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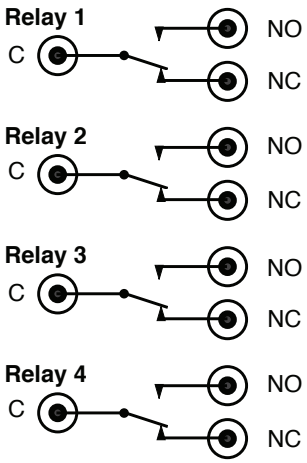
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Find the *Pickering 10-710A-504* at our website: *Click HERE*

10-710A
3GHz RF Relay Module



- 4 x SPDT Changeover Switches with Bandwidths to 3GHz
- 50Ω and 75Ω Versions
- Choice of Front Panel Mounted Connectors BNC, SMA, SMB, etc..
- Insulated Coaxial Versions Available
- Front Panel Indicator LEDs
- Suitable for Building Large Switching Networks
- Tree Networks Constructed by Interconnecting Switches
- 75Ω Version Suitable for Telecoms and High Quality Video Switching
- Many Applications in Low Frequency Shielded Applications



Switching Block Diagram for the 10-710A 4 x SPDT RF Relay Module

Models 10-710A have a bank of 4 individual high performance R.F. changeover switches (50Ω or 75Ω, Bi-directional) with very low insertion loss, suitable for handling signals up to 3000MHz. Applications include aerial switching, routing high frequency signals into oscilloscopes and analysers.

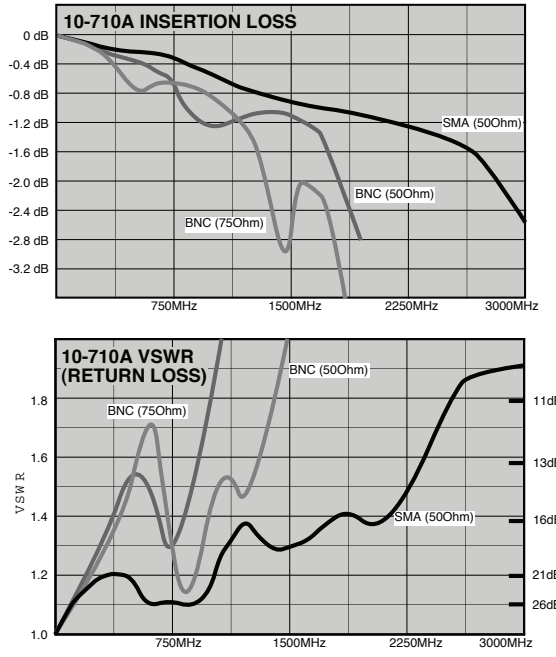
Available with a choice of connectors: Industry standard BNCs are suitable to beyond 1000MHz, for higher performance applications SMA, SMB and 1.0/2.3 connector versions are available, both featuring very low insertion loss & good VSWR with bandwidths to beyond 3GHz.

The 75Ω versions are suitable for high frequency video and telecommunication signals up to 3GHz (e.g. 622MBit data).

Programming

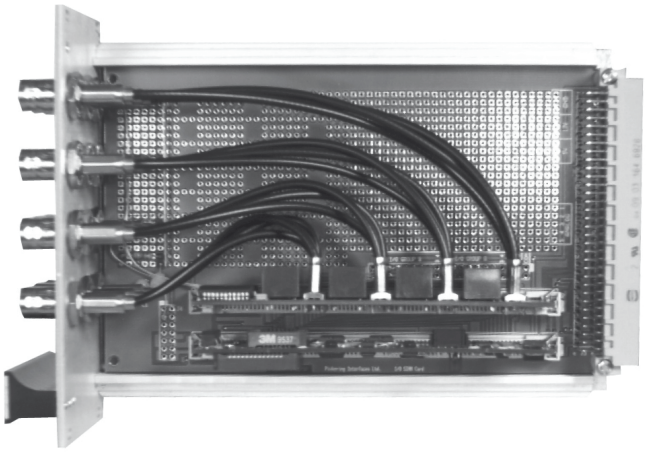
The R.F. Module is simple to program either by single relay or by pattern (4 relays simultaneously)

ARESET a	Open all switches on module **a**
CLOSE a,b	Close switch number **b** on module **a**
DELAY t	Force a minimum delay of **t** milliseconds between two instructions
OPEN a,b	Open switch number **b** on module **a**
RESET	Open all switches on all modules
VIEW? a[,b]	View status of module **a**, can be viewed at any time either as a byte or by switch as a logical value (1 or 0)
WRITE a,w	Send byte **w** to module **a**



Insertion/Return Loss Plots for the 10-710A Module

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Internal Construction of the 10-710A RF Relay Module

General Specification (All Versions)

Maximum Voltage:	50V DC
Maximum Power:	10W
Maximum Carry Power:	15W
Max Switch Current:	0.1A
On Path Resistance:	<200mΩ
Off Path Resistance:	>10^8Ω
Differential Thermal Offset:	<20µV
Crosstalk (0 to 3000MHz):	>60dB
Isolation (0 to 3000MHz):	>40dB
Switching Time:	10ms
Expected Life (Low power):	>1x10^7 operations
Expected Life (Max power):	>1x10^5 operations

50Ω Specification (SMA Connector)

Maximum Frequency:	3000MHz
Rise Time:	<0.2ns
Insertion Loss:	<3dB
VSWR (0 to 2000MHz):	<1:1.7

50Ω Specification (BNC Connector)

Maximum Frequency:	1000MHz
Rise Time:	<0.2ns
Insertion Loss:	<3dB
VSWR (0 to 2000MHz):	<1:1.7

75Ω Specification (BNC Connector)

Maximum Frequency:	1000MHz
Rise Time:	<0.3ns
Insertion Loss:	<3dB
VSWR (0 to 2000MHz):	<1:1.7

Width and Dimensions

All modules conform to the 3U height (128mm) Eurocard standard and are 160mm deep. Panel width is 2.4 Inches.

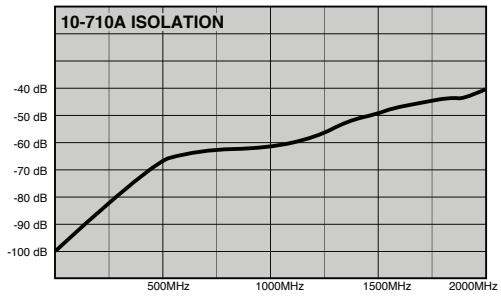
Operating/Storage Conditions

Operating Conditions

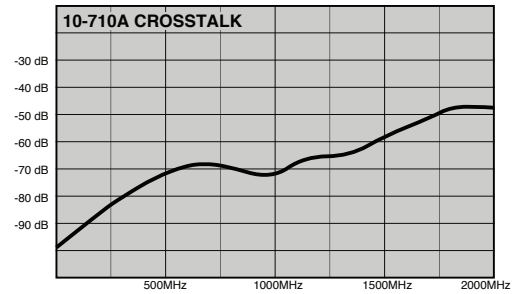
Operating Temperature:	0°C to 55°C
Humidity:	Up to 95% non-condensing
Altitude:	5000m

Storage and Transport Conditions

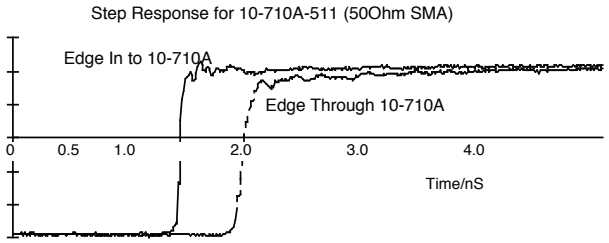
Storage Temperature:	-20°C to +75°C
Humidity:	Up to 95% non-condensing
Altitude:	15000m



Isolation Plot for the 10-710A Module



Crosstalk Plot for the 10-710A Module



Rise Time Performance for the 10-710A Module

Connectors

The 10-710A RF Relay Module is available with the following front panel connectors:

50Ω or 75Ω BNC
50Ω SMB
50Ω SMA
75Ω SMZ/Type 43
75Ω 1.0/2.3

Alternative connectors are available to order such as 75Ω Mini SMB - Please consult the sales office.

Product Order Codes

RF Changeover Relay, BNC, 50Ω	**10-710A-504**
RF Changeover Relay, SMB, 50Ω	**10-710A-514**
RF Changeover Relay, SMA, 50Ω	**10-710A-524**
RF Changeover Relay, BNC, 75Ω	**10-710A-704**
RF Changeover Relay, SMZ/Type43, 75Ω	**10-710A-714**
RF Changeover Relay, 1.0/2.3, 75Ω	**10-710A-744**
Options	
Insulated Shield (shields all floating)	**-I**

Mating Connectors & Cabling

Examples of cabling available for the 10-710 are:

BNC to BNC Lead, 1 metre, 50Ω	**10-980-510**
SMB to SMB Lead 1 metre, 50Ω	**10-982-510**
SMA to SMA Lead 1 metre, 50Ω	**10-981-510**
BNC to BNC Lead, 1 metre, 75Ω	**10-980-710**
Type43 to Type43 Lead, 0.5 metre, 75Ω	**10-988-705**

Latest Details

Please refer to our Web Site for Latest Product Details.
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