



L3HARRIS™
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MODEL H-401D **ACOUSTO-OPTIC MODULATOR (AOM) DRIVER**

Acousto-optic radio frequency (RF) driver for the H-400 series AOMs

The L3Harris Model H-401D acousto-optic driver complements the L3Harris Model H-400 series of RF phase modulation capable AOMs. The specially designed driver circuitry enables flexible operation of the H-400 series devices in either RF phase modulation mode for exceptional beam-pointing stability or in conventional RF pulse on/off amplitude modulation mode when pointing stability requirements are relaxed.

The H-401D AOM driver may be operated in standalone mode using a saved optimized factory default setting, or it may be reconfigured via a flexible serial port interface using an easy-setup AOM control software graphical user interface (GUI). Optimized phase and amplitude settings that produce the best contrast and diffraction efficiency at a given wavelength and frequency can be interactively set in the lab and saved to the driver default configuration memory or to a text file. Configurations saved to a text file are easily loaded into the driver by using the GUI.

Phase and amplitude modulation, in addition to linear frequency modulation sweep capabilities, are provided for either continuous wave or pulse operation. Modulation timing may be synchronized to either an external or internal modulation source.

Included with the H-401D AOM driver are an external micro-coax ribbon cable for interfacing to any H-400 series compatible device, along with an external power supply adapter and the user control software.



APPLICATIONS

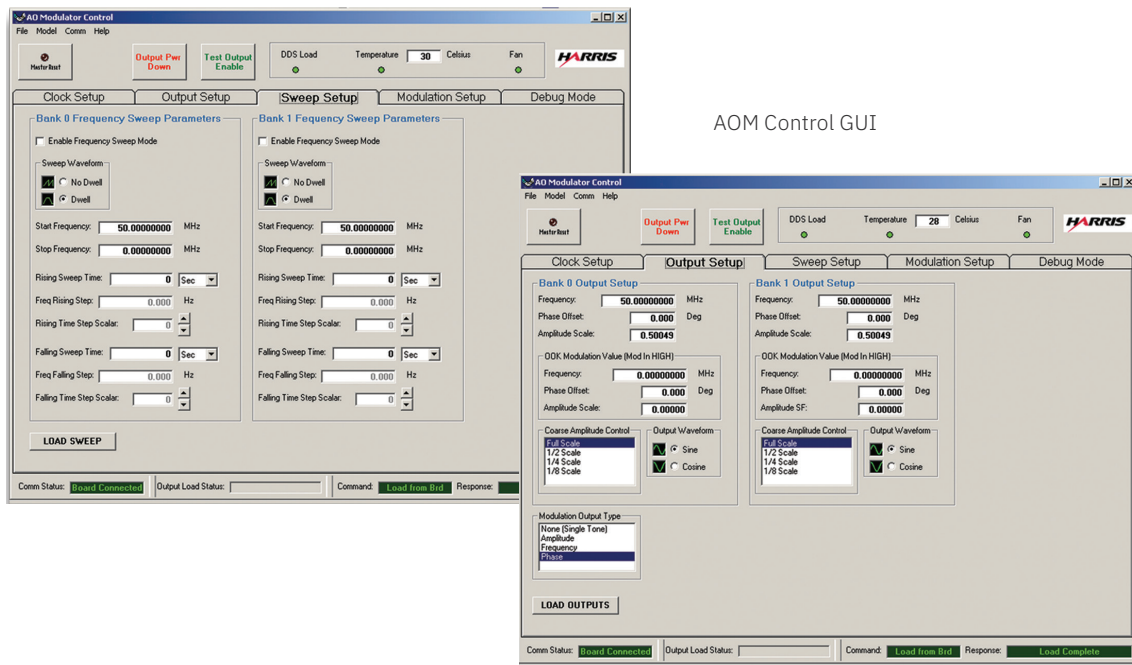
- > Compatible RF driver for H-400 series acousto-optic modulation, deflector and frequency shifter components

HIGHLIGHTS

- > Supports low-power, advanced acousto-optic transducer array technology in a small outline package
- > Has original equipment manufacturer mounting configurations available

PERFORMANCE PARAMETERS

PARAMETER	SPECIFICATION
Unless otherwise noted, all specifications are with supplied 20-inch micro-coax ribbon cable interface and internal system, clock = 400 MHz	
Output frequency range	50–115 MHz
Supported modulation modes	Single tone, PM, AM, FM and frequency sweep
External modulation input	50 ohm (nominal) LVTTTL threshold level (5.5 V maximum input level)
External modulation input pulse width	Minimum 10 ns
Sweep mode operation	Linear sweep on internal or external mod trigger (software configurable start/stop frequency and sweep time)
Internal modulation rates	100 / 2 ^N (1<N<32) MHz (software configurable)
Test output port	Internal trigger out 1 V max into 50 ohms
Control interface	RS-232 (115.2 kBaud), 9-pin female DSUB
Panel status LEDs	STA (system state), COM (RS-232 port status), ENA (test output active)
Outline dimensions	5.53 in (W) x 1.25 in (H) x 8.41 in (D)
Maximum ambient operating temperature	50° C
Supply voltage	6 Vdc +/- 5%
Supply current	Max: 2 amp, typ: 1.25 amp



Device is RHOS compliant and requires compatible H-400 series AOM. Specifications subject to change without notice.

For additional information, email Acousto-Optics@L3Harris.com or visit www.L3Harris.com/Acousto-Optics.

Model H-401D Acousto-Optic Modulator Driver

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Nonexport-controlled Information

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