

# MODULAR QUAD IF UP AND DOWN CONVERTER

## TECHNICAL FEATURE

### FEATURES

- 4 Identical Channels in Single Package
- VITA 48.2 VPX Package and Backplane Configuration
- Superior Frequency Flatness and Intercept Performance
- Internal Built-in Test Functions



### PERFORMANCE

High Frequency .....S and C-bands  
 Low Frequency ..... L-Band  
 Flatness Ripple..... > +/- 0.5 dB  
 Selectable RF Passbands..... 4  
 Cross-Channel Isolation.....> 60 dB  
 Channel Tracking/Temperature.....> +/-0.3 dB  
 BITE Function... Temperature and Output Power Threshold  
 Attenuation..... 30 dB in 1 dB steps  
 RF Connection Interface .....SMPM Blind Mate  
 Operating Temperature Range..... -40 to +60°C  
 Package Size..... Vita 48.2, Type 1

### DESCRIPTION

This Frequency Converter incorporates advanced features providing exceptional unit performance and functional integration. Four identical channels of frequency conversion, frequency selection, local oscillator, and signal routing are contained within the VPX configuration package. Exceptional signal fidelity is achieved through the use of high performance mixers and amplifiers, and by careful selection of the drive levels and frequency characteristics chosen for each band segment.

The unit contains advanced control features provided through the high-speed VPX backplane. A modular advanced surface mount design has been utilized to optimize build cost and enhance performance repeatability. High reliability is obtained using careful device selection, tailored screening and hermetic seal of the entire module. In addition a highly-integrated 4x4 LO distribution system is incorporated as-well.

The module is built in both a Down-Conversion and an Up-Conversion configuration.

This design and the incorporated technologies are customizable for specific customer's applications.