



PART NUMBER 40A-52A-64A-78A-16
 ITEM NAME MULTI-WAVELENGTH LASER; SMA PORT (405 NM, 520 NM, 638 NM, 785 NM)

PRODUCT DATASHEET



DESCRIPTION

A multi-wavelength laser featuring 4 laser diodes integrated within an ultra-compact 'Matchbox' housing with an SMA port (for MM fiber). A classical dichroic mirror combining technique is used in combination with our proprietary micro-optics assembly to make this system both economical and compact. All optics and electronics are fitted into the 'Matchbox' housing. Combined wavelengths are standard for use in Life Sciences, Food sorting, Metrology, and Medical applications. An easy-to-use PC interface and separate TTL inputs allow full control over the individual wavelengths.

Features:

- Four wavelengths
- Plug-and-play
- Single user interface for all 4 wavelengths

Advantages:

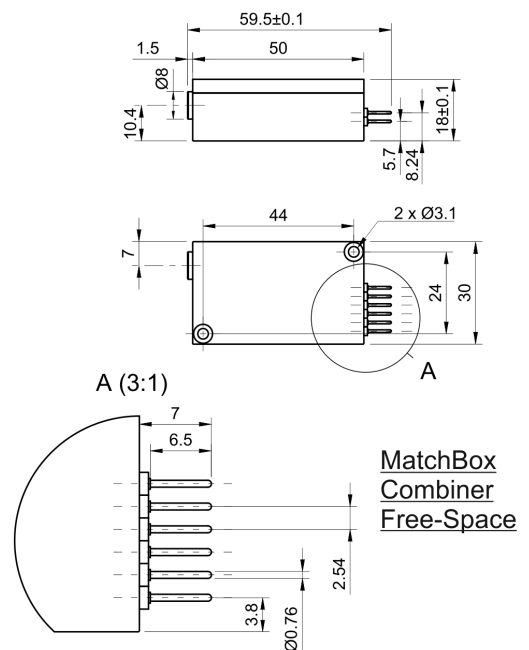
- Space-saving design
- No optics realignment
- Remote PC control

SPECIFICATIONS

Specifications updated: 25 April 2022

Parameter	Minimum Value	Typical Value	Maximum Value
Output power, mW	-	405 nm - 100 520 nm - 70 638 nm - 100 785 nm - 100	-
Wavelength Tolerance	-	+/-5 nm	-
Longitudinal Modes	-	Multiple	-
Spectral line width FWHM, nm	-	1	2
Fiber Core Diameter	-	105 µm, 200 µm, 400 µm (+/- 2%)	-
Power stability, % (RMS, 8 hrs)	-	0.2 ¹	1
Intensity noise, % (RMS, 20 Hz to 20 MHz)	-	0.2 ²	1
Transversal Mode	-	multimode (top-hat-like)	-
Control Interface	-	UART 3	-
Operation Mode	-	ACC (CW)	-
Input voltage, VDC	-	9	12
External Power Supply Requirement	-	+9 V DC, 1.5 A	+12 V DC, 1.5 A
Dimensions, mm	-	50 x 30 x 18	-
Heat-sinking requirement, °C/W	-	<0.5	-
Optimum heatsink temperature, °C	-	20	-
Warm-up Time (Cold Start)	-	< 1 min	-

DRAWING



Temperature Stabilization	-	Internal TEC	-
Overheat Protection	-	Yes	-
Storage temperature, °C (non-condensing)	-	-	-
Net weight, kg	-	0.2	-
Max. power consumption, W	-	2	-
Warranty, months (op. hrs)	-	14 (10000) ⁴	-
RoHS	-	Yes	-
CE Compliance	-	- General Product Safety Directive (GPSD) 2001/95/EC - (EMC) Directive 2004/108/EC	-
OEM Lasers Are Not Compliant With	-	IEC60825-1:2014 (compliant using additional accessories)	-

¹ The long term power test is carried out at constant laser body temperature (+/-0.1 °C) using an optical power meter with an input bandwidth of 10 Hz. The actual measurement rate has a period of about 20 seconds to 1 minute.

² Noise level is measured with a fast photodiode connected to an oscilloscope. The overall system bandwidth is from 2 kHz to 20 MHz.

³ The break-out-box AM-C9 can be used for conversion of UART communication to USB.

⁴ Whichever occurs first.

Note: Product specifications are subject to change without prior notice to improve reliability, function or design or otherwise.