

# M1211-aQ110-3-(A/R)

## Acousto-Optic Modulator

FOR USE WITH HIGH POWER VISIBLE LASERS\*



1114

### SPECIFICATIONS

A/R Operating Wavelength:	532nm
Centre Frequency:	110MHz
RF Bandwidth:	20MHz
Input Impedance:	50Ω( Nominal)
Input VSWR:	<1.5:1 @ 110MHz

	<u>Minimum</u>	<u>Typical</u>
Diffraction Efficiency:	85%	90%
Active Aperture Height (at Bragg Point A) **:	2.7mm	3.0mm
Optical Insertion Loss:	3%	2.2%
Reflectivity/surface:	0.7%	0.5%
DC Contrast Ratio:	1000:1	2500:1

Laser Polarization:	Vertical, Perpendicular to Base
First order orientation:	Towards transducer preferred.
Water Cooling (Min):	250ml/minute @ 25 degC Anti-corrosion additives recommended
Outline Dimensions:	(See reverse side)

### PERFORMANCE vs. WAVELENGTH

Wavelength (nm):	515	532
RF Drive Power (Watts):	12 (Nominal)	14 (Nominal)
Bragg Angle (mrad):	4.9	5.1
Separation Angle (mrad)	9.9	10.2

### PERFORMANCE vs. BEAM DIAMETER

Beam Diameter (mm):	3.0	2.0	1.0	0.5
Risetime (nsec):	342	227	113	57
Video Bandwidth (MHz):	1	1.5	3	6.1

#### **Notes:**

\* The performance of the Model 1211 was evaluated using a 20W Argon-ion laser with various input beam diameters and optical power levels. These tests were conducted continuously over a period of several months. Throughout, the Model 1211 performed exceptionally well, particularly in terms of beam pointing stability and low wavefront distortion

\*\* Aperture height specified to FWHH points

### RF Drive Electronics

RFA2110 (water cooled) or RFA910-110 (air cooled)

#### **ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

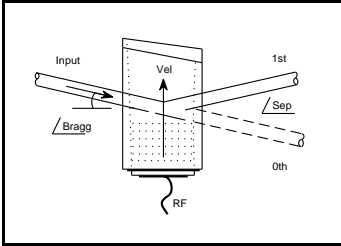
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#### **Quality Assured.**

**In-house: Crystal Growth,  
Optical Polishing,  
A/R coating, Vacuum Bonding**

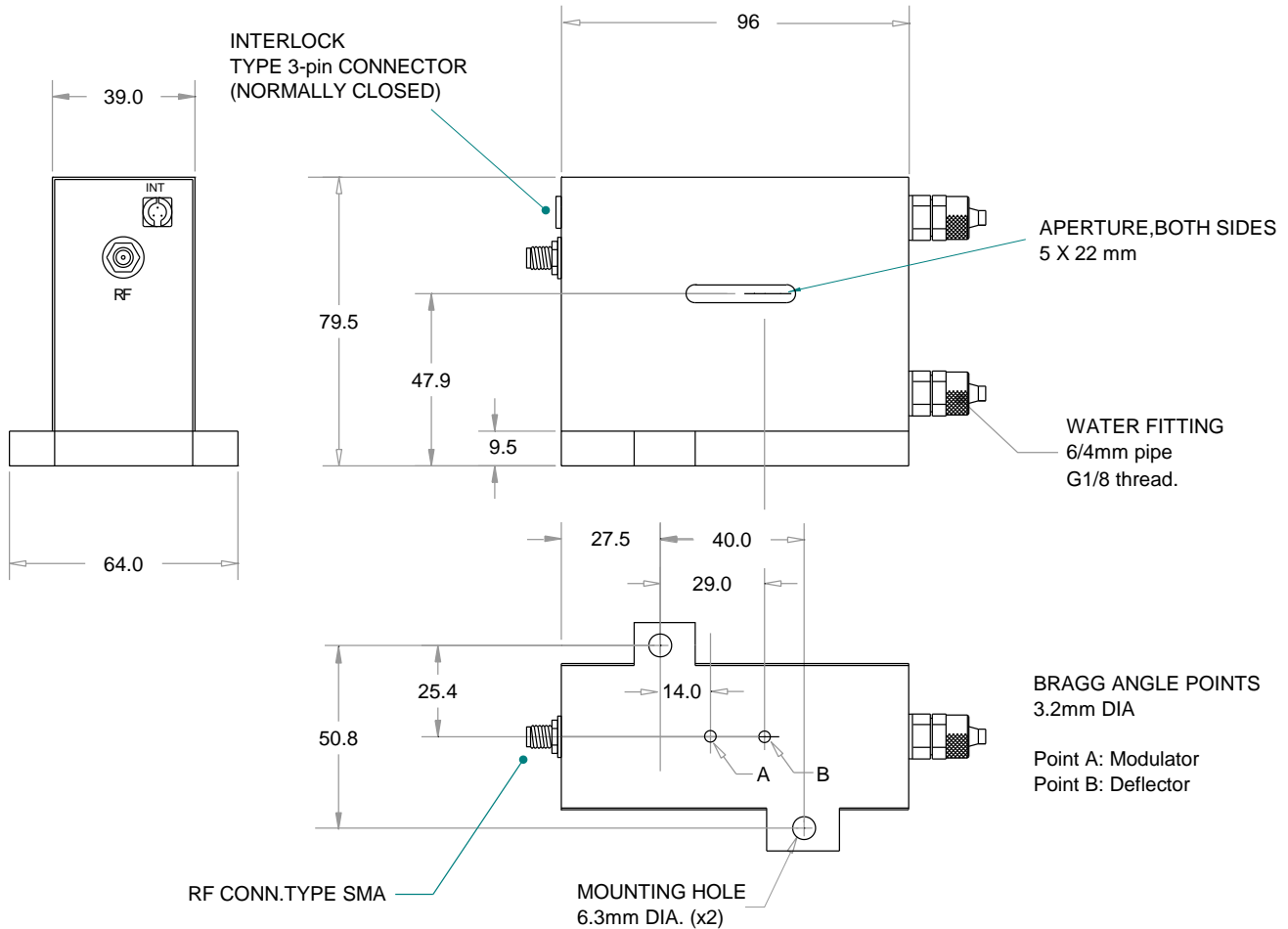


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### OUTLINE DRAWING



Cooling water required for RF powers exceeding 4W average.  
An internal isolated thermal interlock switch opens at 35°C

Water cooled case parts are Aluminium.  
It is recommended that a corrosion inhibitor is added to the cooling system.

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