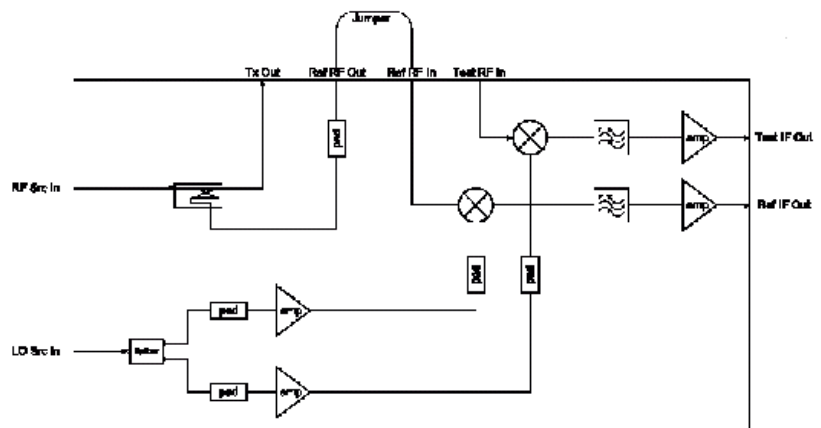




### DESCRIPTION

The Integrated Frequency Converters (IFC) were designed to provide a low-cost down-converter suitable for antenna measurement applications where RF cable losses are small. The IFC provides one test and one reference channel in a single rack mount enclosure.

### BLOCK DIAGRAM



### FEATURES

- Single-enclosure frequency converter for use with Agilent 8530A or NSI Panther receivers
- Frequency coverage of 750 MHz to 4.0 GHz (5917) and 500 MHz to 8.0 GHz (5919) options to 20 GHz
- Built-in coupler for reference signal
- Sensitivity of -115 dBm when used with Agilent 8530A
- Dynamic range 93 dB
- Low cost

IFC Model	
Frequency Range	NSI-RF-5917: 0.75 to 4 GHz NSI-RF-5919: 0.5 to 8 GHz
Nominal IF Frequency	NSI-RF-5917: 20 MHz NSI-RF-5919: 20 MHz
LO Input Power Range	NSI-RF-5917: +8 to +12 dBm NSI-RF-5919: +5 to +9 dBm
Insertion Loss, RF Source In to Tx Out	NSI-RF-5917: <4 dB NSI-RF-5919: <1 dB
Specifications for Fundamental Mixing (no averaging, using Agilent 8530A receiver)	
Frequency Range	NSI-RF-5917: 0.75 to 4 GHz NSI-RF-5919: 0.5 to 8 GHz
Maximum Test and Reference RF In Power (0.1 dB Compression)	NSI-RF-5917: -26 dBm NSI-RF-5919: -26 dBm
Conversion Efficiency, RF In to IF Out	NSI-RF-5917: >12 dB NSI-RF-5919: >12 dB
Sensitivity, S/N = 1	NSI-RF-5917: <-115 dBm NSI-RF-5919: <-115 dBm (-112 dBm, 0.5 to 1 GHz)
Dynamic Range	NSI-RF-5917: >93 dB NSI-RF-5919: >93 dB (90 dBm, 0.5 to 1 GHz)
Isolation - Reference to Test Channel	NSI-RF-5917: >105 dB NSI-RF-5919: >105 dB
Specifications for Third Harmonic Mixing (no averaging, using Agilent 8530A receiver)	
Frequency Range	NSI-RF-5917: 2.25 to 4 GHz NSI-RF-5919: 3.2 to 8 GHz
Maximum Test and Reference RF In Power (0.1 dB Compression)	NSI-RF-5917: -20 dBm NSI-RF-5919: -20 dBm
Conversion Efficiency, RF In to IF Out	NSI-RF-5917: >3 dBm NSI-RF-5919: >3 dBm
Sensitivity, S/N = 1	NSI-RF-5917: <-105 dBm NSI-RF-5919: <-105 dBm
Dynamic Range	NSI-RF-5917: >90 dB NSI-RF-5919: >90 dB
Supported RF Devices	NSI-RF-5917: >105 dB NSI-RF-5919: >100 dB
Power Supply	
Input Voltage, AC	100 to 240 V
Input Frequency	50/60 Hz
Power Consumption	10 W
Physical Characteristics	
Height	3.5"
Width	17.25" (excluding rack ears)
Depth	13.5" (excluding handles)
Weight	9.5 lbs (4.3 kg)

## ORDERING INFORMATION

- **NSI-RF-5917** Integrated Frequency Converter 0.75 - 4 GHz includes IFC rack mount unit, installation and operation manual, one year warranty.
- **NSI-RF-5919** Integrated Frequency Converter, 0.5 - 8 GHz
- Customer to specify operating frequency range and IF output frequency

### Nearfield Systems, Incorporated

19730 Magellan Drive, Torrance, CA 90502, USA, Tel: 310.525.7000, Fax: 310.525.7100  
Email: sales@nearfield.com. Visit our website: www.nearfield.com