

## ***New Product***

### **2-Axis Deflection System**

#### **Optical Tweezers Applications**

#### **2-Axis Deflection**

- 1) DTD-274HA6 2-AXIS DEFLECTOR  
Specifications for each axis:  
Material: Tellurium Dioxide (4 degree slow shear mode)  
A/R Coating, 1053/1064 nm  
Active Aperture, 4 x 4 mm  
Center Frequency, 27 MHz (1064 nm)  
Deflection Bandwidth, 16 MHz  
Time Bandwidth Product, 100 (4 mm beam diameter)  
Access Time, 1.6  $\mu$ sec/mm beam diameter  
Beam Separation, 45 mrad (1064 nm, 27 MHz)  
Total Deflection Angle, 26.9 mrad (1064 nm, 16 MHz BW)  
Diffraction Efficiency, 75 percent at center/70 percent on edges  
RF Drive Power, 1 watt (1064 nm)  
Input Impedance, 50 ohms (nominal)  
Optical Polarization, linear  
Connector, SMA
  
- 2) DVE-4010C9 TWO CHANNEL VARIABLE FREQUENCY SOURCE  
Hardware Platform, Intel Pentium or compatible  
Computer Interface, PCI bus  
Format, standard 1/2 size computer card  
Drivers Supplied, Windows 95 / Windows NT  
Specifications for each channel:  
Type, Direct Digital Synthesizer  
Frequency Range, 1 - 50 MHz  
Frequency Resolution, 0.029 Hz  
Frequency Calibration Accuracy, +/- 1 ppm  
Frequency Stability, +/- 1 ppm (0 - 50°C)  
Frequency Acquisition Time<sup>1</sup>, 1 microsecond  
Spurious Levels, -50 dBc (typical)  
Harmonic Distortion, -30 dBc  
RF Output Capability, +10 dBm  
Amplitude Adjustment, 16 bits  
Output Impedance, 50 ohms  
RF Output Connector, BNC
  
- <sup>1</sup> This is the intrinsic frequency acquisition time for the DVE-4010C9 Frequency source.
  
- 3) DPA-502 DUAL RF POWER AMPLIFIER  
Number of Channels, 2  
RF Output Power Capability, 2 watts / channel