

7700 20-channel, Differential Multiplexer Module with Automatic CJC, Screw Terminals, and up to 50MHz Bandwidth

Datasheet

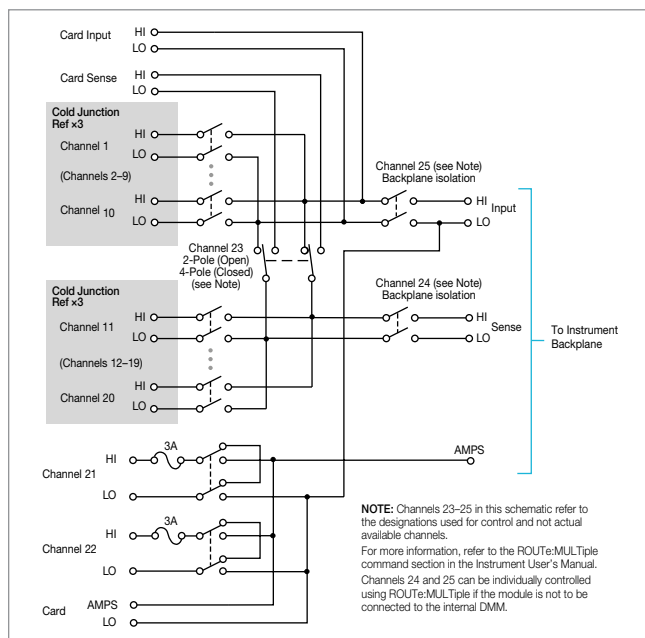


KEITHLEY
A Tektronix Company

The 7700 plug-in module offers 20 channels of 2-pole or 10 channels of 4-pole multiplexer switching that can be configured as two independent banks of multiplexers. There are two additional protected channels for current measurements. Automatic CJC is provided so that no other accessories are required to make thermocouple temperature measurements. In addition, the 7700 contains latching electromechanical relays that enable signal bandwidths of up to 50 MHz. The 7700 is ideal for RTD, thermistor, and thermocouple temperature applications.

Key Features

- 20 channels for general purpose measurements, plus two channels to measure current
- Oversize screw terminal connection blocks are standard for easier connections
- 50 MHz bandwidth
- 300 V, 1 A capacity for voltage channels; 60 W, 125 VA
- 3 A capacity for current channels
- Low insertion loss of up to 50 MHz
- Relay closures stored in onboard memory



Specifications

Capabilities

Channels 1–20	Multiplex one of twenty 2-pole or one of ten 4-pole signals into DMM.
Channels 21–22	Multiplex one of two 2-pole current signals into DMM.

Inputs

Maximum Signal Level

Channels (1–20) 300 V DC or 300 V rms (425 V peak) for AC waveforms, 1 A switched, 60 W, 125 VA maximum.

Channels (21–22) 60 V DC or 30 V rms, 3 A switched, 60 W, 125 VA maximum.

Contact Life (typ.) >10⁵ operations at max. signal level. >10⁸ operations no load¹.

1. Open thermocouple detector on during thermocouple measurements. Minimum signal level 10 mV, 10 μA.

Contact Resistance <1 Ω at end of contact life.

Contact Potential <±500 nV typical per contact, 1 μV max. <±500 nV typical per contact pair, 1 μV max.

Offset Current <100 pA.

Connector Type Screw terminal, #20 AWG wire size.

Isolation Between Any Two Terminals: >10¹⁰ Ω, <100 pF.

Isolation Between Any Terminal and Earth: >10⁹ Ω, <200 pF.

Insertion Loss (50 Ω Source, 50 Ω Load)

	w/Internal DMM	w/o Internal DMM
<0.1 dB	1 MHz	1 MHz
<3 dB	2 MHz	50 MHz

Crosstalk (50 Ω Load):

	w/Internal DMM	w/o Internal DMM
10 MHz	<-40 dB	<-40 dB
25 MHz	—	<-25 dB

Common Mode Voltage

300 V or 300 V rms (425 V peak) for AC waveforms between any terminal and chassis.

General

20 Channels 20 channels of 2-pole relay input. All channels configurable to 4-pole.

2 Channels 2 channels of current only input.

Relay Type Latching electromechanical.

Actuation Time <3 ms.

Environmental and Safety

Operating Environment: Specified for 0° to 50°C. Specified to 80% R.H. at 35°C.

Storage Environment: -25° to 65°C.

EMC: Conforms to European Union EMC Directive.

Safety: Conforms to European Union Low Voltage Directive

RoHS: Conforms to European Union RoHS Directive

Weight 0.45 kg (1 lb).

Supplied Accessories

CC-92-1 Set of 20 Cable Ties

TL-23 Screwdriver

Available Services

7700-3Y-EW 1-year factory warranty extended to 3 years from date of shipment

Ordering Information

7700 20-channel, Differential Multiplexer Module with Automatic CJC and Screw Terminals

Warranty 1 year

Contact Information:

Australia* 1 800 709 465
Austria 00800 2255 4835
Balkans, Israel, South Africa and other ISE Countries +41 52 675 3777
Belgium* 00800 2255 4835
Brazil +55 (11) 3759 7627
Canada 1 800 833 9200
Central East Europe / Baltics +41 52 675 3777
Central Europe / Greece +41 52 675 3777
Denmark +45 80 88 1401
Finland +41 52 675 3777
France* 00800 2255 4835
Germany* 00800 2255 4835
Hong Kong 400 820 5835
India 000 800 650 1835
Indonesia 007 803 601 5249
Italy 00800 2255 4835
Japan 81 (3) 6714 3010
Luxembourg +41 52 675 3777
Malaysia 1 800 22 55835
Mexico, Central/South America and Caribbean 52 (55) 56 04 50 90
Middle East, Asia, and North Africa +41 52 675 3777
The Netherlands* 00800 2255 4835
New Zealand 0800 800 238
Norway 800 16098
People's Republic of China 400 820 5835
Philippines 1 800 1601 0077
Poland +41 52 675 3777
Portugal 80 08 12370
Republic of Korea +82 2 6917 5000
Russia / CIS +7 (495) 6647564
Singapore 800 6011 473
South Africa +41 52 675 3777
Spain* 00800 2255 4835
Sweden* 00800 2255 4835
Switzerland* 00800 2255 4835
Taiwan 886 (2) 2656 6688
Thailand 1 800 011 931
United Kingdom / Ireland* 00800 2255 4835
USA 1 800 833 9200
Vietnam 12060128

* European toll-free number. If not accessible, call: +41 52 675 3777



Find more valuable resources at TEK.COM

Copyright © Tektronix. All rights reserved. Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supersedes that in all previously published material. Specification and price change privileges reserved. TEKTRONIX and TEK are registered trademarks of Tektronix, Inc. All other trade names referenced are the service marks, trademarks or registered trademarks of their respective companies.

