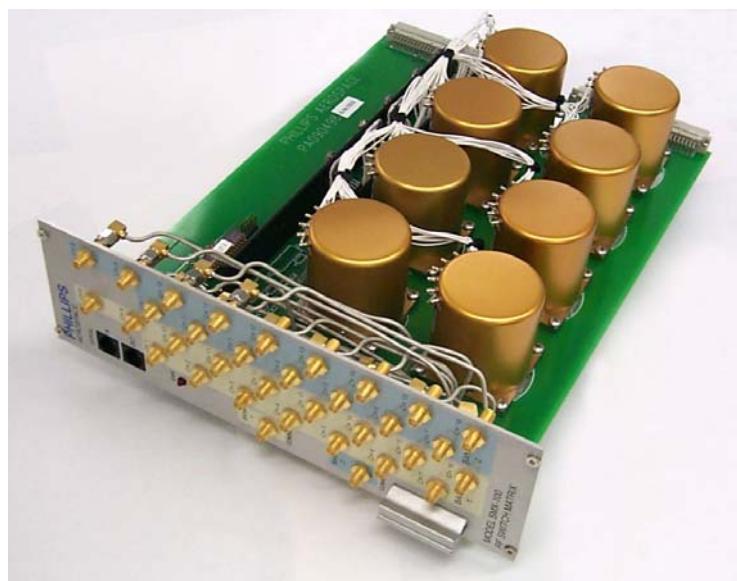


PTE109

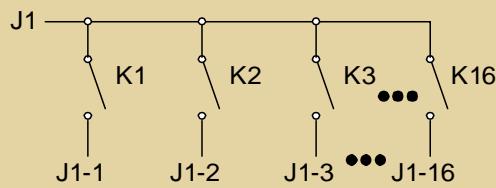
D-C17 GHZ RF SWITCH MATRIX



Features

- Universal Bank and Mux Configurations
- 50Ω Characteristic Impedance
- High Isolation (60dB @ 18GHz)
- Low Insertion Loss (2dB @ 17GHz)
- Windows compatible DLL
- Soft Front Panel

Typical Mux Config



Summary

Phillips' PTE109 Multiplexer is a serial controlled RF switching card for the VME/VXI platform.

Up to 48 SPST switches are available on single C-depth 6U VME/VXI two slot card. Bank and mux channel configurations is user definable. For example, the card can be configured as two banks of 1:18, four banks of 1:10, three banks of 1:12, etc., for mux/de-mux or channel close/open SPST operation. Larger configurations can be achieved using external cables between multiple cards and boards are populated and cabled as necessary to meet customer's needs. Low insertion loss and high channel to channel isolation preserves signal integrity. SMA connectors are standard, other connectors or converters can be supplied if necessary.

Through the supplied soft front panel (SFP), the PTE113A can be software configured for automated operations by the user. Integrated scripting tools provide control for each channel, along with programmable delays: thus enabling the PTE113A to scan through channels at programmable intervals.

Each time the PTE113A is powered up, all channels are configured to an open circuit state, regardless of their last programmable state. If any channel failure occurs this is detected immediately by diagnostic feedback circuitry and the user is notified immediately through the SFP, or as a response through the software driver.

The PTE113A is capable of switching loads up to 3WCW at +85 deg C.

Specifications

Environmental:

Temperature:	Operating: 0° to 50°C Non-Operating: -40° to 30°C
Humidity:	Operating: Up to 30°C: 95% Relative >30° to 50°C: 95% Relative Non-Operating: Up to 50°C: Up to 95% Relative
Altitude:	Operating: -1000 to 5,000 ft Non-Operating: -1000 to 45,000 ft

Characteristics:

Frequency:	DC-4 GHz
VSWR (max):	1.25
Insertion Loss (dB max.):	.6
Isolation (dB min.):	75

Frequency: 4-8 GHz

VSWR (max):	1.30
Insertion Loss (dB max.):	.7

Isolation (dB min.): 70

Frequency: 8-12 GHz

VSWR (max):	1.40
Insertion Loss (dB max.):	.8

Isolation (dB min.): 65

Frequency: 12-17 GHz

VSWR (max):	1.60
Insertion Loss (dB max.):	.2

Isolation (dB min.): 60

Mechanical:		Ordering Information
Contacts:	Gold-clad silver	Part Number: PTE113A-N-C-F-T
Rated Switching Operations:	1,000,000 CYCLES	-N configuration control number assigned by Phillips to support customer specified configuration
Initial Contact Resistance:	100m Ω by voltage drop 6V @ 1A	-C panel connector type: -A (for SMA) -B (for SMB)
Connectors:	Signal: SMA/B threaded or snap-on mini coaxial Program: two RJ-11 (in/out)	-F frequency range: -3 (for 3 GHz), -17 (for 17 GHz)
Max Switching Time:	15ms	-T operating temperature range: -N (0° to 50° C) -X (-30° to 60° C)
Power Requirements:		Cables: CXM-CB1-L: programming or daisy chain interface cable -L: specify cable length in feet
From P1 & P2 Connectors:	+5V @ 50mA maximum +12V @ 14A maximum	Software: PTE113A-SW: Windows DLL and soft front panel
<i>Power drawn depends upon configuration, absolute worst case power shown</i>		
Custom Configurations Consult the factory for integrated 500Ω terminators, N type connector support, and other mechanical variations.		
Consult the factory for self-contained rackmount unit or virtually any size and configuration.		
Consult the factory for high power versions.		