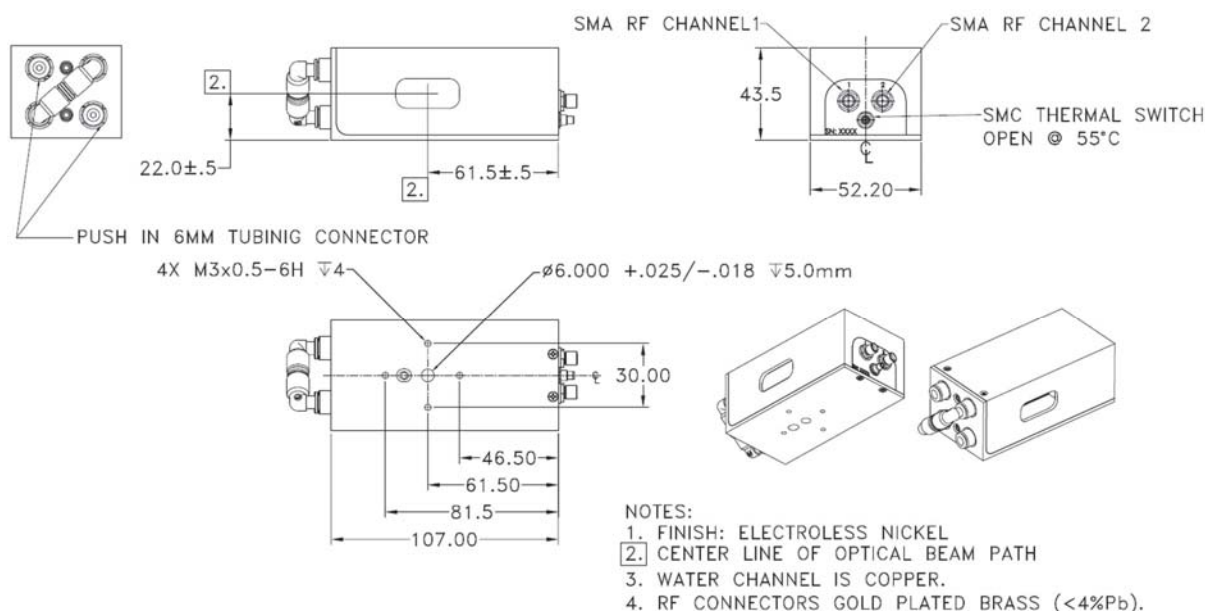


97-03477-01 Specification:

Model No:	4050
Device:	AO Modulator
Interaction material:	Germanium
Wavelength:	9.1 – 9.5 μm
Maximum optical power density:	50 W/mm ² @ 9.1 – 9.5 μm
AR coating reflectivity:	< 0.5% @ 9.1 - 9.5 μm
Transmission:	$\geq 96.0\%$ @ 9.1 - 9.5 μm (> 96.5% @ 9.4 μm)
Scratch/Dig:	40:20 as defined by MIL specification
Frequency:	40 - 60 MHz
Optical polarisation:	Linear, horizontal (parallel to base)
Active aperture:	11.6 mm
Active aperture centre position:	22.0 mm $\pm$ 0.5 mm (from device base)
Acoustic mode:	Compressional
Separation angle @ 9.4 μm :	68 mrad at 40 MHz, 103 mrad at 60 MHz
Beam incidence angle to housing:	34.0 mrad $\pm$ 17.5 mrad @ 9.1 - 9.5 μm
Rise-time (10-90%):	120 ns/mm
Acoustic delay time (0 – 50%):	3 μs to centre of aperture
Diffraction efficiency:	$\geq 90\%$ @ 9.1 - 9.5 μm , 40 - 60 MHz
Maximum RF power:	150 W
Optical Path length:	20.5 mm
AO cell centre position:	Centre of pivot hole ± 0.5 mm
Optical face parallelism:	$\leq 1''$
Water cooling:	> 1 litre/minute at $\leq 25^\circ\text{C}$
Water fittings:	Push fit connectors for 6 mm OD pipe
Housing design/dimensions:	Refer to drawing below



Document

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Control

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As part of our policy of continuous product improvement we reserve the right to change specifications at any time