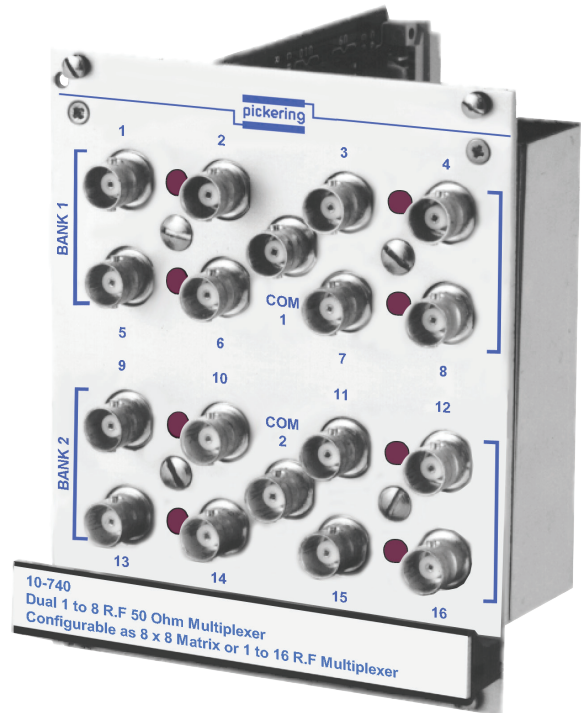


10-740A RF Multiplexer Module

- Dual 8 to 1 R.F. Multiplexer with 150MHz Bandwidth
- 50Ω Characteristic Impedance
- Configurable as 16 to 1 Multiplexer with Reduced Bandwidth
- Front Panel Mounted BNC Plugs
- Front Panel Indicator LEDs
- Suitable for Many Screened Low Frequency Applications



Model 10-740A is a dual 8 to 1 RF Multiplexer with a bandwidth up to 150MHz. The 10-740A may also be configured (via internal DIP switches) as a 16 to 1 multiplexer but with reduced RF performance. The multiplexer has a characteristic impedance of 50Ω.

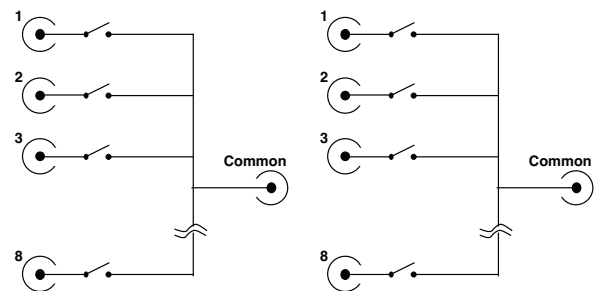
The 10-740A is also suitable for low frequency applications requiring BNC coaxial switching. It may be operated as a normal RF multiplexer (with only 1 channel selected at a time), alternatively 2 or more channels may be simultaneously selected (but with much reduced RF performance).

Applications include routing high frequency signals to and from oscilloscopes, analysers, signal generators and synthesizers, video/audio switching, switching high frequency logic and many other situations involving coaxial or guarded switching.

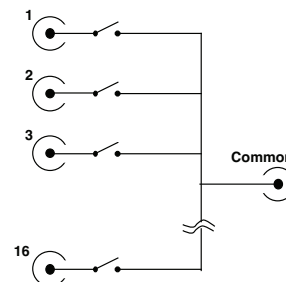
Programming

The Multiplexer module is simple to program:-

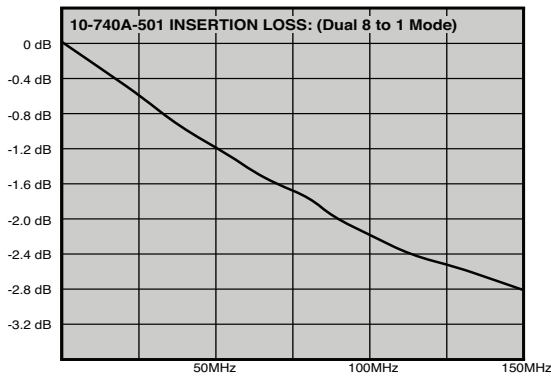
- ARESET a** Open all channels on device **a**
- DELAY t** Force a minimum delay of **t** milliseconds between two instructions
- RESET** Open all switches on all modules
- VIEW? a** View status of device **a**
- CHAN a, c** Select channel **c** on multiplexer **a**
When in dual 8 to 1 mode the address is prefixed by 1 or 2.
- CHAN a, c, s** Multi-channel selection argument **s** allows opening/closing of any combination of channels, but with reduced RF performance.



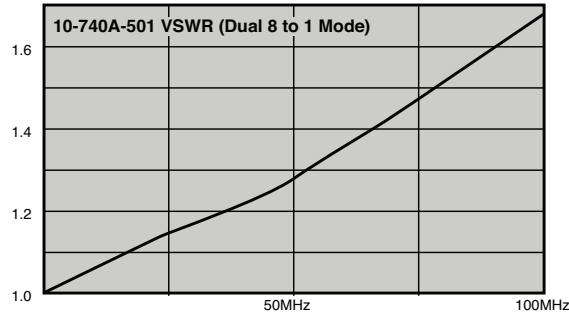
Dual 8-Channel RF Multiplexer Mode



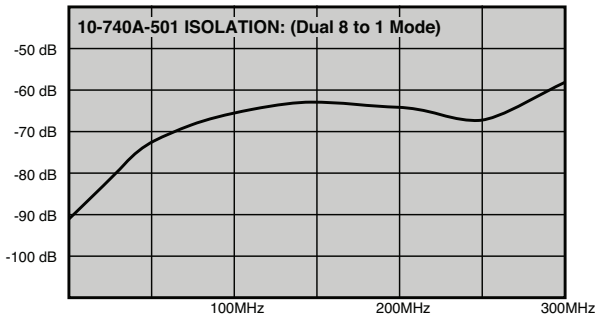
Alternative 16-Channel RF Multiplexer Mode



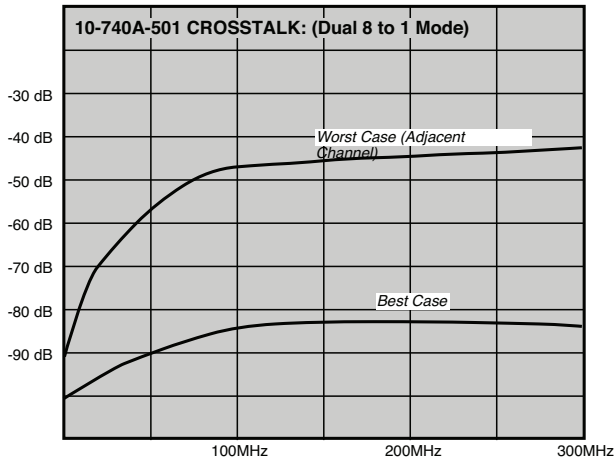
Insertion Loss Plot for 10-740A-501, 300MHz MUX



VSWR Plot for 10-740A-501, 300MHz MUX



Isolation Plot for 10-740A-501, 300MHz MUX



Crosstalk Plot for 10-740A-501, 300MHz MUX

Connectors

The 10-740A RF Multiplexer Module is available with 50Ω front panel connectors. Alternative connectors are available to order such as 1.0/2.3, SMZ, Mini SMB or BT type 43 - Please consult the sales office.

Specification (10-740A-501 – Dual 8 to 1 Mode)

Characteristic Impedance:	50Ω
Maximum Frequency:	150MHz
Rise Time:	2ns
Insertion Loss (<20GHz):	<3dB
VSWR:	1:1.7
Isolation:	>55dB
Crosstalk:	>40dB
Maximum Voltage:	100V d.c.
Maximum Power:	10W
Maximum Switch Current:	0.5A
Maximum Carry Current:	1.2A
On Path Resistance:	<250mΩ
Off Path Resistance:	>10 ¹¹ Ω
Noise:	<-75dBm
Differential Thermal Offset:	<20μV
Capacitance, Open Channel:	<0.1pF
Capacitance, Channel-Channel:	<0.1pF
Capacitance, Open Channel-GND:	<15pF
Switching Time:	15ms
Expected Life (Low power):	>1×10 ⁸ operations
Expected Life (Max power):	>5×10 ⁶ operations

Additional Specification (16 to 1 Mode)

Maximum Frequency:	40MHz
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Width and Dimensions

All modules conform to the 3U height (128mm) Eurocard standard and are 160mm deep. Panel width for the 10-740A modules is 4.2 inches.

Product Order Codes

Dual 8 to 1 RF MUX, BNC, 50Ω **10-740A-501**

Mating Connectors & Cabling

An example of cabling available for the 10-740 is:

BNC to BNC Lead, 1 metre, 50Ω **10-980-510**

Latest Details

Please refer to our Web Site for Latest Product Details.
www.pickeringtest.com

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