

4101 Model

Electromechanical - RF Switching System

Features

DC - 18 GHz
 Bidirectional Non-Blocking Crossbar Matrix:
n Inputs by *m* Outputs (max. 10x10)
 Local Control : LCD with Keypad Control
 Remote Control: RS-232 / ENET (LNET) or GPIB / RS-232
 Other Available Options (contact factory):
 High Isolation, Phase Matching, and Terminated RF Paths

Photo: 4101-10/10-ENET



Part Number

4101 - n/m - * - ** **Ex. 4101-4/10-N-ENET**

n : Number of inputs (max. 10)
m : Number of outputs (max. 10)
***** : Connector type: N, BNC, TNC, or leave it blank for SMA
****** : ENET or GPIB

Note: For LNET option contact factory for part number.

ENET or LNET (Options):

- >> TCP/IP control via 802.3 protocol (Ethernet)
- >> Supports 10BASE-T/100BASE-T via RJ-45 connector.
- >> LXI style remote access via any web browser (only LNET version)

GPIB (Option):

- >> IEEE-488 with 26 pin female connector



Description

The 4101 Model is a bidirectional crossbar (any input connected to any output at the time) coaxial switching system; operating from DC to 18 GHz. The system is configured with maximum 10 inputs and 10 outputs, but can be configured with an number of inputs and outputs (not exceeding the maximum). This system uses normally open multi-throw switches, meaning that by default or at power lost all switches are in open state.

Model 4101 is equipped with front panel LCD/keypad display for manual and local control, and remotely it can be controlled via Ethernet (ENET) or GPIB. The LNET version uses a LXI based protocol, which allows the user only to control the unit remotely and via a web-browser.

The system is best used for any complex requirement of RF signal switching between multiple devices; whether it is a test bench setup, rack mountable chassis (ask for telescopic slides), or out on the field - it can do it all.

Control Interfaces

Local control (on the front panel):

- >> The system is equipped with manual control via a 4-line LCD (4x40) display and keypad control (except for the LNET version).

Remote Control (on the rear panel): All versions are equipped with

- >> RS-232 (DP9 female) connector with Baud Rate 9600 bps
- >> CANBus (DP9 male) used for programming the unit
- >> SCPI commands

Environment

85-264 VAC, 47-63 Hz, 3-6 A, 375 W (max)
 Fuse/Breaker: Externally accessible/replaceable
 Storage Temperature: -20 °C to +70 °C
 Operating Temperature: 0 °C to +60 °C
 Operating Humidity: 10-80% (non-condensing)

Physical

Relay Type: Normally Open Multiposition
 Contact Material: Beryllium copper, gold-plated
 I/O Connector Type: SMA, N, BNC, TNC (Female)
 Dimensions: 19" wide standard rack mount
 4U maximum height (7")
 24" maximum depth
 Front Panel Color: Gray
 Weight (max): 42 lbs

RF Characteristics

Impedance: 50 Ohms
 Operating Frequency: DC-18 GHz
 Switching Speed: 50-100 ms (max)
 Operating Life: 1,000,000 cycles (Cold Switching)
 * Combined input power on all inputs (at the same time)

Frequency [GHz]	VSWR	Isolation [dB]	Insertion Loss [dB]	CW Power Handling [W] *
DC - 4	1.1:1	75	2.0	100
4 - 8	1.3:1	70	2.5	80
8 -12	1.4:1	65	3.0	60
12 -16	1.7:1	60	4.5	50
16 - 18	2.0:1	60	5.0	40