



PART NUMBER 52A-78A-XXY-XXY-11
 ITEM NAME MULTI-WAVELENGTH LASER; FREE-SPACE (520 NM, 785 NM)

PRODUCT DATASHEET



DESCRIPTION

A widely configurable 2-wavelength dichroic laser featuring precisely co-aligned optical paths in a free-space output configuration. All optics and electronics fitted into the ultra-compact 'Matchbox' housing. This particular configuration combines wavelengths, which are standard for use in Life Sciences, Food, Metrology, and Medical applications. An easy-to-use PC interface and separate TTL inputs allow full control over the individual wavelengths.

Features:

- Two wavelengths
- Plug-and-play
- Single user interface for both wavelengths

Advantages:

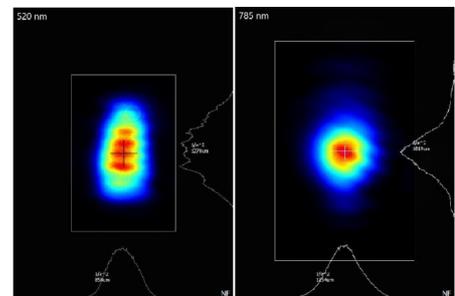
- Space-saving design
- No optics realignment
- Remote PC control

SPECIFICATIONS

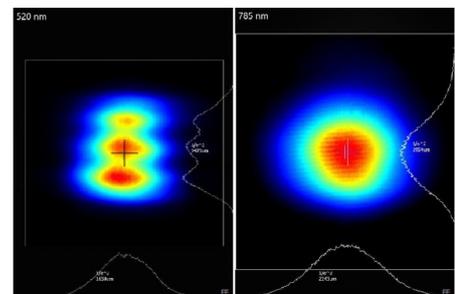
Specifications updated: 28 May 2021

Parameter	Minimum Value	Typical Value	Maximum Value
Output power, mW	-	520 nm - 80 785 nm - 150	-
Wavelength Tolerance	-	+/-3 nm	-
Longitudinal Modes	-	Multiple	-
Spectral line width FWHM, nm	-	1	2
Power stability, % (RMS, 8 hrs) at 20 °C	-	0.2	1
Intensity noise, % (RMS, 20 Hz to 20 MHz)	-	0.5 ¹	1
Transversal Mode	-	TEM00	-
Polarization direction	-	Horizontal	-
Polarization contrast	520 nm - 50 785 nm - 10	520 nm - 300 785 nm - 100	-
Control Interface	-	UART ²	-
Operation Mode	-	ACC (CW)	-
Input voltage, VDC	8	9	12
External Power Supply Requirement	-	+9 V DC, 1.5 A ³	+12 V DC, 1.5 A
Dimensions, mm	-	50 x 30 x 18	-
Beam height from the base, mm	-	10.4	-
Heat-sinking requirement, °C/W	-	<0.5	-

TYPICAL NEAR FIELD

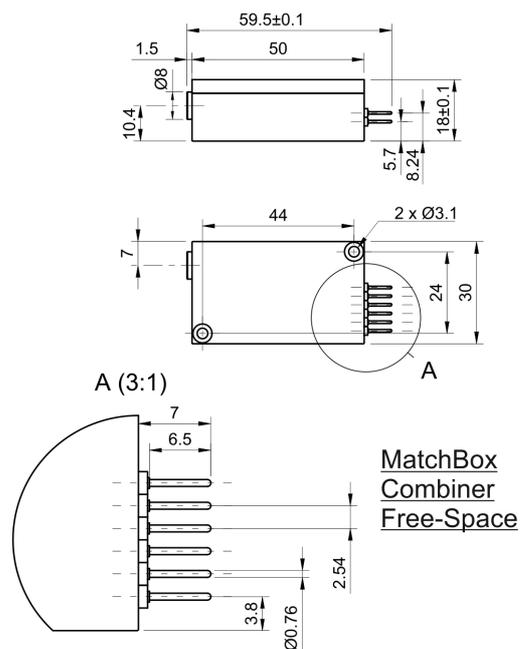


TYPICAL FAR FIELD



Optimum heatsink temperature, °C	-	20	25
Warm-up Time (Cold Start)	-	< 1	2
Temperature Stabilization	-	Internal TEC	-
Overheat Protection	-	Yes	-
Storage temperature, °C (non-condensing)	-	-	-
Net weight, kg	-	0.3	-
Max. power consumption, W	-	2 ⁴	18
Warranty, months (op. hrs)	-	14 (10000) ⁵	-
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)	-

DRAWING



¹ Noise level is measured with a fast photodiode connected to an oscilloscope. The overall system bandwidth is from 2 kHz to 20 MHz.

² The break-out-box AM-C9 can be used for conversion of UART communication to USB.

³ If the break-out-box AM-C9 is used, a PD (Power Delivery) type of power supply can be used.

⁴ For single enabled wavelength.

⁵ Whichever occurs first.

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