

NSI-RF-9020

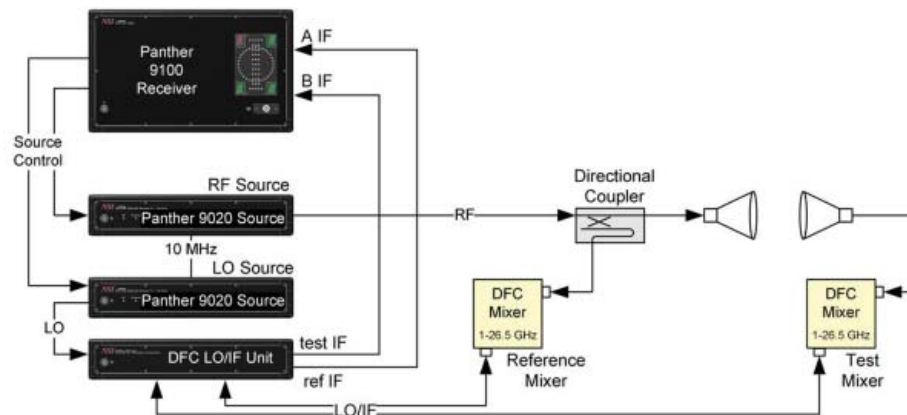
High Speed Synthesizer



DESCRIPTION

The NSI 9020 Panther High Speed Microwave Synthesizer is designed specifically to address the demanding needs of the antenna test community. The Panther 9020 is a high performance synthesizer designed for high-speed frequency switching applications. The 9020 is compatible with a wide variety of receivers, including the NSI Panther 9000.

SYSTEM BLOCK DIAGRAM



FEATURES

- Up to 6,667 frequencies per second (150 μ s/pt.)
- - reduces antenna test time and improves range productivity
- Frequency Range 0.1 to 20.0 GHz
- Power output up to +14 dBm typical, adjustable in 1 dB steps
- Compatible with a variety of receivers
- Built-in pulse modulator with TTL modulation input
- Remote operation with 30 m (100') control cable
- Fully integrated with NSI 2000 antenna measurement software
- Resolution: 10 Hz
- Parallel BCD interface and ethernet control

SPECIFICATIONS	
Power Out	+14 dBm typical, adjustable in 1 dB steps to -15 dBm
Frequency Range	0.1 to 20.0 GHz
Frequency Switching Speed	6,667 frequencies per second (150 μ s/pt.)
Frequency Resolution	10 Hz
Harmonics	< -50 dBc, typical
Phase Noise	-85 dBc/Hz at 1 kHz offset
Subharmonics	< -55 dBc
Spurious	< -60 dBc
Frequency Stability	3x10E-9/ °C
Software Interface	Support for NSI Antenna Measurement Software and Panther 9000 Receiver
Computer Interface	Differential BCD / Ethernet
List Mode	Up to 4096 points
RF Outputs	SMA female
Size (HxWxD)	3.50" x 19.0" x 22.0"
Controls and Indicators	DC power indicator, pulse mode enabled, input trigger
Frequency Reference In	10 MHz, BNC connector
Frequency Reference Out	10 MHz, BNC connector
AC power	100-120/200-240 VAC, 50/60 Hz

CONSISTS OF THE FOLLOWING COMPONENTS

- NSI-RF-9020 synthesizer unit
- Driver for integration with NSI Antenna Measurement Software
- Driver for integration with NSI Panther 9000 Receiver
- Power supply cord
- Installation and operation manual

OPERATION

The Panther 9020 Synthesizer has both Ethernet and parallel BCD interfaces. The Ethernet interface may be used to control frequency and power output, and has the ability to manage a list of up to 4096 frequencies. In this mode, the Panther 9020 can step through the frequency list, commanded by triggers through the rear panel trigger connector. When used with the Panther 9000 beam controller, the parallel BCD interface can be used for direct frequency control. The beam controller manages the frequency list, and the synthesizer immediately steps to the frequency commanded at the parallel input.

NSI provides full program support for the Panther 9020 with its NSI 2000 Antenna Measurement Software. For other applications, NSI provides the drivers required for integration with the Panther 9000 receiver. For stand-alone applications, NSI provides the Ethernet and differential BCD control interface definitions.

ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

Nearfield Systems, Incorporated

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