

FLASH 16 ADC:

- 16 channel amplified data acquisition system based on a Texas instrument AFE58JD48 ultrasound analog front end with a sampling rate of 125MS/s at 16 bit
- Low-noise amplifier (LNA) with 50 Ω passive input termination, AC coupling
 - Programmable gain: 21 dB, 18 dB, and 15 dB
 - Linear input amplitude: 0.37/0.5/0.71 V_{PP}
 - Maximum analog input amplitude: 3.3 V_{pp} (power ON)
- Voltage-controlled attenuator (VCAT):
 - Attenuation range: 0 dB–36 dB
- Programmable gain amplifier (PGA):
 - 18 dB–27 dB in Steps of 3 dB
- 3rd-Order, 10 ~ 60 MHz Low-pass filter (LPF)
- ADC Idle-Channel SNR:
 - 16-Bit, 25 Msps Mode: 80 dBFS
- 34 dB preamplifier with 2.2 M Ω input resistance and analog bandwidth exceeding 60 MHz
- PC connection via QSFP+ port (custom configuration).

Note: QSFP+ physical interface on Flash16 ADC has custom operation mode not supported by the third party QSFP PCIe cards

PhotoSound PCIe receiver PC card with:

- 2x QSFP+ (custom configurations enabled) to PCIe Gen4 x4
- XCAU15P-2FFVB676 Artix-Ultrascale+ with DDR buffer
- Electrical Trigger in/out w/out delay
- Optical trigger in