



## VPXST-6503

### *Electronic Warfare - VPX Based 4 Channel Down Converter Advanced Off-Board Electronic Warfare (AOEW)*

#### **FEATURES**

- 2 6U VPX – Option 1 6U VPX
- Frequency Range: 2.0 to 18GHz, 6 to 18GHz, up to 67 GHz
- 1 GHz Bandwidth up to 2GHz
- Ultra-Fast Tuning
- Four Tuners in 6U VPX, 2 Slot Wide
- Phase Coherent Switching
- Built-In Sharp Anti-Aliasing L-Band Bandpass Filter for Optimized IBW

#### **APPLICATIONS**

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

#### **FREQUENCY <sup>1)</sup>**

- Step Size: 10 MHz
- Tuning Speed: <1  $\mu$ sec
- Integrated Phase Noise: <0.5 Deg. RMS

#### **RF SECTION <sup>1)</sup>**

- < 0.5 Deg. RMS
- 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



#### **INPUT FREQUENCY RANGE:**

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

<sup>1)</sup> SPECIFICATIONS AT 25°C



## VPXST-6503

### Electronic Warfare -

### VPX Based 4 Channel Down Converter and Signal Generator for Advanced Off-Board Electronic Warfare (AOEW)

#### DYNAMIC RANGE <sup>1)</sup>

- 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 OUTPUT <sup>1)</sup>

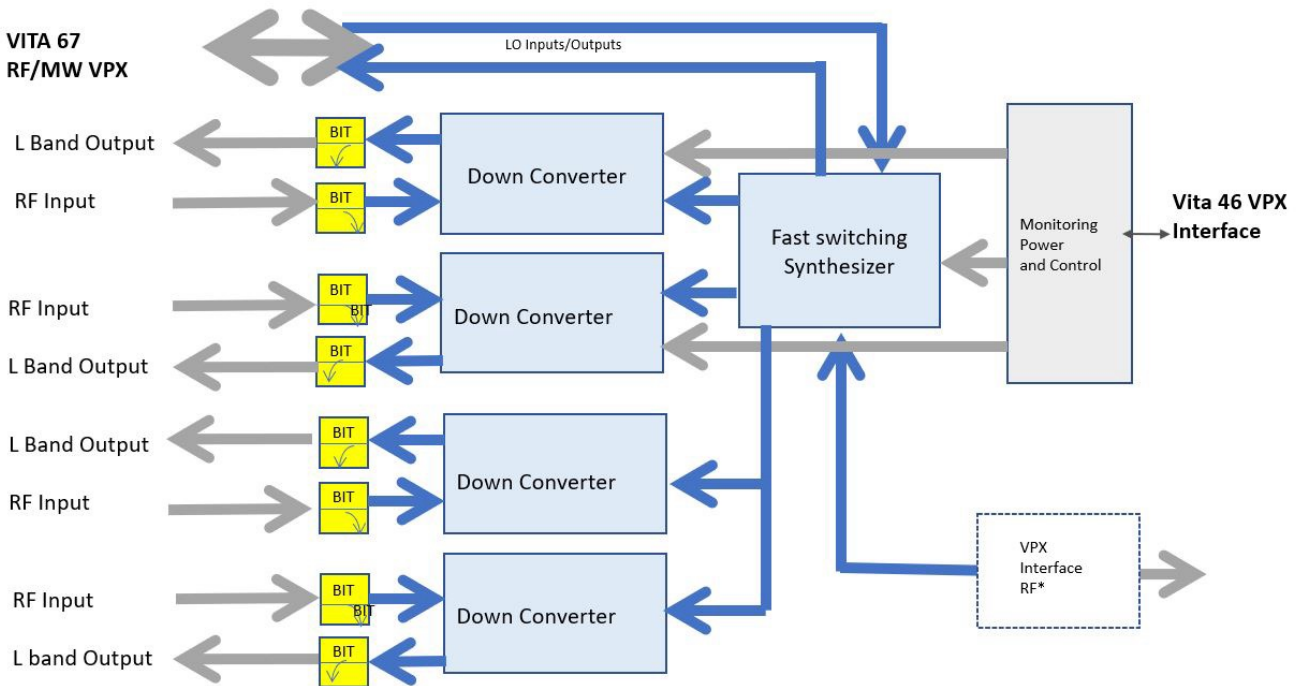
- Center Frequency: 1.8 GHz
- Bandwidth (3dB): 1 GHz
- RF to IF Gain: 21 dB  $\pm$  1 dB
- IF Flatness:  $\pm$  1 dB Typical,  $\pm$  1.5 dB Max
- IF Attenuation: 30 dB, 1 dB Step
- Group Delay Variation: 3 ns Max  
over 80% BW
- Anti-Aliasing Filter Rejection: >70 dBc @  $\pm$ 250 MHz from Band Edges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

#### PHASE NOISE (TYPICAL) <sup>1)</sup>

- 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



## 4 Channel VPX Synthesized 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