

# LS600-1011

## High Power AO Deflector



1106

### APPLICATIONS

- IR Imaging
- Raster/Random Access Deflection
- Frequency Shifting
- Laser Radar (Ranging, Tracking, etc.)
- Industrial (Machining, Hole Punching, etc.)

### FEATURES

- High Speed
- High Resolution
- All Solid-State
- High Optical Power Capability
- Minimal Intensity Variation

The LS600-1011 has been designed to maintain the Bragg relationship over the specified FM bandwidth. This provides minimal variation of the 80% diffraction intensity across the full scan angle.

### SPECIFICATIONS (TYPICAL)

Operating Wavelength:	9.27 $\mu$ m (standard)	
Interaction Material:	Germanium	
Centre Frequency (fc):	70MHz	
FM Bandwidth:	40MHz	
Diffraction Efficiency:	80%	
D/E Variation vs. Freq.:	<5% (with power and phase programming)	
RF Power for Max. D/E	<240 Watts	
Static Insertion Loss:	<4%	
Optical Power (max):	600Watts (CW full aperture)	
Bragg Angle:	59.0 mrad.	
Separation Angle:	118.0 mrad. (@ fc)	
Scan Angle:	67.4 mrad.	
Active Aperture**:	10mmH x 40mmW	10mmH x 60mmW
Access Time:	7.3 $\mu$ sec	10.9 $\mu$ sec
Resolution:	290	436
Laser Polarization:	Linear, Horizontal	
Water Cooling (Minimum):	1Liter/Min. @ 20°C	
Drive Electronics***:	iDDS-2, RFA-1160/4	

\* Optional designs are available for other wavelengths in the 2.5 $\mu$ m - 11.2 $\mu$ m range.

\*\* Custom aperture sizes up to 10mmH x 75mmW are available.

\*\*\* The RFA1160/4 exhibits progressive phase shifting across four RF output channels. Used with iDDS-2 programmable frequency source, it is possible to compensate for the variation in efficiency across the scan. Their use with the LS-600-1011 is recommended for optimum system performance.

#### ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

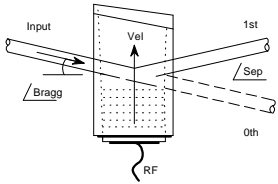
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#### Quality Assured.

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



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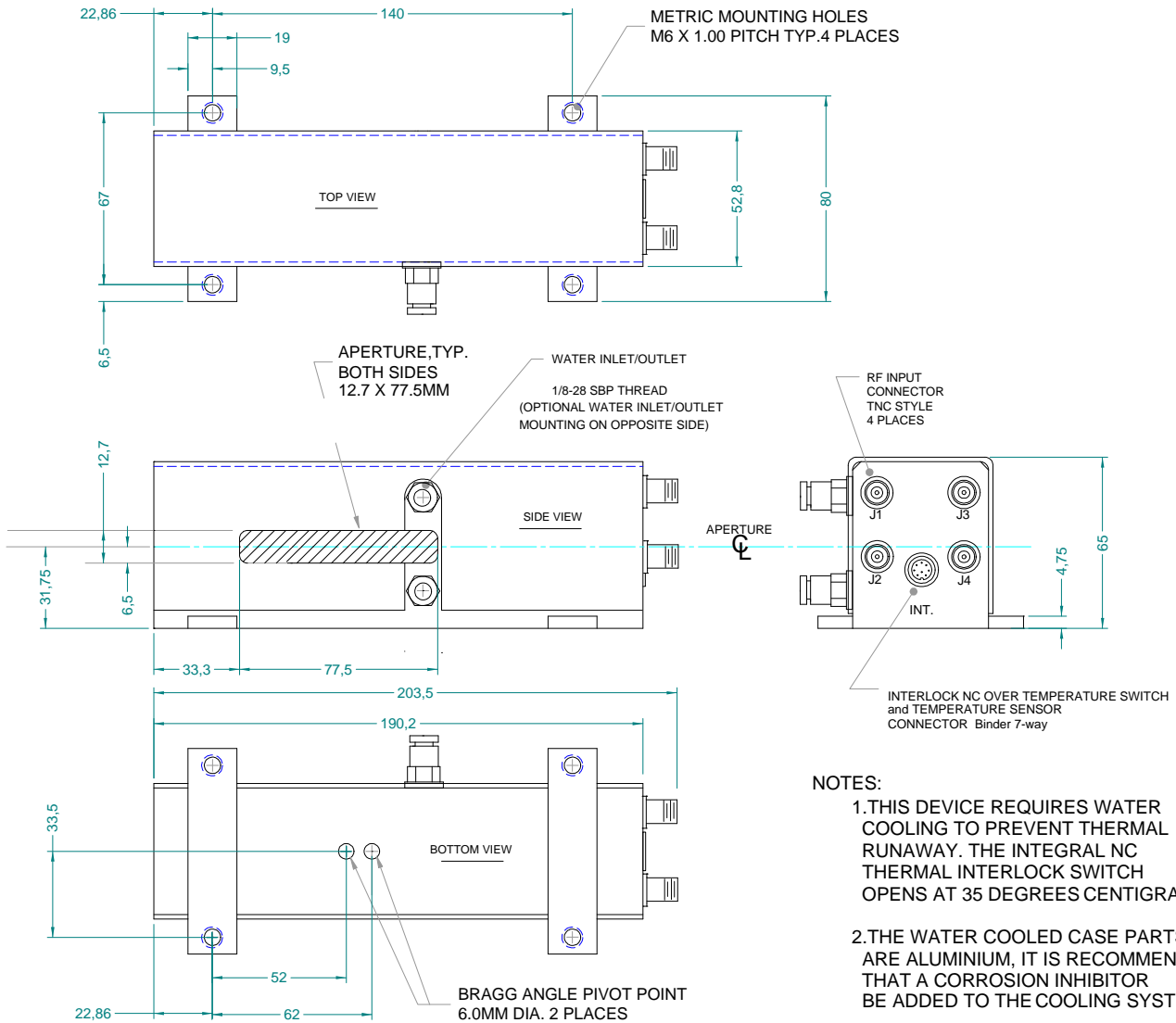
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### OUTLINE DRAWING

Dimensions: mm



#### NOTES:

1. THIS DEVICE REQUIRES WATER COOLING TO PREVENT THERMAL RUNAWAY. THE INTEGRAL NC THERMAL INTERLOCK SWITCH OPENS AT 35 DEGREES CENTIGRADE.
2. THE WATER COOLED CASE PARTS ARE ALUMINIUM, IT IS RECOMMENDED THAT A CORROSION INHIBITOR BE ADDED TO THE COOLING SYSTEM.

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