# V6HP-TX

## OVERVIEW

V6HP-TX is a very flexible **XILINX** based platform for a wide range of applications. The Ultimate **XILINX VirtexVI** with different high speed connections allows V6HP-TX to be the right platform for the next generation of equipments.

The V6HP-TX is built with 3 components:

### AD9122

The AD9122 is a dual, 16-bit, high dynamic range digital-to-analog converter (DAC) that provides a sample rate of 1230 MSPS,permitting multicarrier generation up to the Nyquist frequency. The AD9122 TxDAC+® includes features optimized for direct conversion transmit applications, including complex digital modulation, and gain and offset compensation.

### ADF4350

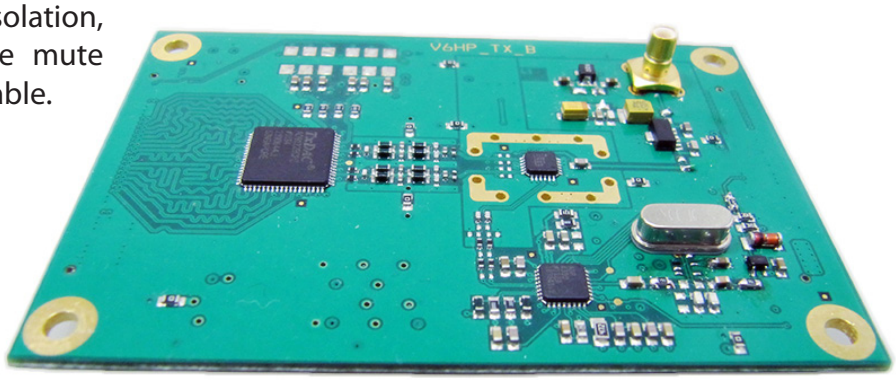
The ADF4350 allows implementation of fractional-N or integer-N phase-locked loop (PLL) frequency synthesizers if used with an external loop filter and external reference frequency.
The ADF4350 has an integrated voltage controlled oscillator (VCO) with a fundamental output frequency ranging from 2200 MHz to 4400 MHz. In addition, divide-by-1/2/4/8 or 16 circuits allow the user to generate RF output frequencies as low as 137.5 MHz. For applications that require isolation, the RF output stage can be muted. The mute function is both pin- and software-controllable.

### ADL5385

The ADL5385 can be used as either an IF or a direct-to-RF modulator in digital communication systems. The wide baseband input bandwidth allows for either baseband drive or drive from a complex IF. Typical applications are in radio-link transmitters, cable modem termination systems, and broadband wireless access systems.

## FEATURES

- Output frequency range: 50 MHz to 2200 MHz
- 1 dB output compression: 11 dBm @ 350 MHz
- Noise floor: –159 dBm/Hz @ 350 MHz
- Sideband suppression: –50 dBc @ 350 MHz
- Carrier feedthrough: –46 dBm @ 350 MHz
- Integrated 2×/4×/8× interpolator/complex modulator allows carrier placement anywhere in the DAC bandwidth Gain, dc offset, and phase adjustment for sideband suppression
- Multiple chip synchronization interfaces High perfor mance, low noise PLL clock multiplier
- Digital inverse sinc filter

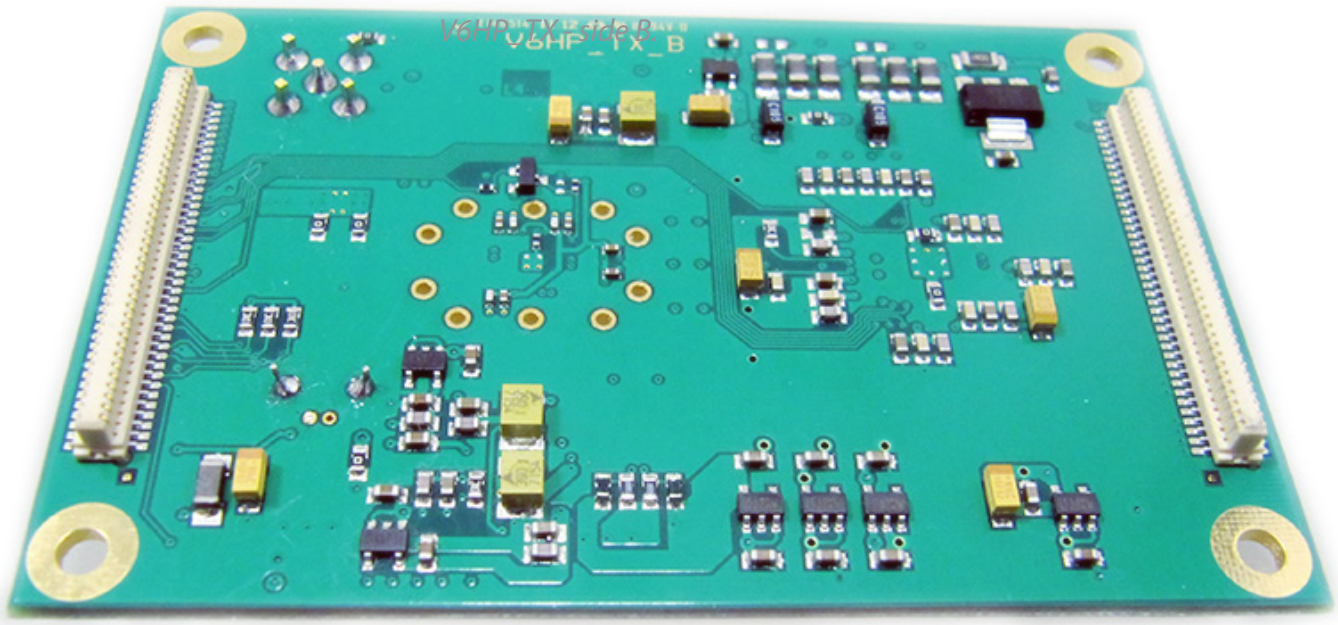



*V6HP-TX (side A).*

# V6HP-TX

## APPLICATIONS

- Digital high or low IF synthesis
- Transmit diversity
- Wideband communications: LMDS/MMDS, point-to-point
- Test equipment
- Wireless LANs, CATV equipment
- Clock generation
- Radio-link infrastructure
- Wireless infrastructure systems
- W-CDMA, CDMA2000, TD-SCDMA, WiMAX, GSM, LTE




*V6HP_TX - side B.*