

## Features

- Fixed Frequency
- Low noise
- Easy to use interface
- Fast rise fall time

## Applications

- Driving AO Modulators

## General Description

EM4 offers drivers configured for either analog or digital modulation control. Specifically designed for controlling our AO Modulators, the RF output is internally set to a single frequency.



## Ordering Information

Part	Frequency	RF Power
EM436	125 MHz	2 W

## Modulation Input

Parameter	Value
Input Impedance	50 ohms
Digital Input (SMB Male)	Standard TTL

## RF Output

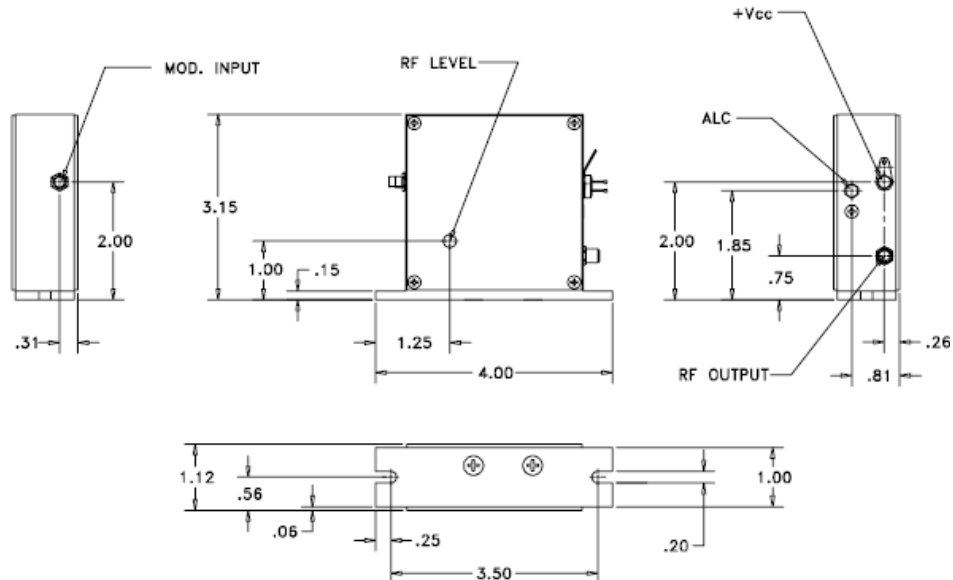
Parameter	Value
Center Frequency (Fc)	125MHz $\pm$ 0.1%
Output Power (SMA Female)	2.0W
Rise/Fall Time	4 nsec Max
RF Contrast Ratio	35 dB min
Harmonic Distortion	-20 dBc
Output Impedance	50 Ohms
Output VSWR	1.5 : 1 Max
Output Power Adjustability	Down to 0.2 Watts
Power supply voltage (Filtered Feedthru)	+28 V @ 600mA
ALC Voltage (Filtered Feedthru)	0 to +5.0 VDC

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## Mechanical

All units in inches



## Notes

1. Output power factory set to 2.0W at 2.4 Volt input. Power stability less than 5% over the heatsink's ambient temperature range of 0 40° C, after 5 minute warm-up.
2. When calculating the contrast ratio, it is understood that only the power of the 125 MHz fundamental shall be used. The higher harmonics have no effect on the AO modulator's performance.
3. The driver contains an internal voltage regulator to reduce the RF output ripple 40 to 70dB w.r.t. ripple on DC power supply voltage, depending on spectral contrast.]
4. A +5 Volt input on the ALC corresponds to full RF output power. Zero RF power occurs at an ALC voltage slightly above 0 volts.



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