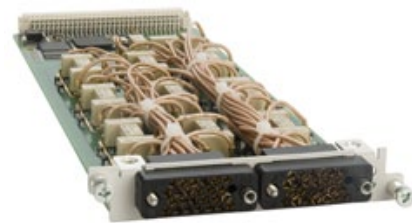


DATA SHEET



EX1200-6101

EX1200-6111

10-CHANNEL SP4T 1.3 GHZ COAXIAL SWITCH
5-CHANNEL SP4T 1.3 GHZ COAXIAL SWITCH

FEATURES

- Highest density RF switches and matrices
- 50 W maximum switching power
- Can be mixed and matched to create application specific configurations
- Ideal for general purpose RF switching with high signal fidelity and total system bandwidths > 1 GHz
- No unterminated stub effects
- Excellent crosstalk and isolation specifications



RELIABLE DATA FIRST TIME EVERY TIME

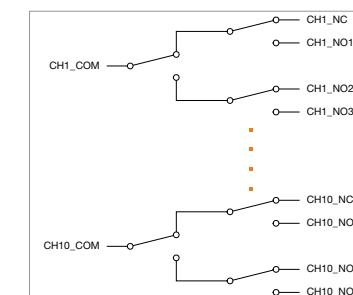
OVERVIEW

The EX1200-6101 (10 channels) and EX1200-6111 (5 channels) are high-density SP4T RF switch modules with ten individual SP4T coaxial trees that are isolated from each other and system grounds to provide a high-fidelity switch path for switching signals in excess of 1.3 GHz. Excellent crosstalk and isolation is maintained by using very short low-loss coaxial runs from the connector directly to the relays. All modules are also configured to avoid any unterminated stub effects, improving overall signal integrity and allowing for high frequency matrix designs and large multiplexer configurations while preserving bandwidth and maintaining low VSWR. The front panel utilizes two high-density, 26-pin coaxial connectors designed for high reliability and low insertion loss.

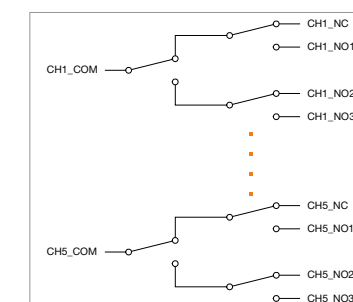
Six of the modules can be accommodated in a 1U EX1200 full rack mainframe to provide a very flexible RF switch network. For example, a single module can be configured through external cabling to provide dual 1 x 16 multiplexers into two channels of a scope, or as a single 4 x 4 RF matrix. The modules can also be combined with other EX1200 switch cards to configure a general purpose subsystem to switch DC to > 1.3 GHz.

The EX1200-6101 and EX1200-6111 can be controlled programmatically using IVI-Switch compliant calls. Both path level programming and individual relay control are available. Both single-wire and two-wire programming modes are available.

EX1200-6101 BLOCK DIAGRAM



EX1200-6111 BLOCK DIAGRAM



RELIABLE DATA FIRST TIME EVERY TIME

General Specifications

CHANNEL COUNT	
EX1200-6101	10 SP4T multiplexers
EX1200-6111	5 SP4T multiplexers
RELAY TYPE	Electromechanical, fail-safe
MAXIMUM SWITCHING VOLTAGE	220 V DC, 250 V AC rms
MAXIMUM SWITCHING CURRENT	2 A
MAXIMUM SWITCHING POWER	50 W, 62.5 VA
RATED SWITCH OPERATIONS	
Mechanical	5×10^6
Electrical	1×10^5 at full load
SWITCHING TIME	< 5 ms
PATH RESISTANCE	< 0.250 Ω
INSULATION RESISTANCE	> $1 \times 10^9 \Omega$
BANDWIDTH (-3 dB)	1.3 GHz (typical)
INSERTION LOSS (TYPICAL)	
500 MHz	< 0.9 dB
1.3 GHz	< 3.0 dB
CROSSTALK (TYPICAL)	
500 MHz	< -70 dB
1.3 GHz	< -60 dB
ISOLATION (TYPICAL)	
500 MHz	< -70 dB
1.3 GHz	< -60 dB
VSWR (TYPICAL)	
500 MHz	< 1.11:1
1.3 GHz	< 2.92:1
CONNECTOR TYPE	Dual 26-pin

Ordering Information

EX1200-6101	10-channel SP4T 1.3 GHz coaxial switch
EX1200-6111	5-channel SP4T 1.3 GHz coaxial switch
ACCESSORIES AND TOOLS	
70-0150-000	26-pin mating connector and housing (2 required)
70-0149-000	10-pin/ferrule kit (RG 316 50 Ω)
70-0149-001	10-pin/ferrule kit (RG 178 50 Ω)
46-0018-000	Crimp tool, coax RG316 (50 Ω)
46-0018-001	Crimp tool, coax RG178 (50 Ω)
46-0021-000	Tool, pin extractor, size 16 contact, AMP M series