

# 7712

## 3.5GHz 50Ω RF Module

- 3.5GHz bandwidth
- Dual 1x4 configuration
- Onboard switch closure counter
- Onboard S parameter storage

### Ordering Information

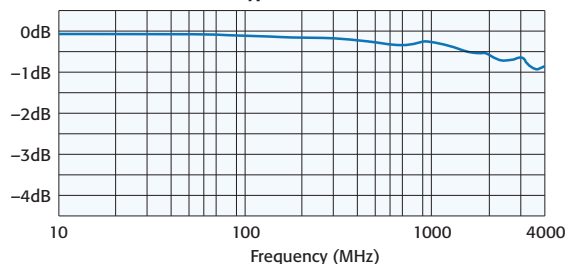
**7712 3.5GHz 50Ω RF Module**



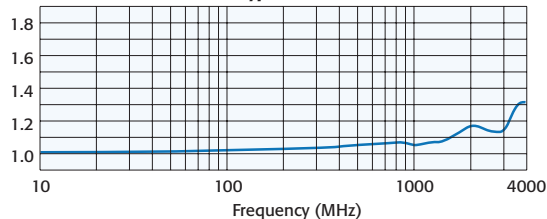
The Model 7712 plug-in module offers a 50, dual 14 multiplexer configuration with rear panel SMA 14 connectors. Multiple multiplexers can be cascaded to build scalable matrix and multiplexer systems for a large number of devices under

test and RF source/measurement instruments. One channel in each multiplex bank is always closed to the corresponding OUT connector. The 3.5GHz RF switching capability of the Model 7712 makes it ideal for applications such as 3G telecom, wireless LAN, and Bluetooth module testing.

Typical Insertion Loss



Typical VSWR



### AC PERFORMANCE (End of Life)

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

	<500 MHz	1 GHz	2.4 GHz	3.5 GHz
Insertion Loss Max.	<0.5 dB	<0.65 dB	<1.1 dB	<1.3 dB
VSWR MAX	<1.15	<1.2	<1.45 <sup>2</sup>	<1.45
Ch-Ch Crosstalk <sup>1</sup> Max.	-75 dB	-70 dB	-50 dB	-45 dB

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

<sup>2</sup> Add 0.1VSWR after  $5 \times 10^5$  closures (no load).

### 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 (refer to 7711/7712 Manual PA-818 for measurement considerations).

**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:**  $5 \times 10^6$  no load,  $1 \times 10^5$  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.

### GENERAL

**RELAY TYPE:** High frequency electromechanical.

**CONTACT CONFIGURATION:** Dual 1x4 multiplexer, single pole four throw, Channels 1 and 5 are normally closed.

**NOTE:** 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, 2701 rev. A01, and 2750 rev. A03 or higher.

**CONNECTOR TYPE:** Ten external rear panel SMA connectors.

**MATING TORQUE:** 0.9 N·m (8 in-lb).

### 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:** <0.5kg (1.1 lb).

### 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-0.5	SMA Cable, male to male, 0.15m (0.5 ft.)
S46-SMA-1	SMA Cable, male to male, 0.3m (1 ft.)

### SERVICES AVAILABLE

7712-3Y-EW	1-year factory warranty extended to 3 years from date of shipment
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Use with Integra Series mainframes: 2700, 2701, 2750

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