Agilent E8782A Pin Matrix and E8783A Pin Matrix Card

Data Sheet

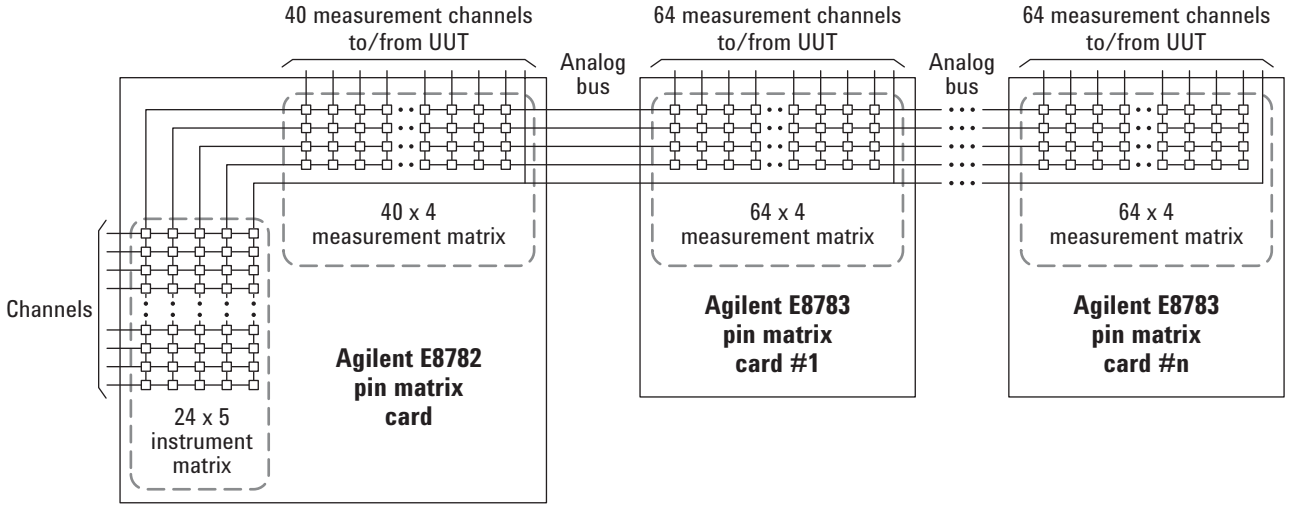
The Agilent Technologies E8782A pin matrix with instrumentation and E8783A pin matrix card are new additions that double the number of supported channels offered by the previous E8792A and E8793A matrix cards. With this increase in supported channels, customers can now support tests on units with a higher number of pin counts using the E6198A switch/load unit.

Effectively, the E8782A pin matrix with instrumentation is configured with 24 instrument channels and 40 measurement channels and retains the features included with the older E8792A card.

The E8783A pin matrix card doubles the number of channels on the E8793A card and retains all features, including the switched auxiliary I/O channels for each row. These auxiliary channels are commonly used for digital I/O operations or other user-defined applications.

Both the E8782A and E8783A are compatible for use with existing E8792A and E8793A cards. Their architecture retains the same analog bus design which allows customers to easily cascade several cards in the E6198A switch/load unit.

E8782A and E8783A conceptual overview



NOTE:

- *The instrumentation matrix consist of 4 analog BUS lines and a 5th UUT common line, hence 24 x 5*
- *The auxiliary channels are not shown in this conceptual overview*
- *Cascading of cards to E8792A and E8793A are similar, using the analog bus*

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E8782A and E8783A specifications

General specifications

Parameter	Specification	
Power requirement	Voltage: +5 Vdc	
Capacitance – DUT pin to UUT common	Open channel: 100 pF Closed channel: 300 pF	
Channels	E8782A	E8783A
	40 measurement 24 instrument	64 measurement
Resistance	DUT pin to auxiliary input: 1 ohm (maximum) DUT pin to analog bus connector: 1 ohm* (maximum) ** with 100 ohm protection resistor bypassed*	
Pin channel voltage	200 volts	
Number of concurrent analog channels	4	
Operating temperature	0 to 40 °C	
Operating humidity	80% relative humidity, 0 to 40 °C	
Maximum current consumption	3 A at 5 V	

Relay characteristics

Parameter	Specification
Type	Dry reed
Switching speed	Close: 500 ms Open: 400 ms
Switching characteristics	1.0 A carry 0.5 A while switching 7.5 volt-amps maximum instantaneous switching
Other relay parameters	300 VDC standoff voltage 200 VDC switching voltage

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Revised: October 1, 2009

Product specifications and descriptions in this document subject to change without notice.

Printed in USA, January 20, 2010
5990-5256EN

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