Distributed Frequency Converter

FEATURES

- **Compatible with NSI-MI Panther Receivers**
- **Mixer Interface Module supports frequency extension to 1 THz**
- **Mixer Modules provide frequency coverage from 100 MHz to 50 GHz**
- **Supports LO cable lengths up to 120 feet at 18 GHz**
- **Test and reference mixer modules are identical and connect to LO/IF unit with a single cable**
- **Test and reference LO cables do not have to be of the same length**
- **Field-replaceable RF input connector for 40 GHz and lower**
- **Fundamental mixing up to 20 GHz**

DESCRIPTION

The Distributed Frequency Converter is designed to provide down-conversion of a test and a reference RF signal to a fixed 20 MHz IF signal, using remote mixer modules. NSI-MI's Distributed Frequency Converter consists of an LO/IF unit and two mixer modules.

SPECIFICATIONS	
Frequency Range	100 MHz–50 GHz
Test Frequency (IF)	5–20 MHz
Intermediate LO Input Power	± 5 dB
Maximum LO cable loss	35 dB
Power Specification	AC power 100-120/200-240 VAC, 50/60 Hz

DISTRIBUTED FREQUENCY CONVERTER SETS

- **NSI-RF-5940 consists of an LO/IF unit and two 1–26.5 GHz mixer modules**
- **NSI-RF-5941 consists of an LO/IF unit and two 0.1–6 GHz mixer modules**
- **NSI-RF-5942 consists of an LO/IF unit and two 1–40 GHz mixer modules**
- **NSI-RF-5943 consists of an LO/IF unit and two 1–50 GHz mixer modules**

DISTRIBUTED FREQUENCY CONVERTER COMPONENTS

- **NSI-RF-5945 DFC, LO/IF Unit**
- **NSI-RF-5946 DFC, 1–26.5 GHz mixer modules**
- **NSI-RF-5947 DFC, 0.1–6 GHz mixer modules**
- **NSI-RF-5948 DFC, 1–40 GHz mixer modules**
- **NSI-RF-5949 DFC, Mixer interface modules**
- **NSI-RF-5950 DFC, 1–50 GHz mixer modules**

STANDARD COMPONENTS

- **Distributed Frequency Converter Set, Consists of LO/IF Unit and two Mixer Modules**
- **DFC, LO/IF Unit**
- **DFC, Mixer Module**

AVAILABLE ADD-ONS

- **Additional Mixers - provide RF to IF signal conversion for measurement**
- **Mixer Interface Module - a module that interfaces to an external mixer or a mm-wave module**