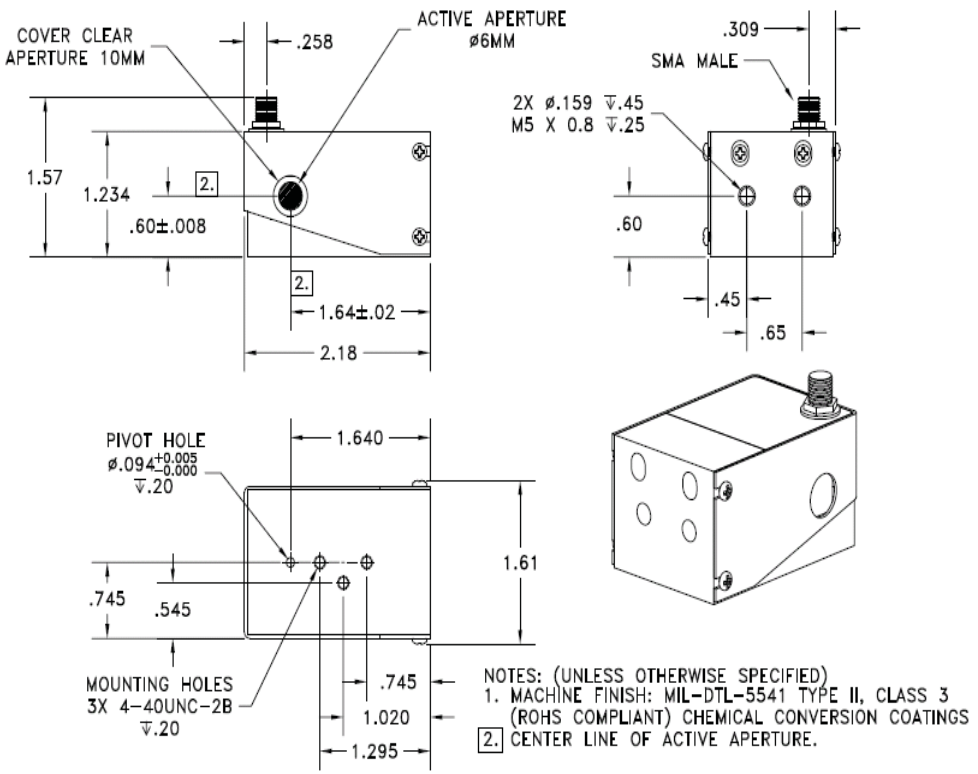
SPECIFICATIONS

AO Medium	Crystal Quartz
Acoustic Mode	Longitudinal
Acoustic Velocity	5.74mm/µs
Wavelength	343-355nm
Input Polarization	90° to Mounting Plane, Linear P.E.R.>100:1
Output Polarization	90° to Mounting Plane, Linear
Insertion Loss	1%
Center Frequency (Fc)	110+/-5MHz
RF Bandwidth	20 MHz
RF Power	<12W
Active Aperture	6 mm dia.
Beam distortion sqrt deviation	<.009
Flatness Across Bandwidth	<10%
Min Diffraction Efficiency	85%
Peak Valley at 633 nm*	<.09 waves
Astigmatism at 633nm*	<.07 waves
VSWR	2:1
Scan Angle	1.24 mrad@355nm
	1.19mrad@343nm

OUTLINE DRAWING



Notes:

1. Input Impedance 50 Ohms.
2. Unit to be water cooled .1 GPM <30C. Water channels Metalast plated Aluminum.
3. Mechanical Outline per 97-03283-01-15.
4. Optical window wedge <1'.
5. VSWR frequency range 95-125MHz.
6. DE=95% with optimized alignment at central frequency, with 110 MHz ±10 MHz, nominal. Central frequency can be shifted ±5 MHz while maintaining the 20 MHz bandwidth to meet DE spec. RF power can be optimized to meet DE spec.
7. Peak to valley wavefront as measured on Zygo GPI system.
8. Aperture defined for -.7dB roll off of efficiency at vertical edges.
9. Total Optical Reflectance <.6%.
10. Bragg angle 3.40mrad@355nm, 3,28mrad@343nm
11. Deflection Angle(110MHz) 6.8mrad@355nm, 6.57mrad @343nm.
12. Astigmatism and PV measured on Zygo interferometer with 7.4mm diameter aperture.
13. Beam distortion per ESI GD009347, GD009349, and GD009352.

Document

10/12/16

Control

TOLERANCES: .XX ± .01 .XXX ± .005	DR	Geri Scholz 10/7/2016	Gooch & Housego		
MATERIAL:	CHK		DESCRIPTION: AODF 4110 Quartz 355nm 6mm Aperture		
FINISH:	APP				
	APP		PART NUMBER: 97-03283-02	REV: 1	SHEET 1 OF 1