SPECIFICATIONS

AO Medium	Crystalline Quartz
Acoustic Velocity	5.74 mm/μs
Active Aperture*	.5 mm 'L' X .24 mm 'H'
Center Frequency (Fc)	220 MHz
RF Bandwidth	60 MHz
Input Impedance	50 Ohms Nominal
VSWR @ Fc	1.5 :1 Max
Wavelength	351-365 nm
Insertion Loss	3 % Max
Anti-Reflection Coating	MIL-C -48497
Optical Damage Threshold	200 MW/cm^2
Contrast Ratio	100 :1 Min
Polarization	Perpendicular ° To Acoustic Wave

PERFORMANCE VS WAVELENGTH

Wavelength (nm)	**351**	**365**
Operational RF Power (W)	2	2
Bragg Angle (mr)	6.7	7
Beam Separation (mr)	13.4	14

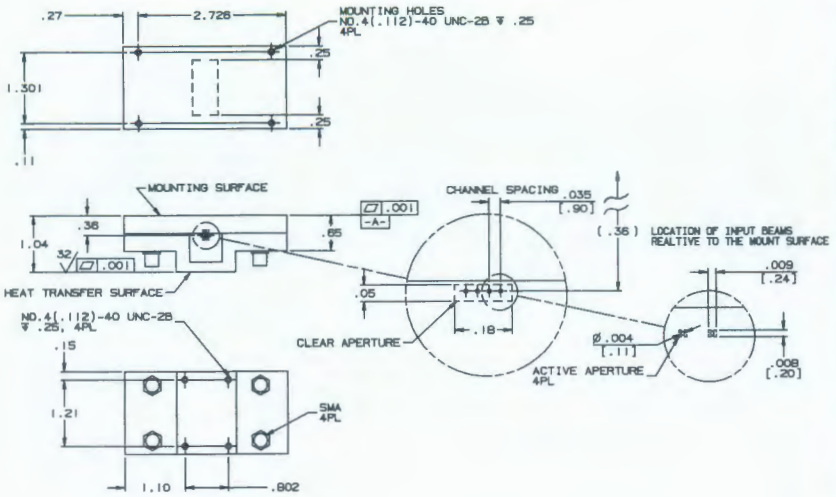
PERFORMANCE VS BEAM DIAMETER

Beam Diameter (μm)	**110**	**110**
at Wavelength (nm)	351	365
Diffraction Efficiency (%) min	83	83
Rise Time (nsec)	16	16

Special Testing	**Min**	**Units**	**Max**
Diffraction Efficiency, (see notes)	66	%	
Crosstalk	25	dB	

*Active Aperture: Aperture over which performance specifications apply.

Outline Drawing: **Package 97-02411-01**



Number of Channels: 4; Channel Pitch: 0.90mm
Contrast Ratio is measured at 2. watts, MAXIMUM DRIVE POWER into device with all channels 'on' is 8 watts with proper heat sink
Device is conduction cooled thru the mounting surface
Channel Crosstalk: < -25dB , one channel 'off' all others 'on'
Acousto-Optic Operation: First Order
Distance to Output face of crystal to the edge of the housing will be minimized.
Mounting surface flattness is .001
Diffraction efficiency measured at 488nm, 2.5 watts 110 micro beam.

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TOLERANCES: .XX ± .01 .XXX ± .005	DR	G. SCHOLZ 1/15/2003	Crystal Technology, Inc.		
MATERIAL:	CHK		DESCRIPTION: AOMC 220-4		
	APP		.365-351u Custom Package		
FINISH:	APP		PART NUMBER: 97-02411-01	REV: A	SHEET 1 OF 1

SPECIFICATIONS

AO Medium	Crystalline Quartz
Acoustic Velocity	5.74 mm/µs
Active Aperture*	9 mm 'L' X .5 mm 'H'
Center Frequency (Fc)	125 MHz
Tuning Bandwidth	28 MHz
Input Impedance	50 Ohms Nominal
VSWR @ Fc	1.3 :1 Max
Wavelength	351-364 nm
Insertion Loss	2 % Max
Anti-Reflection Coating	MIL-C -48497
Optical Damage Threshold	> 200 W/mm^2
Contrast Ratio	100 :1 Min
Polarization	90 ° To Acoustic Wave

PERFORMANCE VS WAVELENGTH

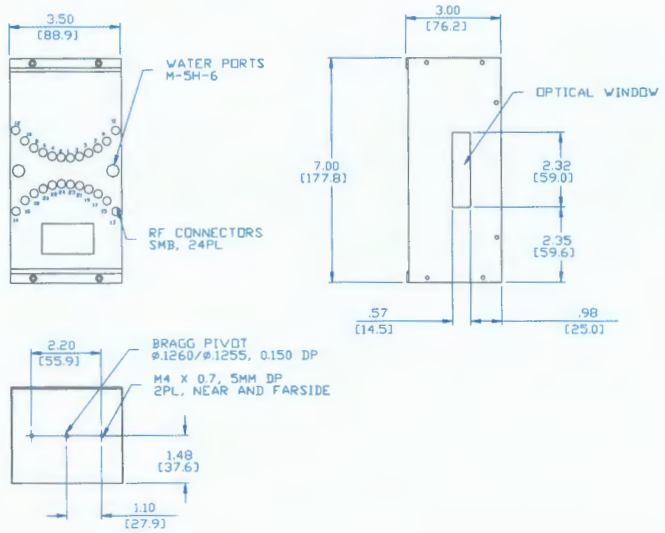
Wavelength (nm)	**Both**	**351**	**363**
Saturation RF Power (W)	4.5	4.3	4.5
Bragg Angle (mr)		3.8	4
Beam Separation (mr)		7.6	8

PERFORMANCE VS BEAM DIAMETER

Beam Diameter (µm)	**375**	**375**	**375**
at Wavelength (nm)		351	363
Diffraction Efficiency (%) min	80 min	85 typ	85 typ
Rise Time (nsec)	23	23	23

*Active Aperture: Aperture over which performance specifications apply.

Outline Drawing: **Package 97-02309-04**



Channel crosstalk: <5% 'OFF'
Exit temp of cooling water < 30°C, Texit= Tinlet+3.8 *E-3 (c*gpm/watt) @ .37 cm_Hg
Rise Time is 5 to 95 %
SINGLE ELECTRODE OPERATION WILL NOT MEET SPECIFICATIONS
Number of addressable channels: 24, 3 contiguous channels minimum operation
RF Matched Bandwidth: 96-154 MHz; 96-111> -10 dB, 111-139> -13 dB, 139-154> -10 dB
Wavefront distortion < lambda/4 @ 633nm, 3.5 x 14mm aperture (no RF power)

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TOLERANCES: .XX ± .01 .XXX ± .005	DR	G.Scholz 4/21/2005	Crystal Technology, Inc.		
MATERIAL:	CHK		DESCRIPTION: AOMC 125/24-3 FISH		
FINISH:	APP				
	APP		PART NUMBER: 97-02309-04	REV: D	SHEET 1 OF 1

SPECIFICATIONS

AO Medium	Fused Silica
Acoustic Velocity	5.96 mm/μs
Active Aperture*	2.5 mm 'L' X .18 mm 'H'
Center Frequency (Fc)	160 MHz
RF Bandwidth	50 MHz
Input Impedance	50 Ohms Nominal
VSWR @ Fc	1.3 :1 Max
Wavelength	363.8 nm
Insertion Loss	2 % Max
Anti-Reflection Coating	MIL-C -48497
Optical Damage Threshold	200 W/mm^2
Contrast Ratio	1000 :1 Min
Polarization	90 ° To Acoustic Wave

PERFORMANCE VS WAVELENGTH

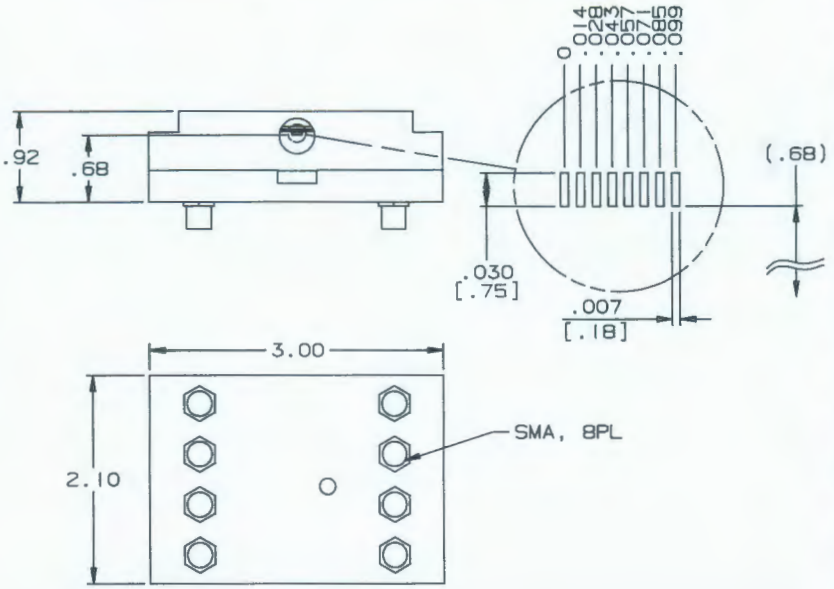
Wavelength (nm)	**363**
Operational RF Power (W)	.8
Bragg Angle (mr)	4.9
Beam Separation (mr)	9.8

PERFORMANCE VS BEAM DIAMETER

Beam Diameter (μm)	**180**
at Wavelength (nm)	364
Diffraction Efficiency (%) min	65
Rise Time (nsec)	21

*Active Aperture: Aperture over which performance specifications apply.

Outline Drawing: **Package AOMC 3160/8**



Number of Channels: 8 Channel Pitch: 0.360mm
Diffraction Efficiency is measured at .4 watts @ 488nm, scaled to .8 watt @ 363.8 nm at 488 DE > 25%
Device is conduction cooled thru the mounting surface
Channel Crosstalk: >20dB
Beam Ellipticity for 180 micron beam < 11% @ 363.8 nm
Burn-In for 48 hours @ Fc = 160MHz, 400mw per channel.

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TOLERANCES: .XX ± .01 .XXX ± .005	DR	Geri Scholz 12/4/2001	Crystal Technology, Inc.		
MATERIAL:	CHK		DESCRIPTION: AOMC 3160-8 Custom Package		
FINISH:	APP				
	APP		PART NUMBER: 97-00950-01	REV: A	SHEET 1 OF 1

SPECIFICATIONS

AO Medium				Crystalline Quartz
Acoustic Velocity				5.74 mm/μs
Active Aperture*	.5	mm 'L' X	.2	mm 'H'
Center Frequency (Fc)				300 MHz
RF Bandwidth				100 MHz
Input Impedance				50 Ohms Nominal
VSWR @ Fc				1.5 :1 Max
Wavelength				413 nm
Insertion Loss				3 % Max
Anti-Reflection Coating				MIL-C -48497
Optical Damage Threshold				200 MW/cm^2
Contrast Ratio				1000 :1 Min
Polarization				Perpendicular ° To Acoustic Wave

PERFORMANCE VS WAVELENGTH

Wavelength (nm)	**413**
Operational RF Power (W)	2
Bragg Angle (mr)	10.8
Beam Separation (mr)	21.6

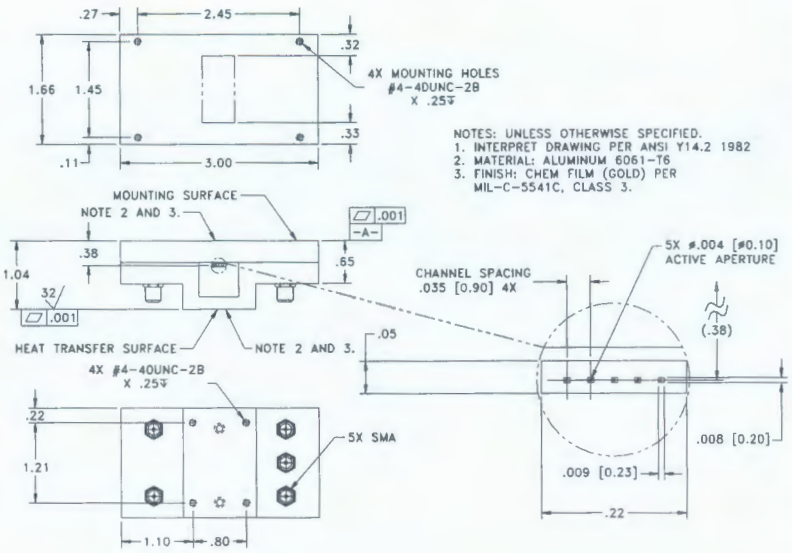
PERFORMANCE VS BEAM DIAMETER

Beam Diameter (μm)	**65**
at Wavelength (nm)	413
Diffraction Efficiency (%) min	50
Rise Time (nsec)	10

Special Testing	**Min**	**Units**	**Max**
Crosstalk	25	dB	

*Active Aperture: Aperture over which performance specifications apply.

Outline Drawing: **Package MC330-5**



Number of Channels: 5; Channel Pitch: 0.90mm
Contrast Ratio is measured at 2. watts, MAXIMUM DRIVE POWER into device with all channels 'on' is 10 watts with proper heat sink
Device is conduction cooled thru the mounting surface
Channel Crosstalk: < -25dB , one channel 'off' all others 'on'
Acousto-Optic Operation: First Order
Distance to Output face of crystal to the edge of the housing will be minimized.

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TOLERANCES: .XX ± .01 .XXX ± .005	DR	Tom Ng 4/21/2005	Crystal Technology, Inc.		
MATERIAL:	CHK		DESCRIPTION: AOMC MC300-5 .413u Custom Package		
	APP				
FINISH:	APP		PART NUMBER: 97-02889-01	REV: 0	SHEET 1 OF 1

SPECIFICATIONS

AO Medium	Crystalline Quartz
Acoustic Velocity	5.74 mm/µs
Active Aperture*	0.5 mm 'L' X 0.24 mm 'H'
Center Frequency (Fc)	220 MHz
RF Bandwidth	60 MHz
Input Impedance	50 Ohms Nominal
VSWR @ Fc	1.5 :1 Max
Wavelength	413 nm
Insertion Loss	3 % Max
Anti-Reflection Coating	MIL-C-48497
Optical Damage Threshold	200 MW/cm^2
Contrast Ratio	100 :1 Min
Polarization	Perpendicular ° To Acoustic Wave

PERFORMANCE VS WAVELENGTH

Wavelength (nm)	**413**
Operational RF Power (W)	2.5
Bragg Angle (mr)	7.9
Beam Separation (mr)	15.8

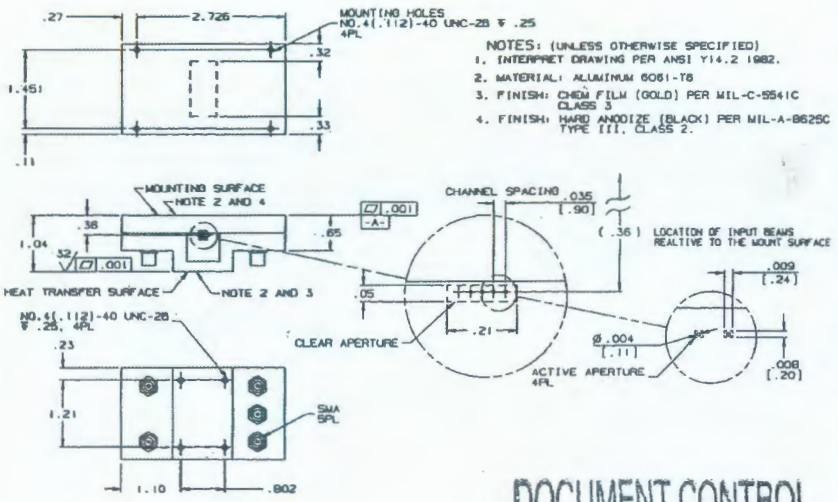
PERFORMANCE VS BEAM DIAMETER

Beam Diameter (µm)	**110**
at Wavelength (nm)	413
Diffraction Efficiency (%) min	75
Rise Time (nsec)	16

Special Testing	**Min**	**Units**	**Max**
Crosstalk	20	dB	

*Active Aperture: Aperture over which performance specifications apply.

Outline Drawing: **Package 97-02411-02**



DOCUMENT CONTROL
JUL 19 2000

Number of Channels: 5; Channel Pitch: 0.90mm
Contrast Ratio is measured at 2.5 watts, MAXIMUM DRIVE POWER into device with all channels 'on' is 12.5 watts with proper heat sink
Device is conduction cooled thru the mounting surface
Channel Crosstalk: < -20dB , one channel 'off' all others 'on'
Acousto-Optic Operation: First Order
Distance to Output face of crystal to the edge of the housing will be minimized.
Mounting surface flattness is .001

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TOLERANCES: .XX ±.01 .XXX ±.005	DR	A. Campi 10/25/99	Crystal Technology, Inc.	
MATERIAL:	CHK		DESCRIPTION: AOMC MC220-5 .413um	
FINISH:	APP	JDK 10/25/99		
	APP	R.D. 10/26/99	PART NUMBER: 97-02411-03	REV: A SHEET 1 OF 1