

# TSA-219040

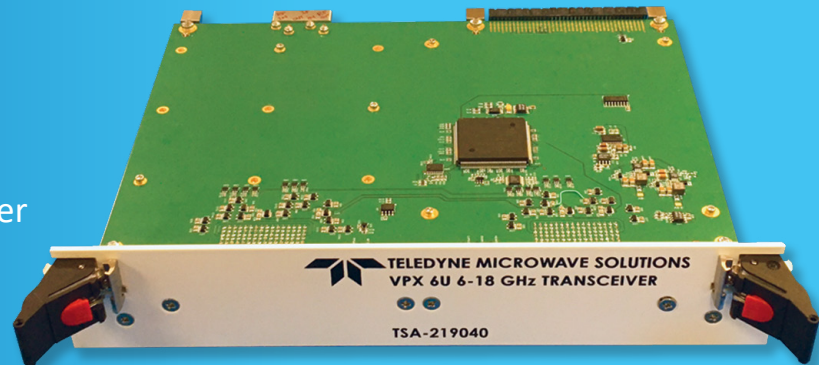
Broadband Applications

## 6U VPX Transceiver

### 6 – 18 GHz

Fastest tuning and best phase noise transceiver on the market today

EXPORT RESTRICTIONS MAY APPLY



This 6U VPX Transceiver represents Teledyne's latest advancement in VPX modular technology. With an open systems-based platform, this 6-18 GHz broadband Transceiver boasts the industry's best phase noise performance and fastest tuning in a 6U form factor. It is an ideal choice for meeting the increasingly demanding requirements of today's microwave Transceiver applications.

### Features

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

### High Dynamic Range

- RF Coverage: 6-18 GHz, 1 GHz IBW
- Noise Figure: 17 dB typical
- Phase Noise: 1 MHz @ -113 dBc/Hz
- Linear Dynamic Range: 90 dB (with 1 MHz BW)

### Built-in LO Generation

- Tuning Speed: 5.0  $\mu$ s max to within 10 kHz
- Single-tone, internally generated spurious: -80 dBc (@-15 dBm input and max gain)
- Reference Frequency Input: 10-100 MHz

### Weight

- <500g rugged air-cooled

## Specifications

Parameter	Value
Format/Size	6U OpenVPX, single slot
Power	75 W Maximum
Control interface	1 GbE (consult factory for more options)
Weight	<2.75 kg (rugged air-cooled)
Commercial and rugged air-cooled options	
<b>Down converter specifications</b>	
RF input coverage	6 GHz to 18 GHz
Noise figure	17 dB typical
Gain (typical RF to IF)	20 dB
Max RF (without damage)	20 dBm
OP1dB (with max gain)	15 dBm
OIP3 (with max gain)	25-32 dBm
Attenuation	60 dB in 0.5 dB steps
Linear dynamic range	90 dB (with 1 MHz BW)
Single-tone, signal related spurious	-55 dBc (@ -15 dBm Input)
Single-tone, internally generated spurious	-80 dBc (@ -15 dBm Input)
IF output center frequency	1.9 GHz
IF bandwidth	1.4 GHz to 2.4 GHz
IF band flatness	±2.5 dB typical
Tuning speed	5 μs max (to within 10 kHz)
Tuning resolution	Same as Reference Frequency
VSWR (In/Out)	2:1
IF Rejection	-55 dBc
Image Rejection	-55 dBm
LO Leakage	-80 dBm typ (-70 dBm max)
<b>Up converter specifications</b>	
RF output coverage	6 GHz to 18 GHz
Noise figure	20 dB typical
Gain (typical IF to RF)	5 dB
OP1dB (with max gain)	10 dBm
Attenuation	60 dB in 0.5 dB steps
Single-tone signal related spurious	-45 dBc (@ -10dBm input and max gain)
Single-tone, internally generated spurious	-80 dBm (@ -10dBm input and max gain)
IF input center frequency	1.9 GHz
IF bandwidth	1.4 GHz to 2.4 GHz
IF band flatness	±2.5 dB typical
Tuning speed	5.0 μs max (to within 10 kHz)
Tuning resolution	Same as Reference Frequency
VSWR (In/Out)	2:1
<b>LO generation specifications</b>	
Reference Frequency Input	100 MHz
Converter Composite Phase Noise (with 80 MHz Reference)	
100 Hz	-49 dBc/Hz
1 kHz	-74 dBc/Hz
10 kHz	-79 dBc/Hz
100 kHz	-91 dBc/Hz
1 MHz	-113 dBc/Hz
10 MHz	-135 dBc/Hz