

IHVM-6

6-Channel Isolated High Voltage Module

MODULE OVERVIEW

The IHVM-6 is a high voltage input module for the AstroNova TMX data acquisition systems. The IHVM-6 is ideal for high voltage measurements at up to 800 kS/s.



MODULE HIGHLIGHTS

- **6 high voltage inputs**
- **Maximum 1,000 V input range**
- **3 input ranges to maximize measurement resolution**
- **Simultaneous sampling at up to 800 kS/s/ch**
- **16-bit resolution**
- **Built-in counter and timer functions**

ORDERING INFORMATION

Module Part Number: 32850030

| ITEM | PART NO. | DESCRIPTION |
|----------|-----------|--|
| GL-40 | 13442000 | General Use Lead Set |
| LC-40 | 13441003 | Test Leads/Clips (Pair of test leads and pincer clips – one red and one black) |
| LC-40S | 13441201 | Test Leads/Spade Connectors (Pair of test leads with spade connector for #8 screw) |
| ADP-4810 | 25765000 | High Voltage Probe for up to 1000 Vrms |
| SL261 | 24661201 | Current Probe reads AC or DC current, 100 A maximum |
| MR411 | 24661200 | Current Probe reads AC or DC current, 600 A maximum |
| MR521 | 24661100 | Current Probe reads AC or DC current, 1500 A maximum |
| MN255 | 24661300 | Current Probe reads AC current, 240 A maximum |
| SR7JM875 | 246615000 | Current Probe reads AC current, 3000A maximum |
| SR759 | 24661400 | 59 Current Probe reads AC current, 1200 A maximum |
| FP300A | 24661600 | Flexible Current Probe reads AC current, 300A maximum |
| FP3000A | 24661700 | Flexible Current Probe reads AC current, 3000 A maximum |
| FP6000A | 24661620 | Flexible Current Probe reads AC current, 6000 A maximum |

IHMV-6 DETAILED SPECIFICATIONS

| Inputs | |
|------------------------------|---|
| Input Channels Per Module | 6 |
| Connector | Guarded banana jacks (red/black) |
| Input | Differential, DC coupled |
| Bandwidth | 60 kHz (-3dB) |
| Rated Isolation | 600 VAC RMS or 1000 VDC, Cat IV (channel to channel and channel to chassis) |
| Sample Rate | 800 kS/s/ch (400 kS/s/ch when using TMX-E or TMX-R) |
| A/D | 16 bit SAR (one per channel) |
| Anti-Aliasing Filter | 4 pole Bessel |
| Off Ground Measurements | Yes |
| Zero Suppression | Yes, digital. |
| Attenuator Ranges | 40, 200 and 1000 Volt (1 VFS to 2000 VFS) |
| Measurement Ranges | +/- 1000 V (1000 VFS or 2000 VFS w/ zero offset) +/- 200 V (200 VFS or 400 VFS w/ zero offset) +/- 40 V (1 to 40 VFS or 80 VFS w/ zero offset) |
| Minimum Span | 2VFS |
| Max Rated Input | 600 VAC RMS or 1000 VDC Cat IV |
| DC Accuracy (25°C) | +/- 0.07% of attenuator |
| Overshoot | < 1.0% |
| Intrinsic Noise (pk-pk) | < 0.11% of attenuator + .08% of span (40V att) < 0.04% of attenuator + .08% of span (200V att) < 0.02% of attenuator + .08% of span (1000V att) |
| IMR at 60 Hz | Better than -65 dB (40V and 200V attenuators) Better than -60 dB (1000V attenuator) |
| Crosstalk | Better than -80 dB |
| Min Input Impedance | > 4 Megohm (2 Megohm balanced to internal isolated common) |
| Counter Timer Functions | |
| Frequency Counter Capability | Yes, first channel. Software selectable. |
| Counter Modes | Gated time frequency counter, cycle based frequency counter, pulse counter, pulse width detector, period width detector, duty cycle detector. |
| Frequency ctr range (menu) | Up to 100 kHz |
| Frequency ctr range (spec'd) | 2 – 30 kHz |
| Frequency ctr accuracy | + 0.07% of Measurement + .002 Hz |
| Min counter input amplitude | 25% of span for freq and pulse counters, 90% of span for all other modes |
| Pulse counter range | 640000000 maximum. (16 bit display resolution) |
| Pulse width accuracy | 0.7 µs + .00167% of span |
| Pulse width range | 10 µs – 40000 µs |
| Period width accuracy | .02% of measurement + .00167% of span + 1.0 µs |
| Period width range | 12.5 µs – 90000 µs (11 Hz – 80 kHz) |
| Duty cycle accuracy | .5% (Inputs in the 15 Hz - 10 kHz range with 20% - 80% duty cycles) |
| Counter Timebase | 50 MHz |

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