

TSA-220060

Broadband Applications

3U VPX Multi-Channel Converter

0.5 – 20 GHz

Two wideband transceivers
on a single 3U card

EXPORT RESTRICTIONS MAY APPLY



Features

- Rugged and Compact
- Open Systems Compliant
- Excellent Phase Noise
- High Dynamic Range
- Built-in LO Generation
- Two Wideband Transceivers on a Single 3U Card

High Dynamic Range

- RF Coverage: 0.5 – 20 GHz, 2 GHz IBW
- Noise Figure: 15 dB typical (Down Converter)
- Phase Noise: 1 MHz @ -124 dBc/Hz
- Linear Dynamic Range: 90 dB (with 1 MHz BW)

Built-in LO Generation

- Tuning Speed: 22 μ s max to within 10 kHz
- Single-tone, signal related spurious: -60 dBc (@-5 dBm input and max gain)
- Reference Frequency Input: 100 MHz

Weight

- <0.5 kg rugged air-cooled

Specifications

Parameter	Value
Format/Size	3U OpenVPX, single slot
Power	50 W Maximum
Control interface	SPI (consult factory for more options)
Weight	<0.5 kg (rugged air-cooled)
Commercial and rugged air-cooled options	Contact factory
Down Converter Specifications	
RF input coverage	0.5 GHz to 20 GHz
Noise figure	15 dB typical
Gain (typical RF to IF)	20 dB
Max RF (without damage)	27 dBm
OP1dB	17 dBm
Linear dynamic range	90 dB (with 1 MHz BW)
Single-tone, signal related spurious	-60 dBc (@-10 dBm Input)
IF output harmonic	-30 dBc (@ -10 dBm input)
IF output center frequency	3.5 GHz
IF bandwidth	2 GHz
IF band fatness	±4 dB typical
Tuning speed	22 μs max (to within 10 kHz)
Tuning resolution	Same as Reference Frequency
VSWR (In/out)	2:1
IF Rejection	-55 dBc
Image Rejection	-70 dBc
LO Leakage	80 dBm typ.
Up Converter Specifications	
RF output coverage	0.5 GHz to 20 GHz
Noise figure	20 dB typical
Gain (typical IF to RF)	25 dB
OP1dB	20 dBm
Single-tone, signal related spurious	-60 dBc (@-5 dBm input)
RF output harmonic	-30 dBc @ -5 dBm input)
IF input center frequency	3.5 GHz
IF bandwidth	2 GHz
IF band fatness	±4 dB typical
Tuning speed	22 μs max (to within 10 kHz)
Tuning resolution	Same as Reference Frequency
VSWR (In/out)	2:1
LO Generation Specifications	
Reference Frequency Input	100 MHz
Converter Composite Phase Noise	
100 Hz	-80.3 dBc/Hz
1 kHz	-85.4 dBc/Hz
10 kHz	-118.61 dBc/Hz
100 kHz	-120.57 dBc/Hz
1 MHz	-124.16 dBc/Hz
10 MHz	-132.26 dBc/Hz