M1211-aQ110-5-(A/R)
UV Acousto-Optic Modulator/Deflector

SPECIFICATIONS

A/R Operating Wavelength: 330-360nm
Centre Frequency (fc): 110MHz
RF Bandwidth: 20MHz
Diffraction Efficiency: >85% (90% typical)
Input Impedance: 50Ω(Nominal)
Input VSWR: <1.5:1 @ 110MHz
Active Aperture: 5mm (Nominal)
Optical Insertion Loss: <3% (<2% typical)
Reflectivity: <0.7%/Surface
DC Contrast Ratio: >1000:1 min (2000:1 typical)
Laser Polarization: Vertical, Perpendicular to Base
Water Cooling (Min): 500ml/minute @ < 25 °C
Outline Dimensions: (See reverse side)

PERFORMANCE vs. WAVELENGTH

Wavelength (nm): 355
RF Drive Power (Watts): 9.0
Bragg Angle (mrad): 3.4
Separation Angle (mrad): 6.8

PERFORMANCE vs. BEAM DIAMETER

Beam Diameter (mm): 5.0 2.0 1.0
Rise time (nsec): 570 227 113
Video Bandwidth (MHz): 0.7 1.5 3

The 1211 UV has been designed specifically for high beam pointing stability and low dynamic wavefront distortion.

RF Drive Electronics

RFA2110 (water cooled) or RFA910-110 (air cooled)
Cooling water required for RF powers exceeding 4W average.
An internal isolated thermal interlock switch opens at 35°C

Water cooled case parts are Aluminium.
It is recommended that a corrosion inhibitor is added to the cooling system.