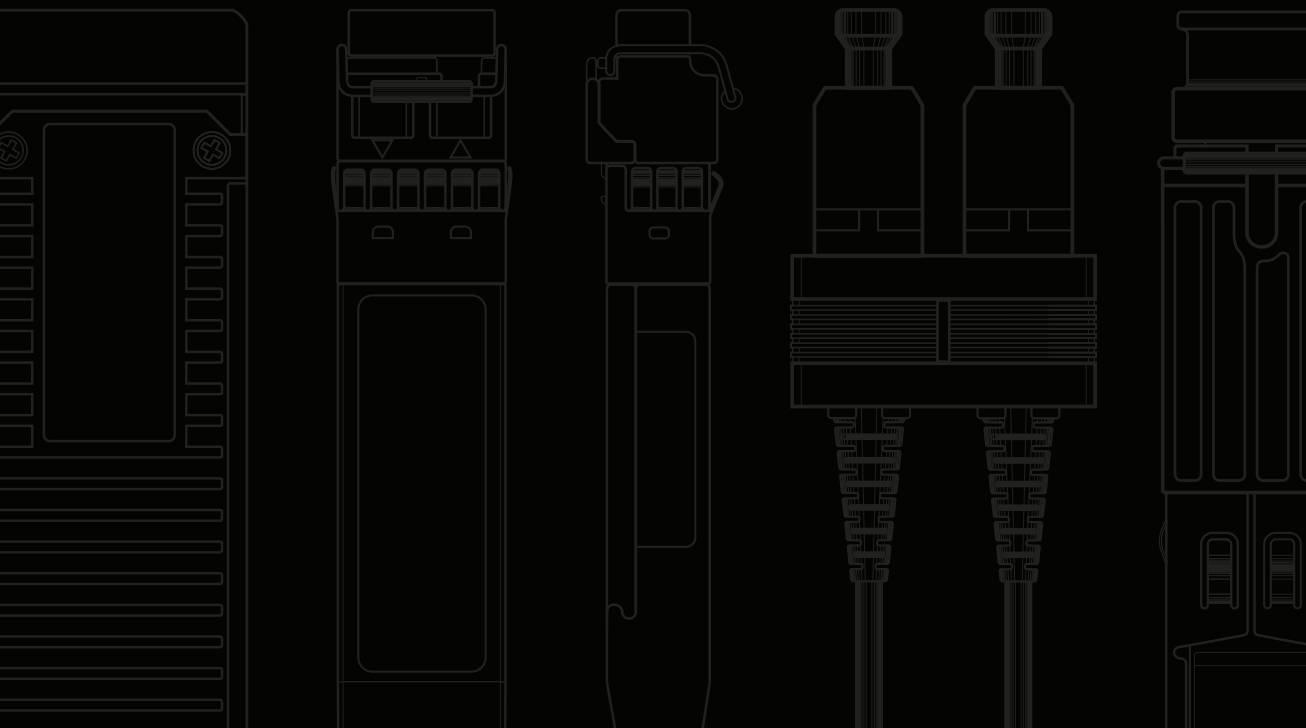# Product Catalog

Fiber optic network components: transceivers, meters, passives, jumpers and uptime tools
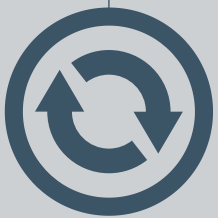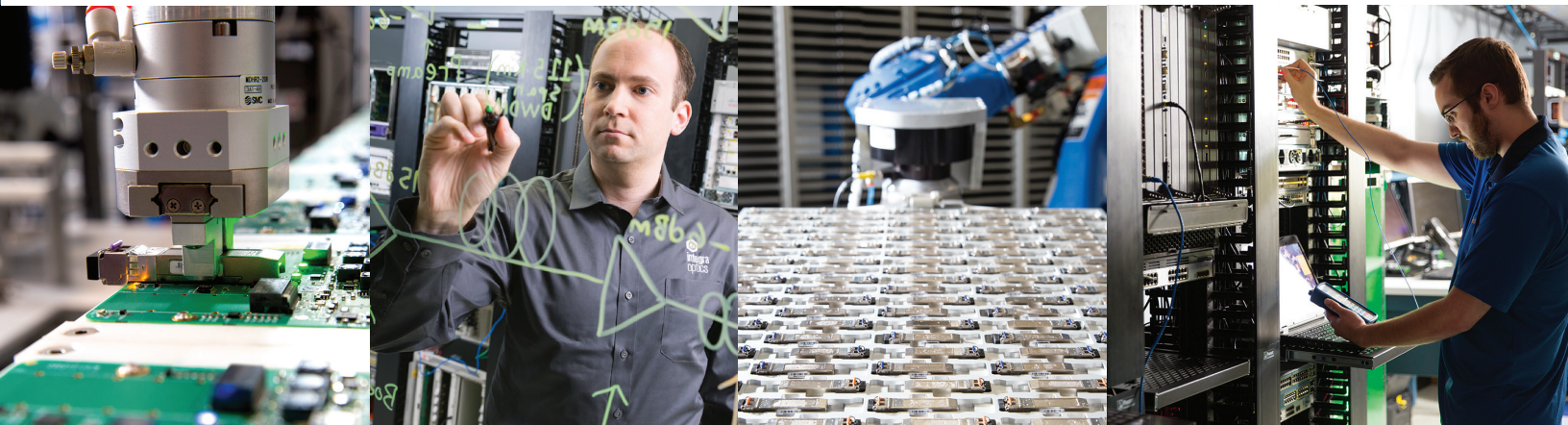
integra
optics

the most trusted
name in uptime

100% focused on uptime

We understand that your business and residential end users expect their internet and phones to work 100% of the time. That's why Integra Optics is 100% focused on uptime. It's our mission to ensure that customers can turn up services faster, build out the fiber networks they need to be competitive, and keep them up and running.

100% INTER-OPERABLE

Integra manufactures our transceivers to be 100% interoperable for all OEM platforms, guaranteed for performance and reliability you can trust.

33X MORE RELIABLE

We make sure every transceiver is correctly coded and tested 100% of the time. As a result, Integra brand optics are 33 times more reliable than both OEM and third party generics.

AVAILABLE ON-DEMAND

With the largest inventory in the Western Hemisphere, Integra can ship orders in days, rather than weeks or months and help customers manage their supply chains.

HOW TO ORDER

Phone:
+1.877.402.3850

Fax:
+1.866.847.5219

Email:
integrabd@integraoptics.com

Online:
integraoptics.com

integra optics
the most trusted name in uptime

Serving telecom, cable, and data network industries

Integra Optics helps network engineers, designers and managers around the world build out new fiber optic networks, extend the value of their existing networks and maintain uptime with the most reliable transceivers and fiber optic components available. We're providing network solutions for over 300 organizations worldwide.

	Integra Optics	OEM optics	3rd party optics
100% interoperable across OEM platforms	✓	✓	✗
Remote and on-site engineering support 24/7	✓	✓	✗
Specifications beyond OEM offerings	✓	✗	✗
On-demand availability	✓	✗	✗
In-house platform specific coding and testing of all transceivers	✓	✗	✗
Engineered, triple-tested and inventoried in the U.S.A.	✓	✗	✗
First quality materials and components for every product	✓	✗	✗
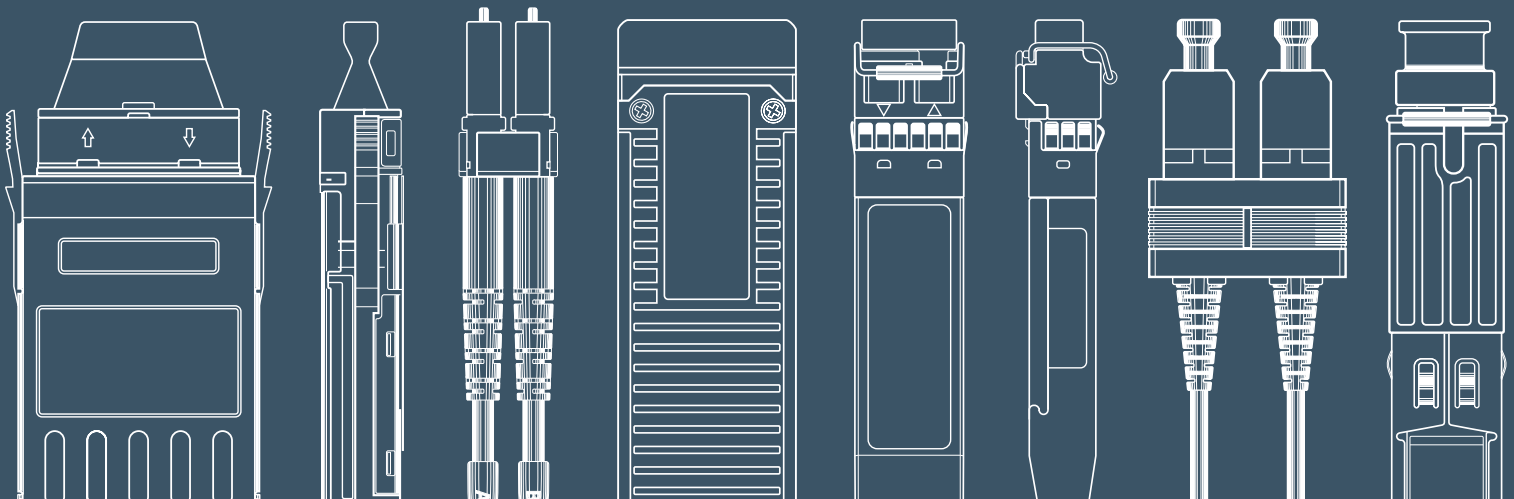
New solutions for a more predictable supply chain

Integra Optics was founded to answer the problems of reliability and availability. We're committed to making our transceivers not only better, but also more readily available than any other manufacturer in the industry. We maintain a large inventory of optics that are accurately coded, triple-tested and ready to ship when you need them.
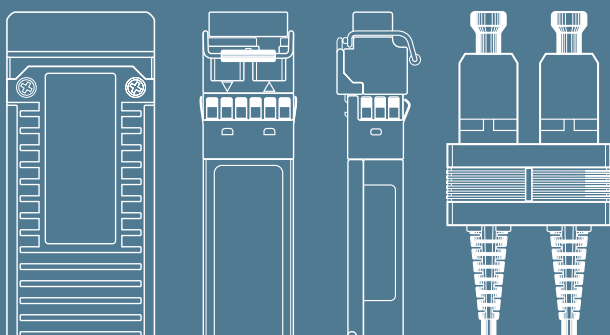
OEM Interoperable Portfolio

CISCO

OEM	Rate	
GLC-T	1G	Copper
GLC-SX-MMD	1G	SX
GLC-LH-SMD	1G	LX
SFP-10G-SR-S	10G	SR
SFP-10G-LR-S	10G	LR
DWDM-SFP10G-C	10G	ZR
DWDM-XFP-C	10G	ZR
DS-SFP-FC16G-SW	16G	SR
DS-SFP-FC16G-LW	16G	LR
QSFP-40G-SR-S	40G	SR
QSFP-40G-LR-S	40G	LR
QSFP-100G-SR4-S	100G	SR
QSFP-100G-LR4-S	100G	SR

JUNIPER NETWORKS

OEM	Rate	
SFP-1GE-FE-E-T	1G	Copper
SFP-1GE-SX	1G	SX
SFP-1GE-LX	1G	LX
SFPP-10GE-SR	10G	SR
SFPP-10GE-LR	10G	LR
SFPP-10G-CT50-ZR	10G	ZR
XFP-10G-CBAND-T50-ZR	10G	ZR
QFX-QSFP-40G-SR4	40G	SR
QFX-QSFP-40G-LR4	40G	LR
JNP-QSFP-100G-SR4	100G	SR
JNP-QSFP-100G-LR4	100G	LR

ARISTA

OEM	Rate	
SFP-1G-T	1G	Copper
SFP-1G-SX	1G	SX
SFP-1G-LX	1G	LX
SFP-10G-SR	10G	SR
SFP-10G-LR	10G	LR
SFP-10G-DZ-T	10G	ZR
QSFP-40G-SR4	40G	SR
QSFP-40G-LR4	40G	LR
QSFP-100G-SR4	100G	SR
QSFP-100G-LR4	100G	LR

Don't see what you are looking for? Just ask!

OEM Interoperable Portfolio

HP

OEM	Rate	
J8177C	1G	Copper
J4858C	1G	SX
J4859C	1G	LX
J9150A	10G	SR
J9151A	10G	LR
JD092B	10G	SR
JD094B	10G	LR

ADTRAN

OEM	Rate	
1184561P4	1G	Copper
1184561P3	1G	SX
1184561P1	1G	LX
1442401G1	10G	SR
1442410G1	10G	LR
1442496F1C	10G	ZR
1442901G1	10G	SR
1442910G1	10G	LR
1442985G1C	10G	ZR

NOKIA

OEM	Rate	
3HE00062AA	1G	Copper
3HE00027AA	1G	SX
3HE00028AA	1G	LX
3HE04824AA	10G	SR
3HE04823AA	10G	LR
3HE08142AA	10G	ZR
3HE04999CA	10G	ZR
3HE04821BA	100G	SR
3HE09498AA	100G	LR
3HE09498AA	100G	LR

FUJITSU

OEM	Rate	
FC9570521001	1G	Copper
FC95705030	1G	SX
FC95705010	1G	LX
FC95704Axx	2.5G	ZR
FC95731131	10G	SR
FC95731410	10G	LR
FC95734Axx	10G	ZR
FC95734HC1	10G	ZR
FC95872LR4	100G	LR

BROCADE

OEM	Rate	
E1MG-TX	1G	Copper
E1MG-SX-OM	1G	SX
E1MG-LX-OM	1G	LX
10G-SFPP-SR	10G	SR
10G-SFPP-LR	10G	LR
10G-SFPP-ZRD-T	10G	ZR
40G-QSFP-SR4-INT	40G	SR
40G-QSFP-LR4	40G	LR
100G-QSFP28-SR4	100G	SR
100G-QSFP28-LR4-LP-10KM	100G	LR

MRV

OEM	Rate	
SFP-GA-R	1G	Copper
SFP-DGD-SX	1G	SX
SFP-GD-LX	1G	LX
SFP-10GD-SX	10G	SR
SFP-10GD-LR	10G	LR
SFP-10GDWZR-TC	10G	ZR
XFP-10GD-SX	10G	SR
XFP-10GD-LR	10G	LR
XFP-DWLR08TC	10G	ZR
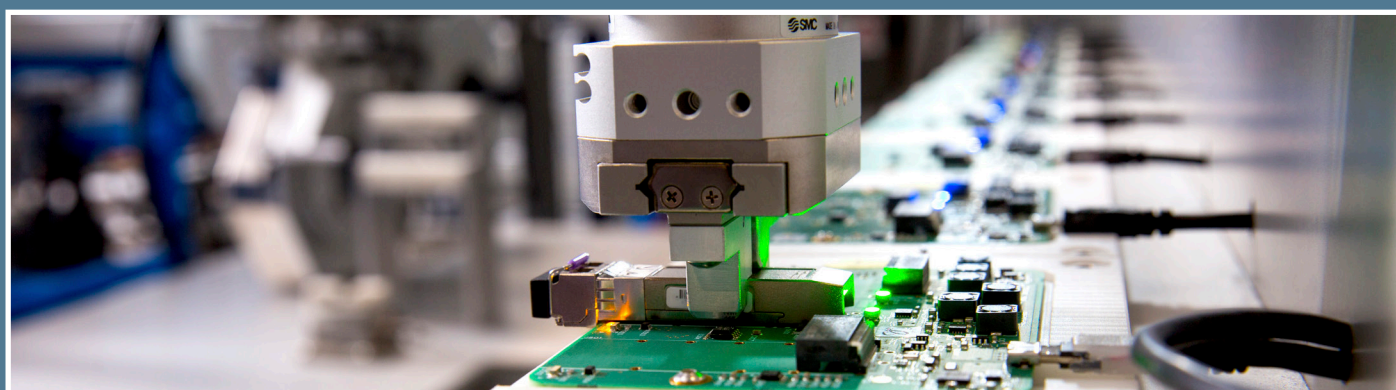
OEM Interoperable Portfolio

ciena /NORTEL

OEM	Rate	
NTTP61AA	1G	Copper
NTTP01CF	1G	LX
NTTP01AF	1G	SX
NTTP588D	1G	LX
NTTP07FF	1G	ZX
NTTP30CF	10G	LR
NTTP81AA	10G	SR
NTTP84BA	10G	LR
NTTP84AA	10G	ER
NTTP81KA	10G	ZR
NTTP84HA	10G	ZR

Did you know?

You can ensure coding accuracy and eliminate time spent finding replacement optics when you choose Integra transceivers. Our Smart Coder allows technicians to reconfigure our transceivers for specific hardware right in the field.

ADVA Optical Networking

OEM	Rate	
0061705890	1G	Copper
0061003006	1G	SX
0061004009	1G	LX
1061701855	10G	SR
1061701850	10G	LR
1061702100	10G	ZR
0061701825	10G	SR
0061701811	10G	LR
1061701400	10G	ZR

infinera

OEM	Rate	
TOM-1G-SX	1G	SX
TOM-1G-LX	1G	LX
TOM-10G-SFPP-SR1	10G	LR
TOM-10G-SFPP-IR2	10G	ER
TOM-10G-SFPP-LR2	10G	ZR
TOM-10G-SFPP-DT	10G	ZR
TOM-10G-SR0	10G	SR
TOM-10G-SR1	10G	LR
TOM-100G-Q-LR4	100G	LR

tellabs

OEM	Rate	
81.86Z155MEC100	1G	Copper
81.S2GFCSR1851M	1G	SX
81.S1GBELX1131S	1G	LX
81.86T-P010GSRM	10G	SR
81.86T-P010GLRS	10G	LR
81.71T-SPDWDMHP	10G	ZR
81.X0192SR1131S	10G	SR
81.X0192SR1851M	10G	LR
81.71T-XDWDM-R6	10G	ZR

OEM Interoperable Portfolio

Extreme networks

OEM	Rate	
10050	1G	Copper
10051	1G	SX
10052	1G	LX
10301	10G	SR
10302	10G	LR
10325	10G	ZR
10200	10G	ZR
10319	40G	SR
10320	40G	LR

Calix

OEM	Rate	
100-01661	1G	Copper
100-01660	1G	SX
100-01662	1G	LX
100-01782	2.5G	B+
100-01784	2.5G	C+
100-01515	10G	SR
100-01512	10G	LR
100-01511	10G	ER
100-01971	10G	ZR

HUAWEI

OEM	Rate	
SFP-1000BaseT	1G	Copper
eSFP-GE-SX-MM850	1G	SX
SFP-GE-LX-SM1310	1G	LX
OMXD30000	10G	SR
OSX010000	10G	LR
QSFP-40G-iSR4	40G	SR
QSFP-40G-LR4	40G	LR
QSFP-100G-SR4	100G	SR
QSFP-100G-LR4	100G	LR

We provide what the OEM does and **what they don't!**

Distance

OEM's don't always supply optics to support distances commonly used in **service provider networks** today.

Wavelength

Integra is capable of hardware at **any wavelength for any platform**, for any transceiver!

Temperature

Operate in extreme temperatures? Integra can provide optics for **challenging environmental conditions!**

Transport-Specific Optimizations

High dispersion, long haul amplified networks, old fiber? Not a problem! Integra can **optimize the hardware/firmware** of the transceiver for your application.

SFP 1G

Applications

- 1000Base-X, MetroE
- LAN/WAN, Backhaul

Features

- Copper, SM or MM interfaces
- Variable distance support, 100m-160km
- Bi-Directional, CWDM, DWDM variants available
- Optional C-Temp, E-Temp, I-Temp capable
- Up to 4Gbps

Protocol Support

- 10/100/1000Base-X, SONET/SDH, 1-4G Fibre Channel, Up to 3G CPRI

SFP+ 10G

Applications

- 10GBase-X, MetroE
- LAN/WAN, Backhaul
- Carrier Transport
- Data Center

Features

- Copper, SM or MM interfaces
- Variable distance support, 100m-80km
- Bi-Directional, CWDM, DWDM variants available
- Optional C-Temp, E-Temp, I-Temp capable
- Up to 11.1Gbps

Protocol Support

- 10GBase-X, SONET/SDH, Fibre Channel, CPRI, OTN with support for FEC

XFP 10G

Applications

- 10GBase-X, MetroE
- LAN/WAN, Backhaul
- Carrier Transport
- Data Center

Features

- SM or MM interfaces
- Variable distance support, 100m-80km
- Bi-Directional, CWDM, DWDM variants available
- Optional C-Temp, E-Temp, I-Temp capable
- Up to 11.3Gbps

Protocol Support

- 10GBase-X, SONET/SDH, Fibre Channel, CPRI, OTN with support for FEC

DWDM Tunable 10G

Applications

- 10GBase-ER/ZR
- Carrier Transport

Features

- SFP or XFP
- Link distance up to 80km
- Tunable range 1528.77-1566.72
- 50 and 100 GHz spacing
- Up to 11.3Gbps

Protocol Support

- 10GBase-ER/ZR, SONET/SDH, Fibre Channel, CPRI, OTN with support for FEC

> *Thank you for saving me from an incident created by another optics vendor... I have discovered that what initially looks like a good deal is not the entire price.*

-Network Administrator, Jaguar Communications

Did you know?

Large businesses lose an average of 3.6 percent in annual revenues due to network downtime.
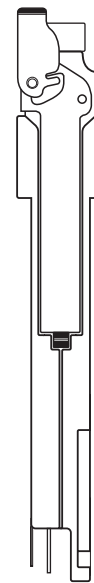
Transceivers 40G

Transceivers 100G

QSFP+ | 40G

Applications

- 40GBase-X
- Carrier Transport
- Data Center

Features

- SM or MM interfaces
- LC or MPO connectors
- Variable distance support, 100m-40km
- Quad lane 4x10G support
- Up to 41.25Gbps

Protocol Support

- 40GBase-X

QSFP28 | 100G

Applications

- 100GBase-X
- LAN/WAN
- Backhaul
- Data Center

Features

- SM-LC or MM-MPO interfaces
- Variable distance support, 100m-40km
- Quad lane 4x25G support
- Up to 112Gbps
- SR4, LR4, ER4, CWDM4/CLR4 and PSM4 variants available

Protocol Support

- 100GBase-X, OTU4 with support for FEC

CFP | 100G

Applications

- 100GBase-X
- LAN/WAN
- Backhaul
- Data Center

Features

- SM-LC or MM-MPO interfaces
- Variable distance support, 100m-40km
- 10x10G or quad lane 4x25G support
- Up to 112Gbps
- SR10, LR4 and ER4 variants available

Protocol Support

- 100GBase-X, OTU4 with support for FEC

CFP2 | 100G

Applications

- 100GBase-X
- LAN/WAN
- Backhaul

Features

- SM-LC interfaces
- Link distances up to 40km
- Quad lane 4x25G support
- Up to 112Gbps
- Available as LR4 and ER4

Protocol Support

- 100GBase-X, OTU4 with support for FEC

CFP4 | 100G

Applications

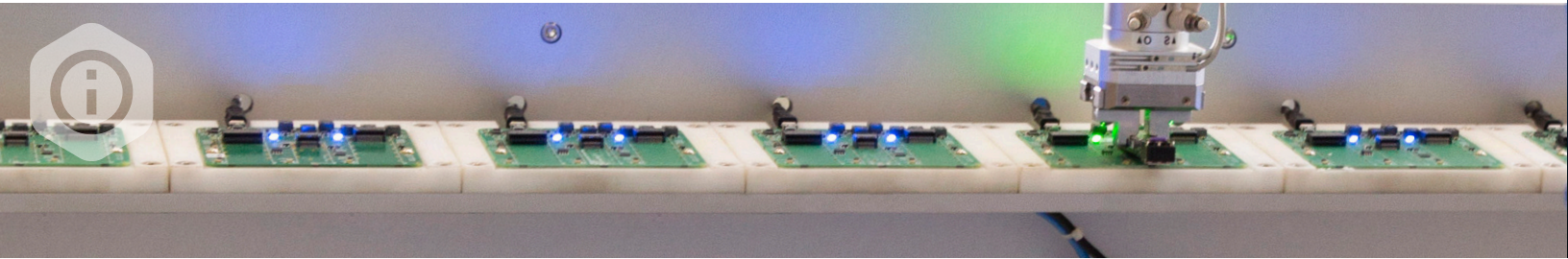- 100GBase-X
- LAN/WAN
- Backhaul
- Data Center

Features

- SM-LC or MM-MPO interfaces
- Variable distance support 100m-10km
- Quad lane 4x25G support
- Up to 112Gbps
- SR4 and LR4 variants available

Protocol Support

- 100GBase-X, OTU4 with support for FEC

100% INTER-OPERABLE

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Additional Transceivers

Direct Attach Transeivers

GPON OLT

Applications
- GPON
- FTTx

Features
- B+ or C+ compliant
- Variable distance support 100m-40km
- Up to a 1x64 split
- 1310nm receive, 1.244Gbps
- 1490nm transmit, 2.488Gps

Protocol Support
- G.984 GPON

SFP+ TWINAX 10G

Applications
- Data Center
- SAN Networks

Features
- Direct attach copper
- Variable distance support 1m-15m
- Passive and active variants available
- Up to 10.3Gbps

Protocol Support
- Ethernet, Fibre Channel

SFP+ AOC 10G

Applications
- Data Center
- SAN Networks

Features
- Direct attach OM3/OM4 optical fiber
- Variable distance support 1m-100m
- Optional C-Temp, E-Temp available
- Up to 10.3Gbps

Protocol Support
- 10GBase-SR, Fibre Channel

GPON ONT

Applications
- GPON
- FTTx
- CPE
- Ethernet

Features
- B+ or C+ compliant
- Enables GPON support in any CPE device
- SM-SC APC interface
- 1310nm transmit, 1.244Gbps
- 1490nm receive, 2.488Gps

Protocol Support
- G.984 GPON

QSFP+ AOC 40G

Applications
- Data Center
- Telecom

Features
- Direct attach OM3/OM4 optical fiber
- Variable distance support 1m-100m
- Optional C-Temp, E-Temp available
- Up to 40Gbps
- 1x40G (QSFP-QSFP) and 4x10G (QSFP-SFP+) available

Protocol Support
- 10GBase-SR, 40GBase-SR, Fibre Channel CPRI, OTN with support for FEC

QSFP+ Copper 40G

Applications
- Data Center
- Telecom

Features
- Direct attach copper
- Variable distance support 1m-7m
- Up to 40Gbps
- 1x40G (QSFP-QSFP) and 4x10G (QSFP-SFP+) available

Protocol Support
- Ethernet, Fibre Channel

Meters

CWDM Optical Analyzer

Applications

- MetroE
- WAN
- LAN
- Backhaul

Features

- 18 CWDM channels
- Wavelengths 1270-1610nm
- Ruggedized with color display
- Internal rechargeable lithium battery
- Auto or manual scan capable
- Measurement data storage function
- SC/UPC SM interface

DWDM Optical Analyzer

Applications

- MetroE
- WAN
- Backhaul
- Carrier Transport

Features

- Available with 50 or 100 GHz spacing
- Wavelengths 1527.99-1565.91nm
- Ruggedized with color display
- Internal rechargeable lithium battery
- Auto or manual scan capable
- Measurement data storage function
- SC/UPC SM interface

PON Power Meter

Applications

- FTTx

Features

- Wavelengths 1270/1310/1490/1550/1577
- PON pass through for simultaneous measurement of both upstream and downstream
- Capable of burst mode measurement of 1310nm/1270nm upstream
- Measurement data storage function
- SC/APC SM interface

Optical Power Meter

Applications

- FTTx
- WAN
- LAN
- RFOG

Features

- Wavelengths 850/1270/1310/1490/1550/1577/1610
- Measurement range (dBm) -50 ~ +26
- Measurement data storage function
- SC interface

Mini Optical Power Meter

Applications

- FTTx
- WAN
- LAN
- RFOG

Features

- Wavelengths 850/1270/1310/1490/1550/1577/1610
- Lightweight, portable, ruggedized design
- OLED display
- SC Interface

OTDR

Applications

- Single Mode Fiber Applications

Features

- 3.5inch, color LCD, touch screen
- Measures optical fiber parameters such as length, loss, and connection quality
- Accurate positioning of event and fault points
- Test range of 500m-80km
- Transmits at 1310/1550nm wavelengths
- High capacity lithium battery

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Fiber Jumpers

Multi-Mode

Applications

- Data Centers
- Metro-E
- LAN/WAN Systems
- Backhaul
- Carrier Transport

Features

- OM1 and bend insensitive OM3, OM4
- Simplex and duplex versions
- Available in PVC (OFNR), plenum, indoor/outdoor ruggedized, low smoke zero halogen
- UPC of all types of connectors
- Distances ranging from 1-100m+

Single-Mode

Applications

- Data Centers
- FTTx
- Metro-E
- LAN/WAN Systems
- Backhaul
- Carrier Transport

Features

- Bend insensitive 8.33/125µm
- Simplex and duplex versions
- Buffer Size: 1.2mm, 1.6mm, 2.0mm, 3.0mm, 4.8mm
- Available in PVC (OFNR), plenum, indoor/outdoor ruggedized, low smoke zero halogen
- UPC/APC of all type of connectors
- Distances ranging from 1-100m+

MPO Cables

Applications

- Data Centers
- FTTx
- Metro-E
- LAN/WAN Systems
- Backhaul
- Carrier Transport

Features

- OM3, OM4 Multi-Mode and Single Mode
- Method A, B and C
- 8, 12 and 24 fibers
- MPO-Male/Female and LC-UPC/APC breakout options
- Distances ranging from 1-100m+

Passives

PLC Splitters

Applications

- FTTx
- LAN/WAN Systems
- CATV Systems

Features

- Low IL and PDL
- Wide operating bandwidth
- Wide operating temperature
- Telcordia qualified
- RoHS compliant

WDM Mux/Demux Modules

Applications

- CWDM System
- DWDM System
- Unidirectional Systems
- Bi-directional Systems
- CATV Systems
- FTTx

Features

- Low Insertion loss and high channel isolation
- High temperature stability
- Epoxy-free optical path
- Modular within rack mount chassis

Outside Plant Cassette

Applications

- CWDM System
- DWDM System
- Unidirectional Systems
- Bi-directional Systems
- CATV Systems
- FTTx

Features

- Low profile design
- Wide operating bandwidth
- Wide operating temperature
- Telcordia qualified
- RoHS compliant
- OSP (outside cabinet or splice enclosure)

Uptime Tools

Portable Scope

Applications

- Optical Inspection

Features

- Precise focus control for instant detection
- Small and portable
- Video display
- Snapshot and video capable
- Over 10 adaptor tips to choose from

Mini Visual Fault Locator

Applications

- Single Mode Fiber

Features

- Dual mode operation, constant on or pulsed
- Quickly identifies damaged fibers
- Locates fiber breaks, faults, and bends
- Operates at 650nm
- Visibility up to 10Km

Cleaning Kit

Applications

- Optical Inspection

Features

- 1.25mm/2.5mm/MPO CleanClicker
- 1.25mm/2.5mm/MPO cleaning sticks
- 90 sheets of cleaning wipes
- Non-hazardous high-purity cleaning fluid engineered for precision optical components
- Portable flashlight
- Portable travel bag

Uptime Kits

Applications

- Headend/CO
- Field Technicians

Features

- Various case sizes
- Watertight, crushproof, dust resistant case
- Customizable
- Included products within a case can consist of a Smart Coder, a meter, jumpers, cleaning supplies, and a variety of transceivers.

Smart Coder

Applications

- Field Technicians
- Central Staging Locations

Features

- Allows users to rapidly reconfigure Integra's transceivers to a desired platform
- Reconfigures SFP, SFP+, XFP, QSFP+ and QSFP28 optics
- Remote support capable
- USB powered
- Intuitive web-based interface
- Displays diagnostic information

33X MORE RELIABLE

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Smart Coder and Uptime Kits

Integra's Smart Coder

Get networks online faster and more cost effective than ever before. Integra's Smart Coder lets you recode Integra transceivers in the field, for any network hardware!

Key Features

- Supports SFP/SFP+, XFP, and QSFP+/QSFP28
- Easy to use application with intuitive web-based interface
- Diagnostics, coding history and configuration options
- Powered by laptop USB port
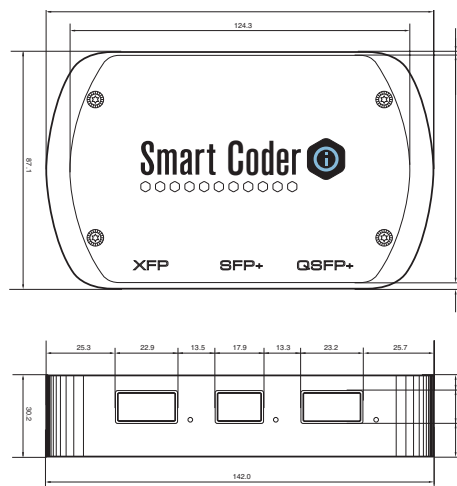
Integra's Uptime Kit

Identify, diagnose, and correct issues on the spot. Originating from customer demand, Integra's Uptime Kit is a "grab and go" solution for when there's an outage or you're in a bind. Select from three case sizes which can have a Smart Coder, a meter, and a combination of transceivers to complete this field-ready customized kit. Turn up networks faster and reduce truck rolls today!
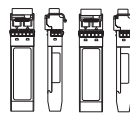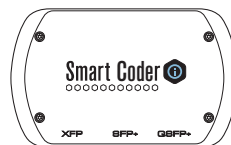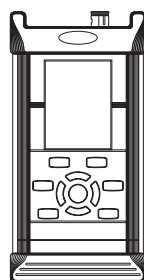
integra optics

Here are some great questions to ask your optics provider

Reliability

- ○ What is your failure rate?
- ○ Do you code and test every transceiver you sell?
- ○ Do you rely on your supplier for coding support?
- ○ Do you offer a remote coding tool?
- ○ Do you have quality control certifications?

Availability

- ○ Do you have inventory available, ready to ship on demand?
- ○ How quickly will you deliver optics to my location?
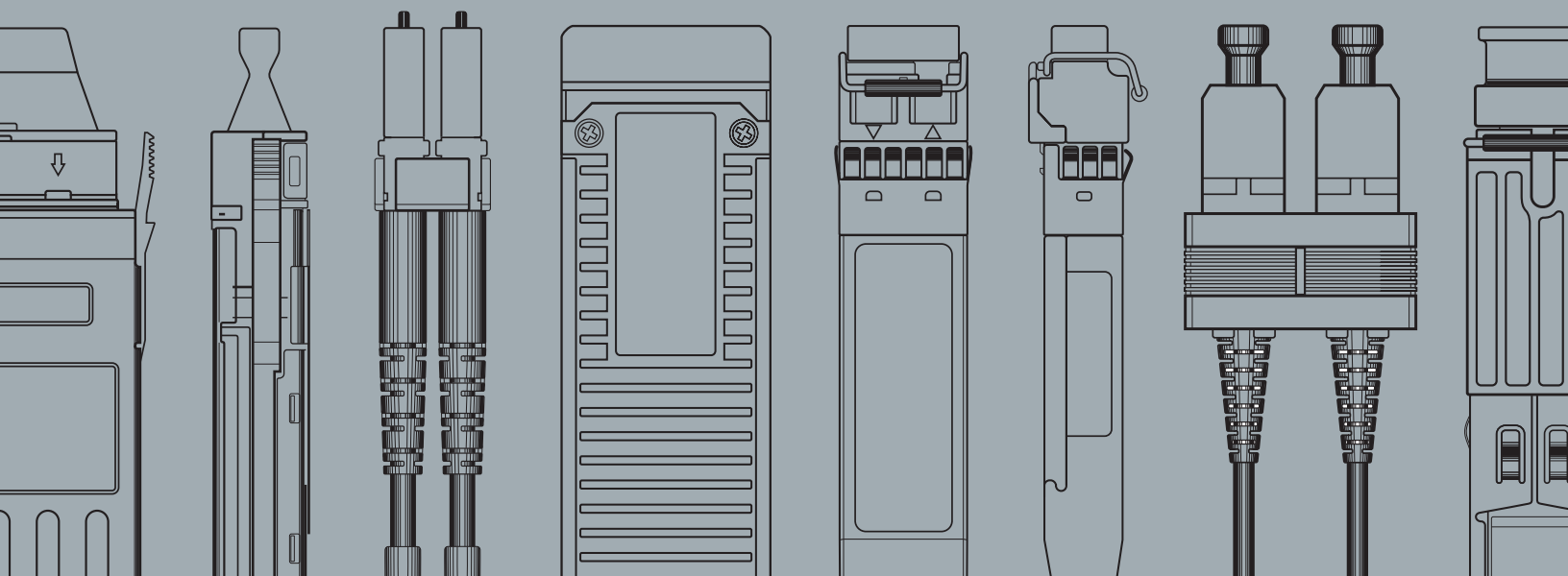- ○ Can you scale up if I need a large order quickly?

Interoperability

- ○ Are there any platforms you don't support?
- ○ Can your optics be coded for other platforms?

Support

- ○ If your parts fail, will you help me get my network up again?
- ○ Can you support my techs if they have trouble in the field?
- ○ What are the most common customer support challenges you face?
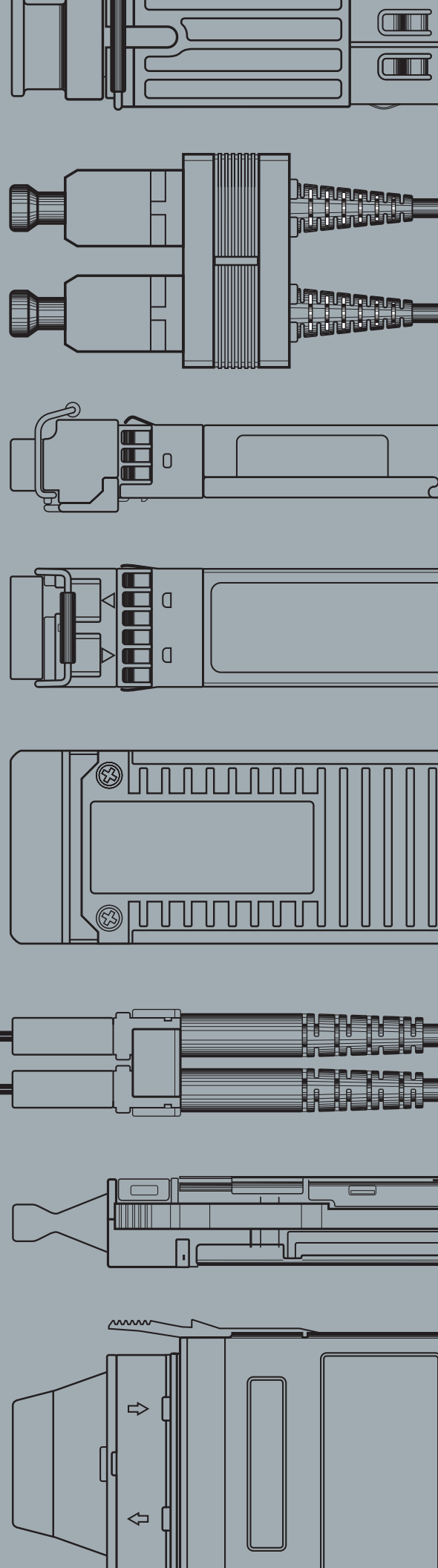
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