FEI-Elcom Tech

VPXTR-6501

VPX Based Dual Channel Up/Down Converter for Advanced Off-Board Electronic Warfare (AOEW)

FEATURES

- 2 6U VPX – Option 1 6U VPX
- Two Up Converter/Two Down Converter in 6U VPX
- Two Independent Synthesizers (LO's)
- Built-In Sharp Anti-Aliasing L-Band Bandpass Filter for Optimized IBW
- 1 GHz Bandwidth up to 2GHz
- Ultra-Fast Tuning
- Phase Coherent Switching

APPLICATIONS

- Electronic Warfare (ECM)
- Monopulse RADAR Receivers
- Radar Warning Receiver (RWR)
- Real Time Spectrum Analysis (RTSA)

IN/OUT FREQUENCY [1)]

- Step Size: 10 MHz
- Tuning Speed: <1 µsec
- Integrated Phase Noise: <0.5 Deg. RMS

RF SECTION [1)]

- Noise Figure: 15 dB Typical, @ Max Gain
- RF Attenuation: 26 dB, 2 dB Step
- RF Preselector: 4 Bands
- Max Input Level (w/o damage): +15 dBm
- VSWR: 2:1

IN/OUT FREQUENCY RANGE:

- **6 to 18 GHz**
- **2 to 18 GHz Option**
- **Up to 67 GHz Option**

[1)] SPECIFICATIONS AT 25°C

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IN/OUT DYNAMIC RANGE [1)]

- Image Rejection: 80 dB Min
- RF to IF Rejection: 80 dB Min
- LO Re-radiation (Input): -80 dBm Max
- Output P1 dB: +15 dBm Min
- IIP3: +5 dBm Min
- Internal Spurious: <-60 dBm
- BIT: – 30dBm Min

WIDEBAND L BAND INPUT/OUTPUT [1)]

- Center Frequency: 1.8 GHz
- Bandwidth (3dB): 1 GHz
- RF to IF Gain: 21 dB ± 1 dB
- IF Flatness: ± 1 dB Typical, ± 1.5 dB Max
- IF Attenuation: 30 dB, 1 dB Step
- Group Delay Variation: 3 ns Max over 80% BW
- Anti-Aliasing Filter Rejection: >70 dBc @ ±250 MHz from Band Edges (1 GHzIBW)
- VSWR: 2:1

PHASE NOISE (TYPICAL) [1)]

- 1 KHz: -110 dBc/Hz
- 10 KHz: -118 dBc/Hz
- 100 KHz: -124 dBc/Hz
- 1 MHz: -132 dBc/Hz
- 10 MHz: -141 dBc/Hz
- 100 MHz: -147 dBc/Hz

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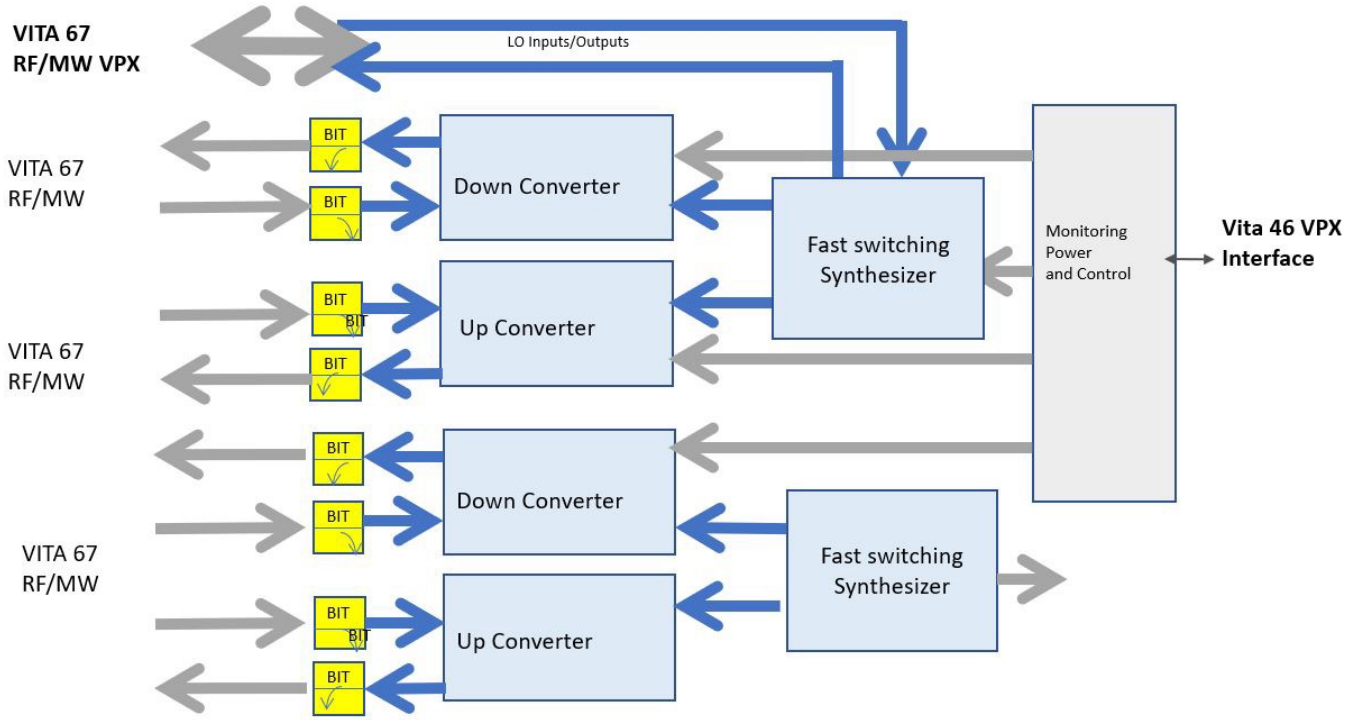
Synthesized Up/Down Converter Block Diagram



ENVIRONMENTAL

- Operating Temperature Range: -20 Deg. C to +70 Deg. C
- Power Consumption: 110 Watts (Including Synth. and VPX Card)

MECHANICAL

- Size: VPX 6U, One or Two Slots Wide
- Weight: 3.5 Pounds

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