

NSI-RF-RTM

Range Transition Manager



DESCRIPTION

The NSI-RF-RTM Range Transition Manager automates the antenna range configuration; simplifying system operation and increasing throughput. The RTM allows the range operator to switch configurations without changing RF cable connections, thereby reducing errors and improving productivity.

The NSI-RF-RTM Range Transition Manager provides a wide range of options for automating any type of large or small antenna range by using the various RTM modules. These modules combine high quality RF components and switches to provide a flexible platform for a wide variety of antenna range configuration control.

The modules consist of switchable amplifiers, couplers, mixers, programmable step attenuators and other RF elements that may be combined in a variety of ways to create a highly automated antenna range.

OPERATION

The NSI-RF-RTM Range Transition Manager communicates with a host computer using a LAN interface. The message-based protocol and object-oriented software provide a modular, easy-to-use environment for antenna range automation.

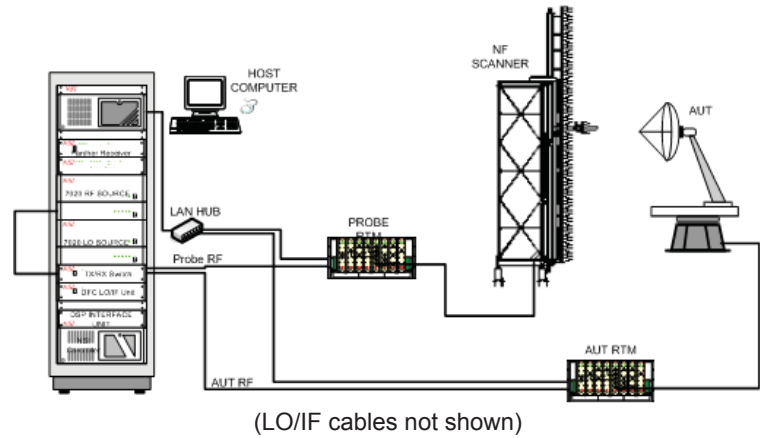
The RTMPanel application provides a virtual front panel for the user to configure and monitor status of the RTM. Multiple RTMs in a system are easily controlled by the RTMPanel software. The NSIRTM.DLL software allows custom automation solutions to be developed for a wide range of platforms including NSI 2000 Scripts, VB and VBA.

FEATURES

- Modular design supports high level of range automation requirements
- 0.5 to 18.0 GHz (Higher frequency modules are available upon request)
- Integrated test & reference mixers
- Compatible with NSI Panther Receiver and Distributed Frequency Converter
- Modules include mixers, amplifiers, step attenuators, 2nd LO mixer, coupler, switches and control
- Test & ref mixers are identical and connect to DFC LO/IF unit with single cable
- Test and reference LO cables do not have to be of the same length
- Remote operation through standard LAN interface
- RTM Dynamic Link Library is compatible with NSI2000 script language and can support stand alone applications
- Includes easy-to-use RTMPanel software

SPECIFICATIONS	
Frequency Range	0.5 to 18.0 GHz
Minimum Mixer LO Power	-20 dBm
TX, RX Amplifier Gain	33 dB
TX, RX Amplifier Pout	+15 dBm
TX, RX Amplifier NF	4 dB
Minimum Mixer LO Power	-20 dBm
Programmable Step Attenuator	0 to 110 dB in steps of 1 dB
Mixer Conversion Efficiency	> 10 dB
Mixer Compression	> -24 dBm
Mixer Sensitivity, S/N = 1	< -110 dBm
Mixer Isolation, Ref to Test Channel	> 100 dB
RF Switch Isolation	90 dB
RF Switching Time	15 ms
RF Switch Cycles	5 million
RTM Response Time (typ)	40 ms
Software Interface	RTMPanel software application and NSIRTM.DLL for custom programming
Computer Interface	LAN
RF Connectors	SMA female
Size (HxWxD)	8.75" x 17.0" x 12.0"
Weight (full unit)	40 lbs
Power (24V power adapter included)	4.2 A @ 24 VDC
Controls and Indicators	DC power and error LED on each module

RTM SYSTEM BLOCK DIAGRAM



INCLUDES THE FOLLOWING COMPONENTS

- ◆ NSI-RF-RTM Range Transition Manager
- ◆ RTMPanel software
- ◆ DLL for integration with other applications
- ◆ Power supply & cord
- ◆ User Guide and Programming Manual
- ◆ One year warranty

Modules Available:

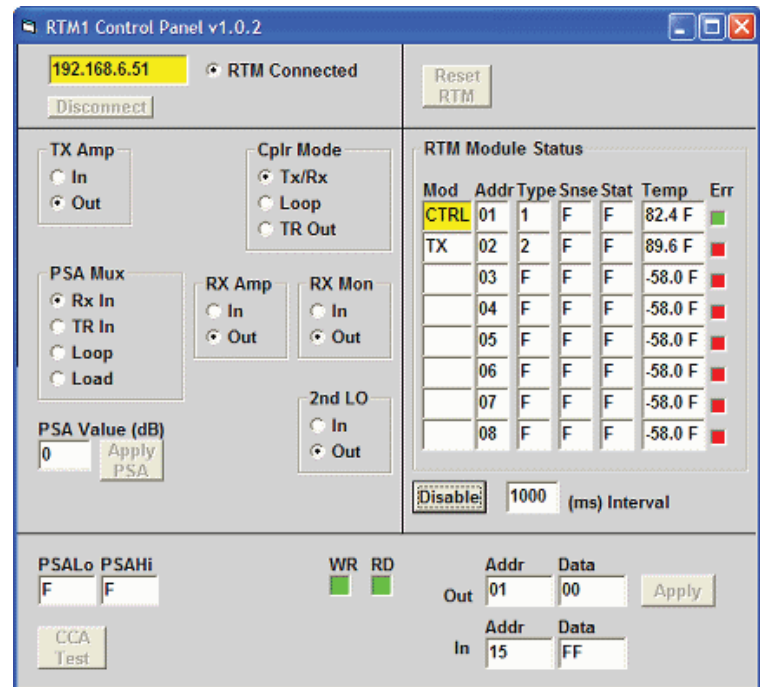
- ◆ Control
- ◆ Transmit
- ◆ Coupler
- ◆ PSA
- ◆ Receive
- ◆ Test Mixer
- ◆ Ref Mixer
- ◆ 2nd LO Mixer
- ◆ TxRx

ORDERING INFORMATION

Contact NSI Sales Dept for a system quote.

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RTMPanel Software provides easy-to-use interface for RTM configuration and status monitoring.