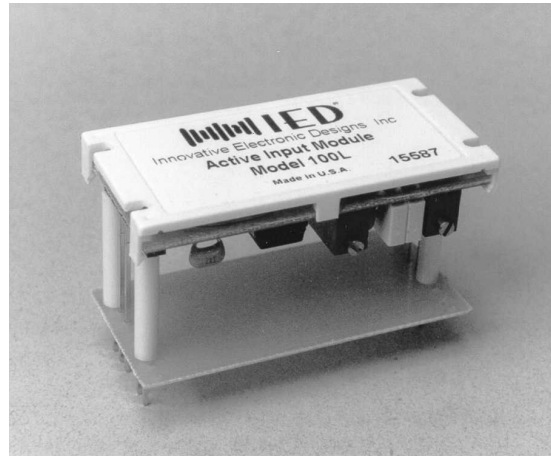


IED MODEL 100L

ACTIVE INPUT MODULE

The 100L active input module is designed to provide the line level audio input stage on many IED audio circuit cards. It is used as the line level audio preamplifier on IED 4000 Series Automatic Mixer and 5000 Series Audio Processing cards. It has a totally balanced input which replaces the input transformer and its associated circuitry, while also isolating any DC voltage on the input. Its many advantages include low CMRR, and adjustable gain. These advantages combine to make the 100L an excellent choice for any application where a high quality line level preamplifier is required. The Model 100L is a two cubic inch module which weighs less than one ounce.



FEATURES

- Superior Audio Performance
- Compact Size
- Adjustable Gain
- Light Weight
- Advanced Design
- High Reliability
- Cost Effective
- Does Not Emit EMI

SPECIFICATIONS:

ELECTRICAL +15V, -15V, 25C (77F)

Gain

$R_{EXT} = \text{Open}$ -6 dB Typ
 $R_{EXT} = 475 \Omega$ +18 dB Typ

100L Gain vs. R_{EXT}			
R_{EXT}	Gain	R_{EXT}	Gain
475 Ω	+ 18 dB	3,990 Ω	+ 2 dB
1,000 Ω	+ 12 dB	5,500 Ω	0 dB
2,185 Ω	+ 6 dB	8,190 Ω	-3 dB

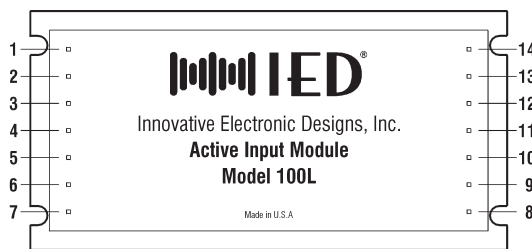


Frequency Response	±0.1 dB
20 Hz - 20 kHz, +21 dBu	
Maximum Input Level	
Balanced.	+ 24 dBu
Unbalanced	+18 dBu
Maximum Output Level.	+18 dBu
$R_L \geq 2 \text{ k}\Omega$	
Total Harmonic Distortion, THD.	0.01%
+21 dBu, 20 Hz - 20 kHz	
10 Hz - 80 kHz filters	
Intermodulation Distortion, IM.	<0.006%
+21 dBu, 60 Hz + 7 kHz	
Noise Referred to the Input, NRI	-95 dB
22 Hz - 22 kHz filters	
Common Mode Rejection Ratio, CMRR	60 dB
60 Hz - 20 kHz	
22 Hz - 22 kHz filters	
Input Impedance, Z_{IN}	160 k Ω
1 kHz	
Output Impedance, Z_{OUT}	<0.5 Ω
Power Supply	
Supply Voltage Range.	±13.5V to ±16.5V
Supply Current	
V = +15 V	6 mA
V = -15 V.	6 mA

MECHANICAL

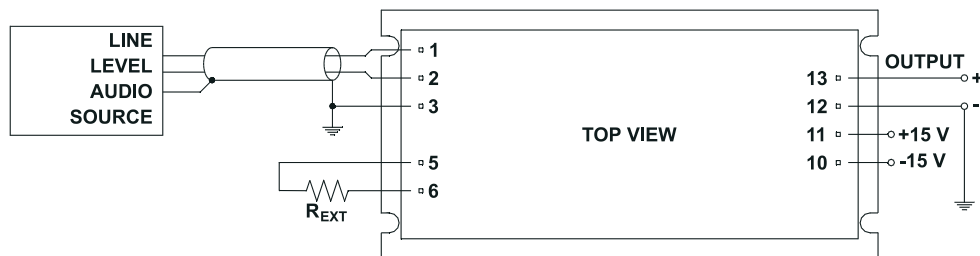
Size.	0.90" H X 0.95" W X 1.95" L
Weight.	(14g) 0.79 Oz

PIN CONNECTIONS



PIN	FUNCTION	PIN	FUNCTION
1	Input +	8	No Pin
2	Input -	9	No Pin
3	Shield	10	-15 V
4	No Pin	11	+15 V
5	External Gain Resistor, R_{EXT}	12	Ground
6		13	Output +
7	No Pin	14	No Pin

TYPICAL APPLICATION



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