



# QUANTUM TECHNOLOGY, INC.

108 Commerce St., Suite 102, Lake Mary, Florida, 32746-6212, USA  
FAX 407-333-9352 PHONE 407-333-9348 TOLL FREE 877-913 4904  
EMAIL: [staff@quantumtech.com](mailto:staff@quantumtech.com) <http://www.Quantumtech.com>

**MODEL 3520**  
**1– 500 MHz DRIVERS**

**DATA SHEET 778**

## MODEL 3520

The electro-optical modulator driver **MODEL 3520** is a high bandwidth amplifier designed to drive electro-optic modulators produced by Quantum Technology, manufacturers of a complete wide range of E-O Modulation Systems, Pulse Picker Systems, and Q-Switching systems.

### SPECIFICATIONS:

<b>Bandwidth (BW):</b>	<b>50 MHz to 500 MHz (-3dB)</b>
<b>Average Gain:</b>	<b>50 dB +/- 1.5 dB</b>
<b>Rise &amp; Fall Times (10 % to 90 % Points):</b>	<b>1.8 nsec</b>
<b>Gain:</b>	<b>&gt;50 dB + 1.5 dB (typical)</b>
<b>Modulation:</b>	<b>100% @ 532 nm</b>
<b>Gain Flatness:</b>	<b>+/- 1.5 dB</b>
<b>Cable length driver to EOM:</b>	<b>6 ft (1.8 m) typical cable length</b>
<b>Maximum output voltage:</b>	<b>140Vpp into 50-ohms</b>
<b>Harmonic distortion:</b>	<b>&gt; - 23 dB @ full output</b>
<b>AC power:</b>	<b>100-230 VAC, 50/60Hz</b>

Typical recommended modulator: Model 327-80 BW to 100 MHz (See DATA SHEET 752). Other varieties of modulators to 150 MHz, 200 MHz, and travelling wave TWAP and TWAP modulators to 520 MHz are available.

**TABLE – 1**

<b>MODEL</b>	<b>DESCRIPTION</b>
<b>3520A</b>	Intended for intensity modulation with a Manual Bias of + / - 300VDC (included with system).
<b>3520P</b>	Intended generally for phase modulation, this is used where no bias voltage is required. (Manual +/- 300VDC bias not included with system).
<b>3500A</b>	Similar to 3520A with broader bandwidth 0.5-500MHz at 62Vpp, 10W output with a Manual Bias of + / - 300VDC (included with system).

- 3500P** Intended generally for phase modulation, this is used where no bias voltage is required. Similar to 3520A with broader bandwidth 0.5-500MHz at 62Vpp, 10W output. (Manual +/- 300VDC bias not included with system).
- 3500A-20W** Similar to 3520A with broader bandwidth 1-500MHz at 90Vpp, 20W output with a Manual Bias of + / - 300VDC (included with system).
- 3500P-20W** Intended generally for phase modulation, this is used where no bias voltage is required. Similar to 3520A with broader bandwidth 1-500MHz at 90Vpp, 20W. output. (Manual +/- 300VDC bias not included with system).

Option Model 33C - continuous Auto Bias option for maintaining the E-O bias at the 50% point, and providing automatic adjustment of the DC Bias required to compensate for thermal drift in the E-O modulator due to RF power and/or ambient thermal heating variations.

The Quantum Technology drivers are well suited for electro-optic modulation requiring high accuracy and performance. For many years Quantum Technology Inc has produced electro-optic drivers, assuring you of the highest workmanship and design. Please call Quantum Technology Engineers with any questions about E-O Modulation systems; we have the answers.