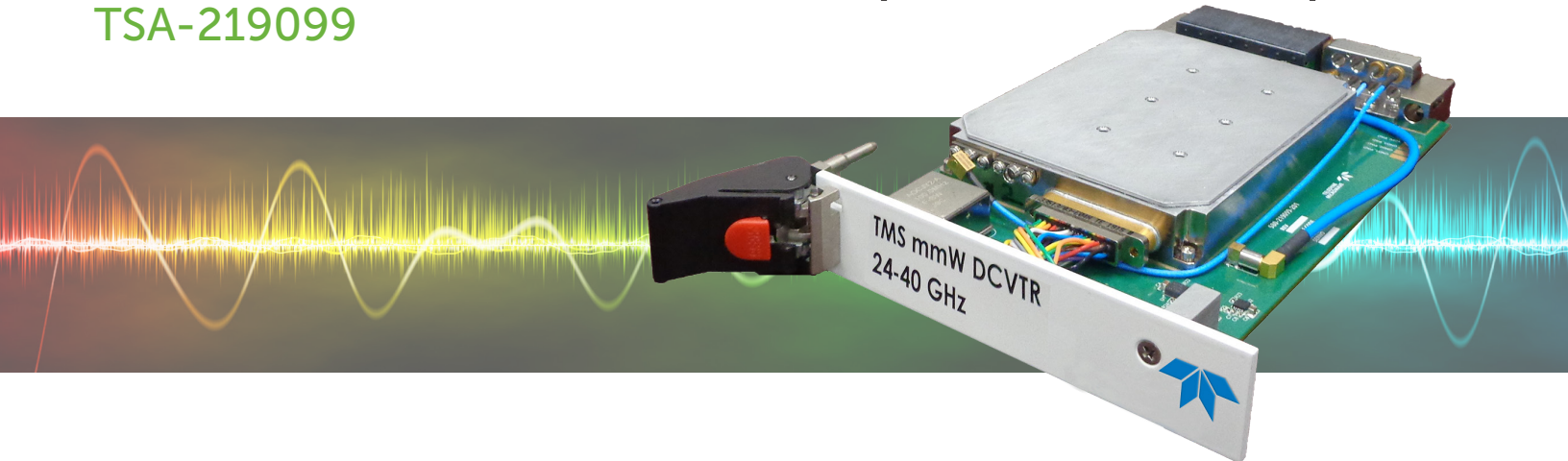


# 3U VPX Downconverter (24 to 40 GHz)

## TSA-219099



## Expand your system spectrum coverage with a single slot 3U converter from Teledyne Microwave Solutions

Covering a broad frequency range of 24-40 GHz, Teledyne Microwave Solutions 3U VPX Downconverter is ideally suited for airborne, shipboard and radar applications. This ruggedized unit offers excellent phase noise in a compact form factor. It offers long operational life and enhanced interoperability using a flexible open systems compliant architecture.

- Rugged & Compact
- Open Systems Compliant
- Excellent Phase Noise
- High Dynamic Range
- Built-in LO Generation

### High Dynamic Range

RF Coverage: 24-40 GHz, 16 GHz IBW

Noise Figure: 9 dB typical

Phase Noise: 1 MHz @ -120 dBc/Hz

Linear Dynamic Range: 90 dB (with 1 MHz BW)

### Built-in LO Generation

Single-tone, internally generated spurious:

-70 dBc (@ -15 dBm input and max gain)

Reference Frequency Input: 100 MHz

### Weight

<500 g rugged air-cooled



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### SPECIFICATIONS

Parameter	Value
Format/Size	3U OpenVPX, single slot
Power	24 W Maximum
Control interface	RS-422 (consult factory for more options)
Weight	<500 g (rugged air-cooled)
Commercial and rugged air-cooled options	

#### Down Converter Specifications

RF input coverage	24 GHz to 40 GHz
Noise figure	9 dB typical
Gain	(typical RF to IF) 20 dB
Max RF input (without damage)	20 dBm
OP1dB (with max gain)	8 dBm
OIP3 (with max gain)	18 dBm
Attenuation	30 dB in 0.5 dB steps
Linear dynamic range	90 dB (with 1 MHz BW)
Single-tone, signal related spurious	-35 dBc (@-15 dBm Input)
Single-tone, internally generated spurious	-70 dBc (@-15 dBm Input)
IF output frequency	2 to 18 GHz
IF bandwidth	16 GHz
IF band flatness	+/- 2.0 dB typical
VSWR (In/out)	2:1
RF Rejection	-40 dBc
Image Rejection	-40 dBc
LO Leakage	-65 dBm typ.

Parameter	Value
<b>LO Generation Specifications</b>	
Frequency	42 GHz
Reference Frequency Input	100 MHz
Converter Composite Phase Noise (with 100 MHz Reference)	
100 Hz	-60 dBc/Hz
1 kHz	-75 dBc/Hz
10 kHz	-85 dBc/Hz
100 kHz	-100 dBc/Hz
1 MHz	-120 dBc/Hz
10 MHz	-135 dBc/Hz

Specifications subject to change without notice. © 2024 Teledyne Microwave Solutions