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## **MICROPHONE PREAMPLIFIER**

Revision: B ECN #: 44854

Performance	<u>ENGLISH</u>	<u>SI</u>	
Nominal Microphone Diameter	1/2"	1/2"	
Gain(re 1 kHz)	-0.06 dB	-0.06 dB	[1][4]
Frequency Response(± 0.1 dB)(re 1 kHz)	6.3 to 126,000 Hz	6.3 to 126,000 Hz	[5][4]
Frequency Response(-3 dB)(re 1 kHz)	<1.58 Hz	<1.58 Hz	[5][4]
Frequency Response(± 0.1 dB)(re 1 kHz)	10 to 126,000 Hz	10 to 126,000 Hz	[6][4]
Phase Linearity(± 1 °)	63 to 40,000 Hz	63 to 40,000 Hz	[4]
Phase Linearity(<+10 °)	10 to 63 Hz	10 to 63 Hz	[4]
Electrical Noise(at 22 °C)(A-weight)	≤ 4.9 µV	≤ 4.9 µV	[4]
Electrical Noise(at 22 °C)(A-weight)	3.1 µV	3.1 μV	[4][1]
Electrical Noise(at 22 °C)(Flat 20 Hz to 20 kHz)	≤ 13.4 µV	≤ 13.4 µV	[4]
Electrical Noise(at 22 °C)(Flat 20 Hz to 20 kHz)	9.3 μV	9.3 µV	[4][1]
Electrical Noise(at 120 °C)(A-weight)	≤ 9.6 µV	≤ 9.6 µV	[4]
Electrical Noise(at 120 °C)(A-weight)	6.4 µV	6.4 µV	[4][1]
Electrical Noise(at 120 °C)(Flat 20 Hz to 20 kHz)	≤ 37.1 µV	≤ 37.1 µV	[4]
Electrical Noise(at 120 °C)(Flat 20 Hz to 20 kHz)	24.7 μV	24.7 μV	[4][1]
Distortion(3 V rms input at 1 kHz)	<-70 dB	<-70 dB	[4]
Output Slew Rate	2 V/μS	2 V/μS	[1]
TEDS Compliant	Yes	Yes	[7]
Environmental	40.1 057.05	40.1 405.00	FO1
Temperature Range(Operating)	-40 to +257 °F	-40 to +125 °C	[2]
Temperature Response	± 0.1 dB	± 0.1 dB	[3]
Humidity Range(Non-Condensing)	0 to 95 %RH	0 to 95 %RH	
Humidity Sensitivity	± 0.1 dB	± 0.1 dB	[3]
Electrical			
Excitation Voltage	20 to 32 VDC	20 to 32 VDC	
Constant Current Excitation	2 to 10 mA	2 to 10 mA	
Impedance(Input)	9.4 GOhm	9.4 GOhm	[1]
Capacitance(Input)	0.06 pF	0.06 pF	[1]
Output Bias Voltage	10 to 14 VDC	10 to 14 VDC	
Impedance(Output)	<55 Ohm	<55 Ohm	
Output Voltage(Maximum)	± 7 Vpk	± 7 Vpk	
Physical			
Housing Material	Stainless Steel	Stainless Steel	
Size (Diameter x Length)	0.5 in x 3.5 in	13 mm x 89 mm	
Weight	1.45 oz	41 q	[1]
Electrical Connector	BNC Jack	BNC Jack	1.1
Mounting Thread(Microphone to Preamplifier)	0.4606 - 60 UNS	11.7 mm - 60 UNS	
I wounting Thread(wild opnone to Freampline)	0.4000 - 00 0113	11.7 111111 - 00 0110	

## **OPTIONAL VERSIONS**

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

## NOTES:

[1]Typical.

[2]Limited to 120°C if ICP current > 4 mA [3]Maximum.

[4]Measured with a 12 pF reference microphone.

[5]At 22 °C

[6]At 120 °C

[7]TEDS Capable Digital Memory and Communication, compliant with IEEE P1451.4

[8]See PCB Declaration of Conformance PS065 for details.

## **SUPPLIED ACCESSORIES:**

Model ERC-16 Calibration of microphone preamplifier (1)

Entered: LK	Engineer: MT	Sales: MV	Approved: MT	Spec Number:
Date: 12/3/2015	Date: 12/3/2015	Date: 12/3/2015	Date: 12/3/2015	39276



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All specifications are at room temperature unless otherwise specified.

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