

# **HEC - Hum Eliminators**

RF transmission in cables is routinely plagued by 50Hz or 60Hz hum or other interference. When a cable is used for video signals, small electrical currents caused by differences in ground potential (ground loops) or induced common-mode noise, can result in considerable hum interference. Cameras, video recorders, monitors and video effects generators are affected.

HEC Hum eliminators **work best** in those circumstances where interference is caused by small differences in ground potential (less than 20 volts) or by induced currents in long cable runs. They also work well when there are multiple power panels in a building, or on a single floor. Equipment and lighting loads result in small differences in potential which induce ground loop current flow and 60 Hz. hum. Electromagnetically-induced currents in long cable runs also create hum. For 50Hz and 60Hz power systems, and where induced currents are high, the HEC-2000 and HEC-2000H increase the attenuation at power frequency.

#### FEATURES & SPECIFICATIONS:

- ☐ Flat Response with no low or high frequency roll-off
- No Differential Gain or Phase Distortion
- Passive Device No power required
- Bandwidth up to 30MHz
- Small, compact, rugged, waterproof package

#### **APPLICATIONS:**

- ❖ Between remote truck, Telco & Microwave
- For Inter-truck Hook-up
- For VTR Units
- For Monitoring lines
- Between or on long runs in buildings
- On Incoming or Outgoing Telco circuits



# Which HEC type is right for your application?

### **HEC-1000**

#### SINGLE CHANNEL HUM ELIMINATOR

Impedance: 75 (Ohms) Unbalanced

Bandwidth: DC to 30MHz 0.61dB @ 10MHz.

1.00dB @ 20MHz. 1.25dB @ 30MHz.

**Hum Reduction**: 50dB for 60Hz. hum, depending on system

Package:Hi-Impact ABS PlasticMounting:Four (4) 8-32 x 1/2" InsertsDimensions:H: 5-3/8" x W: 4" x D: 2"

Weight:3 Lbs.Insertion Loss:0.2dB max.Return Loss:20dB min.Isolation Between Channels:70dB (Typical)



# HEC-2000, HEC-2000H, HEC-2000V

#### SINGLE CHANNEL HUM ELIMINATOR

**Impedance:** 75 (Ohms) Unbalanced

**Bandwidth:** DC to 30MHz 0.75dB @ 10MHz.

1.20dB @ 20MHz. 1.50dB @ 30MHz.

**Hum Reduction**: 50dB for 60Hz. hum, depending on system

Package: Die Cast Metal

**Mounting:** Four (4) 6-32 x 1/2" Inserts

**Dimensions:** H: 4-11/16" x W: 3-11/16" x D: 2-1/16"

Weight:3-1/2 Lbs.Insertion Loss:0.2dB max.Return Loss:20dB min.Isolation Between Channels:70dB (Typical)



## **HEC-3000**

#### THREE CHANNEL HUM ELIMINATOR

Impedance: 75 (Ohms) Unbalanced

**Bandwidth:** DC to 30MHz 0.75dB @ 10MHz.

1.20dB @ 20MHz. 1.50dB @ 30MHz.

**Hum Reduction**: 60dB for 50 or 60Hz. hum

Package: Die Cast Metal

**Mounting:** Four (4) 6-32 x 1/2" Inserts

**Dimensions:** H: 7-7/16" x W: 4-3/4" x D: 3-1/16"

Weight: 6 Lbs.
Insertion Loss: 0.2dB max.
Return Loss: 20dB min.
Isolation Between Channels: 70dB (Typical)



### **HEC-4000**

# THREE CHANNEL HUM ELIMINATOR WITH BALANCED TRANSFORMER COUPLED SYNC CHANNEL

**Impedance:** 75 (Ohms) Unbalanced

**Bandwidth:** DC to 30MHz 0.75dB @ 10MHz.

1.20dB @ 20MHz. 1.50dB @ 30MHz.

**Hum Reduction**: 60dB for 50 or 60Hz. hum

Package: Die Cast Metal

**Mounting:** Four (4) 6-32 x 1/2" Inserts

**Dimensions:** H: 7-7/16" x W: 4-3/4" x D: 3-1/16"

Weight:6 Lbs.Insertion Loss:0.2dB max.Return Loss:20dB min.Isolation Between Channels:70dB (Typical)



## **HEC-5000**

#### FIVE CHANNEL HUM ELIMINATOR FOR PROJECTOR SYSTEMS

CHANNELS FOR R,G,B, H SYNC, V SYNC

**Impedance:** 75 (Ohms) Unbalanced

**Bandwidth:** DC to 100MHz 0.20 dB 100 KHz

0.30 dB @ 10 MHz 0.80 dB @ 30 MHz 1.20 dB @ 100 MHz

**Hum Reduction**: 60dB Minimum per Channel

Package: Die Cast Metal

**Mounting:** Four (4) 6-32 x 1/2" Inserts

**Dimensions:** H: 7-7/16" x W: 4-3/4" x D: 3-1/16"

Weight: 6 Lbs. Insertion Loss: 0.2dB max.

Return Loss: 20dB min. Isolation Between Channels: 70dB (Typical)

epartment at 708-453-3238. You can

For additional technical information or ordering information call our technical sales department at 708-453-3238. You can also see us at <a href="https://www.allenavionics.com">www.allenavionics.com</a> or Email any questions you may have to <a href="mailto:sales@allenavionics.com">sales@allenavionics.com</a>.