

Keithley Instruments, Inc.
 28775 Aurora Road
 Cleveland, Ohio 44139
 1-888-KEITHLEY
 www.keithley.com

Dual 1x48, High Density Multiplexer Specifications

96 differential channels, 300V Volts/1 Amp

MULTIPLEXER CONFIGURATION: Two independent 1x 48 2-pole Multiplexers. Banks can be connected together via relays creating a single 1 x 96 Multiplexer. Banks can be isolated from the backplane by relays. Card can be configured for 2 and 4 wire mode.

CONTACT CONFIGURATION: 2 pole form A.

CONNECTOR TYPE: Two 104 pin female D-shells.

MAXIMUM SIGNAL LEVEL: 300V DC or RMS, 1A switched (2A carry), 60W, 125VA.

COMMON MODE VOLTAGE: 300V DC or RMS between any terminal and chassis.

VOLT-HERTZ LIMIT: 8×10^7

CONTACT LIFE: $> 10^5$ operations at max signal level.

$> 10^8$ operations no load.¹

	Dual 1x48 ²	Single 1x96
Channel Resistance (end of contact life)	<1.5 Ω	<2.5 Ω
Contact Potential (differential)	< $\pm 1 \mu\text{V}$	< $\pm 2 \mu\text{V}$
Offset Current	<100pA	<100pA
Isolation		
Differential	$5 \times 10^9 \Omega, 200\text{pF}$	$5 \times 10^9 \Omega, 400\text{pF}$
Bank-Bank	$10^9 \Omega, 50\text{pF}$	—
CH –CH	$10^9 \Omega, 50\text{pF}$	$10^9 \Omega, 50\text{pF}$
Common mode	$10^{10} \Omega, 200\text{pF}$	$10^{10} \Omega, 400\text{pF}$
Crosstalk CH-CH		
300KHz:	<-65dB	<-65dB
1MHz:	<-55dB	<-55dB
20MHz:	<-30dB	<-30dB
Bandwidth	25MHz	15MHz

¹ Minimum signal level 10mV, 10 μ A

² 3706 mainframe with all DMM backplane relays disconnected. Maximum two card backplane relays closed.

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GENERAL:**ACTUATION TIME:** 4ms**RELAY TYPE:** Latching electromechanical**RELAY DRIVE SCHEME:** Matrix**OPERATING ENVIRONMENT:**

Specified for 0°C to 50°C.

Specified to 70% R.H. at 35°C

STORAGE ENVIRONMENT: -25°C to 65°C**WEIGHT:** 2.5lb**SAFETY:** Conforms to European Union Directive 73/23/EEC,EN61010-1**EMC:** Conforms to European Union Directive 2004/108/EC,EN61326-1**Typical Scanning Speeds, switch only³**

	Ch/Sec
Sequential scanning ,single channel, immediate trigger advance	>120

Typical Scanning Speeds, with measurements into memory⁴

	Ch/Sec
DCV (10V range) or 2W Ohms (1KΩ range)	>110
3 or 4 Wire RTD	>100
4 Wire Ohms (1kΩ range)	>100
ACV (10V, 400Hz range)	>110

ACCESSORIES AVAILABLE:

3792-KIT104-R 104 pin male D-sub connector kit (Contains 2 male D-sub connector with housings and 208 solder-cup contacts)

3722-MTC-1.5 104 pin D-sub male to female cable, 1.5m.

3722-MTC-3 104 pin D-sub male to female cable, 3m.

3791-CIT Contact insertion and extraction tool.

³ Scanning script local to mainframe, within same bank, break before make.

⁴ 3706 mainframe with autorange off, limits off, DMM.autodelay=0, dmm.autozero=0, 4 ½ digits (NPLC=.006), for ACV dmm.detectorbandwidth=300,for OHMs dmm.offsetcompensation=off, dmm.opendetector=off. Scanning script local to mainframe, sequential scan within same bank (2 pole) or card (4 pole), and break before make switching.

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