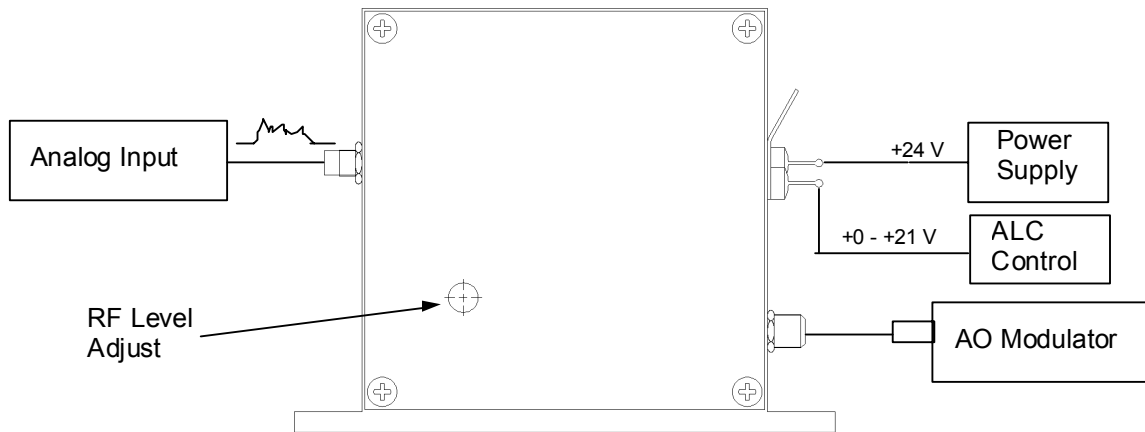


USING THE MODEL 1080AF-AINA-3.0 RF DRIVER

P/N: 97-02910-18



Operation:

1. Connect RF out of the driver to the input of the AO modulator using a 50 Ω coax cable.
2. Connect a +24V DC input to the +Vin connector. (Center conductor is positive).
3. Use a 50 Ω coax connector to connect the modulation input. The input level should be set from +0 to +1.0 Volts for analog modulation.
4. The RF level potentiometer is used for manually setting the maximum RF output power. The factory setting is 3.0 Watts RF at a +1.0 Volt input.
5. The warm-up period for the RF driver is 5 minutes.
6. For optimum setting, the driver and modulator need to be tuned together. Set-up both devices in the laser system and allow the driver to warm-up. After the driver warms up, set the input level to +1.0 Volt. Adjust the Bragg angle and height of the modulator to peak up the diffraction efficiency. Adjust the power level potentiometer to further improve the diffraction efficiency. Longer wavelengths require higher powers to reach peak diffraction efficiency or saturation point. It is possible to overdrive the modulator and cause the diffraction efficiency to drop. Depending on the power level and the wavelength, lowering the RF power could cause an increase in diffraction efficiency. It's always best to find the saturation point of the modulator to ensure optimum performance.

DEVICE SPECIFICATIONS

MODEL NUMBER:

MHPXXX-YYADM-A1

(Formerly 31XXX-YYADM)

DOCUMENT NUMBER: 56A18292B

The MHPXXX-YYADM-A1 driver is a RF driver module with analog and digital modulation input and up to 20 watts output into a 50 ohm load.

PARAMETER

SPECIFICATION

Output Frequency: (XXX)	24 MHz to 260 MHz ± 0.01% quartz stabilized
Spurious Levels:	-40 dBc maximum
Harmonic Distortion:	-15 dBc maximum
Analog Input:	0-1 volt into 50 ohms 1 volt = full RF power 0 = RF power off
Digital Input:	TTL levels (pulled high internally via 4.7k ohms) TTL high = full RF power TTL low = minimum RF power
Extinction Ratio:	40 dB Minimum
RF Rise / Fall Time	30 ns maximum, 20 ns typical, 10 ns > 210 MHz P _{RF} : 10 to 90%
RF Output Power: (YY)	2 to 20 watts nominal, maximum output power set by internal pot.
Output Impedance:	50 ohms nominal
Supply Voltage:	+ 24 volts DC ± 0.5 volts
Supply Current:	3 amps maximum
Air flow across heat sink	18 CFM @ 25 ⁰ C

MAXIMUM RATINGS:

Supply Voltage:	+28 volts DC
Power Output:	No DC feedback allowed
Case Temperature:	+ 55 ⁰ C

CONNECTORS & MECHANICAL:

RF Output Connector:	SMA female	
Modulation Input Connector:	Feed through pin	
Power Supply Connections:	Vcc Return	Feed through pin Feed through pin
Physical Body Size:	5.43" L x 2.42" H x 3.90" W	

RELATED DOCUMENTS

Outline Drawing:	53D1597
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For More Information, Contact: Sales@goochandhousego.com www.goochandhousego.com

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DEVICE SPECIFICATIONS

MODEL NUMBER:

MHPXXX-YYADS2-A1
(Formerly 31XXX-YYADS)

DOCUMENT NUMBER: 56A17627B

The MHPXXX-YYADS2-A1 driver is a RF driver module with analog and digital modulation input and up to 20 watts output into a 50 ohm load.

<u>PARAMETER</u>	<u>SPECIFICATION</u>
Output Frequency: (XXX)	24 MHz to 260 MHz ± 0.01% quartz stabilized
Spurious Levels:	-40 dBc maximum
Harmonic Distortion:	-15 dBc maximum
Analog Input:	0-1 volt into 50 ohms 1 volt = full RF power 0 = RF power off
Digital Input:	TTL levels TTL high = full RF power TTL low = minimum RF power
Extinction Ratio:	40 dB Minimum
RF Rise / Fall Time	30 ns maximum, 20 ns typical, 10 ns > 210 MHz P _{RF} : 10 to 90%
RF Output Power:	2 to 20 watts nominal, maximum output power set by internal pot.
Output Impedance:	50 ohms nominal
Power Requirements:	90 to 240 VAC @ 50 /60 Hz fused @ 1.5 amps
<u>MAXIMUM RATINGS:</u>	
Supply Voltage:	264 volts AC
Power Output:	No DC feedback allowed
Case Temperature:	+ 45 ⁰ C
<u>CONNECTORS & MECHANICAL:</u>	
RF Output Connector:	BNC female
Modulation Input Connector:	BNC female
Power Connection:	3 pin IEC panel mount EMI filtered
<u>RELATED DOCUMENTS</u>	
Outline Drawing:	53D1702
Operating Manual:	51A15283

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DEVICE SPECIFICATIONS

MODEL NUMBER:

MVLXXX-YYY-ZAC-A1
(Formerly 21XXX-YYY-ZAMVCO)

DOCUMENT NUMBER: 56A17599E

The MVLXXX-YYY-ZAC-A1 is a variable frequency RF driver with analog modulation input and a Z watt output into a 50 ohm load, supplied as a OEM module.

<u>PARAMETER</u>	<u>SPECIFICATION</u>
Output Frequency:	XXX to YYY MHz Where XXX to YYY typically is less than an octave bandwidth, with frequencies from 35 to 250 MHz.
Spurious Levels:	-45 dBc maximum
Harmonic Distortion:	-15 dBc maximum
Frequency Control Voltage:	2 to 15 volts typical
Analog Input:	± 1volt into 50 ohms, 0 volts = minimum RF output 1 volt = maximum RF power
Extinction Ratio:	30 dB minimum
RF Rise / Fall Time	20 ns typical, 30 ns maximum, P _{RF} : 10 to 90%
RF Output Power:	Z watts – 1 to 2 watts nominal - adjustable limited to < 1 watt output above 150 MHz. Factory set for optimum performance when paired with a G&H AO device.
Output Power Flatness:	1.5 dB maximum
Output Impedance:	50 ohms nominal
Supply Voltage:	+ 24 VDC + 0.5 VDC below 150 MHz + 28 VDC + 0.5 VDC above 150 MHz
Supply Current:	1.5 amp Maximum
<u>MAXIMUM RATINGS:</u>	
Supply Voltage:	+ 30 volts
Power Output:	No DC feedback allowed
Case Temperature:	+ 55 ⁰ C The driver must be attached to an adequate heatsink.
<u>CONNECTORS & MECHANICAL:</u>	
RF Output Connector:	BNC female
Modulation Input Connector:	BNC female
Frequency Control Connection:	SMB male
Power Supply Connections:	Vcc Solder pin Return Solder Lug

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RELATED DOCUMENTS

Outline Drawing:

53B2939

Manual:

56A18412

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DEVICE SPECIFICATIONS

MODEL NUMBER:

MVLXXX-YYY-ZAS2-A1
(Formerly 21XXX-YYY-ZASVCO)

DOCUMENT NUMBER: 56A17598C

The MVLXXX-YYY-ZAS2-A1 is a variable frequency RF driver with analog modulation input and a Z watt output into a 50 ohm load in a rack mountable box.

<u>PARAMETER</u>	<u>SPECIFICATION</u>
Output Frequency:	XXX to YYY MHz Where XXX to YYY typically is less than an octave bandwidth, with frequencies from 35 to 300 MHz.
Spurious Levels:	-45 dBc maximum
Harmonic Distortion:	-15 dBc maximum
Frequency Control Voltage:	2 to 15 volts typical
Analog Input:	± 1 volt into 50 ohms, 0 volts = minimum RF output 1 volt = maximum RF output
Extinction Ratio:	30 dB Minimum
RF Rise / Fall Time	20 ns typical, 30 ns maximum P_{RF} : 10 to 90%
RF Output Power:	Z watts – 1 to 2 watts nominal - adjustable Factory set for optimum performance when paired with a G&H AO device.
Output Power Flatness:	1.5 dB maximum
Output Impedance:	50 ohms nominal
Power Input:	90 to 240 VAC @ 50 / 60 Hz, fused @ 1.5 amps
<u>MAXIMUM RATINGS:</u>	
Supply Voltage:	264 VAC
Power Output:	No DC feedback allowed
Case Temperature:	+ 45 ^o C
<u>CONNECTORS & MECHANICAL:</u>	
RF Output Connector:	BNC female
Modulation Input Connector:	BNC female
Control Voltage Input Connections:	BNC female
Power Supply Connections:	3 pin IEC panel mount EMI filtered
<u>RELATED DOCUMENTS</u>	
Outline Drawing:	53D5904

For More Information, Contact: Sales@goochandhousego.com www.goochandhousego.com

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Gooch & Housego



AOM Driver A35-Series

**5 Watt RF Drivers for
Acousto-Optic Modulators**

The A35xxx RF driver series provides up to 5 Watt output power. Various types cover a frequency range from 40 to 350 MHz.

The maximum RF output power is adjustable by an internal potentiometer. The analogue modulation voltage controls the output power from 0 to 100% of the adjusted maximum power.

Additionally to the analogue modulation voltage a digital modulation control signal can switch on and off the RF power. An operation scheme below (page 5) illustrates the interaction of the two modulation signals in detail.

Both the analogue and digital modulation are characterized by extraordinary on/off ratios of at least 65dB.

The driver can be operated with modulation frequencies (analogue and digital) up to 25% of the carrier frequency and 50 MHz maximum.

Optimum EMC shielding and mechanical protection is achieved by an aluminium casing. The base plate serves for mounting as well as for heat dissipation.

Key Features:

- Frequency range 40 to 350 MHz
- RF output power 5 Watt
- RF on/off ratio > 65 dB
- Constant output power design
- Models with a modulation frequency up to 50 MHz available
- Conductive cooling through base plate
- Compact casing, fully shielded (EMC)

Applications:

- Fast modulation components for extra cavity applications, e. g. laser projection systems
- Frequency shifting

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Technical Data

Supply voltage	+24 VDC			
Supply current	typ. 1.5 A @ 5 W RF output power			
Output impedance	nom. 50 Ω			
Maximum RF output power (adjustable)*	> 5 W (+37 dBm)			
Adjustment range	< 0.1 W ... > 5 W			
Frequency accuracy	< ± 25 ppm			
Harmonics distortion*	< -26 dBc			
Analogue modulation**				
Impedance	50 Ω			
Voltage range @ 50 Ω	0 ... +1 V			
RF ON / OFF ratio	> 65 dB			
Digital modulation**				
Impedance	4.7 k Ω (pull-up)			
Level	High = $\geq 3V$... 5V		(= RF on)	
	Low = 0 ... < 2V		(= RF off)	
RF ON / OFF ratio	> 100 dB			
RF output frequency*** [MHz]	40 ... <80	80 ... <140	140 ... <200	200 ... 350
Analogue modulation				
RF rise time / fall time (P_{RF} : 10 ... 90%) *	< 25 ns	< 15 ns	< 10 ns	< 8 ns
Digital modulation				
RF rise time / fall time (P_{RF} : 10 ... 90%) *	< 25 ns	< 15 ns	< 10 ns	< 8 ns
* into 50 Ω load				
** other configurations on request				
*** standard frequencies: 40, 80, 110, 150, 200 MHz				

Connectors, Dimensions, Weight, Cooling

RF output connector	SMA female
Control input connector	D-Sub 7W2
Pins 1 and 2, inside linked	GND (case)
Pins 3 and 5, inside linked	+V _s (24 VDC)
Pin 4	not connected
Pin A1 (coaxial)	Analogue modulation
Pin A2 (coaxial)	Digital modulation

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Cooling	Conduction The base plate must be attached to a suitable heat sink capable of dissipating 36 Watt.
Dimensions [mm]	
Casing	120 x 50 x 36 ****
Mounting flat	120 x 70
Weight	360 grams
**** length x width x height	

Environmental Conditions

Warm up time	10 minutes for optimum stability
Base plate temperature	+10°C ... +60°C For optimum output power stability constant base plate temperature should be provided.
Storage temperature	-20°C ... +70°C, non condensing

Absolute Maximum Ratings

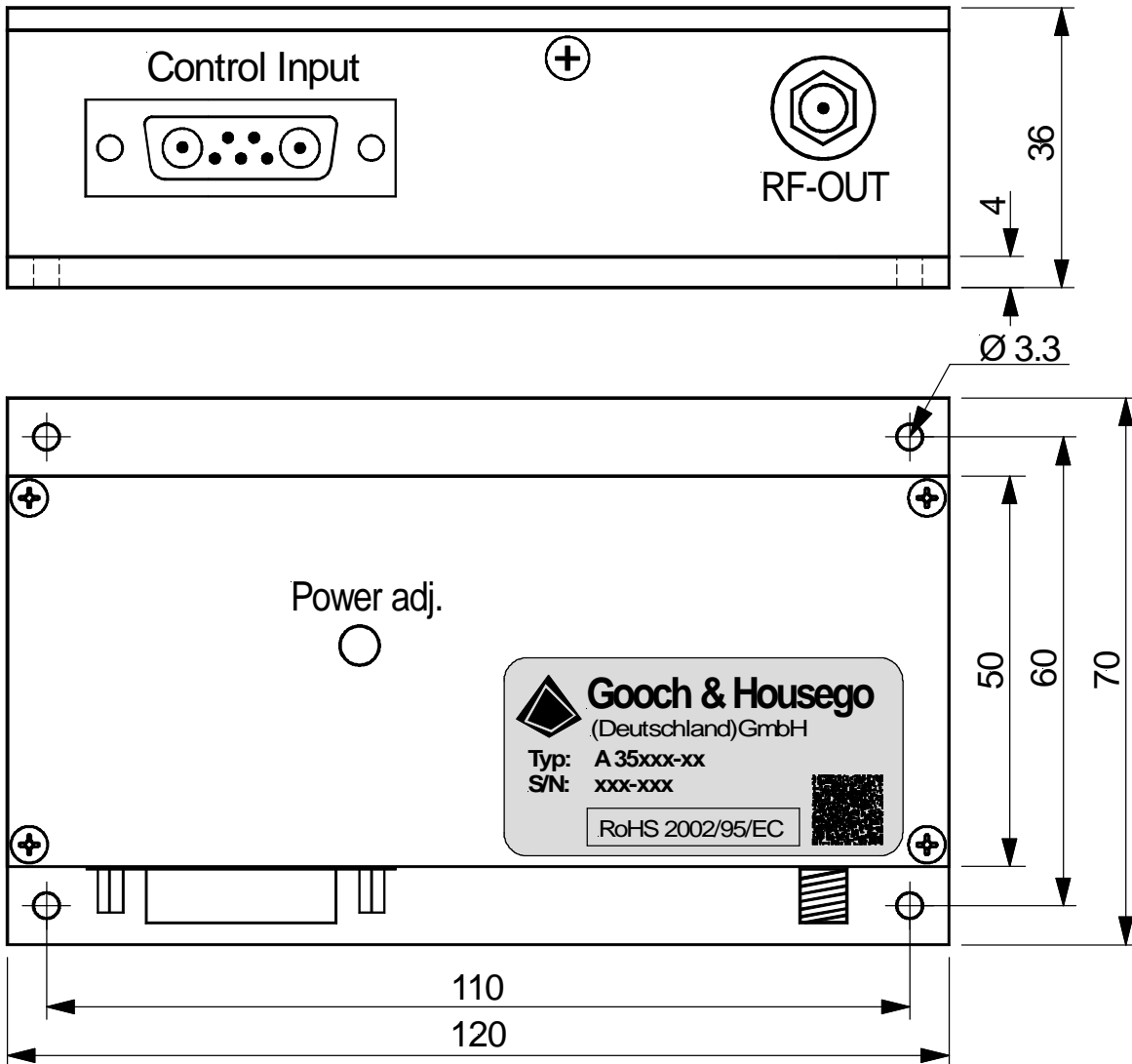
Supply voltage max.	+26 VDC
Analogue modulation	
Voltage range @ 0 ... +1 V	-0.5 V ... +1.1 V
Digital modulation	
Level	-0.5 V ... +5.5 V
Maximum operating temperature	+65°C base plate temperature

Quality Standards

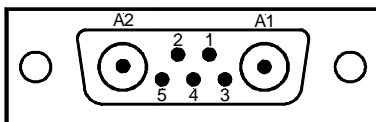
EU 2002/95/EC (RoHS)	compliant
EMC standards	VDE 0871-B FCC Rules Part 15-B
Thermal test	2h @ 70°C passive
Burn-in test	30 minutes @ maximum RF power output

Outline Drawings

Dimensions in mm

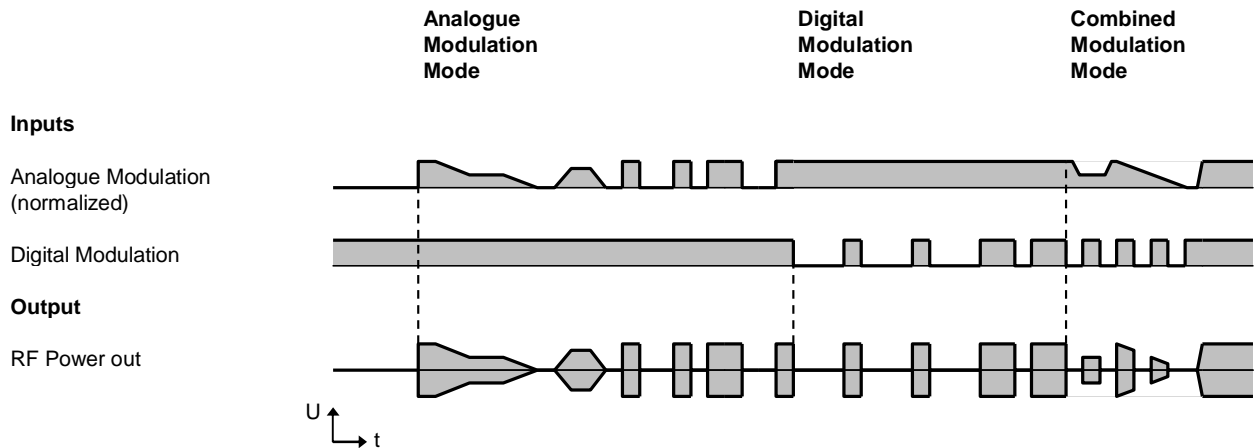


Control Input



- | | | | |
|------|---------------------------------------|----|---------------------|
| 1, 2 | GND (case) inside linked | A1 | Analogue modulation |
| 3, 5 | +U _s (24VDC) inside linked | A2 | Digital modulation |
| 4 | not connected | | |

Operation Scheme of Analogue and Digital Modulation



Variants List / Ordering Codes

A35 **-S-1/50-p4k7u**

	Frequency [MHz]
040	40.0
080	80.0
110	110.0
150	150.0
200	200.0
350	350.0

Other frequencies and customized versions are available on request.

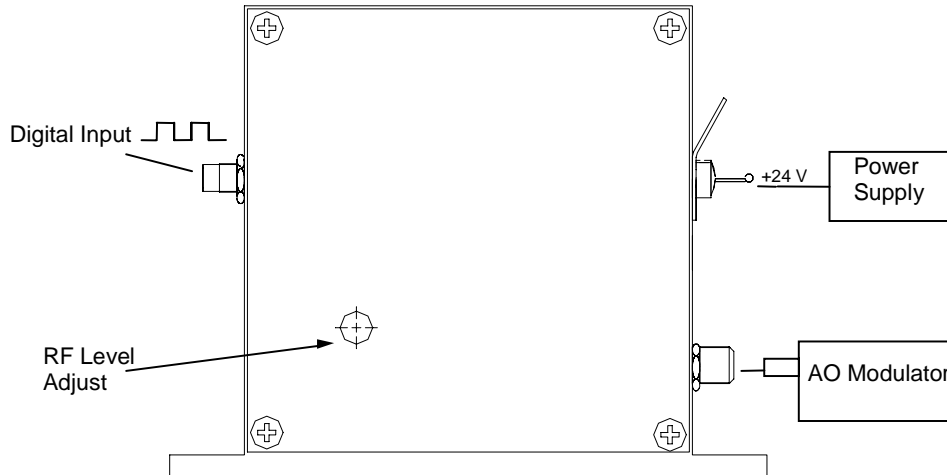
Accessories

Connector Kit
for AOM Driver Series A35xxx and A36xxx

Part-No. 508A00169

USING THE MODEL 1080AF-DINA-3.0 RF DRIVER

P/N: 97-02910-19



Operation:

1. Connect RF out of the driver to the input of the AO modulator using a 50 Ω coax cable.
2. Connect a 24V DC input to the +Vin connector. (Center conductor is positive.)
3. Use a 50 Ω coax connector to connect the modulation input. The input level should be set to standard TTL levels for digital modulation.
4. The RF level potentiometer is used for manually setting the maximum RF output power. The factory setting is 3.0 Watts RF at a standard TTL 'ON'.
5. The warm-up period for the RF driver is 5 minutes.
6. For optimum digital setting, the driver and modulator need to be tuned together. Set-up both devices in the laser system and allow the driver to warm-up. After the driver warms up, set the input level to TTL 'ON'. Adjust the Bragg angle and height of the modulator to peak up the diffraction efficiency. Adjust the power level potentiometer to further improve the diffraction efficiency. Longer wavelengths require higher powers to reach peak diffraction efficiency or saturation point. It is possible to overdrive the modulator and cause the diffraction efficiency to drop. Depending on the power level and the wavelength, lowering the RF power could cause an increase in diffraction efficiency. It's always best to find the saturation point of the modulator to ensure optimum performance.



Gooch & Housego



AOM Driver
Model: CHP080-3AC-D50
P/N: 97-02910-18
Rev: B
3.0 Watt RF Driver for
Acousto-Optic Modulators

Formerly: 1080AF-AINA-3.0HCR

The CHP080-3AC-D50 provides up to 3.0 Watts of RF power for a frequency of 80 MHz.

Fully adjustable with the screw potentiometer from 0.5 to 3.0 Watts.

An analog modulation signal controls the output RF power from 0 to 100% of the adjusted maximum power.

This driver is well suited for 80 MHz AO modulators requiring moderate amounts of RF power (1.5 - 3.0 Watts). It also is a good fit for the 80 MHz fiber coupled Q-switches.

Key Features:

- Output RF power 3.0 Watts
- RF ON/OFF ratio >50 dB
- Fast Analog modulation
- Constant RF output power design
- Conductive cooling through base plate

Applications:

- AOM driver for pulse fiber laser
- AOM applications with fast modulation
- Acousto-optic Modulators

General Specifications

Modulation Input

Input Impedance	50 Ohms
Analog Input (SMC)	0 to +1.0 VDC

RF Output

Center Frequency (Fc)	80 MHz \pm 0.1%
Output Power (SMA Female)	3.0 W
Rise/Fall Time	12 nsec Typ.
RF Contrast Ratio	50 dB min
Harmonic Distortion	-20 dBc Max
Output Impedance	50 Ohms
Output VSWR	1.5 : 1 Max
Power Supply Voltage	+24 V @ 800 mA Nominal

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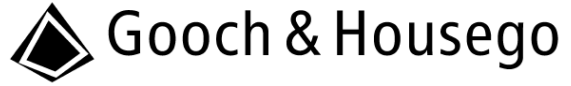
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Control

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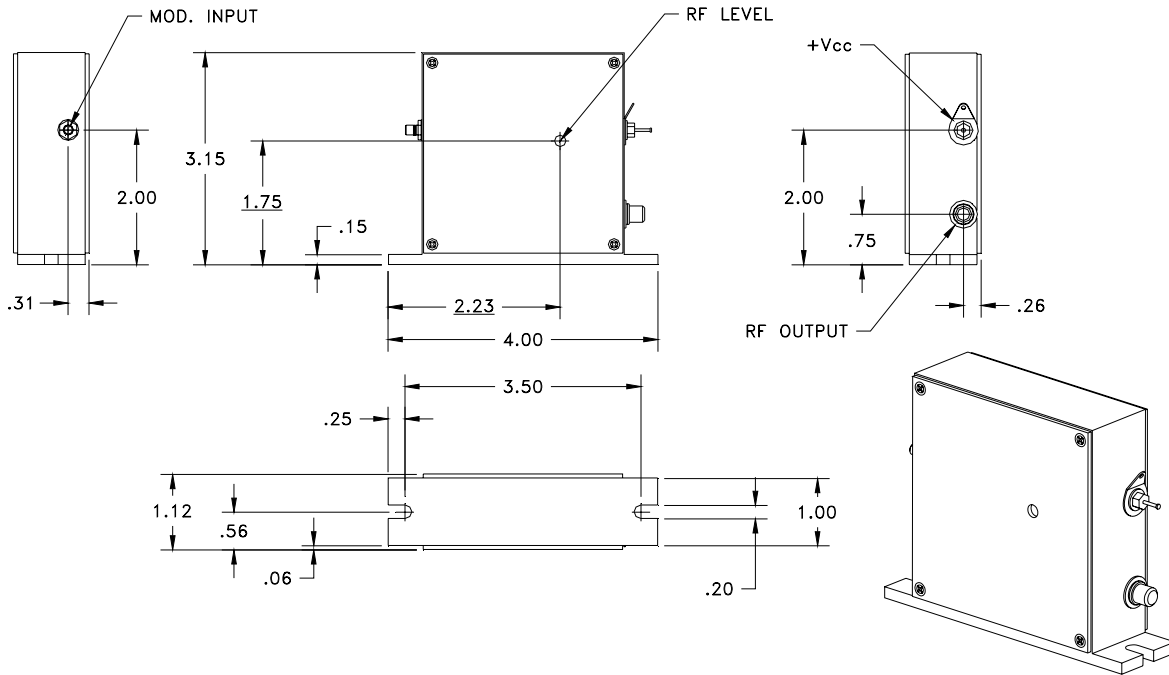
As part of our policy of continuous product improvement we reserve the right to change the specification at any time.

AOM Driver
Model: CHP080-3AC-D50
P/N: 97-02910-18



Outline:

Dimensions (inches)



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AOM Driver
Model: CHP080-3DC-D50
P/N: 97-02910-19
Rev: B
3.0 Watt RF Driver for
Acousto-Optic Modulators

Formerly: 1080AF-DINA-3.0HCR

The CHP080-3DC-D50 provides up to 3.0 Watts of RF power for a frequency of 80 MHz.

Fully adjustable with the screw potentiometer from 0.5 to 3.0 Watts.

A standard TTL signal controls the output RF power from 0 to 100% of the adjusted maximum power.

This driver is well suited for 80 MHz AO modulators requiring moderate amounts of RF power (1.5 - 3.0 Watts). It also is a good fit for the 80 MHz fiber coupled Q-switches.

Key Features:

- Output RF power 3.0 Watts
- RF ON/OFF ratio >50 dB
- Fast Analog modulation
- Constant RF output power design
- Conductive cooling through base plate

Applications:

- AOM driver for pulse fiber laser
- AOM applications with fast modulation
- Acousto-optic Modulators

General Specifications

Modulation Input

Input Impedance	75 Ohms
Digital Input (SMC)	Standard TTL

RF Output

Center Frequency (Fc)	80 MHz \pm 0.1%
Output Power (SMA Female)	3.0 W
Rise/Fall Time	12 nsec Typ.
RF Contrast Ratio	50 dB min
Harmonic Distortion	-20 dBc Max
Output Impedance	50 Ohms
Output VSWR	1.5 : 1 Max
Power Supply Voltage	+24 V @ 825 mA Nominal

Document

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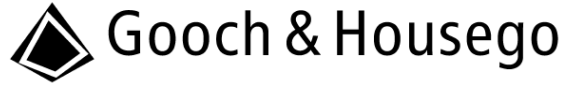
Control

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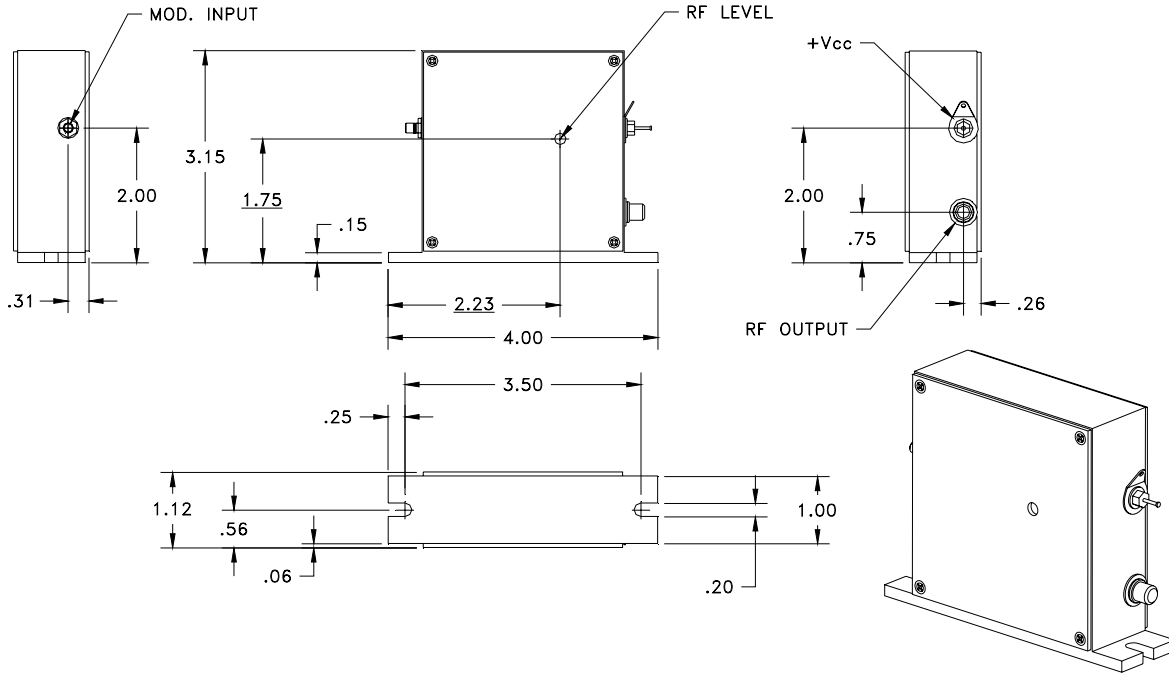
Document: 97-02910-19-50 Rev: A

AOM Driver
Model: CHP080-3DC-D50
P/N: 97-02910-19



Outline:

Dimensions (inches)





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Document

05/16/13

Control

AOM Driver 2910 Series

1 to 4 Watt RF Drivers for Acousto-Optic Modulators

The 2910 Series RF driver provides up to 4 Watts output power. Various types cover a frequency range of 80 to 350 MHz.

The maximum RF output power is adjustable by an internal potentiometer. The driver is available in either analogue or digital modulation control. The analogue modulation voltage controls the output power from 0 to 100% of the adjusted maximum power. The digital modulation control signal can switch on and off the RF power.

The driver can be operated with modulation frequencies (analogue and digital) up to 25% of the carrier frequency and 50 MHz maximum at the higher carrier frequencies.

Optimum EMC shielding and mechanical protection is achieved by an aluminium casing. The base plate serves for mounting and heat dissipation purposes.

Key Features:

- Frequency range 80 to 350 MHz
- RF output power up to 4 Watt
- RF on/off ratio ≥ 60 dB (Digital Modulation)
- RF on/off ratio ≥ 50 dB (Analogue Modulation)
- Constant output power design
- Models with a modulation frequency up to 50 MHz available
- Conductive cooling through base plate
- Compact casing

Applications:

- Fast modulation components for extra cavity applications, e. g. laser projection systems
- Frequency shifting

Technical Data

Supply Voltage	+24V DC
Supply Current	600 mA (nominal) with Pout = 1.0 W 625 mA (nominal) with Pout = 1.5 W 775 mA (nominal) with Pout = 2.5 W 825 mA (nominal) with Pout = 3.0 W 900 mA (nominal) with Pout = 4.0 W 2700 mA (nominal) with Pout = 20 W*
Output Impedance	50 Ω (nominal)
Maximum RF Power (adjustable)	< 0.1 W ... > Pout
Frequency Accuracy	\pm 0.1%
Harmonic Distortion**	\leq -20 dBc***
Analogue modulation	
Impedance	50 Ω (nominal)
Voltage range @ 50 Ω	0 ... +1 V
RF ON / OFF ratio	\geq 50 dB****
Digital modulation	
Impedance	75 Ω (nominal)*****
Level	Standard TTL
RF ON / OFF ratio	\geq 60 dB
RF Output Frequencies	80, 110, 150, 200, 260 & 350 MHz
RF Rise/Fall Times	12 nsec @ 80 MHz (Rise = 10% to 90%) 9 nsec @ 110 MHz (Fall = 90% to 10%) 7 nsec @ 150 MHz 5 nsec @ 200 MHz 4 nsec @ 260 MHz 4 nsec @ 350 MHz

* A 20 W version available using external amplifier.

** Into 50 Ω load

*** Part numbers -16 and -17 are \leq -15 dBc

**** Part numbers -12, -14 and -16 are \geq 45 dB

***** Part number -11 is 600 Ω (nominal)

Connectors

RF output connector	SMA (female)
Modulation connector	SMC (male)
Power Supply connector	
Input	Solder terminal (filtered feed-thru)
Ground	Solder lug

Cooling, Dimensions, Weight

Cooling	Conduction Base plate should be attached to suitable heat sink capable of dissipating:
Pout	15 W
1.0 W - 1.5 W	20 W
2.5 W - 3.0 W	22 W
4.0 W	
Dimensions inches [mm]	
L x W x H	4 x 1.12 x 3.15 [102 x 29 x 80]
Weight lbs [kg]	0.53 [0.24] (nominal)

Environmental Conditions

Warm-up Time	5 minutes (nominal)
Base Plate Temperature	0° C to +60° C For optimum output power stability constant base plate temperature should be provided
Storage Temperature	-25°C to +85°C (non condensing)

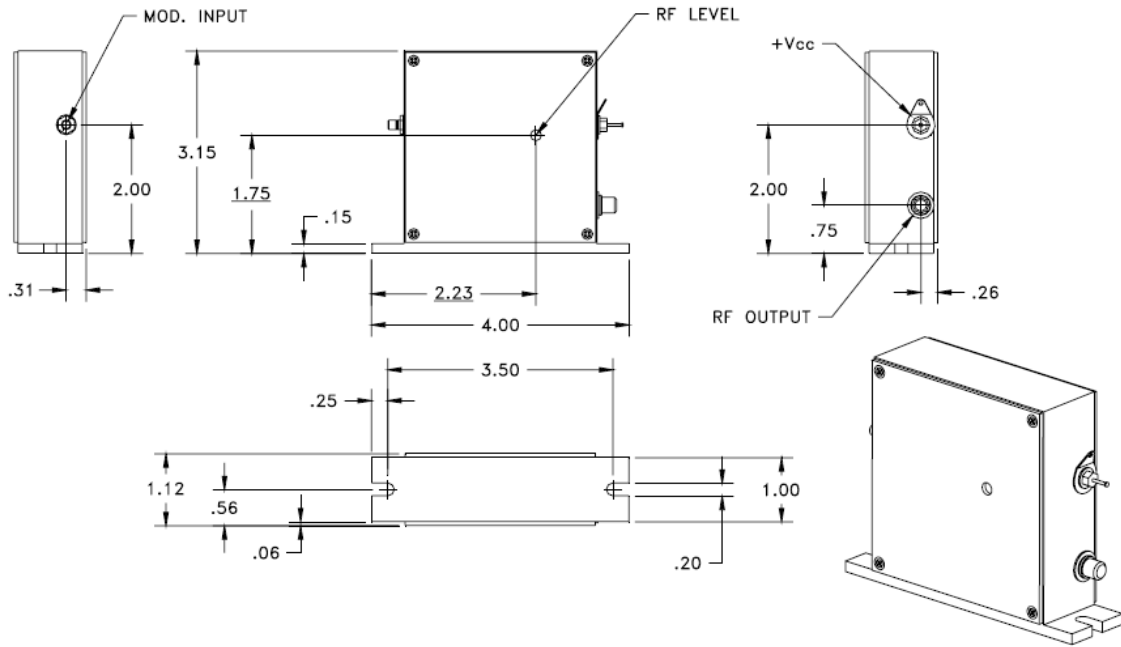
Absolute Maximum Ratings

Supply Voltage	+28 VDC
Analogue Modulation	-1.5 V to +1.5 V
Digital Modulation	-0.5 V to +2.75 V
Operating Temperature	+65°C (base plate temperature)

Quality Standards

EU 2002/95/EC (RoHS)	Compliant
Burn-in	12 Hours min @ +25° C and Pout

Outline Drawing:
(Dimensions in inches)



Variant List / Ordering Codes

1XXX AF-XIN0-X.X HCR

Code	Frequency MHz
080	80
110	110
150	150
200	200
260	260
350	350

Code	Modulation
A	Analogue
D	Digital

Code	RF Power Watts
1.0	1.0
1.5	1.5
2.5	2.5
3.0	3.0
4.0	4.0

Other Frequencies and customized versions available upon request.



Gooch & Housego



AOM Driver
Model: CHP150-3AC-D50
P/N: 97-02910-14
Rev: B
2.5 Watt RF Driver for
Acousto-Optic Modulators

Formerly: 1150AF-AINA-2.5HCR

The CHP150-3AC-D50 provides up to 2.5 Watts of RF power for a frequency of 150 MHz.

Fully adjustable with the screw potentiometer from 0.5 to 2.5 Watts.

An analog modulation signal controls the output RF power from 0 to 100% of the adjusted maximum power.

This driver is well suited for 150 MHz AO modulators requiring moderate amounts of RF power (1.5 - 2.5 Watts). It also is a good fit for the 150 MHz fiber coupled Q-switches.

Key Features:

- Output RF power 2.5 Watts
- RF ON/OFF ratio >45 dB
- Fast Analog modulation
- Constant RF output power design
- Conductive cooling through base plate

Applications:

- AOM driver for pulse fiber laser
- AOM applications with fast modulation
- Acousto-optic Modulators

General Specifications

Modulation Input

Input Impedance	50 Ohms
Analog Input (SMC)	0 to +1.0 VDC

RF Output

Center Frequency (Fc)	150 MHz \pm 0.1%
Output Power (SMA Female)	2.5 W
Rise/Fall Time	7 nsec Typ.
RF Contrast Ratio	45 dB min
Harmonic Distortion	-20 dBc Max
Output Impedance	50 Ohms
Output VSWR	1.5 : 1 Max
Power Supply Voltage	+24 V @ 775 mA Nominal

Document

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Control

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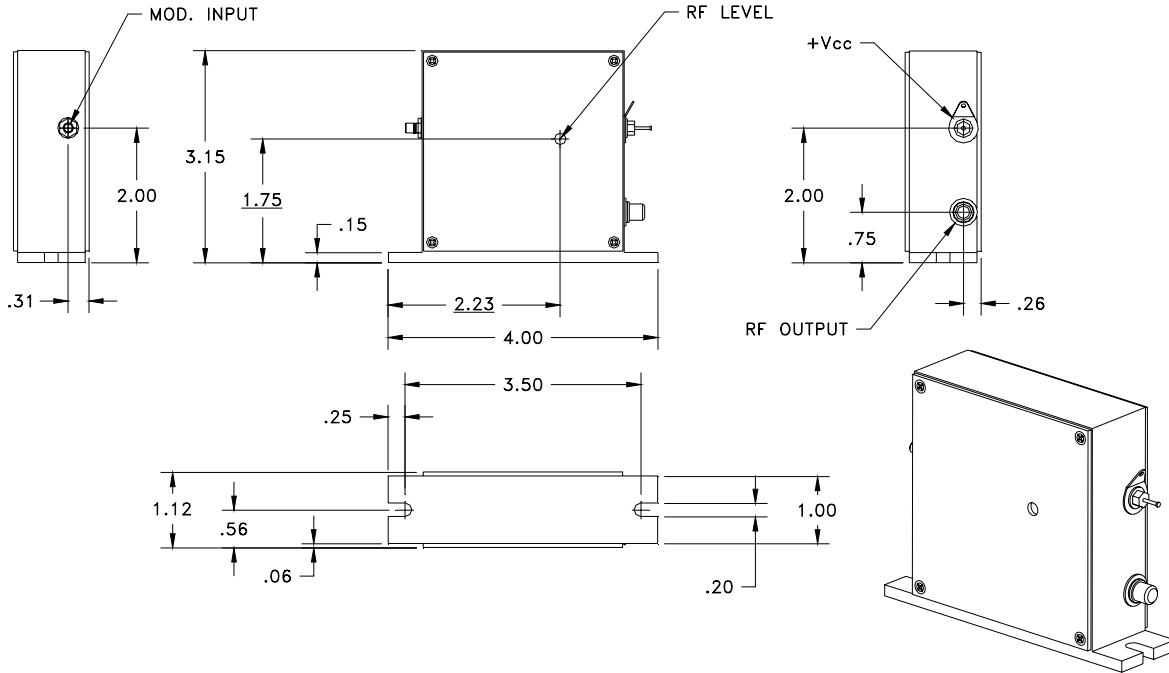
Document: 97-02910-14-50 Rev: A

AOM Driver
Model: CHP150-3AC-D50
P/N: 97-02910-14



Outline:

Dimensions (inches)



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Gooch & Housego



AOM Driver
Model: CHP150-3DC-D50
P/N: 97-02910-15
Rev: B
2.5 Watt RF Driver for
Acousto-Optic Modulators

Formerly: 1150AF-DINA-2.5HCR

The CHP150-3DC-D50 provides up to 2.5 Watts of RF power for a frequency of 150 MHz.

Fully adjustable with the screw potentiometer from 0.5 to 2.5 Watts.

A standard TTL signal controls the output RF power from 0 to 100% of the adjusted maximum power.

This driver is well suited for 150 MHz AO modulators requiring moderate amounts of RF power (1.5 - 2.5 Watts). It also is a good fit for the 150 MHz fiber coupled Q-switches.

Key Features:

- Output RF power 2.5 Watts
- RF ON/OFF ratio >50 dB
- Fast Analog modulation
- Constant RF output power design
- Conductive cooling through base plate

Applications:

- AOM driver for pulse fiber laser
- AOM applications with fast modulation
- Acousto-optic Modulators

General Specifications

Modulation Input

Input Impedance	75 Ohms
Digital Input (SMC)	Standard TTL

RF Output

Center Frequency (Fc)	150 MHz \pm 0.1%
Output Power (SMA Female)	2.5 W
Rise/Fall Time	7 nsec Typ.
RF Contrast Ratio	50 dB min
Harmonic Distortion	-20 dBc Max
Output Impedance	50 Ohms
Output VSWR	1.5 : 1 Max
Power Supply Voltage	+24 V @ 775 mA Nominal

Document

10/23/12

Control

Contact: sales@goochandhousego.com www.goochandhousego.com

As part of our policy of continuous product improvement we reserve the right to change the specification at any time.

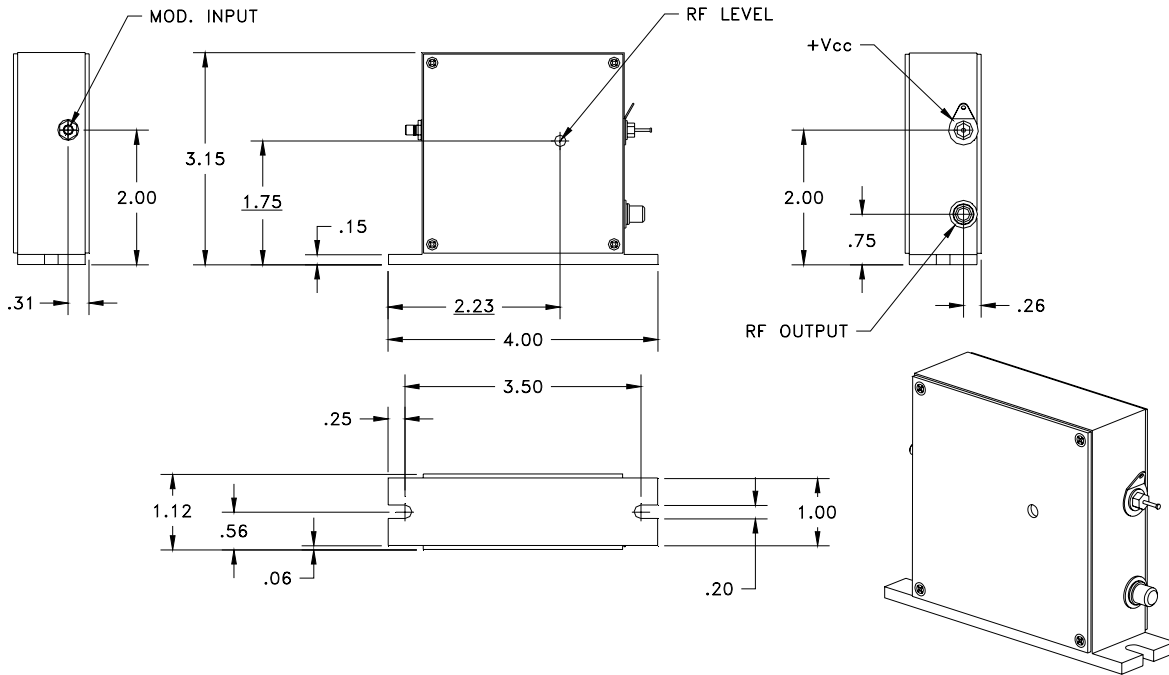
Document: 97-02910-15-50 Rev: A

AOM Driver
Model: CHP150-3DC-D50
P/N: 97-02910-15



Outline:

Dimensions (inches)



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SPECIFICATIONS

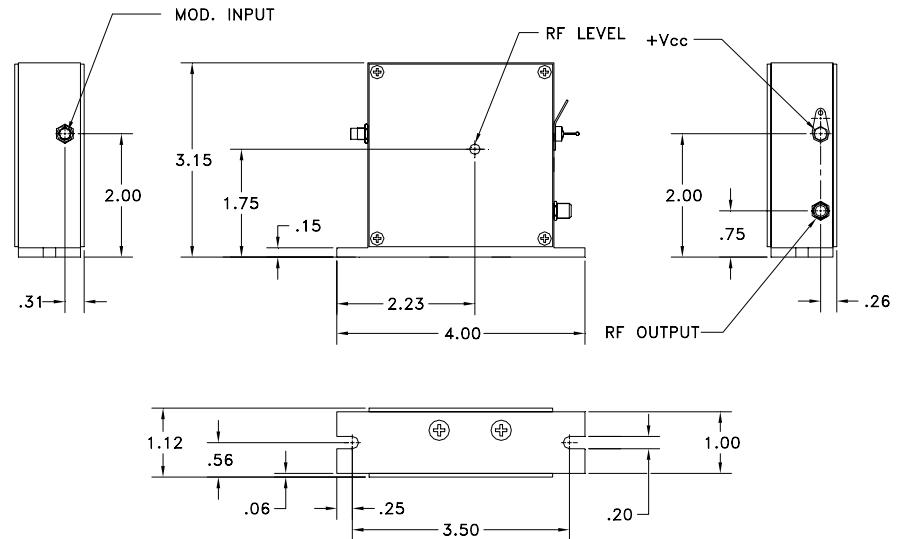
Modulation Input

Input Impedance 50 Ohms
 Analog Input (SMC) 0 to +1.0 VDC

RF Output

Center Frequency (Fc) 200 MHz \pm 0.1%
 Output Power (SMA Female) 2.5 W
 Rise/Fall Time 5 nsec Max
 RF Contrast Ratio 50 dB min
 Harmonic Distortion -20 dBc
 Output Impedance 50 Ohms
 Output VSWR 1.5 : 1 Max
 Power Supply Voltage +24 V @ 775 mA

OUTLINE DRAWING



Notes:

1. Output power factory set to 2.5 W at 1.0 Volt input. Power stability less than 5% over the heat sink'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 200 MHz fundamental shall be used. The higher harmonics have no effect on the AO modulator's performance.
3. RoHS compliant.

Document
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TOLERANCES: .XX \pm .01 .XXX \pm .005	DR	T. Moon 10/4/2010	Crystal Technology, Inc.
MATERIAL: 	CHK		DESCRIPTION: AODR 1200AF-AINA-2.5 HCR
FINISH: 	APP		PART NUMBER: 97-02910-04
	APP		REV: B
			1 of 1

SPECIFICATIONS

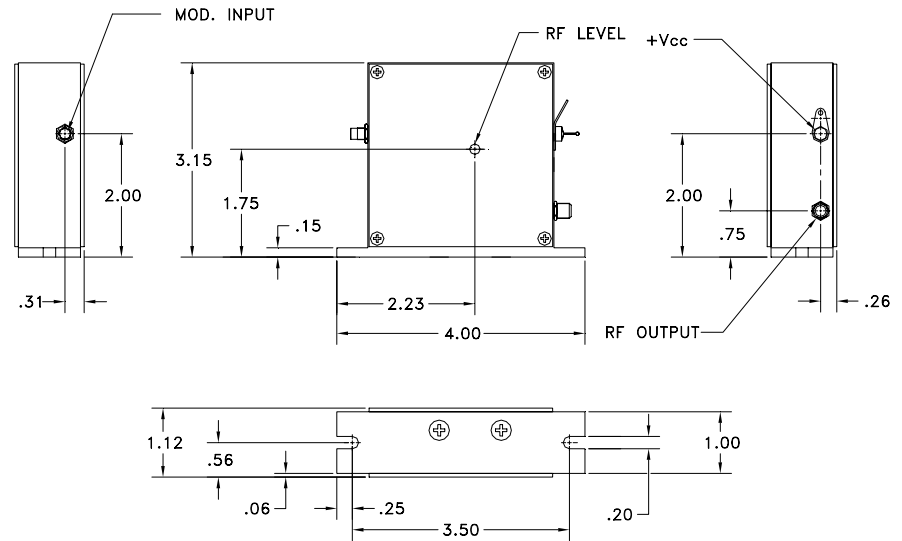
Modulation Input

Input Impedance 75 Ohms
 Digital Input (SMC) Standard TTL

RF Output

Center Frequency (Fc) 200 MHz \pm 0.1%
 Output Power (SMA Female) 2.5 W
 Rise/Fall Time 4 nsec Max
 RF Contrast Ratio 50 dB min
 Harmonic Distortion -20 dBc
 Output Impedance 50 Ohms
 Output VSWR 1.5 : 1 Max
 Power Supply Voltage +24 V @ 760 mA

OUTLINE DRAWING



Notes:

- Output power factory set to 2.5 W at 2.4 Volt input. Power stability less than 5% over the heat sink's ambient temperature range of 0 - 40° C, after 5 minute warm-up.
- When calculating the contrast ratio, it is understood that only the power of the 200 MHz fundamental shall be used. The higher harmonics have no effect on the AO modulator's performance.
- RoHS compliant

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TOLERANCES: .XX \pm .01 .XXX \pm .005	DR	Gerl Scholz 2/5/2010	Crystal Technology, Inc.
MATERIAL: 	CHK		DESCRIPTION: AODR 1200AF-DINA-2.5 HCR
FINISH: 	APP		PART NUMBER: 97-02910-01
	APP		REV: F
			1 of 1