

# ZMI 7705 Laser Head

P/N's	POWER	COMBABILITY
8070-0902-11	>250 $\mu$ W	ZMI 510
8070-0902-12	>350 $\mu$ W	
8070-0902-13	>250 $\mu$ W	ZMI 501/501A
8070-0902-14	>350 $\mu$ W	

PHYSICAL CHARACTERISTICS	
Dimensions	See Figure
Weight	1.0 Kg
Materials	Aluminum, ABS
Nominal Cable Clearance	102 mm

ELECTRICAL	
Power Requirements (max)	+15 VDC $\pm$ 0.5 V @ 0.6 A
Power Dissipation (max)	7 W during operation 9 W during warm-up

LASER CHARACTERISTICS	
Type	Helium-Neon, CW, heterodyne, linearly polarized
Output Power	See P/N section
Beam Diameter (1/e <sup>2</sup> ):	4.1 $\pm$ 0.3 mm
Beam Pointing Stability	0.2 mrad

LASER CHARACTERISTICS CONTINUED	
Time from turn-on to laser light	<30 sec typical
Time to wavelength stability	$\leq$ 15 minutes
Frequency Difference	3.6 MHz $\pm$ 0.3 MHz
Nominal Vacuum Wavelength	632.992 nm
Vacuum Wavelength Lifetime Accuracy	$\pm$ 0.2 ppm
Vacuum Wavelength Stability	0.01 ppm/1 hr 0.02 ppm/24 hrs
DHHS Laser Safety Classification	Class II, conforms to NCDRH regulations

ENVIRONMENTAL	
Operating Temperature	10 to 30°C
Non-operating Temperature	-40 to 75°C
Operating Humidity	0 to 90%, noncondensing
Non-operating Humidity	0 to 90%, noncondensing
Shock (non-operational)	11 msec 40g shock on each of three orthogonal axes

