IDPHOTONICS GMBH — SHAPING LIGHT

Mainframe Series for *CoBrite* Laser

Features

- ✓ 19" rack mountable chassis platform
    - ✓ 2 Different chassis variants to scale with your needs
    - ✓ Each available with handles or rack mounting brackets
- ✓ Swappable cards & central controller
- ✓ Scales from 2 to 48 Laser sources per frame
- ✓ 4 lasers per card; ultra high density
- ✓ 3 different Laser types to match your need; mix within one system
- ✓ Installation free, browser based pictographic GUI
- ✓ Remote control
    - ✓ USB & Ethernet connectivity
    - ✓ SCPI Style commands

Applications

- ✓ generation of channel grids for DWDM transport testing
    - ✓ flexible grid testing
- ✓ ready for data rates 100G+
- ✓ Coherent Transmission
    - ✓ Local Oscillator
    - ✓ Transmitter Laser
- ✓ Versatile Light Source

This series of mainframes host our CoBrite MX tunable laser modules. All variants can be equipped with handles and rubber feet for bench-top use or brackets for 19inch rack mount usage.

Remote operation via an integrated web server allows control using any browser-based device such as smartphones eliminating the need for complex software installations.

Automated remote control is achieved via USB or Ethernet by SCPI command control. It empowers users to setup and perform complex automated tasks within minutes.
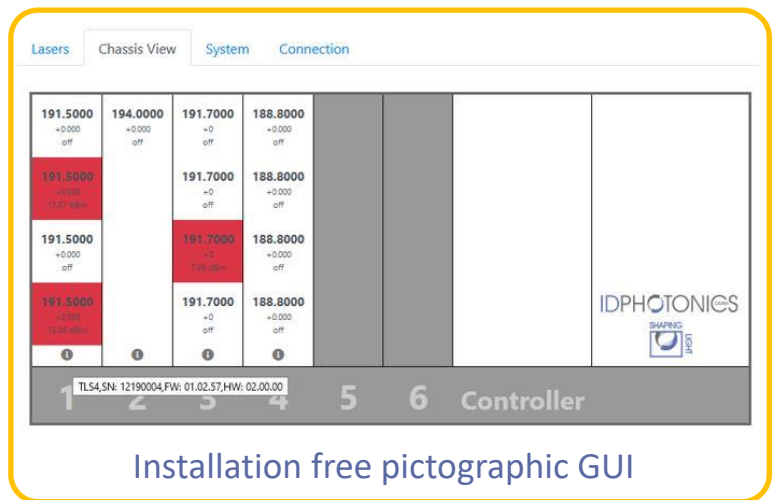
CBMA24
This mainframe is designed for low to medium channel counts and hosts up to 6 cards that allows to for up to 24 lasers in a compact chassis.

CBMA48
Is the core mainframe for demanding applications as it hosts up to 12 cards with 48 lasers. For applications requiring more than 48 laser ports, extensions via multiple CBMA48 chassis is possible.

Mainframe Chassis Specifications

Parameter	CBMA24	CBMA48
Module Capacity	6	12
Ports	1x Ethernet back, 1x Ethernet front, 1x USB front	
Control & Automation	Installation free, browser based pictographic GUI, SCPI style commands	
Operating Temperature	0 to 40°C, non-condensing	
Storage Temperature	-20°C to 60°C, non-condensing	
Dimensions, weight (W x H x D)	345 x 152 x 380mm, 4 kg (13 x 6 x 15 inch), 8.8 lbs	482 x 152 x 540mm, 8kg (19 x 6 x 21 inch), 17.6 lbs
Laser Safety Interlock	Key located in front, Software based interlock	
Power Supply	100-240 VAC, 50/60Hz, 10A, 150W (CBMA24) – 300W (CBMA48)	

For available slide-ins see separate Data sheet

Installation free pictographic GUI

RoHS compliant

Invisible Laser Radiation
Class 1M Laser Product
EN 60825-1: IEC 60825-1

Ordering Information – Mainframe Chassis

CB	-XXXX
Article	Variant
CoBrite	**MA24**
Chassis	**MA48**

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ID PHOTONICS GMBH

CoBrite – Tunable Laser Series

Features

- ✓ Versatile CW Laser Light source
- ✓ Tune to any Frequency within specified range
- ✓ Ultra compact; 4 laser per card
- ✓ Polarization Maintaining Fiber
- ✓ Local On/off switch at each port
- ✓ FC/ APC, FC/PC or SC/PC connector type

Choose from 3 Laser types

Narrow Linewidth (N – type)

- ✓ Typical Line width < 25kHz
- ✓ Output power tunable up to 16dBm
- ✓ Ultra wide frequency tuning range
- ✓ C and L Band versions available
- ✓ Customizable on request

Standard Linewidth (S – type)

- ✓ Typical Line width 80kHz
- ✓ Output power tunable up to 17.8dBm
- ✓ Fast tuning: 1 Second typical
- ✓ Low frequency noise
- ✓ Cost efficient coherent transmission

Generic Light source (G – type)

- ✓ General purpose tunable laser with standard tuning range, 100kHZ Linewidth

Our *CoBrite_{MX}* tunable Laser modules offer full **continuous** tuneability over C- or L-band utilizing 3 different laser types to meet any application from ultra narrow linewidth coherent transmission to DWDM comb generation.

The laser types can be mixed within a single mainframe chassis.

Its Polarization maintaining output with up to 17.8dBm of output power makes it an ideal source for emulation of DWDM channels by external modulation.

CoBrite_{MX} tunable laser modules are hosted in a variety of mainframes that scale from 4 Lasers up to 104 laser sources in one system to match your application.

Optical Specifications

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Optical Parameter		Laser Type N	Laser Type S	Laser Type G	Unit
Frequency range;	C – Band	190.70 – 196.65 (1524.5 - 1572nm)	191.12 – 196.25 (1527.6 – 1568.6nm) Not available	191.1 – 196.25 (1527.61 – 1568.77nm) Not available	THz
	L – Band	186.00 – 191.1 (1568.8 – 1611.7nm)			
	X – Band	184.30 - 190.5 (1573.7 - 1626.65nm)			
	C + L – Band (LC)	186.00 - 196.65 (1524.5 - 1611.7nm)			
Channel Spacing		Continuous	Continuous	Continuous	GHz
Frequency fine tune resolution		1	10	1	MHz
Frequency fine tune range		+/- 6	+/- 10	+/- 6	GHz
Optical Power tuning range for any frequency	C Band	10.0 – 16.0	8.8 – 17.8 (17.0 dBm EOL)	9.5 – 15.5	dBm
	L Band	9.0 – 14.5		-	
	X Band	13 - 16	–		
	C + L Band	6.8 – 10.5			
Spectral Line width; 3dB instantaneous, 3.5us (Lorentzian contribution)		< 100 25 typical	80 typical < 100 (Pout < 16dBm) < 150	< 100 25 typical	kHz
Frequency accuracy over Lifetime Over 24 hours		+/- 2.5 0.3	+/- 1.5 0.3	+/- 2.5 0.3	GHz
SMSR; Side mode suppression ratio; measured with 0.1nm RBW		> 40 55 typical	> 40	> 40 55 typical	dB
RIN (10MHz to 3GHz)		-145 (10 MHz to 22GHz, 11dBm)	-140 (100kHz – 20MHz), average -150 (20MHz – 1GHz)	-145 (10 MHz to 44GHz, 7dBm)	dB/Hz
Power accuracy over tuning range		+/- 0.5	+/- 0.5	+/- 0.5	dB
Tuning speed (max/typical)		15 / 10	2 / 1.0	15 / 10	s
Output Connector		FC/APC, FC/PC or SC/PC			
Output power accuracy over Lifetime Over 1 hour Over 24 hours		-/+1 +/- 0.01 (typ.) +/- 0.03 (typ.)			dB
Output power setting resolution		0.1			dB
Optical Fiber		Polarization- maintaining PANDA type Fiber, PER > 18dB, 25typ.			

Inquire for customized parameters

Ordering Information

CBMX	-XY-XY-XY-XY	-XX
Article	Variant	Connector
*CoBrite*MX	X: Laser Type (**N,S,G***) Y: Laser Band - (**C, L**) band XY = **NN**: No laser equipped 2 or 4 laser ports only	**FA** = FC/APC **FP** = FC/PC **SP** = SC/PC

RoHS compliant

Invisible Laser Radiation Class 1M Laser Product EN 60825-1: IEC 60825-1

* APC type connector only

V2-2.8.1

Subject to change without further notice