#### **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 90° to Mounting Plane, Linear **Output Polarization** Insertion Loss 1% 110+/-5MHz Center Frequency (Fc) RF Bandwidth 20 MHz **RF** Power <12W 6 mm dia. Active Aperture Beam distortion sgrt 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

## ø6MM .258 APERTURE 10MM SMA MALE 2X Ø.159 V.45 M5 X 0.8 ▼.25 1.57 1.234 .60 .60±.008 -1.64±.02 .65 — 1.640 – PIVOT HOLE ø.094+0.005 ₹.20 0

OUTLINE DRAWING

ACTIVE APERTURE

COVER CLEAR

.745

1.19mrad@343nm

.545

MOUNTING HOLES

3X 4-40UNC-2B

## **Document**

NOTES: (UNLESS OTHERWISE SPECIFIED)
1. MACHINE FINISH: MIL-DTL-5541 TYPE II, CLASS 3

(ROHS COMPLIANT) CHEMICAL CONVERSION COATINGS

.309

10/12/16

Control

# ₹.20 2. CENTER LINE OF ACTIVE APERTURE. -1.295

1.61

.745

1.020

### 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.

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