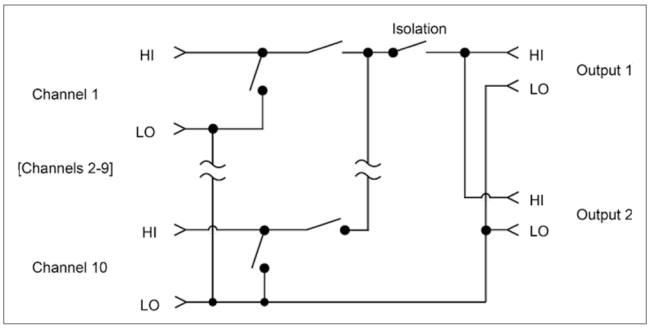
3761 10-Channel Low Current Multiplexer Card



The 3761 provides quality low-current switching at an affordable price. The offset current error generated is specified <1pA, with typical performance at <30fA. When used with a voltage source and an electrometer or picoammeter, this card can easily automate insulation resistance tests, reverse leakage tests on semiconductor junctions, or gate leakage tests on FETs.

The 3761 features both current and voltage modes. In current mode, the current path is maintained even when the channel is open. This eliminates cable charging time between measurements. In voltage mode, the input is broken and is high impedance. Input connectors are SMA for shielding of the sensitive measurements. An SMA male to BNC male cable (3761-BNC-SMA) is available for compatibility with existing 7158 configurations and with Keithley accessory cables such as the 4801 and 4803. The 3761 does not connect to the 6 common buses on the 3706A backplane, but two outputs are provided to allow for chaining several scanner cards to one measurement instrument, allowing up to 60 channels, while an isolation relay in the output HI minimizes interaction between cards.



Specifications

Channels Per Card	10.
Contact Configuration	Form A. Signal LO is common for all 10 channels and output. When open, signal HI is shorted to signal LO in current mode. When open, signal HI is high impedance in voltage mode.
Connector Type	SMA.
Relay Drive Current	16 mA/relay typ.
Maximum Signal Level	30 V, 100 mA peak (resistive load).
Contact Life	$>10^6$ closures at maximum signal levels; $>10^7$ closures cold switching or at low signal levels.
Contact Resistance	<1 Ω.
Contact Potential	<200 µV.
Offset Current	<1 pA (<30 fA typical).
3dB Bandwidth	1 MHz typical.
Actuation Time	<1 ms, exclusive of mainframe.
Channel Isolation	$>10^{14}$ Ω, <50 pF.
Common Mode Isolation	$>10^9$ Ω, <150 pF.
Common Mode Voltage	<30 V maximum.

Available Accessories

3761-BNC-SMA	SMA to BNC Cable
7712-SMA-1	Low Noise Male to Male SMA Cable
4801	Low Noise Male to Male BNC Cable
4802-10	Low Noise BNC to Unterminated Cable, 10 ft.
4803	Low Noise BNC Cable kit

Available Services

-3761-3Y-EW	1 year factory warrenty extended to 3 years from date of shipment
-3761-5Y-EW	1 year factory warrenty extended to 5 years from date of shipment

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

KEITHLEY
A Tektronix Company

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.
082217.SBG 1KW-61244-0