

AOM Driver

A 108

With the A 108 Landwehr Electronic offers a quartz stabilized oscillator driver for acousto-optic modulator (AOM) or Q-Switch applications. The A 108 is a special type of high power driver which has been designed for digital modulation. High technical performance guarantees wide modulation bandwidth, excellent switching and unique on/off ratio.

This AOM driver is designed for industrial applications as well as for university research.



Technical Data

Oscillator frequency	80 MHz \pm 0.1 %, quartz stabilized
Frequency drift	$\Delta f / ^\circ\text{C} < \pm 30$ ppm
Output frequency of driver	$f_0 = 80$ MHz
Spectral purity	< -50 dBc @ $f_0 \pm 75$ MHz
Harmonics	< -18 dBc @ $2f_0, 3f_0, \dots$
Digital video input (TTL)	<ul style="list-style-type: none">• logic $\uparrow\uparrow\uparrow$ • or open input = rf power off• logic $\downarrow\downarrow\downarrow$ • or shorted input = rf power on
RF on-/off-ratio digital	> 50 dB at any output level

RF switch-on/switch-off time	< 12.5 nsec @ P_{RF} : 10...90 %
RF output power level	< 24 ... > 35.6 dBm @ 50 Ω and $U_S = 24$ V < 25 ... > 37.1 dBm @ 50 Ω and $U_S = 28$ V amplifier is protected against load mismatch
RF output stability	warm-up time (10 min) < ± 5 % after warm-up time < ± 1 %
Supply voltage	$U_S = 24$ V or 28 V
Supply current	$I_S = 1000$ mA ± 100 mA @ $U_S = 24$ V $I_S = 1250$ mA ± 100 mA @ $U_S = 28$ V

Absolute Maximum Ratings

Supply voltage output stage	+28.7 V
Power output	no DC-feedback allowed
Case temperature	+55 °C • the driver must be mounted on an adequate heatsink

Quality Standards

EMC-standards	VDE 0871 - B FCC Rules Part 15 - B
Functional test	100 %
Burn-in test	passive 2 h active ½ h

Connectors and Mechanics

RF-Connector	SMA female
TTL video input	BNC female
Dimensions	150 mm x 70 mm x 64 mm
Mounting plate	150 mm x 70 mm