

Logarithmic Hybrid Amplifiers

RTI has developed a series of hybrid log amplifiers that are small in size, light in weight, and high on reliability. These units provide a detected video output voltage logarithmically proportional to the input IF power. Specifically designed for use in electronic warfare and radar receiving systems, these units deliver fast rise and fall time pulse characteristics.



General Specifications

Linearity	±1 dB (add ±0.5 dB over Temperature) (-30°C to +71°C)
Sensitivity	25mV/dB (typ)
Source Impedance	50 Ohms
Video Load Impedance	93 Ohms
Power Requirements	±15 VDC
Connectors	SMA

Key Features

- 80dB Dynamic Range
- ± 1 dB Linearity
(add ±0.5 dB over Temperature)
- DC Coupled Video
- Built-in Voltage Regulation
- Excellent Pulse Response

Optional Specifications

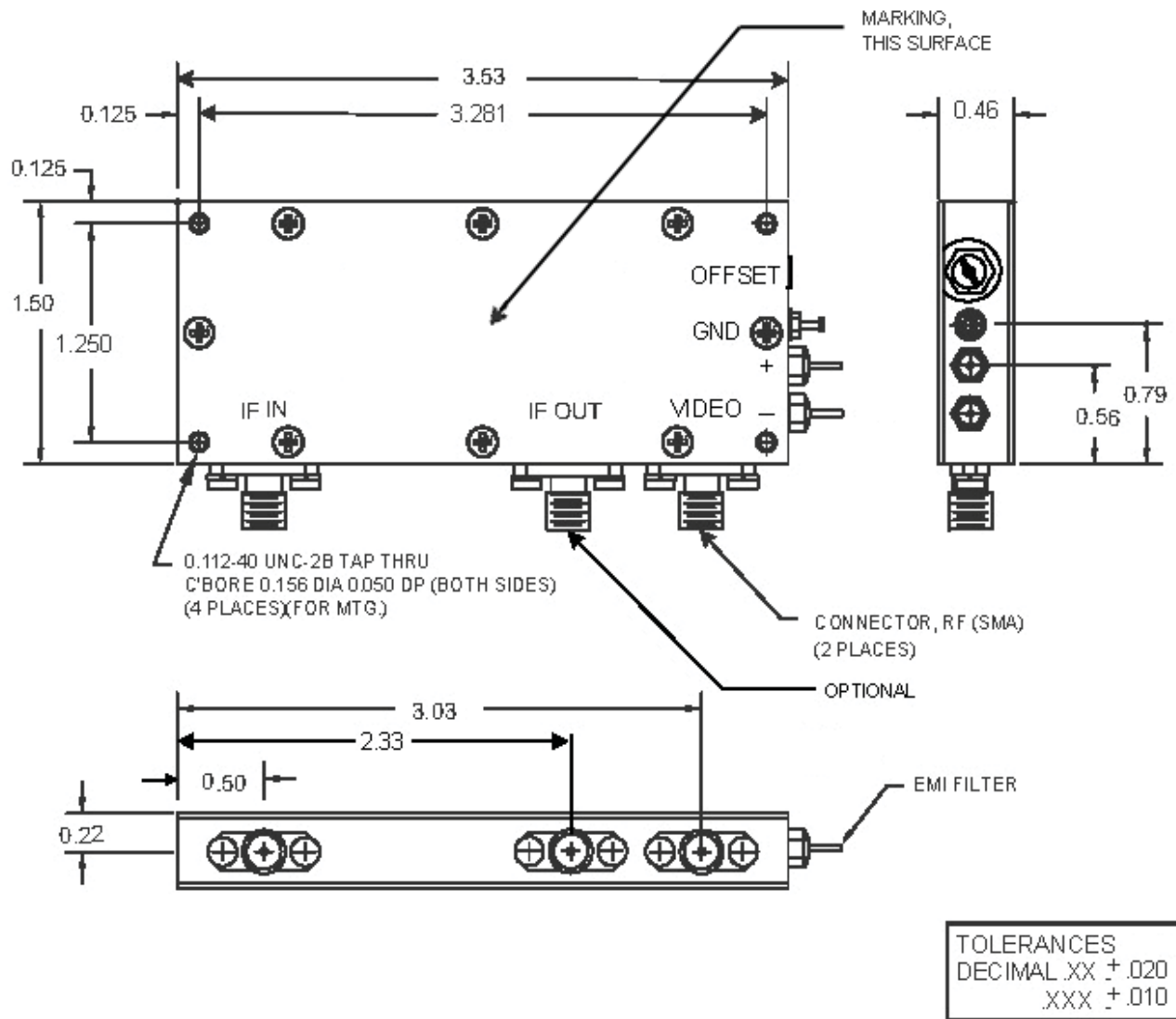
Limited IF Output	0 dBm (add suffix B) or 10 dBm (add suffix B+)
Power Supplies	±12VDC (add suffix C)
Matched Set	2, 3 units/set (add suffix M)

Design Note: Radar Technology can customize any of our products to meet your individual system requirements. RTI also offers many form, fit, function replacements to old RHG Electronics Amplifiers.

Specification Table

Model	Center Frequency (MHz)	Bandwidth (MHz)	Rise Time (uS)	Dynamic Range (dB)	Input Power (dBm)
RTL-4-1003	10	3	0.5	80	-80 to 0
RTL-4-3002	30	2	0.5	80	-80 to 0
RTL-4-3004	30	4	0.25	80	-80 to 0
RTL-4-3010	30	10	0.1	80	-80 to 0
RTL-4-4510	45	10	0.1	80	-80 to 0
RTL-4-6010	60	10	0.1	80	-80 to 0
RTL-4-6020	60	20	0.05	80	-80 to 0
RTL-4-7010	70	10	0.1	80	-80 to 0
RTL-4-7020	70	20	0.05	80	-80 to 0
RTL-4-12020	120	20	0.05	70	-70 to 0
RTL-4-12040	120	40	0.03	70	-70 to 0
RTL-4-16020	160	20	0.05	70	-70 to 0
RTL-4-16030	160	30	0.04	70	-70 to 0
RTL-4-16040	160	40	0.03	70	-70 to 0

Outline Drawing



Notes:

1. Chassis and cover material : Aluminum alloy
2. Finish: Electroless Nickel per MIL-C-26074
3. All dimensions in inches