

# Mainframe Series for *CoBrite*<sub>MX</sub> Laser

## Features

- ✓ 19" rack mountable chassis platform
  - ✓ 3 Different chassis variants to scale with your needs
  - ✓ Each available with handles or rack mounting brackets
- ✓ Swappable cards & central controller
- ✓ Scales from 4 to 104 Laser sources per system
- ✓ 4 lasers per card; ultra high density
- ✓ 3 different Laser types to match your need; mix within one system
- ✓ Easy-to-use 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*<sub>MX</sub> tunable laser modules. All variants can be equipped with handles and rubber feet for bench-top use or brackets for 19inch rack mount usage.

### *CBMA*<sub>24</sub>

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.

### *CBMA*<sub>48</sub>

Is the core mainframe for demanding applications as it hosts up to 12 cards with 48 lasers and provides central control for our *PMUX* multiplexing solution.

### *CBSL*<sub>56</sub>

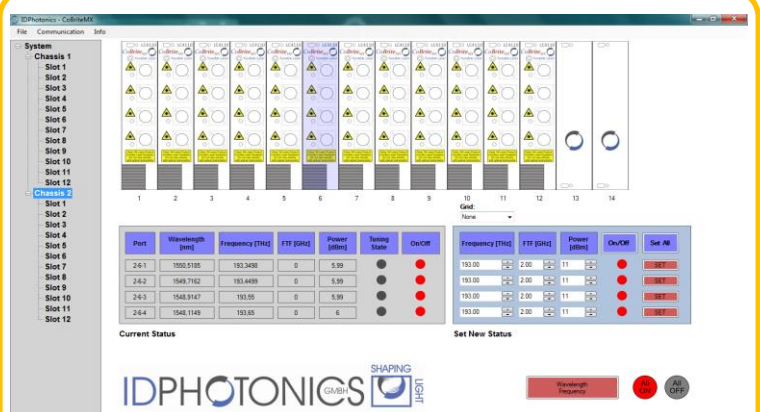
Is controlled by a *CBMA*<sub>48</sub> mainframe and extends system capacity by another 14 slots to scale up to 104 laser channels in one integrated system.

## Mainframe Specifications

Parameter	CBMA24	CBMA48	CBSL56
Module Capacity	6	12	14
Ports	1x Ethernet, 1x USB front, 1x USB rear		
Control & Automation	Windows based pictographic GUI, SCPI style commands		
Operating Temperature	0 to 40°C, non-condensing		
Storage Temperature	-20°C to 60°C, non-condensing		
Dimensions (W x H x D)	345 x 152 x 380mm (13 x 6 x 15 inch)	482 x 152 x 540mm (19 x 6 x 21 inch)	482 x 152 x 540mm (19 x 6 x 21 inch)
Laser Safety Interlock	Key located in front, Software based interlock		
Power Supply	100-240 VAC, 50/60Hz, 10A		



For available slide-ins  
see separate Data sheet



Pictographic GUI



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

## Ordering Information

CB	-XXXX
Article	Variant
CoBrite <sub>MX</sub>	MA24
Chassis	MA48
	MA48-SL
	(extendible by CBSL56)
	SL56

## Contact information

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# CoBrite<sub>MX</sub> – Tunable Laser Series

## Features

- ✓ Ultra compact; 4 laser per card
- ✓ Polarization Maintaining Fiber
- ✓ Local On/off switch at each port

## Continuously tunable Variant

- ✓ Line width < 100kHz
- ✓ Output power tunable from 6.0dBm up to 16.0dBm
- ✓ tunable to any Frequency; 1MHz step size Fine Tuning

## ITU Grid tunable Variant

- ✓ Typ. Line width 300kHz
- ✓ tunable to 50GHz ITU Grid, +/-15GHz; 100MHz step Fine Tuning
- ✓ Cost efficient coherent transmission

## General purpose tunable Variant

- ✓ General purpose tunable laser at cost of a DFB source
- ✓ tunable to 50GHz ITU Grid
- ✓ Ultra cost efficient

## Applications

- ✓ DWDM transport testing
  - ✓ flexible grid testing
- ✓ ready for data rates 100G+
- ✓ coherent Transmission
  - ✓ Local Oscillator
  - ✓ Transmitter Laser



Our CoBrite<sub>MX</sub> tunable Laser modules offer either full **continuous** tuneability over C- and L-band or cost efficient ITU Grid tuning with an unmatched density of up to 4 Lasers per card.

Coherent transmission testing is enabled by line width support.

Its Polarization maintaining output with up to 16dBm of output power makes it an ideal source for emulation of DWDM channels by external modulation.

CoBrite<sub>MX</sub> 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

Optical Parameter	Continuous tuning Laser (H01)	ITU Grid tuning Laser (C01)	Standard ITU tunable Laser (W01)	Unit
Frequency range; C – Band L – Band C&L – Band	191.3 – 196.25 186.35 – 190.95 <b>186.25 - 196.25</b>	191.7 – 196.1 186.5 – 190.9 –	191.7 – 196.1 186.5 – 191.1 –	THz
Channel Spacing	Continuous	50	50	GHz
Frequency fine tune resolution	1	1	–	MHz
Frequency fine tune range	+/- 12GHz	+/- 15GHz	–	GHz
Optical Power range C Band L Band C&L Band	6 – 15.5 7 – 14 3 – 10	15.5 14 –	8 – 14 5 – 11 –	dBm
Spectral Line width; 3dB instantaneous, 3.5us (Lorentzian contribution)	< 100 25kHz typical	Typical : 300 Max: 500	Typical : 800 Max: 5000	kHz
Frequency accuracy over Lifetime Over 24 hours	+/- 1.5 +/- 0.3GHz		+/- 1.8	GHz
SMSR; Side mode suppression ratio	>40 (50typ.)		>40 (45typ.)	dB
RIN (10MHz to 3GHz)	< -145 (up to 40GHz)		<-145	dB/Hz
Output Connector	FC/APC, FC/PC or SC/PC		FC/PC or SC/PC	
Output accuracy over Lifetime Over 1 hour Over 24 hours	-/+1 (1.3 for C&L Band) +/- 0.01 (typ.) +/- 0.03 (typ.)			dB
Output power setting resolution	0.01			dB
Optical Fiber	Polarization- maintaining PANDA type Fiber, PER > 20dB, 25typ.			

## Ordering Information

CBMX	-X	-X	-XXX	-XX
Article	No of Lasers	Band	Variant	Connector
<b>CoBrite<sub>MX</sub></b>	4*	C = C - Band	H01	FA = FC/APC
	2	L = L – Band	C01	FP = FC/PC
	1	CL =C&L Band	W01	SP = SC/PC

\* no C&L Band

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