2022 Product Catalog

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

Integra carries a vast inventory of the parts our customers need today, so they can have them in their hands tomorrow -- rather than weeks or months -- to help manage their supply chain.

Integra’s optics are interoperable with over 80+ OEM platforms -- a perfect partner when juggling multi-platform networks. Paired with our Smart Coder, this helps reduce both CAPEX and OPEX, helping customers to future-proof their network, spare more efficiently and reconfigure optics from one platform to another.

Integra utilizes both our human and robotics teams to ensure that all optics are triple tested before they leave our facility. We have a dedicated team ensuring that all optics are coded and tested so that they work correctly 100% of the time.

Phone: +1.877.402.3850
Email: integrabd@integraoptics.com
Online: integraoptics.com
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.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Integra Optics</th>
<th>OEM optics</th>
<th>Other 3rd Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identically coded across all OEM platforms</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Engineering support 24/7</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Specifications beyond OEM offerings</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>On-demand availability</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>In-house platform specific coding and testing of all transceivers</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
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<tr>
<td>Engineered, triple-tested, and inventoried in the U.S.A.</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
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<tr>
<td>First quality materials and components for every product</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
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</table>
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.

Why Integra?

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

**Distance**
OEM’s don’t always supply optics to support all 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**
Some transport conditions require very specific transceiver technologies. Integra Optics matches **the situation** with the right transceiver and makes it **work in your platform!**
# OEM Product Sampling

<table>
<thead>
<tr>
<th>Adva</th>
<th>MikroTik</th>
<th>Ekinops</th>
<th>Palo Alto Networks</th>
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<tbody>
<tr>
<td>Arista</td>
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<td>Actelis</td>
<td>Fiberblaze</td>
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<td>Allen Bradley</td>
<td>Force10</td>
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<td>Edgecore Networks</td>
<td>Overture</td>
<td>Xtera</td>
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... AND MANY MORE!
<table>
<thead>
<tr>
<th>Transceivers 1G &amp; 10G</th>
<th>Transceivers 25G</th>
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<tbody>
<tr>
<td><strong>SFP 1G</strong></td>
<td><strong>SFP+ 10G</strong></td>
</tr>
<tr>
<td><strong>Applications</strong></td>
<td><strong>Applications</strong></td>
</tr>
<tr>
<td>• 1000Base-X, MetroE</td>
<td>• 10GBase-X, MetroE</td>
</tr>
<tr>
<td>• LAN/WAN, Backhaul</td>
<td>• LAN/WAN, Backhaul</td>
</tr>
<tr>
<td><strong>Features</strong></td>
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</tr>
<tr>
<td>• Copper, SM or MM interfaces</td>
<td>• Copper, SM or MM interfaces</td>
</tr>
<tr>
<td>• Variable distance support, 100m-160km</td>
<td>• Variable distance support, 100m-100km</td>
</tr>
<tr>
<td>• Bi-Directional, CWDM, DWDM variants available</td>
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<tr>
<td>• Optional C-Temp, E-Temp, I-Temp capable</td>
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<tr>
<td>• Up to 4Gbps</td>
<td>• Up to 11.1Gbps</td>
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<tr>
<td><strong>Protocol Support</strong></td>
<td><strong>Protocol Support</strong></td>
</tr>
<tr>
<td>• 10/100/1000Base-X, SONET/SDH, 1-4G Fibre</td>
<td>• 10GBase-X, SONET/SDH, Fibre Channel, CPRI &amp; OTN</td>
</tr>
</tbody>
</table>

| **SFP 5G**          | **SFP28 28G** |
| **Applications**     | **Applications** |
| • 10GBase-X, MetroE | • 25GBase-X, MetroE |
| • LAN/WAN, Backhaul | • LAN/WAN, Backhaul |
| • Carrier Transport | • Carrier Transport |
| • Data Center | • Data Center |
| **Features**         | **Features**     |
| • Copper, SM or MM interfaces | • SM or MM interfaces |
| • Variable distance supported 100m-40km | • Variable distance supported 100m-40km |
| • Bi-Directional, CWDM, DWDM variants available | • Bi-Directional, CWDM, DWDM variants available |
| • Optional C-Temp, E-Temp, I-Temp capable | • Optional C-Temp, E-Temp, I-Temp capable |
| • Up to 32Gbps | • Up to 32Gbps |
| **Protocol Support** | **Protocol Support** |
| • 10GBase-X, SONET/SDH, Fibre Channel, CPRI & OTN | • 25GBase-X, Fiber Channel & CPRI |

| **XFP 10G**         | **QSFP+ 40G** |
| **Applications**     | **Applications** |
| • 10GBase-X, MetroE | • 40GBase-X |
| • LAN/WAN, Backhaul | • Carrier Transport |
| • Carrier Transport | • Data Center |
| • Data Center | | |
| **Features**         | **Features**     |
| • SM or MM interfaces | • SM or MM interfaces |
| • Variable distance support, 100m-100km | • LC or MPO connectors |
| • Bi-Directional, CWDM, DWDM variants available | • Variable distance support, 100m-40km |
| • Optional C-Temp, E-Temp, I-Temp capable | • Quad lane 4x10G support |
| • Up to 40Gbps | • Up to 56Gbps |
| **Protocol Support** | **Protocol Support** |
| • 10GBase-X, SONET/SDH, Fibre Channel, CPRI & OTN | • 40GBase-X |

| **DWDM Tunable 10G** | **QSFP+ 40G** |
| **Applications**     | **Applications** |
| • 10GBase-ER/ZR     | • 40GBase-X |
| • Carrier Transport | • Carrier Transport |
| • Data Center | • Data Center |
| **Features**         | **Features**     |
| • SFP or XFP | • SM or MM interfaces |
| • Link distance up to 80km | • LC or MPO connectors |
| • Tunable range 1528.77-1566.72 | • Variable distance support, 100m-40km |
| • 50 and 100 GHz spacing | • Quad lane 4x10G support |
| • Up to 11.3Gbps | • Up to 56Gbps |
| **Protocol Support** | **Protocol Support** |
| • 10GBase-ER/ZR, SONET/SDH, Fibre Channel, CPRI & OTN | • 40GBase-X |
Transceivers 100G, 200G & 400G

**QSFP28 100G**

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

**Features**
- SM or MM interfaces
- Variable distance support, 100m-80km
- Quad lane 4x25G support
- Up to 112Gbps
- SR4, LR4, ER4, ZR4, CWDM4/CLR4, PSM4 and Bi-Di variants available

**Protocol Support**
- 100GBase-X & OTN

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**CFP 100G**

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

**Features**
- SM-LC 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 & OTN

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**CFP2 100G**

**Applications**
- 100GBase-X
- LAN/WAN
- Backhaul

**Features**
- SM-LC interfaces
- Link distances up to 40km
- Quad lane 4x25G support
- Up to 112.5 Gbps
- LR4, ER4 and SR10 available

**Protocol Support**
- 100GBase-X & OTN

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**Converters**

**CFP to QSFP28**

**Applications**
- Converts a CFP interface to a QSFP28 interface
- Primary applications align with QSFP28 optical transceivers

**Features**
- Primary features align with QSFP28 optical transceivers
- Brings SR4 capabilities to your CFP interface

**CFP2 to QSFP28**

**Applications**
- Converts a CFP2 interface to a QSFP28 interface
- Primary applications align with QSFP28 optical transceivers

**Features**
- Primary features align with QSFP28 optical transceivers
- Brings SR4 capabilities to your CFP2 interface
## Additional Transceivers

### 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, 2.488Gbps

**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

### QSFP AOC 40G 100G

**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 or 100Gbps
- 1x40G (QSFP-QSFP) and 4x10G (QSFP-SFP+) available or 1x100G (QSFP-QSFP) and 4x25G (QSFP-SFP28)

**Protocol Support**
- 10GBase-SR, 25GBase-SR, 40GBase-SR, 100GBase-SR, Fibre Channel, OTN with support for FEC and OTU4

### 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

### QSFP28 Copper 100G

**Applications**
- Data Center
- Telecom

**Features**
- Direct Attach Copper
- Variable distance support 1m-5m
- Up to 100Gbps
- 1x100G(QSFP-QSFP) and 4X25G (QSFP-SFP28)

**Protocol Support**
- Ethernet, Fibre Channel
**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

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**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

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**Mini Optical Power Meter**

**Applications**
- FTTx
- WAN
- LAN
- RFoG

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

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**OTDR**

**Applications**
- Single Mode Fiber Applications

**Features**
- 3.5 inch, 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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**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**
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- Internal rechargeable lithium battery
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**Features**
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**Features**
- Wavelengths 850/1270/1310/1490/1550/1577
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- 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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... AND MANY MORE!
### Fiber Jumpers

#### Multi-Mode

**Applications**
- Data Centers
- Metro-E
- LAN Systems

**Features**
- OM1 and bend insensitive OM3, OM4 and OM5
- Simplex and duplex and multicore versions
- Available in PVC (OFNR), plenum, indoor/outdoor ruggedized, low smoke zero halogen
- All types of connectors with all types of polish
- Distances ranging from 1-100m+

#### Single-Mode

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

**Features**
- Bend insensitive 9/125μm
- Simplex, duplex, and multicore 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, and more
- All types of connectors with all types of polish
- Distances ranging from 1-100m+

#### MPO Cables

**Applications**
- Data Centers
- FTTx
- Metro-E
- LAN Systems

**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 with further options available
- Distances ranging from 1-100m+

### Passives

#### PLC Splitters

**Applications**
- FTTx
- LAN/WAN Systems
- CATV Systems

**Features**
- Low IL and POL
- 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
- Custom Filter Solutions

#### 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)
# Optical Inspection Scopes

**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
- Wireless Options
- Automatic fiber qualification

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# 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

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# 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

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# 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 or Smart Coder+, a meter, jumpers, cleaning supplies, and a variety of transceivers.

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# Suite of Smart Coders

**Applications**
- Field Technicians
- Central Staging Locations

**Features**
- Allows users to rapidly reconfigure Integra’s transceivers to a desired platform
- Smart Coder: Reconfigures SFP, SFP+, XFP, QSFP+ and QSFP28 optics
- Smart Coder+: Reconfigures SFP, SFP+, XFP, QSFP+, QSFP28, CFP, CFP2 and CFP4 optics
- Smart Coder²: Reconfigures SFP, SFP+, XFP, QSFP+, QSFP28 and QSFP-DD optics
- Remote support capable
- USB powered
- Intuitive App interface
- Displays diagnostic information
### 2022 New Product Specifications

**QSFP-28 DD | 200G**
- **Applications**
  - Data Center
  - Enterprise Networking
- **Features**
  - QSFP28-DD-SR8 (100m distance, MMF)
  - QSFP28-DD-CWDM4-CS (2km distance, MMF)
  - Duplex CS connector
  - QSFP28-DD-LR4-CS (10km distance, SMF)
  - Duplex CS connector
  - 200Gbps Data rate
  - Commercial Temperature
  - QSFP-DD MSA Compliant
  - Digital Diagnostics

**QSFP-56 DD | 400G**
- **Applications**
  - Data Center
  - Enterprise Networking
- **Features**
  - QSFP56-DD-SR8 (100m distance, MMF)
  - QSFP56-DD-DR4 (500m distance, SMF)
  - QSFP56-DD-DR4+ (2km distance, SMF)
  - QSFP56-DD-FR4 (2km distance, SMF)
  - QSFP56-DD-LR4 (10km distance, SMF)
  - QSFP56-DD-4xLR-MPO (10km distance, SMF)
  - 400Gbps Data rate
  - Commercial Temperature
  - QSFP-DD MSA Compliant
  - Digital Diagnostics

**BiDi Tunable | 10G**
- **Applications**
  - 1/10G Ethernet
  - Telecom Networking
  - Data Center Interconnect
  - Compatible with existing passive filters
- **Features**
  - Distances up to 20km
  - Supports 1.2 to 11.3 Gb/s
  - CPRI Rates
  - LC Connector, Simplex SMF
  - Commercial, Extended, and Industrial Temperatures
  - 40 dual-band bidirectional Point-to-Point links in 100GHz ITU grids
  - SFPP MSA Compliant
  - Digital Diagnostics
# 2022 New Product Specifications

## SFP 28 Tunable 25G

**Applications**
- Datacenter 25GbE
- Wireless 4G/5G fronthaul CPRI/eCPRI

**Features**
- Distance up to 15km (KR4 FEC on host)
- Dual rate: 24.33G (CPRI-10) and 25.78G (25GbE)
- 100GHz spacing, Full C-band tunable
- LC Connector, SMF
- Commercial & Industrial Temperature
- SFP28 MSA Compliant
- Digital Diagnostics

## SFP+ Banded Tunable 10G

**Applications**
- 1/10G Ethernet
- Mobile Fronthaul
- CPRI 2-8 and eCPRI
- 1-10G FC
- 10G OTN

**Features**
- Distances up to 40km
- Supports 1Gbps to 11.3 Gbps
- LC Connector, Duplex SMF
- Industrial Temperatures supporting -40 °C to +85 °C
- 5 Band options 9 channels each covering ITU channels 20-60
- QSFP MSA Compliant
- Digital Diagnostics

## QSFP DWDM 40G

**Applications**
- 40G Ethernet
- Compatible with existing DWDM Passive Filters
- Telecom Networking
- Data Center Interconnect

**Features**
- Distance up to 80km (with DCM and EDFA)
- 40G
- Fixed wavelengths on 100GHz ITU Grid
- LC Connector, Duplex SMF
- Commercial
- QSFP MSA Compliant
- Digital Diagnostics

## QSFP56-DD DCO ZR 400G

**Applications**
- Network Access
- Edge Apps
- Data Center Interconnect

**Features**
- Distance up to 120km
- IEEE 400GAD1-8 Ethernet compliant
- 75GHz or 100GHz, Full C-band tunable
- Commercial Temperature
- QSFP+ MSA Compliant
- Digital Diagnostics

## QSFP56-DD DCO ZR+ 400G

**Applications**
- Network Access
- Edge Apps
- Data Center Interconnects

**Features**
- Distance up to 400km at 400G, 2000km at 200G, 5000km at 100G
- Multi-rate IEEE Ethernet
- Full C-band tunable
- Commercial Temperature
- Digital Diagnostics

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Suite of Smart Coders

Now you can spare more efficiently and gain patented flexibility with Integra’s suite of Smart Coder products. These powerful devices give network engineers and field techs the power to quickly reconfigure transceivers for any network hardware. Now with the SmartCoder2 you can save even more time! Our latest product features bluetooth connectivity with mobile app and is battery powered, leaving you the flexibility to code when and where you need to!

<table>
<thead>
<tr>
<th>Features</th>
<th>Smart Coder</th>
<th>Smart Coder+</th>
<th>Smart Coder²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recode SFP/SFP/SFP28</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Recode XFP</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Recode QSFP/QSFP28</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Recode QSFP-DD</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Recode CFP/CFP2/CFP4</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Recode DAC/AOC</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Coding from 1G to 100G</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Coding from 1G to 400G</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Offline Tuning Capabilities</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Remote Assist</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Bluetooth Connectivity</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Battery Powered (no need to plug in)</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Mobile App (iOS and Android)</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Package Options Include:

- Smart Coder
- Travel Bag
- USB Cable
- Installation Guide
- Instructional Video

Additional Product Features:

- Recode transceivers as many times as needed
- Conduct diagnostic monitoring on both Integra and non-Integra brand transceivers (transmit power, receive power, temperature, and more)
- Recode cabled transceivers
- Recode frequently used platforms with our new “Favorites and Searching” functionality
- Quickly recode multiple components to the same platform/finished part with batch coding
- Plug in multiple Smart Coders to the same computer and recode optics in parallel
- Easily select parts and platforms with user-friendly interface
While other optics providers offer products that have the ability to recode optics, Integra’s technology far surpasses other devices:

<table>
<thead>
<tr>
<th>Supported Transceivers</th>
<th>Integra Optics</th>
<th>Competitor 1</th>
<th>Competitor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recode SFP/SFP/SFP28</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Recode XFP</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Recode QSFP/QSFP28</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Recode QSFP-DD</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Recode CFP/CFP2/CFP4</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Recode DAC/AOC</td>
<td>✓</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Transceiver Features</th>
<th>Integra Optics</th>
<th>Competitor 1</th>
<th>Competitor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code Optics to OEM Platform</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>DWDM Wavelength Tuning</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>Real Time Diagnostics</td>
<td>✓</td>
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<table>
<thead>
<tr>
<th>Software Features</th>
<th>Integra Optics</th>
<th>Competitor 1</th>
<th>Competitor 2</th>
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<tbody>
<tr>
<td>Favorites</td>
<td>✓</td>
<td></td>
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<tr>
<td>Batch Coding</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote Support</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Tuning Application</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Compatibility</th>
<th>Integra Optics</th>
<th>Competitor 1</th>
<th>Competitor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile App - Andriod</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile App - iOS</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No AC Connection Required</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Offers Multiple Coding Devices</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While other optics providers may claim to have recoding devices, don’t be afraid to put those claims to the test by asking them to recode a tunable to a 10G or 1G fixed channel, or recode an optic to another platform! Simple demonstrations will highlight product differences!

Integra has a solution for your 10G DWDM inventory issues! Integra’s Tuner allows you to stock a single part without the interface complications of a tunable configured optic. It is as simple as downloading an additional application for the Smart Coder. The Integra Tuner allows you to tune specified DWDM optics to a specific channel before insertion; whatever platform you are using will recognize the optic as a fixed wave part, thus eliminating those interface complications a tunable brings to the table.