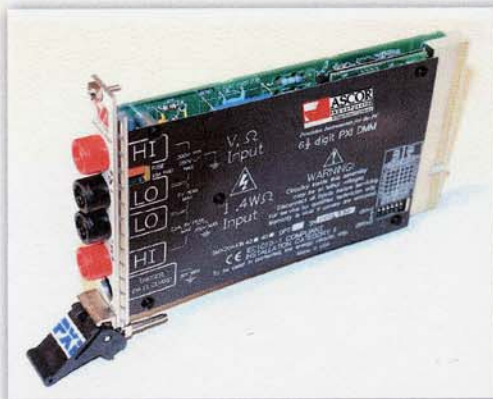


MODEL 70xx Series

PXI DMM Modules



6.5 Digit DMM

Features & Benefits

- **Dynamic Range:** $\pm 3,300,000$ Counts.
- **Isolation:** $\pm 350V$ to Chassis.
- **Construction:** Shielded Module.
- **>110dB CMRR.**
- **>95dB Line Rejection.**
- **All Inputs and Outputs Protected for:**
 - Over Voltage Events
 - Source Short Circuits
 - Over Current
 - ESD
 - Noise (Common Mode)
- **33VDC range is significant in testing Automotive 12V & 24V systems.**
- **One Million Hours MTBF.**
- **No Manual Adjustments Needed.**



Custom Solutions Through Engineering Innovation

4384 Enterprise Place, Fremont, CA 94538-6365
Telephone: (510)490-2300
Fax: (510)490-8493
Website: www.ascor-inc.com

ASCOR MODEL 7040 DMM

ASCOR MODEL 7044 DMM/LCR

The ASCOR Models 7040/7044 are one slot, 3U PXI cards with high performance Digital Multimeter (DMM) capabilities.

The 6.5 digit DMM is optimized for a variety of applications such as:

- ATE flight line test systems
- Automated Production Testing
- Control and Data Acquisition
- Portable Field Testing
- Laboratory Automation
- Disk Drive Testing
- Resistance Network Testing
- Semiconductor Parametric Testing
- Cable and Connector Testers
- Automotive Test Systems

The Model 7040 provides the following measurement capabilities:

- DC Volts and Current
- AC Volts and Current
- Resistance (2-Wire and 4-Wire)

Each function provides at least four ranges of values. The Accuracy of the DC Volts and Resistance functions is better than 0.0004%

The Model 7044 provides all the functions listed above for the standard DMM with the following additions:

- Resistance (6-Wire Guarded)
- Temperature ($-150^{\circ}C$ to $+650^{\circ}C$)
- Leakage Current (1 nA to 3300 nA)
- Capacitance (1 nF to 10 mF)
- Inductance (1 μH to 3.3 H)
- Peak to Peak, Crest and Median (Volts)
- Timing Functions
- Sourcing AC and DC
- DCV Source: (-10.0 V to +10 V)
- ACV Source: (0 to 20 V peak to peak)
- DC Current: (1.25 μA to 12.5 mA)

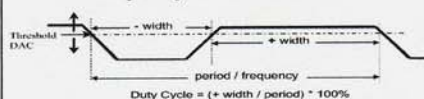
MODEL 70xx

**ASCOR Model 7040 6.5 Digit
PXI DMM**

**ASCOR Model 7044 6.5 Digit
PXI DMM/LCR**

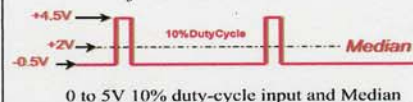
Time Measurement Functions

- Duty Cycle: 0% to 100%
- Period: 3 μ s to 1s
- Frequency: 1Hz to 300KHz



Special AC Measurements

- Median (1005)
- Measures AC Signal Bias Level
- Signal Quality Indicator
- Defines Threshold Level For:
 - Counter, Pulse Width, Duty Cycle, Event Center



Custom Solutions Through Engineering Innovation

ASCOR, founded in 1987 and headquartered in California's Silicon Valley, provides a complete line of VXI Switching and Digital Modules for industrial, medical, scientific and governmental automatic test applications. Ascort VXI products are the quietest, cleanest, highest density VXI modules commercially available.



A Giga-tronics Company

Custom Solutions Through Engineering Innovation

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Model 7040

Digital MultiMeter (DMM) for PXI

DC Volts

- 100nV Resolution
- 4 ranges (330mV, 3.3V, 33V, 330V)
- Accuracy is better than 0.004%

DC Current

- 10nA Resolution
- 4 ranges (3.3mA, 33mA, 330mA, 2.5A)
- Accuracy is better than 0.1%

AC Volts (RMS)

- 100nV Resolution
- 4 ranges (330mV, 3.3V, 33V, 250V)
- Accuracy is better than 0.9% (20 Hz to 50 KHz)

AC Current (RMS)

- 1nA Resolution
- 4 ranges (3.3mA, 33mA, 330mA, 2.5A)
- Accuracy is better than 0.9% (20 Hz to 50 KHz)

Resistance (Two Wire)

- 10u ohms Resolution
- 5 ranges (330 ohms, 3.3 Kohms, 33 Kohms, 330 Kohms, 3.3 Mohms)
- Accuracy is better than 0.003%

Resistance (Four Wire)

- 10u ohms Resolution
- 4 ranges (330 ohms, 3.3 Kohms, 33 Kohms, 330 Kohms)
- Accuracy is better than 0.003%

Model 7044

Digital MultiMeter for PXI

DC Volts

- 100nV Resolution
- 4 ranges (330mV, 3.3V, 33V, 330V)
- Accuracy is better than 0.004%

DC Current

- 10nA Resolution
- 4 ranges (3.3mA, 33mA, 330mA, 2.5A)
- Accuracy is better than 0.1%

AC Volts (RMS)

- 100nV Resolution
- 4 ranges (330mV, 3.3V, 33V, 250V)
- Accuracy is better than 0.9% (20 Hz to 50 KHz)

AC Current (RMS)

- 1nA Resolution
- 4 ranges (3.3mA, 33mA, 330mA, 2.5A)
- Accuracy is better than 0.9% (20 Hz to 50 KHz)

Resistance (Two Wire)

- 10u ohms Resolution
- 8 ranges (33 ohms, 330 ohm, 3.3 Kohms, 33 Kohms, 330 Kohms, 3.3 Mohms, 33 Mohms, 330 Mohms)
- Accuracy is better than 0.003%

Resistance (Four Wire)

- 10u ohms Resolution
- 8 ranges (33 ohms, 330 ohm, 3.3 Kohms, 33 Kohms, 330 Kohms, 3.3 Mohms, 33 Mohms, 330 Mohms)
- Accuracy is better than 0.003%

Resistance (Six Wire Guarded)

- 5 ranges (33 ohms, 330 ohm, 3.3 Kohms, 33 Kohms, 330 Kohms)
- Accuracy is better than 0.03%

Temperature

- 0.01° C Resolution
- Range is -150° C to 650° C
- Accuracy and Range depend on RTD Type
- The internal temperature of the 1005 can also be monitored

Leakage

- 3 Ranges (100 nA, 1000nA, 3300nA)
- Accuracy is better than 2.0%

Capacitance

- 7 Ranges (10nF, 100nF, 1uF, 10uF, 100uF, 1mF, 10mF)
- Accuracy is better than 2%.

Inductance

- 6 Ranges (33uH, 330uH, 3.3mH, 33mH, 330mH, 3.3H)

Peak to Peak, Crest, and Median

- 4 Ranges (330mV, 3.3V, 33V, 250V)
- Accuracy is better than 1.5%

Timing Functions

- Timing Functions (5 available)
 - ACV Frequency & Period
 - ACI Frequency & Period
 - Duty Cycle Measurement
 - Pulse Width
 - Totalizer

AC/DC Voltage Source and Current Source

- DC Voltage Source: (-10.0V TO +10.0V) Accuracy is better than 0.13%
- AC Voltage Source: (0 to 20 V Peak to Peak) Accuracy is better than 0.8%.
- DC Current Source: 5 Ranges (1.25uA, 12.5uA, 125uA, 1.25mA, 12.5mA) Accuracy is better than 0.2%