IntraAction Corp.
QUALITY PRODUCTS FOR LASER TECHNOLOGY

ELECTRONICS

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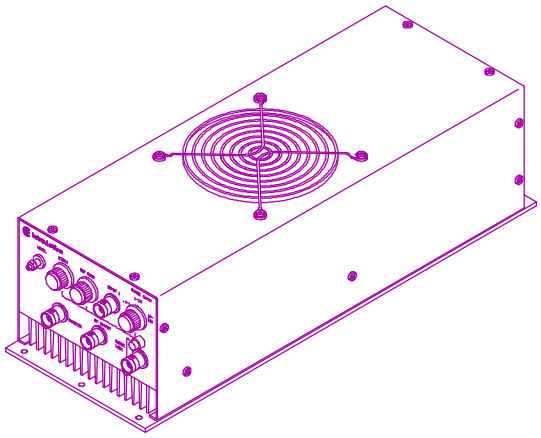
MODEL QE SERIES
ACOUSTO-OPTIC Q-SWITCH DRIVER



DESCRIPTION

The QE series of acousto-optic Q-switch drivers contain a crystal controlled RF oscillator, fast modulation circuit, free running pulse generator circuit with trigger capability, and a broadband RF power amplifier in a housing with power supply, RFI line filter, line switch, and fault/interlock circuit. When the input gate voltage is < 0.8 volts, the RF output is continuously on for CW operation. For gated operation with the input gate voltage > 2 volts, the internal pulse generator controls the RF off pulse repetition rate (PRR) which is set via a front panel control. When the input trigger PRR is faster than the PRR setting on the front panel, the RF off PRR is externally controlled for triggered operation. For gated or triggered operation the pulse width is determined by the front panel setting. A monitor output, which is the inverse of the RF output envelope, is provided. The fault/interlock circuit which can be connected to the thermostat of a Q-switch will latch the power supply off when an open condition is present. High VSWR, over power, and low power indicator options are available.

SPECIFICATIONS

Pulse Repetition Rate (3 ranges)	100 Hz - 100 kHz
Pulse Width[1]	0.5 - 5 µsec
CW Operation Input (RF on, no pulsing)	< +0.8 volts (0 volts minimum)
Gated/Triggered Operation Input	> +2 volts (+5 volts maximum)
Trigger Pulse Width	50 nsec minimum
Monitor Output	0.5 volts into 50 ohms
Interlock Input Conditions	Shorted (power supply operational) Open (power supply latched off)
RF Amplifier Operation	Class AB
Rise/Fall Time	30 nsec
Output Mismatch Tolerance	100 percent
Input / Output Impedance	50 ohms
Line Voltage (standard) (option J)	115/230 Vac, 50-60 Hz 100 Vac, 50-60 Hz
Size	5.7 W x 4.5 H x 16 D inches 14.5 W x 11.5 H x 40.7 D cm

MODEL	**QE-2425**	**QE-2725**	**QE-2450**	**QE-2750**	**QE-5025**
Center Frequency[2]	24 MHz	27.12 MHz	24 MHz	27.12 MHz	50 MHz
RF Output Power[3]	25 watts	25 watts	50 watts	50 watts	25 watts

[1] Can be user specified in a 10:1 range.
[2] Other frequencies are available.
[3] Power levels to 100 watts for some models.