Innovative, compact and flexible ZENITH® Pulsed Fiber to Fiber Ytterbium Lasers are perfectly suited for marking applications that require 24/7 “set and forget”, unattended operation.

Select the ZENITH® 10FQ for low to medium speed applications and the ZENITH® 20FQ when higher power/faster process speeds are required. The 20F features upgraded power. Both lasers offer the additional long-term safeguard of built-in, polarization/optical isolators.

Zenith® 10FQ and 20FQ Pulsed Fiber to Fiber Ytterbium Laser Systems

LASER SPECIFICATIONS

Compliance ................................................................. CDRH, CE, UID
Wavelength ........................................................................ 1,060nm
Laser Type ................................................................. Ytterbium Fiber Laser, Galvo Steered
Laser Source .............................................................. Diode-pumped, Fiber to Fiber, Pulsed
Pulse Repetition .......................................................... 20 KHz to 125KHz
Average Power ZENITH® 10FQ ................................... 10 Watts
Average Power ZENITH® 20FQ ................................... 20 Watts
Long term Output Power ............................................ <5% Instability
Peak Power ZENITH® 10FQ .......................................... >4KW
Peak Power ZENITH® 20FQ .......................................... >8KW
Beam Quality ................................................................... M² < 2
Fiber Length ZENITH® 10FQ ......................................... 5 Meters (16 ft) Std.
Fiber Length ZENITH® 20FQ ......................................... 3 Meters (9.8 ft) Std.
Optical Isolator ZENITH® 10FQ .................................... Optional
Optical Isolator ZENITH® 20FQ .................................... Standard
Positioning ...................................................................... Visible Red Diode Light. 636nm

Marking Speed ......................................................... Raster = 300 CPS; Vector>500 CPS
Input Power .............................................................. Selectable 115VAC / 230VAC, 50/60HZ
Cooling ................................................................. Air Cooled, Fan/Filter
Operating Temperature Range ................. 10°C to 42°C Non-Condensing
Expected MTBF (diode) ............................................. Greater than 50,000 hrs.

Examples — Laser marking on Coated Label Stock

Features DATA MATRIX™ 2-D Code Marking Capability — Meets all Department of Defense UID Requirements

Example — Laser marking on Coated Label Stock

Customized Part Handling Options Available

Features DATA MATRIX™ 2-D Code Marking Capability — Meets all Department of Defense UID Requirements

Example — Laser marking on Coated Label Stock
Powered by 110/230VAC with no water-cooling requirements, these units are extremely dependable over a long life, and are backed by a full TWO-YEAR factory warranty on the diode light source — one of the longest warranties in the laser industry.

“All of your employees seem to be willing and able to give that “little bit extra” to make everything go right. The laser marking equipment you have supplied to us thus far has been totally reliable and continues to perform flawlessly, helping Federal-Mogul Corporation reduce costs as it continues to improve product quality. I look forward to a continued relationship with the people I consider my “friends” at Telesis Technologies.”

Best Regards,  
Ed Reinemeyer  
Process Engineer,  
Federal-Mogul Corporation

Features DATA MATRIX™ 2-D Code Marking Capability — Meets all Department of Defense UID Requirements

Zenith® 10FQ and 20FQ Pulsed Fiber to Fiber Ytterbium Laser Systems

DIMENSIONS

Zenith® 10FQ Marking Head .......11.8cm(W) x 17cm(H) x 30.2 cm (L)  
(4.69” W x 6.7” H x 11.9”L)  
Weight 3.8Kg (8 lbs.)

Zenith® 10FQ Laser Controller .............. Standard Rack Mount  
48.3cm (W) x 20cm (H) x 60 cm (L)  
(19”W x 7.8”H x 23.6”L) Weight 24Kg (53 lbs.)

Zenith® 20FQ Marking Head ......11.8cm(W) x 17cm(H) x 70 cm (L)  
(4.69” W x 6.7” H x 17.9”L)  
Weight 7.7Kg (17 lbs.)

Zenith® 20FQ Laser Controller .............. Standard Rack Mount  
48.3cm (W) x 20cm (H) x 60 cm (L)  
(19”W x 7.8”H x 23.6”L) Weight 30Kg (66 lbs.)

SOFTWARE

Software............................................................ Merlin® II LS  
Operating System .........Windows™ 2000, XP, Desktop PC (Std), Optional Laptop  
Font Generation ........................................... True Type Fonts  
Barcodes and Matrix......... 2D Data Matrix TM, PDF417, BC 39, Interleaved 2 of 5, UPC/A/UPCE BC 128, Maxi Code, Code 93, QR Code and Others  
Graphic Formats ............................................. Raster and Vector, BMP, .GIF, .JPG, .WMF, .EMF, .PLT, .DXF  
Serialization ............................... Automatic and Manual Input Host Interface Capable  
Linear Marking ......................... Scalable with Letter Spacing Control  
Arc Text Marking ......................... Scalable and Adjustable  
Drawing Tools ......................... Line, Rectangle, Arc, Circle Interface ................................................ Serial, I/O and Host capable  
Power Monitoring ........ Self-Calibrating, Output Power Feedback and Auto Adjustment