

# MODULAR SEVEN CHANNEL INDIRECT SYNTHESIZER

## TECHNICAL FEATURE

### FEATURES

- Up to Seven Independent Synthesizers with Dual Phase Matched Power Outputs
- VITA 48.2 VPX Package and Backplane Configuration
- Output Power is Auto-Calibrated and Adjustable
- Low Integrated Phase Noise
- Internal Built-in Test Functions



### PERFORMANCE

|   |                       |
|---|-----------------------|
| Output Frequency Range.....                               | S and C-bands         |
| DC Power .....  | <22 Watts(7 channels) |
| Output Power Flatness .....                               | +/- 0.5 dB max        |
| Channel Tracking/Temperature.....                         | 1 dB                  |
| BITE Function.....Temp/RF Pwr/Lock/Ref. Fault/Internal DC |                       |
| Channel to Channel Isolation.....                         | >75 dB                |
| Spurious.....   | < -65 dBc             |
| Phase Noise .....   | 1.25° rms DSB         |
| RF Connection Interface .....                             | SMPM Blind Mate       |
| Operating Temperature Range.....                          | -40 to +85°C          |
| Package Size.....   | Vita 48.2, Type 1     |

### DESCRIPTION

This Synthesizer incorporates advanced features providing exceptional unit performance and functional integration. Up to seven independent frequency synthesizers with dual phase matched outputs are contained within the VPX configuration package. Exceptional signal fidelity is achieved through the use of high performance VCOs and low noise circuit design.

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 versatile programmable reference input will accept frequencies from 10 MHz to 1500 MHz.

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