

# 7711 50W 2GHz Multiplexer Specifications

## GENERAL

**Relay Type:** High Frequency Electromechanical

**Contact Configuration:** Dual 1x4 Multiplexer, single pole four throw, Channels 1 and 5 are normally closed.

**Notes:** One channel in each multiplex bank is always closed to the corresponding OUT connector.

**Close Channel:** ROUTe:CLOSe allows a single channel in a multiplex bank to be closed.

ROUTe:MULTiple:CLOSe allows two channels (One in each bank) to be closed at one time.

**Open Channel:** ROUTe:OPEN:ALL closes CH1 and CH5 to OUT A and OUT B respectively.

**Actuation Time:** <10mS

**Firmware:** Specified for Model 2700 rev. B04 and Model 2750 rev. A03 or higher.

**Connector Type:** Ten External Rear Panel SMA connectors.

**Mating Torque:** 0.9 N•m (8 in-lb).

## INPUTS (CHANNELS 1-8)

**Maximum Signal Level:** Any channel to any channel or chassis (1-8) 30Vrms (42V peak for AC waveforms) or 60VDC, 0.5A.

**Maximum Power:** 20W per module, 10W per channel.\*

**Safety:** Conforms to European Union Directive 73/23/EEC EN61010-1, CAT I.

**EMC:** Conforms with European Union Directive 89/336/EEC; EN61326-1.

### Isolation:

**Multiplexer to Multiplexer:** >1G $\Omega$

**Center to Shield:** >1G $\Omega$ , <25pF

**Channel to Channel:** >100M $\Omega$

**Contact Life:** 1x10<sup>6</sup> No Load, 1x10<sup>5</sup> Rated Load (resistive load)

**Contact Potential:** <6 $\mu$ V

**Contact Resistance:** <0.5 $\Omega$  (Initial), <1 $\Omega$  (End Of Life)

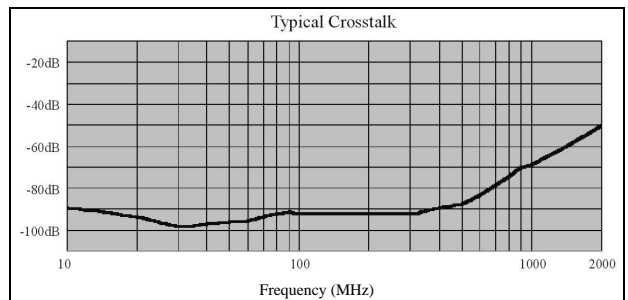
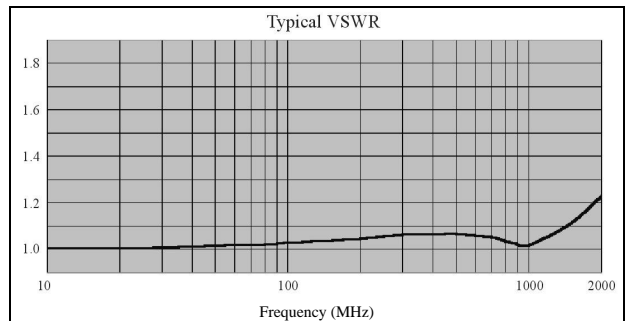
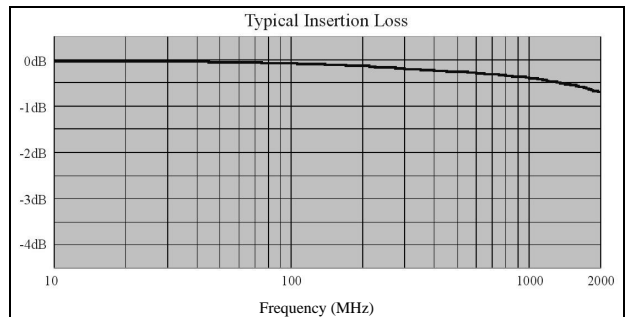
**Rise Time:** <300ps (Guaranteed by design)

**Signal Delay:** <3ns

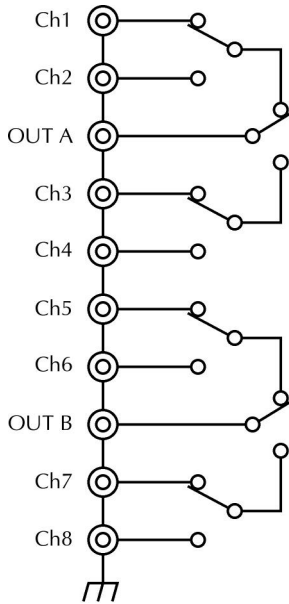
## MODEL ACCESSORIES AVAILABLE

7711-SMA-BNC	Male SMA to Female BNC Cables (Five, 0.15m (0.5ft) cables)
7051-2	BNC cable, male to male, 0.6m (2ft.)
7051-5	BNC cable, male to male, 1.5m (5ft.)
7051-10	BNC cable, male to male, 3.0m (10ft.)
7712-SMA-1	SMA cable, male to male, 1.0m (3.3 ft.)
7712-SMA-N	Female SMA to Male N-Type Adapter
S46-SMA-1	SMA cable, male to male, 0.3m (1 ft.)
S46-SMA-0.5	SMA cable, male to male, 0.15m (0.5 ft.)

\* Refer to 7711/7712 User's Guide (PA-818) for measurement considerations.



# 7711 50W 2GHz Multiplexer Specifications



## AC Performance: (Includes end of life)

For  $Z_{load} = Z_{source} = 50\Omega$

	<100MHz	500MHz	1GHz	1.5GHz	2GHz
<b>Insertion Loss MAX</b>	0.4dB	0.6dB	1.0dB	1.2dB	2.0dB
<b>VSWR MAX</b>	1.1	1.2	1.2	1.3	1.7
<b>Ch-Ch Cross-talk<sup>1</sup> MAX</b>	-85dB	-65dB	-55dB	-45dB	-35dB

<sup>1</sup> Specification assumes 50 $\Omega$  termination.

## Environmental

**Operating Environment:** Specified for 0°C to 50°C

Specified for 80% RH at 35°C

**Storage Environment:** -25°C to 65°C

**Weight:** <0.50Kg (1.1 lb.)

# 7712 50W 3.5GHz Multiplexer

## GENERAL

**Relay Type:** High Frequency Electromechanical

**Contact Configuration:** Dual 1x4 Multiplexer, single pole four throw, Channels 1 and 5 are normally closed

**Notes:** One channel in each multiplex bank is always closed to the corresponding OUT connector.

**Close Channel:** ROUTe:CLOSe allows a single channel in a multiplex bank to be closed.

ROUTe:MULTiple:CLOSe allows two channels (One in each bank) to be closed at one time.

**Open Channel:** ROUTe:OPEN:ALL closes CH1 and CH5 to OUT A and OUT B respectively.

**Actuation Time:** <10mS

**Firmware:** Specified for Model 2700 rev. B04 and Model 2750 rev. A03 or higher.

**Connector Type:** Ten External Rear Panel SMA connectors

**Mating Torque:** 0.9 N•m (8 in-lb).

## INPUTS (CHANNELS 1-8)

**Maximum Signal Level:** Any channel to any channel or chassis (1-8)  
30Vrms (42V peak for AC waveforms) or  
42VDC, 0.5A.

**Maximum Power:** 20W per module. 10W per channel.\*

**Safety:** Conforms to European Union Directive 73/23/EEC  
EN61010-1, CAT I.

**EMC:** Conforms with European Union Directive 89/336/EEC;  
EN61326-1.

### Isolation:

**Multiplexer to Multiplexer:** >1GΩ

**Center to Shield:** >1GΩ, <20pF

**Channel to Channel:** >100MΩ

**Contact Life:** 5x10<sup>6</sup> No Load, 1x10<sup>5</sup> Rated Load (Resistive load)

**Contact Potential:** <12μV

**Contact Resistance:** <0.5Ω (Initial), <1Ω (End Of Life)

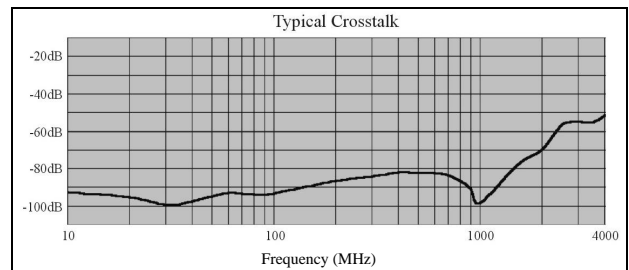
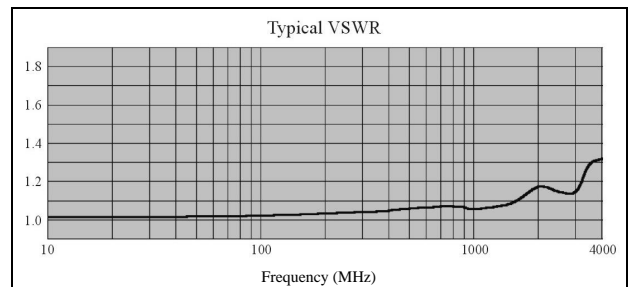
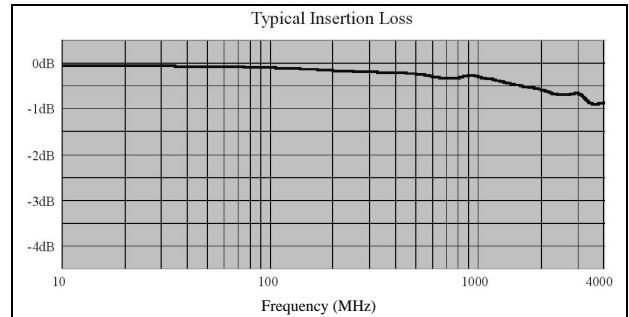
**Rise Time:** <200ps (Guaranteed by design)

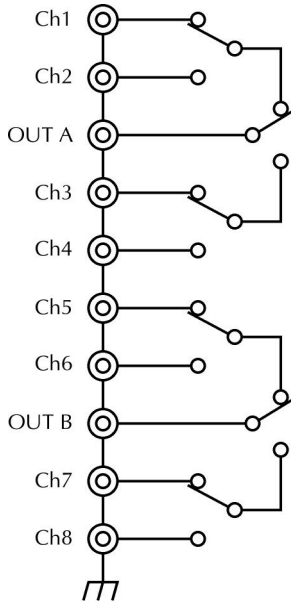
**Signal Delay:** <1.5ns

## MODEL ACCESSORIES AVAILABLE

7712-SMA-1	SMA cable, male to male, 1m (3.3 ft)
7712-SMA-N	Female SMA to Male N-Type Adapter
S46-SMA-1	SMA cable, male to male, 0.3m (1ft)
S46-SMA-0.5	SMA cable, male to male, 0.15m (0.5 ft.)

\* Refer to 7711/7712 User's Guide (PA-818) for measurement considerations.






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**AC Performance: (Includes end of life)**

For  $Z_{load} = Z_{source} = 50\Omega$

	<500MHz	1GHz	2.4GHz	3.5GHz
<b>Insertion Loss MAX</b>	0.5dB	0.65dB	1.1dB	1.3dB
<b>VSWR MAX</b>	1.15	1.2	1.45	1.45
<b>Ch-Ch Crosstalk<sup>1</sup> MAX</b>	-75dB	-70dB	-50dB	-45dB

<sup>1</sup> Specification assumes 50Ω termination.

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**ENVIRONMENTAL**

**Operating Environment:** Specified for 0°C to 50°C  
Specified for 80% RH at 35°C

**Storage Environment:** -25°C to 65°C

**Weight:** <.50Kg (1.1 lb.)