# HIGH-PERFORMANCE SUCCESSIVE DETECTION IF LOGARITHMIC AMPLIFIERS

## **MODEL: LIFD SERIES**

## **FEATURES**

- Up to 85 dB dynamic range
- ±0.5 dB linearity
- Extended environmental limits
- Optimized chassis for VME format
- Different packaging options

## **OPTIONS**

- Customized center frequencies and frequency agility
- Increased dynamic range
- Increased operating bandwidth
- Custom packaging
- Extended environmental limits
- Military screening



MODEL Number	CENTER FREQUENCY (MHz)	3 dB BANDWIDTH (MHz)	DYNAMIC Range (dBm)	RISE TIME (ns)	FALL TIME (ns)
LIFD-1002P-80	10	2	-80 to 0	500	1000
LIFD-2105P-80	21.4	5	-80 to 0	200	600
LIFD-3010P-80	30	10	-80 to 0	100	300
LIFD-6020P-80	60	20	-80 to 0	50	150
LIFD-7030P-80	70	30	-80 to 0	30	90
LIFD-12020P-80	120	20	-80 to 0	50	150
LIFD-16040P-80	160	40	-80 to 0	30	90
		<b>WIDEBAND MOD</b>	ELS		
LIFD-300100P-70	300	100	-70 to 0	20	60
LIFD-450300P-70	450	300	-70 to 0	20	60

#### **ADDITIONAL SPECIFICATIONS**

The above models are available in 'A, B, G, K and M' housings.

Linearity measured at center frequency and 25°C is  $\leq \pm 0.5$  dB.

Add ±0.5 dB over operating temperature of -40 to +85°C and ±0.5 dB over operating bandwidth.1

Slope is 25 mV/dB nominal (15 mV/dB wideband models) at center frequency and 25°C.

Slope variations of ±5% will occur over operating temperature.

An additional ±5% variation will occur over operating bandwidth.<sup>1</sup>

Video output is DC coupled and rated into 93  $\Omega$ .

Input impedance is 50  $\Omega$  (VSWR < 1.5:1 typical).

Power: +12 VDC at 65 mA typical, -12 VDC at 120 mA typical.

### **ORDER OPTIONS**

For ±15 VDC, add suffix "C".

For limited IF output at 0 dBm nominal, (VSWR < 2.0:1 typical) add suffix "L".

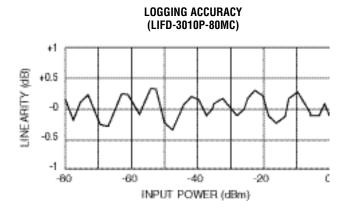
Typical part number: LIFD-6020P-80BCL (for 'B' housing at ±15 VDC with limited IF output).

Note: 1 Wideband models are operational over specified bandwidth and have typically greater 3 dB bandwidths.

NOTE: FOR MODIFICATION OF OUR STANDARD MODELS, PLEASE CONSULT FACTORY.

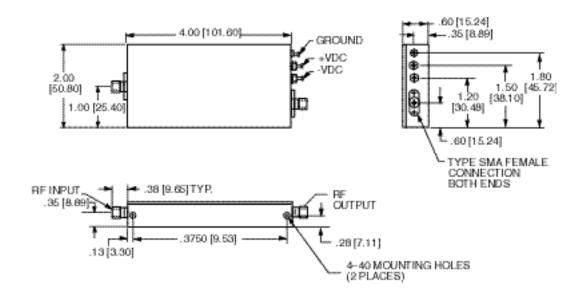


# **LIFD SERIES TYPICAL TEST DATA**



# **LIFD SERIES OUTLINE DRAWINGS**

## **OUTLINE A**

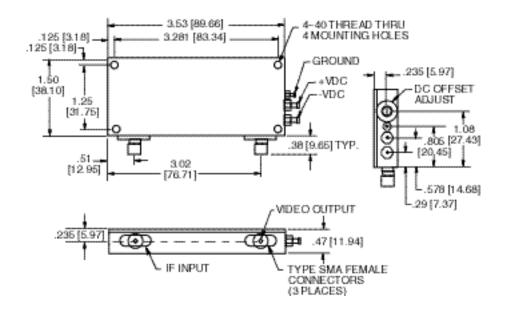


NOTE: DIMENSIONS SHOWN IN BRACKETS [ ] ARE IN MILLIMETERS.

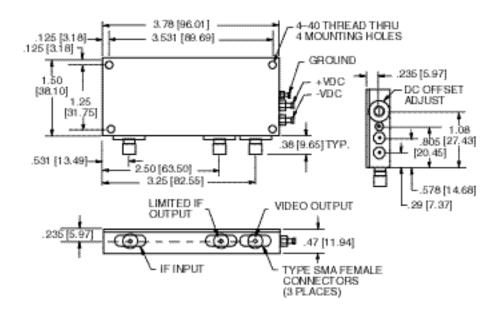


# **LIFD SERIES OUTLINE DRAWINGS**

#### **OUTLINE B**



#### **OUTLINE G\***



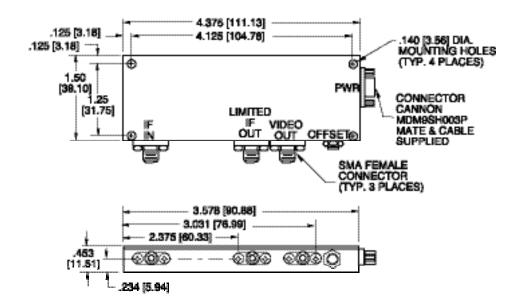
NOTE: DIMENSIONS SHOWN IN BRACKETS [ ] ARE IN MILLIMETERS.

\* ABOVE DRAWING INCLUDES LIMITED IF OUTPUT (OPTIONAL).

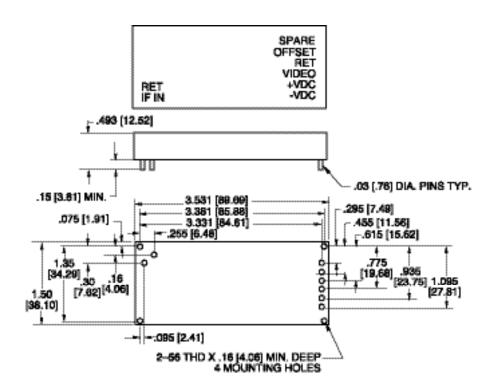


# **LIFD SERIES OUTLINE DRAWINGS**

## **OUTLINE K\***



#### **OUTLINE M**



NOTE: DIMENSIONS SHOWN IN BRACKETS [ ] ARE IN MILLIMETERS.
\* ABOVE DRAWING INCLUDES LIMITED IF OUTPUT (OPTIONAL).

