



# Microwave (1GHz) Log Amplifier, Discriminator and Linear Detector MLA 1-500, MDLD 1-500 & LLD 1-500



## MLA 1-500 log amplifier

Frequency range	750-1250MHz
Dynamic range	-65 to 0dBm
Log slope	15mV/dB
Linearity (at +25°C and $f_c$ )	±1.0dB
Variation of log linearity (over frequency)	±1.5dB
Variation of log slope (over temperature and frequency)	±5%
Video output at 0dBm (DC coupled into 100 ohms with log slope 15mV/dB)	1.0V
Offset adjustment	±100mV
Variation of DC offset	±1.0dB
Limited IF output	0dBm ±2.0dB
Input power (max)	+23dBm
Pulse rise time	<10ns
Pulse fall time	<30ns
Input VSWR (max)	1.5:1
Supply voltage	±12 or ±15VDC
Power consumption (max)	+ve 50mA -ve 160mA
Temp. range - operating	0° to +60°C
-survival	-60° to +125°C
Weight (max)	85g
Finish	Bright tin

## MDLD 1-500 discriminator

Frequency range	750-1250MHz
Video o/p slope	10mV/MHz
Linearity (max)	±5%
Frequency accuracy (max) (over temp)	10%
Video o/p (DC coupled into 93 ohms)	±2.5V
Offset adjustment (min)	±100mV
Rated input level	0dBm
Input power (max)	+20dBm
Pulse rise time	<6ns
VSWR	<2:1
Supply voltage	±12 or ±15 VDC
Power Consumption	+ve 50mA -ve 190mA
Temp. range -operating	0° to +60°C
-survival	-60° to +125°C
Weight (max)	85g
Finish	Bright tin

## LLD 1-500 linear detector

Frequency range	750-1250 MHz
IF gain (nom)	60dB
Video gain (nom)	70dB
Linearity (max) (over 20dB)	±1dB
Noise figure (max)	8dB
AGC range (min)	50dB
Max video o/p	+2.0v into 93Ω DC coupled
Max IF o/p	0dBm into 50Ω
Pulse rise time (max)	20ns
Supply voltage	±12 or ±15VDC
Power consumption (max)	+ve 80mA -ve 150mA
Temp range - operating	0° to +60°C
-survival	-60° to +125°C
Weight (max)	85g
Finish	Bright tin

## Ordering Information

### MLA 1-500-XXX-XXX

Without video filter 00;	
With video filter specify $f_c$ in MHz	
Limited	0 = fitted
RF output	1 = not fitted
Temperature	1 = 0 to +60°C
	2 = -45 to +85°C
	3 = -55 to +100°C
	4 = Customer specified
Supply voltage	1 = ±12V
	2 = ±15V
Connectors	A = SMA
	B = SMB
	C = SMC

## Ordering Information

### MDLD 1-500-XXX

Temperature	1 = 0 to +60°C
	2 = -45 to +85°C
	3 = -55 to +100°C
	4 = Customer specified
Supply voltage	1 = ±12V
	2 = ±15V
Connectors	A = SMA
	B = SMB
	C = SMC

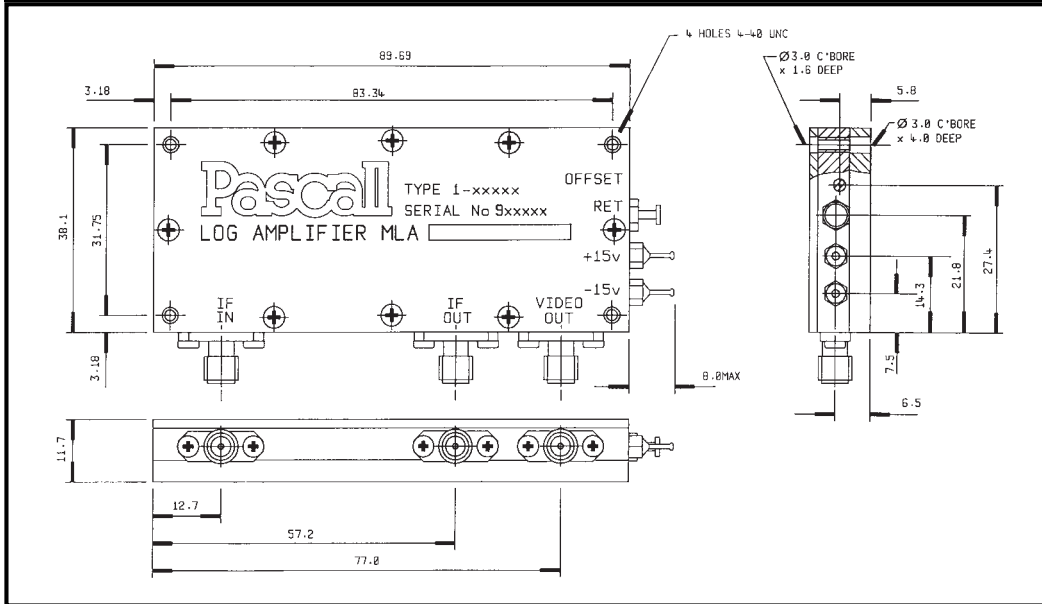
## Ordering Information

### LLD 1-500-XXX-XXX

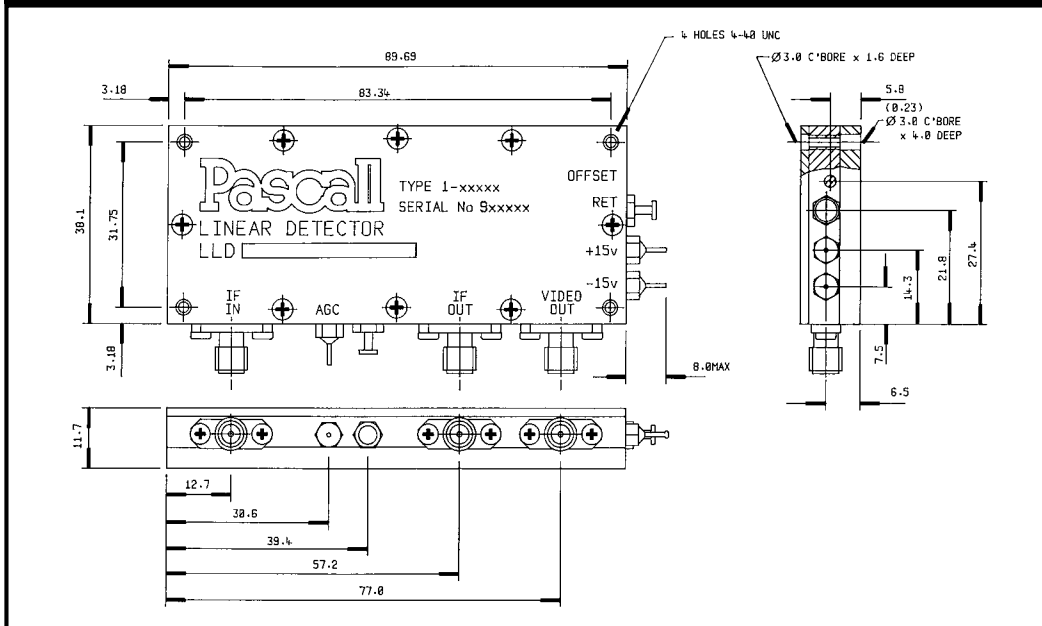
Video output	0 = No output
	1 = AC coupled output
IF output	0 = No output
	1 = IF output
Temperature	1 = 0 to +60°C
	2 = -45 to +85°C
	3 = -55 to +100°C
	4 = Customer specified
Supply voltage	1 = ±12V
	2 = ±15V
Connectors	A = SMA
	B = SMB
	C = SMC

DIMENSIONS in mm. FINISH Bright tin, generally in accordance with MIL-T-10727 Type 1 Bright.

### Microwave (1GHz) Log Amplifier: MLA 1-500



### Microwave (1GHz) Linear Detector: LLD 1-500



**DIMENSIONS** in mm. **FINISH** Bright tin, generally in accordance with MIL-T-10727 Type 1 Bright.

