



# CMMI-10APC

## Microphone Input Transformer 1:10 Step-up

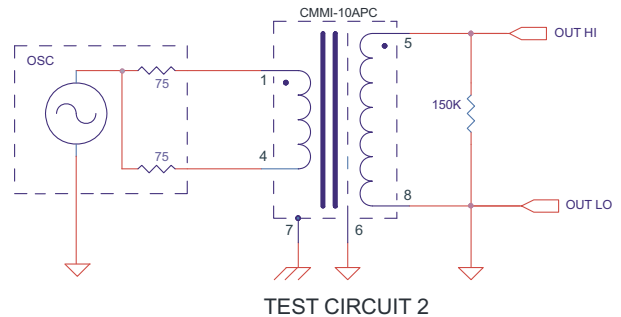
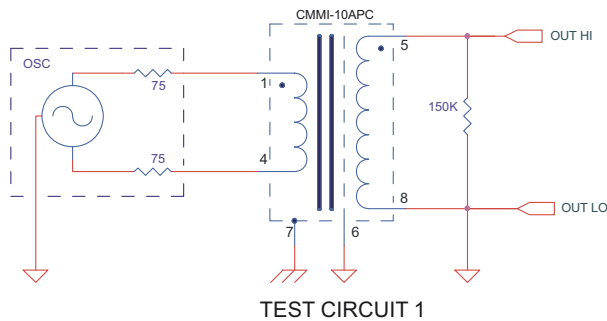
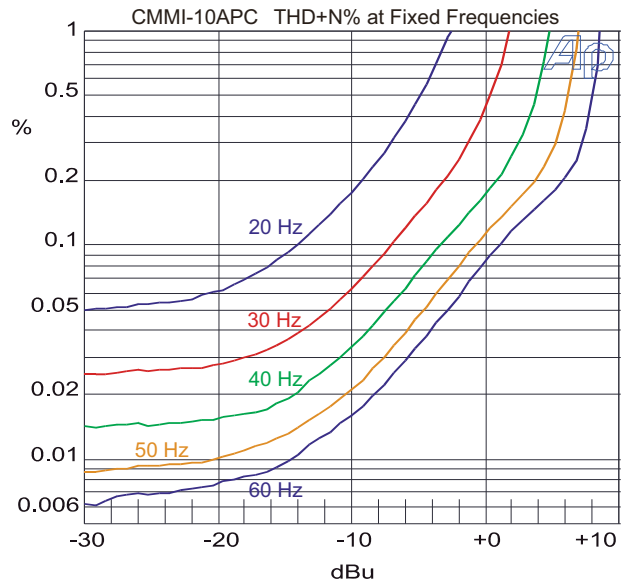
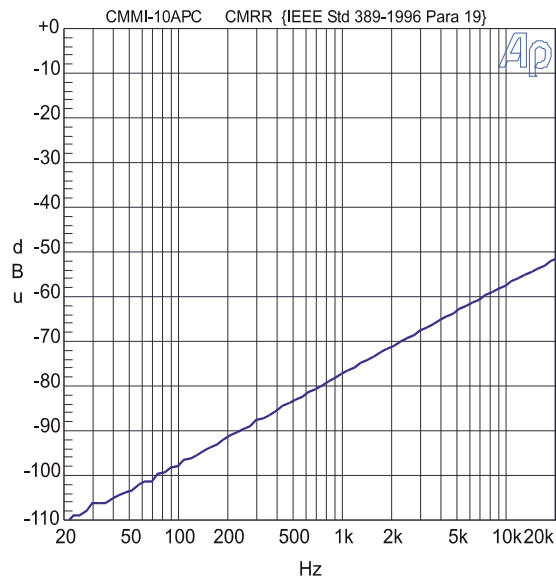
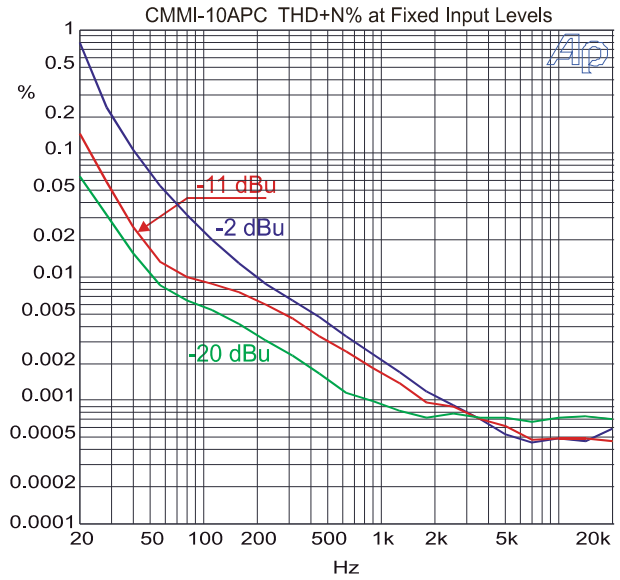
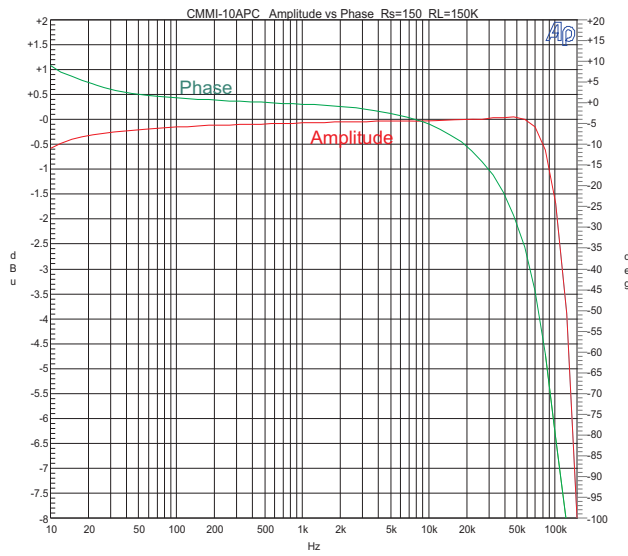
- Recommended for high input impedance amplifiers, especially FET & vacuum tube
- Very Good Bandwidth
- Very Good CMRR: 102 dB at 60 Hz
- +19.75 dB nominal voltage step-up
- Low profile package; pc mount

The CineMag CMMI-10APC is a p.c. mount microphone input transformer which follows classic designs. It is best used with high input impedance amplifiers. This transformer exhibits good bandwidth, common mode rejection ratio (CMRR), and distortion characteristics. The CMMI-10APC is a small, cost-effective p.c. mount solution and is widely used in professional grade designs. It is encased in a  $\mu$ Metal can which provides 30 dB of magnetic shielding. As with all CineMag transformers, the wires from the internal foil shields between windings are spot welded for maximum long term reliability.

This transformer has a moderately high impedance secondary. Care must be exercised in the design of the amplifier that it drives to obtain best results and to realize good bandwidth.

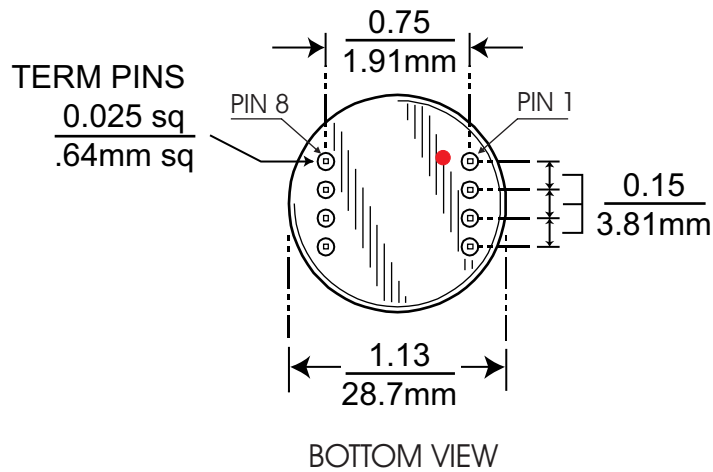
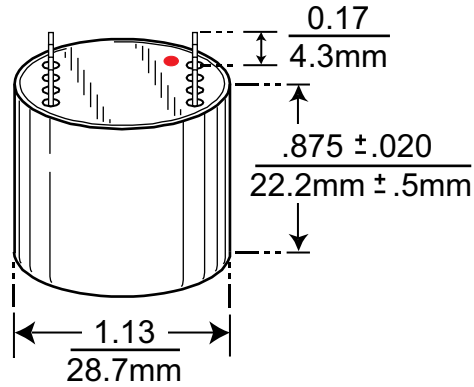
### CMMI-10APC

Parameter	Conditions	Typ
Turns Ratio		1 : 10.00
Voltage Gain	1 kHz, -20 dBu 150 $\Omega$ input, 100K secondary load impedance	19.75 dB
Distortion (THD+N%)	1 kHz, -2 dBu      Test circuit 1 20 Hz, -20 dBu      Test circuit 1	0.002% 0.06%
Max 20 Hz input level	1.0% THD;      Test Circuit 1	-2 dB
Response, ref 1 kHz	20 Hz      Test Circuit 1 20 kHz      Test Circuit 1 -3 dB	-0.35 dB +0.2 dB 90 kHz
Phase Shift at 20 Hz Phase Shift at 20 kHz	Referenced to source generator Test Circuit 1	+2° -10°
CMRR	60 Hz Test Circuit 2 per IEE Std 389-1996 ¶19 1 kHz Test Circuit 2 per IEE Std 389-1996 ¶19	102 dB 78 dB
Operating Temp Range	Operation and storage	0° C Min      70° C Max
Max Soldering Temp (p.c.)	5 Seconds	335° C Max

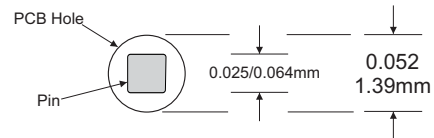


**NOTES:**

1. All graphs generated from one (1) randomly chosen device. No statistical averaging or weighting. Data from one sweep.



Printed Circuit Pad - Recommended  
Minimum Hole Diameter



NOTES:

1. Removal of this transformer from a printed circuit board may result in internal failure because the wires are extremely fine. Desoldering heats the pins thus softening the bobbin rail that captures them, allowing a small amount of movement which can damage the transformer.
2. Best circuit board layout practice is to keep the diameter of the top layer pad small so as to avoid an accidental short to the transformer can. Spacers will be provided at no extra cost if asked for, which will avoid this problem. It is recommended that signal traces and signal grounds not be run on the top of the pcb as they may be capacitively coupled to the chassis ground which is connected to the transformer case through Pin 7. That may result in a ground loop which can inject hum onto the signal.