Agilent 70911A

Ultra-Wide Bandwidth IF Module
100 Hz to 26.5 GHz

Configuration Guide

The Agilent Technologies 70911A ultra-wide bandwidth IF module adds receiver functionality to certain 70000 series spectrum analyzers. Designed specifically to work with the 71209A option 001 analyzer, it adds receive bandwidths of 10 MHz to 100 MHz in 10% increments. When the 70911A is added to the 71209A option 001, the combination constitutes the 71910A wide-bandwidth surveillance receiver.

The 71910A receiver monitors signals from 100 Hz to 26.5 GHz. It provides a cost effective combination of search and wide-bandwidth collection capabilities for surveillance and signal monitoring applications. Its flexibility makes it an ideal downconverter in stimulus-response applications.

To search for signals, it sweeps over user-specified spans up to 26.5 GHz wide using bandwidths up to 3 MHz. A wide dynamic range ensures signals of various amplitudes are quickly identified. Once a signal is located, the receiver is fixed-tuned and the wide IF bandwidths are used for signal collection. (Bandwidths up to 36 MHz are available with microwave preselection, and up to 100 MHz unpreselected). A linear IF signal path provides good signal fidelity with standard outputs of 321.4 MHz IF and linear video. Optional outputs include 70 and 140 MHz IF, analog I/Q, and demodulated FM.

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Ordering Information

70911A Ultra-Wide Bandwidth IF Module

Important: Options 001 through 007 are circuit boards. There are only four circuit board slots available. Option 004 consists of two circuit boards. When ordering, be certain the total number of circuit boards does not exceed four.

Option 001   70 MHz IF output **(one board)**
Option 002   140 MHz IF output **(one board)**
Option 004   Analog I/Q output **(two boards)**
Option 005   FM output **(one board)**
Option 007   70 MHz IF channel filters **(one board)** requires Option 001

Option 098   LO firmware upgrade, CPU board upgrade, and 1 Mbyte RAM
Option 099   LO firmware upgrade and 1 Mbyte RAM
Option 0B1   Extra user manual set
Option 0B3   Service manual and module verification software
Option W30   Three-year customer return repair
Option 8ZE   Refurbished 70911A

Upgrade Information
Existing 71209A systems with Option 001 (70910A RF Section) may be upgraded to the 71910A by ordering 70911A with Option 098 or 099 (required). Existing 71209A systems without option 001 may add the 70911A, but the maximum bandwidth will be reduced in microwave bands.

Agilent 70911A
Option 098   LO firmware upgrade, CPU board upgrade, and 1 Mbyte RAM (for systems having 68000 CPU)
Option 099   LO firmware upgrade and 1 MByte RAM (for systems having 68020 CPU)

For a 71209A to be compatible with the 70911A, the LO module must have firmware[1] with date code 940120 (B.05.00), a 68020 CPU,[2] and 1 Mbyte RAM[3] (for the receiver personality).

In addition, the 70001A mainframe must have an air flow (cooling) modification when operating with the 70911A (only if it includes one or more option cards).[4]

An 71910A system shipped from the factory includes an 70910A RF Section with firmware that has been modified for moderately faster tuning. It is not necessary to upgrade existing 70910A units.[5]

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1. Press MENU, Misc, MORE, service, and ROM VERSION.
2. Press MENU, State, MORE, show states, and EXTEND STATE.
3. Press MENU, Misc, MORE, and catalog & MSI (TOTAL MEM approx. 850k).
4. Serial number 3327A05741 or lower requires upgrade kit.
5. Serial number 3409A00170 and later include new 70910A firmware. Contact an service center for upgrade information, if desired.

Compatible accessory modules and analysis tools:

Oscilloscopes	70703A; 20 MS/s,
	54610A; 20 MS/s,
	54720D; 4 GS/s
	54542A; 2 GS/s
Digitizer	70700A; 20 MS/s,
	256k RAM
Power Meter	70100A; −70 to +44 dBm
Attenuator/Switch Driver	70611A
Interface Modules	70612A/C, 70613A/C
Custom Switching	Call your sales representative
Vector Signal Analyzer	89410A; DC to 10 MHz
Down Converter	89411A; 21.4 MHz IF to baseband
Baseband Signal Analyzer	3587S; DC to 4 MHz
Modulation Domain Analyzers	5371A, 5372A,
	5373A, 53310A
RAM Card	82215A (128 k),
	85700A (32 k)
MATE Module	70590A/H69 & H72

Software available from Hewlett-Packard Company
Receiver personality (included when 71910A is ordered)

By internet, phone, or fax, get assistance with all your test and measurement needs.

Online Assistance
www.agilent.com/find/assist

Phone or Fax
United States:
(tel) 1 800 452 4844

Canada:
(tel) 1 877 894 4414
(fax) (905) 206 4120

Europe:
(tel) (31 20) 547 2323
(fax) (31 20) 547 2390

Japan:
(tel) (81) 426 56 7832
(fax) (81) 426 56 7840

Latin America:
(tel) (305) 269 7500
(fax) (305) 269 7599

Australia:
(tel) 1 800 629 485
(fax) (61 3) 9272 0749

New Zealand:
(tel) 0 800 738 378
(fax) (64 4) 495 8950

Asia Pacific:
(tel) (852) 3197 7777
(fax) (852) 2506 9284

Product specifications and descriptions in this document subject to change without notice.

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