

# Agilent E8482A, E8482B Six 1x4 and Three 1x4, 50 $\Omega$ , 3 GHz RF Multiplexers

## Data Sheet

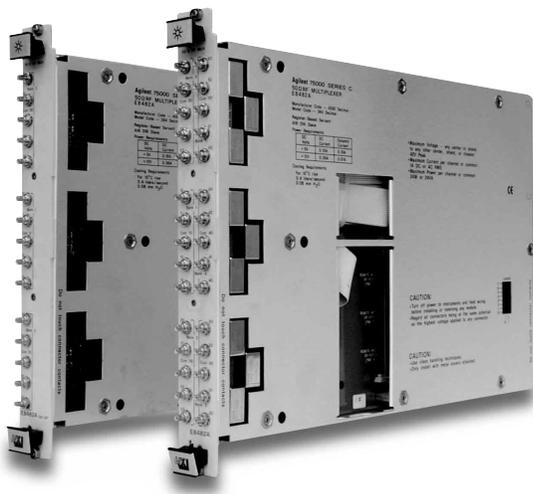
- Six or three 1x4 multiplexers
- Switch signals up to 3 GHz
- Tree switching for high isolation, low VSWR
- SMB male connectors for high performance
- Compatible with E1472A
- Controls E1473A/E1475A RF expanders

## Description

The Agilent Technologies E8482A and E8482B 50  $\Omega$ , 3 GHz RF Multiplexers are **C-size, 1-slot, register-based VXI modules**. They are the ideal choice for your test system (oscilloscope or spectrum, network or distortion analyzer, or other RF equipment). These modules can have either six (E8482A) or three (E8482B) multiplexers.

The E8482A and E8482B can easily be programmed with SCPI commands to scan multiple channels, where each channel is switched to its common, one at a time. These modules are arranged as either six or three independent banks of channels (Bank 0 through Bank 5), each acting as a 1x4 one-wire multiplexer. Only one channel in each bank can be connected to its common at any time. The multiplexer relays are arranged in a tree-switched configuration, providing high isolation and low VSWR. The E8482A and E8482B can also control E1473A or E1475A 1.3 GHz RF multiplexers.

Refer to the Agilent Technologies Website for instrument driver availability and downloading instructions, as well as for recent product updates, if applicable.



Agilent E8482A/B



## Product Specifications

### Input

**Maximum voltage input:** 30 Vdc,  
30 Vac peak

**Maximum current (per channel or common):**  
dc: 0.5 A

**Maximum power (per channel or common):**  
dc: 10 W  
ac: 10 VA

### dc

**Maximum thermal offset:** 10  $\mu$ V

**Closed channel resistance (initial):** <1  $\Omega$

**Insulation resistance (between any two terminals):** 10E6  $\Omega$  at  
 $\leq 40^\circ$  C, 65% RH

### ac

#### Characteristic impedance ( $Z_0$ ):

##### Insertion loss:

<500 MHz: <0.5 dB  
<1 GHz: <0.6 dB  
<2 GHz: <1.0 dB  
<2.5 GHz: <1.5 dB  
<3 GHz: <2.0 dB (typical)

#### Crosstalk (channel-to-channel):

<500 MHz: < 60 dB  
<1 GHz: < 57 dB  
<2 GHz: < 55 dB  
<2.5 GHz: < 40 dB  
<3 GHz: < 39 dB (typical)

#### VSWR:

<500 MHz: <1.15  
<1 GHz: <1.25  
<2 GHz: <1.35  
<2.5 GHz: <1.45  
<3 GHz: <1.50 (typical)

**Risetime:** <300 ps

**Signal delay:** <3 ns

### General

#### Typical relay life (number of operations):

Rated load\*: 10E5  
Relay type: Non-latching armature

\*10 mA Vdc; 2.5GHz, impedance 50  $\Omega$

## General Specifications

### VXI Characteristics

**VXI device type:** Register based, A16, Slave only

**Size:** C

**Slots:** 1

**Connectors:** P1/P2

**Shared memory:** None

**VXI buses:** None

**Instrument Drivers** - See the Agilent Technologies Website ([http://www.agilent.com/find/inst\\_drivers](http://www.agilent.com/find/inst_drivers)) for driver availability and downloading.

**Command module firmware:** Downloadable

**Command module firmware rev:** A.11.01

**I-SCPI Win 3.1:** No

**I-SCPI Series 700:** No

**C-SCPI LynxOS:** No

**C-SCPI Series 700:** No

**Panel Drivers:** No

**VXI *plug&play* Win Framework:** No

**VXI *plug&play* Win95/NT Framework:** Yes

**VXI *plug&play* HP-UX Framework:** No

### Cooling/Slot

**Watts/slot:** 6

**$\Delta$ P mm H<sub>2</sub>O:** 0.1

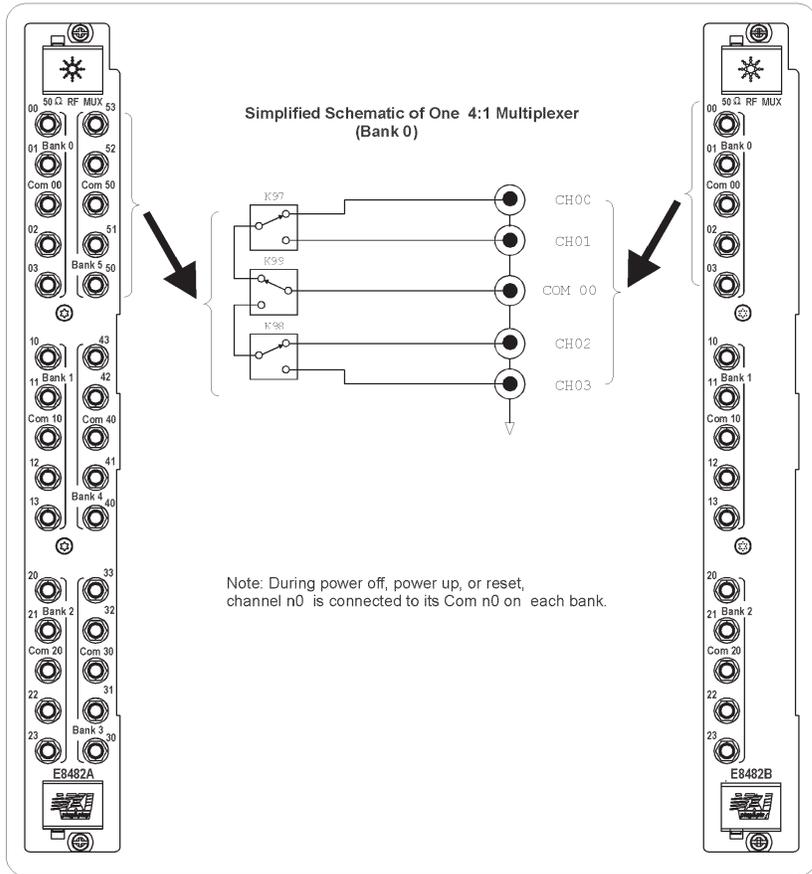
**Air flow liter/s:** 0.5

### Module Current

	$I_{PM}$ (A)	$I_{DM}$ (A)
+5 V:	0.10	0.10
+12 V:	0.21	0.10
-12 V:	0	0
+24 V:	0	0
-24 V:	0	0
-5.2 V:	0	0
-2 V:	0	0

## Ordering Information

Description	Product No.
Six 1x4, 50 $\Omega$ 3 GHz RF Multiplexer	E8482A
Three 1 x 4, 50 $\Omega$ , 3 GHz RF Multiplexer	E8482B



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(fax) (31 20) 547 2390

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(fax) (305) 269 7599

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(tel) 0800 047 866  
(fax) 0800 286 331

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(tel) (65) 6375 8100  
(fax) (65) 6836 0252  
(e-mail) [tm\\_asia@agilent.com](mailto:tm_asia@agilent.com)

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