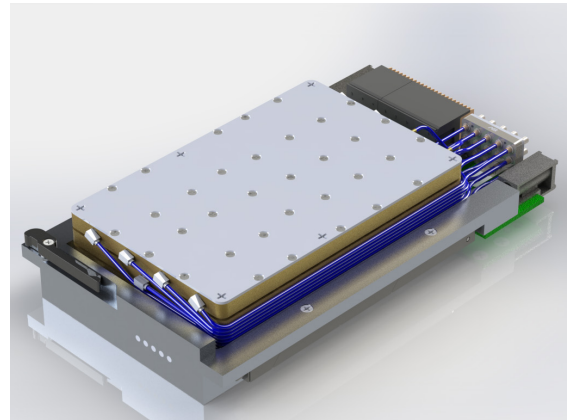


TECHNICAL FEATURE

FEATURES

- VITA 67.3C, 3U VPX Single Slot, Conduction Cooled
- 4 T/R Channel Pairs, Block Up/Down Conversion
- Full 18-40GHz RF Coverage in two sub-bands
- Integrated LO, 100 - 500 MHz Reference
- Superior Spurious and Intercept Performance
- Small form factor for Airborne applications
- SOSA-Aligned
- EAR99



PRINCIPAL SPECIFICATIONS

RF Frequency Range	18 - 40 GHz
IF Frequency Range	4 - 18 GHz
Reference Frequency	100 - 500 MHz
RX / TX Gain	19 / 12 dB
Gain Flatness	± 3.0 dB
RX Noise Figure	12 dB
RX / TX OP1dB	+7 / +10 dBm
RX / TX OIP3	+15 / +16 dBm
LO Leakage (RF/IF Port)	-65 dBc
Spurious	-60 dBc
LO Integrated Phase Noise	0.7° (0.1 to 40 MHz) RMS
Attenuation	22dB in 0.5dB steps
RF Switching Speed	150 ns
RX RF Input Power, Max	30 dBm
Control	1GbE
Operating Temp	-20 to +50 °C
Package	3U VPX, 1 in, Single Slot Conduction Cooled
Weight	<2.0 lbs.

*Data taken at +25 °C & max gain

DESCRIPTION

This 4T4R mmW Converter Module incorporates advanced features providing exceptional unit performance and functional integration. Integrated sub-band filtering, amplification, attenuation, and LO generation are included within the package. Exceptional signal fidelity is achieved through the use of high-performance mixers, amplifiers, filters, and by careful selection of the drive levels and frequency characteristics chosen for each band segment.

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 environmental seal of the RF electronics.

The module employs built-in-test and temperature compensation, along with system level step attenuation. All functionality is controlled through a SOSA-Aligned 1Gb ethernet interface. The IMA features a VITA 46.11 Tier 3 Intelligent Platform Management Controller (IPMC) through the backplane.

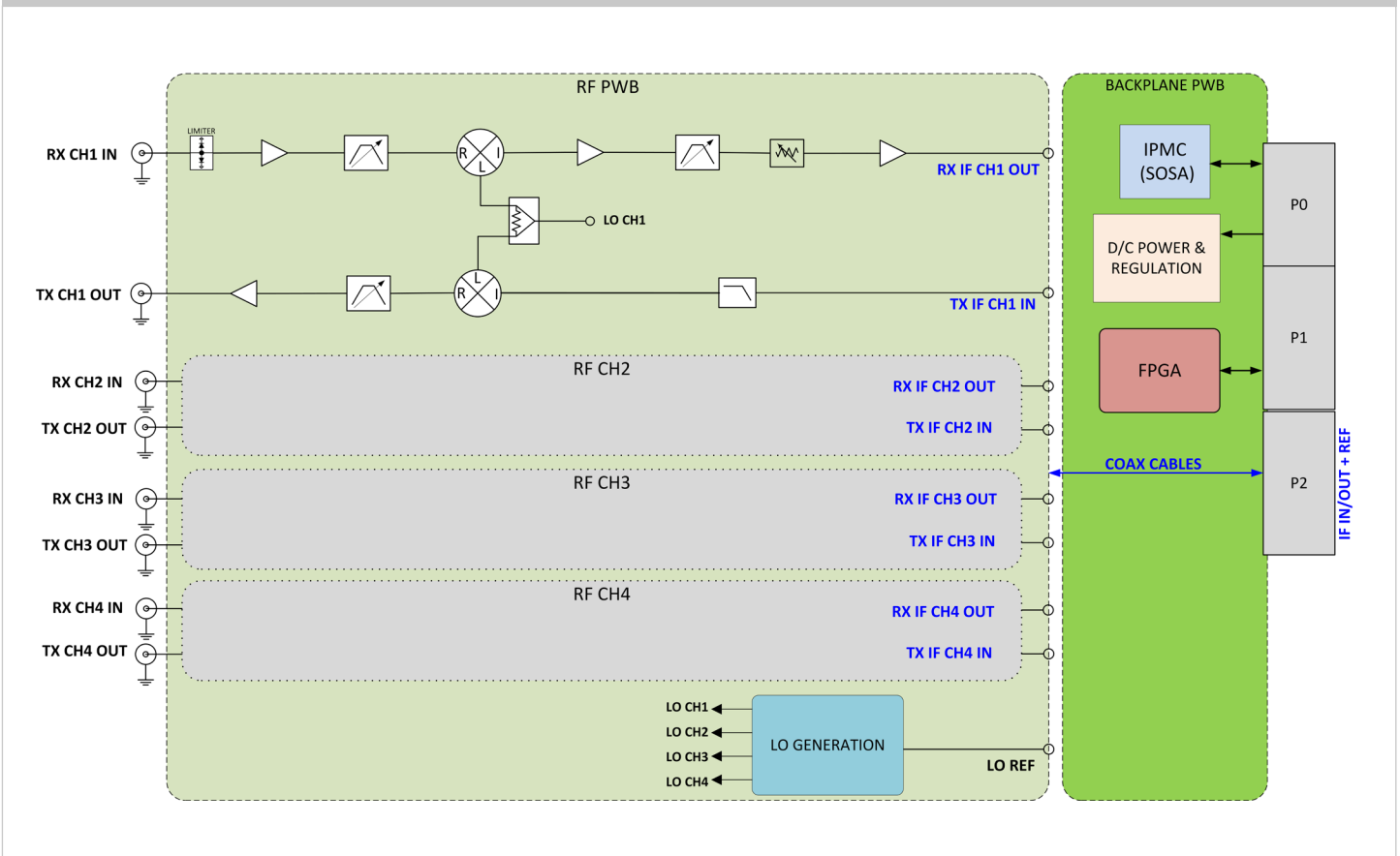
This design and the incorporated technologies are customizable for specific customer's applications. Current architecture can support 2T2R with integrated LO in same form factor. Consult factory for options.

Crane is ISO 9001:2015 and AS9100D certified.

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18 - 40 GHz 4T4R mmW CONVERTER SOSA ALIGNED 3U VPX

BLOCK DIAGRAM



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