



Provides a high quality path between the unit under test and external instruments

- 50 Ω access to unit under test
- Co-axial connection to GPIB instruments
- Interface rack mounted
- 26 way general purpose connector
- Buffered, floating and grounded signal lines
- AC or DC coupling

Introduction

The Instrumentation Access Card provides high quality, 50 Ω connections to the unit under test. Single or multiple cards can be located in the standard testpoint card slots of the interface rack and which allow the user to connect external instruments directly to the unit under test, bypassing the analog bus circuitry.

SMB co-axial termination is provided on the card for screened cable connection between tester and instrument.

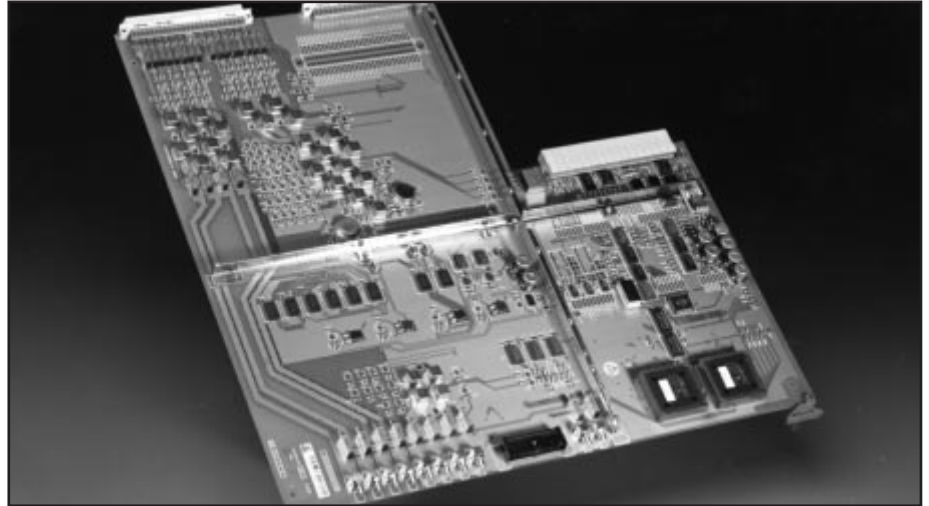
A 26 way connector is also provided on the card for other signals, for example, a serial port. A further two SMB connectors provide support for cross-triggering signals for control of external instruments.

All operations can be performed either in analog or during digital tests to create mixed signal tests. A comprehensive library of control is built into the standard test environment.

The flexible switching matrix of the card allows a single instrument to be connected to any one of eight nodes on the unit under test while maintaining the 50 Ω termination.

50 Ω terminators are provided at the fixture side of the line, predominantly for

4200 series Instrumentation Access Card



self-check purposes, but also available to the user. Comprehensive self-check facilities have been included to give confidence in the operation of the card.

Primary uses for the card allow the connection of external instruments to allow highly accurate measurements to be made on the unit under test via external instruments under control of the test system.

Floating Signals

Four signals are available at the output of the card which can be routed from one of two points on the unit under test. Though the connections are intended for floating measurements all can be referenced to system ground shown in Figure 1.

Grounded Signals

Four connections can be made to the

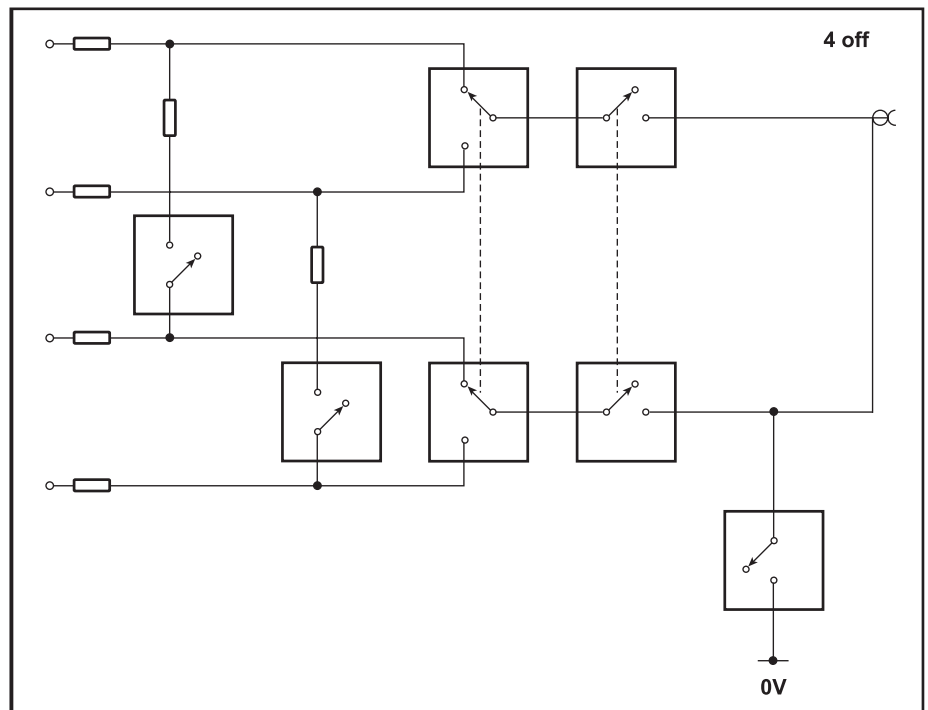


Figure 1 : Signal 1 to 4 floating inputs

4200 series

card from one of two points on the unit under test which are referenced to system ground permanently. A number of options exist for the routing of these signals, for example, all eight can be DC or AC coupled, the latter via 100 nF capacitors. Four signals can be routed via buffer amplifiers if high impedance measurements are required.

The outputs in the two diagrams figures 2 & 3 are the same four connectors. The top diagram shows the AC and DC coupled outputs available on the card.

The second diagram shows the remaining four referenced signals which can not only be AC or DC coupled but also be routed via buffer amplifiers.

Specification

CARD PERFORMANCE

Power supply requirements
 +5 V, 1.5 A (100 mA typical)
 +24 V, 100 mA (10 mA typical)
 -15 V, 100 mA (10 mA typical)

Board connectors

Eight SMB connectors on signal lines
 Two SMB connectors for cross-triggering

Terminator characteristics

Value 50 Ω nominal
 Power 1 W max (7 V DC)

DC isolation capacitor characteristics

Value 100 nF nominal
 Voltage 50 V DC

Buffer amplifier characteristics

Gain 1 nominal, no load
 Input impedance 1 MΩ
 Output impedance 50 Ω nominal
 Output swing into 50 Ω ±5 V pk ±3 V continuous
 Bandwidth -3 dB DC to 80 MHz

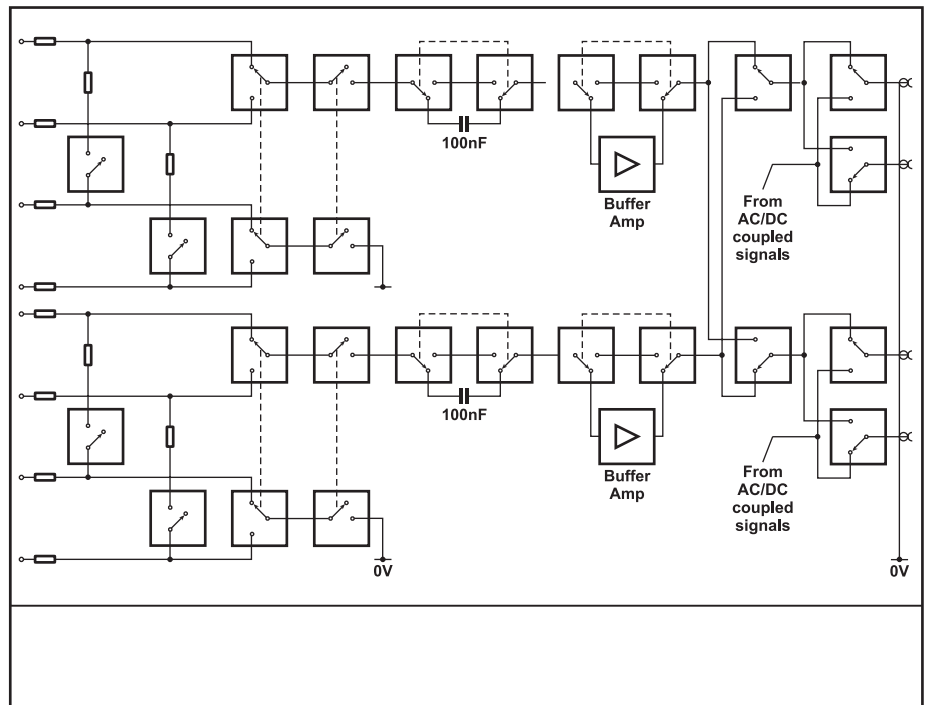


Figure 2

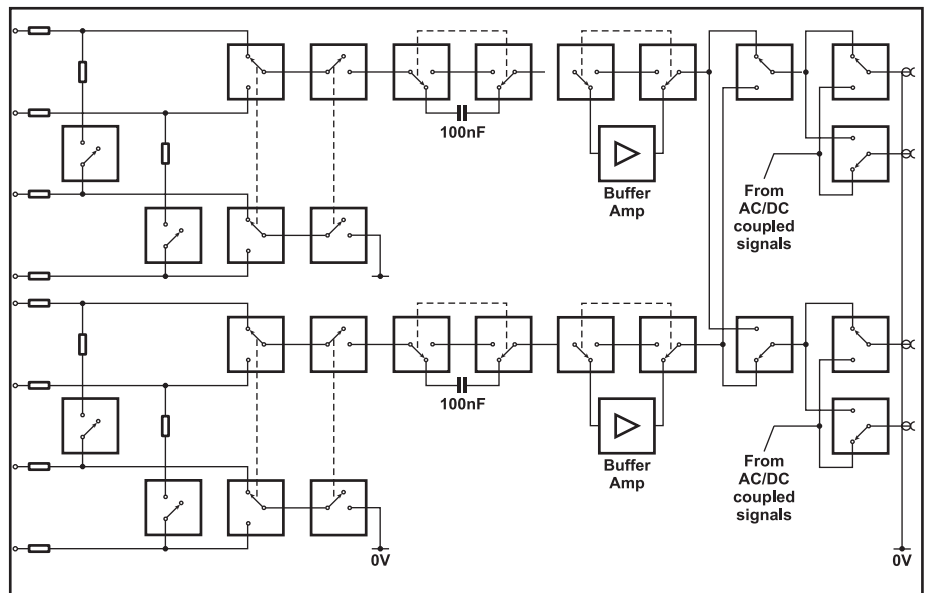


Figure 3



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