

7712

3.5GHz 50Ω RF Module



- 3.5GHz bandwidth
- Dual 1x4 configuration
- Rear panel SMA connections
- On-board switch closure counter
- On-board S-parameter storage

Ordering Information

7712 3.5GHz, 50Ω, Dual 1x4 RF Module

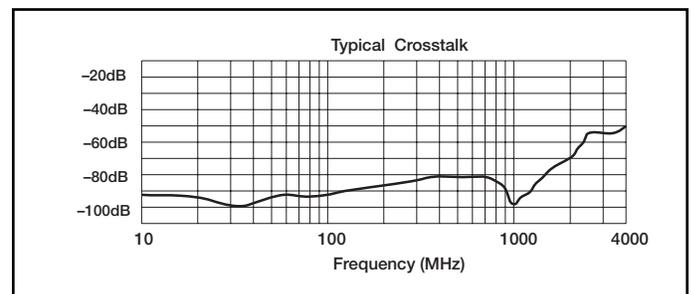
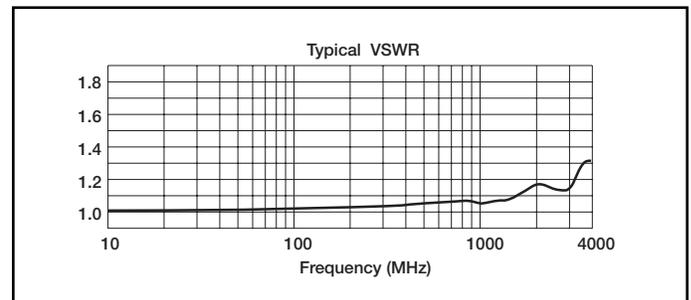
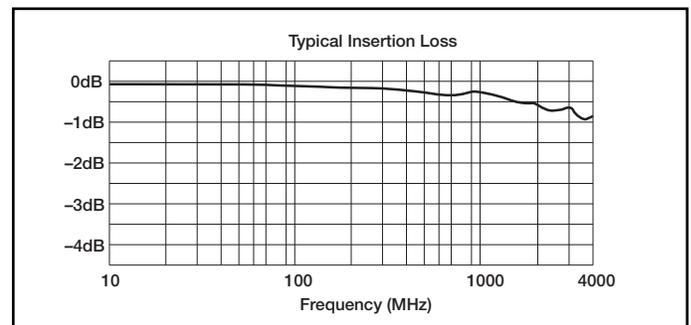
APPLICATIONS

- Testing wireless devices:
 - Wireless LAN
 - Bluetooth
 - GSM, CDMA, 3G mobile phones
- High performance RF signal routing to/from oscilloscopes, signal generators, frequency counters, etc.

The Model 7712 3.5GHz RF module is part of Keithley's Integra Series of flexible measurement/control solutions. It offers the industry's highest bandwidth and best performance for RF signal routing in a tightly integrated switch/measure system.

The Model 7712 module is compatible with either the two-slot Model 2700 or five-slot Model 2750 mainframe, adding RF signal routing capability to the Integra Series' robust DC switch and measurement performance. Its outstanding high frequency signal routing performance allows users to build cost-effective, high performance hybrid DC/RF systems for testing the latest wireless devices like wireless LANs, Bluetooth devices, and new mobile phone designs. On-board switch closure counters track relay life to assist in preventive maintenance planning, while the on-board S-parameter storage simplifies calibration. Together, these features make the Model 7712 an ideal solution for production test systems as well as R&D applications to 3.5GHz.

For more information on other Keithley products, including the Model 7711 2GHz RF Module or the System 46 RF/Microwave Switch (DC to 18GHz), visit our web site at www.keithley.com.



Plug-in RF switching module for Integra mainframes

SWITCH/MEASURE SYSTEMS

1.888.KEITHLEY (U.S. only)

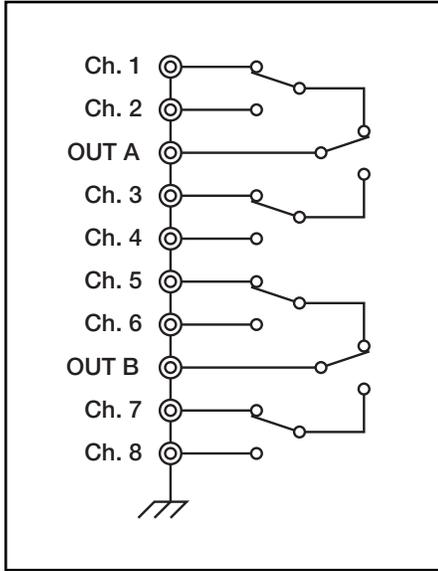
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A GREATER MEASURE OF CONFIDENCE

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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.)

7712 50Ω 3.5GHz Multiplexer Specifications

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	1.45
Ch-Ch Crosstalk ¹ MAX	-75 dB	-70 dB	-50 dB	-45 dB

¹ Specification assumes 50Ω termination.

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:** 5×10⁶ no load, 1×10⁵ 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 1×4 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).

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).

Specifications are subject to change without notice.

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KEITHLEY

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