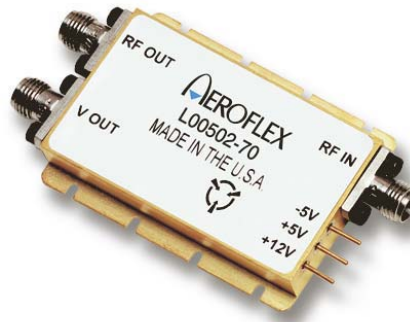


# L00502-70 Logarithmic Amplifier 0.5 To 2.0GHz

## ADVANCED DATA SHEET

www.aeroflex.com/bband



### DESCRIPTION

The Aeroflex Plainview cutting edge Logarithmic Amplifier designs are enabling new applications. Our team of engineers can custom design Log Amplifiers using latest CAD Simulation software to meet even the most demanding specifications.

### FEATURES

- ❑ Ultra Wideband with High Sensitivity
- ❑ Great Dynamic Range
- ❑ Fast Rise Times
- ❑ Custom Configurations in Small Package
- ❑ Packaging - Hermetic / Non-Hermetic

### SPECIFICATIONS

#### Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNITS
Operating Temperature - Case	$T_{MO}$	-20	+85	°C
Storage Temperature - Case	$T_{MS}$	-40	+95	°C
Negative Supply Voltage	$V_{-SS}$	-9	-	V
Positive Supply Voltage	$V_{+SS}$	-	+15	V

#### Nominal Operating Conditions

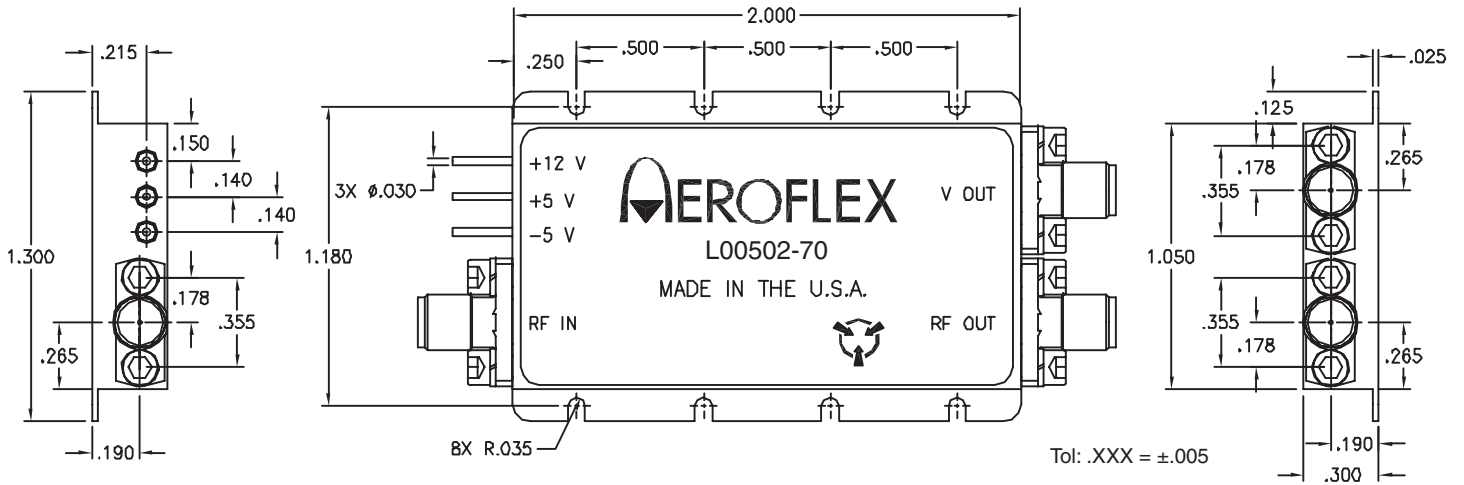
PARAMETER	CONDITIONS	MIN	MAX	UNITS
Temperature, $T_O$	Full Range	-10	+75	°C
Positive Supply Voltage, $V_{PS}$		+7.7	+12	V
Negative Supply Voltage, $V_{NS}$		-5.25	-4.75	V

#### Electrical Characteristics

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Frequency Range		0.5	-	2.0	GHz
Dynamic Range		-70	-	+0	dBm
Tangential Signal Sensitivity (TSS)		-75	-	-	dBm
Linearity	Over Frequency @ 25°C	-	-	±1.0	dB
	Over Frequency and Temperature	-	-	±2.0	dB
Log Slope	93 ohms	22	25	28	mV/dB
Video Output Voltage	Across 93 Ohms	0	-	2	V
Pulse Rise Time	10-90%	-	-	10	ns
Pulse Fall Time	10-90%	-	-	25	ns
RF Input Impedance	Reference to 50 Ohms	-	-	2.0:1	-
RF Output Impedance	Reference to 50 Ohms	-	-	2.0:1	-
Recovery Time		-	50	-	ns
Limited RF Output Power		-	6	-	dBm
Limited RF Output VSWR	Reference to 50 Ohms	-	-	2.0:1	-
Supply Current					
+8V		-	350	-	mA
-5V		-	-100	-	mA

Aeroflex Plainview

## OUTLINE DRAWING



## ORDERING INFORMATION

MODEL NUMBER	HERMETICITY	PACKAGE
L00502-70H	Hermetic	2.0L x 1.180W x .300Ht
L00502-70	Non Hermetic	

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