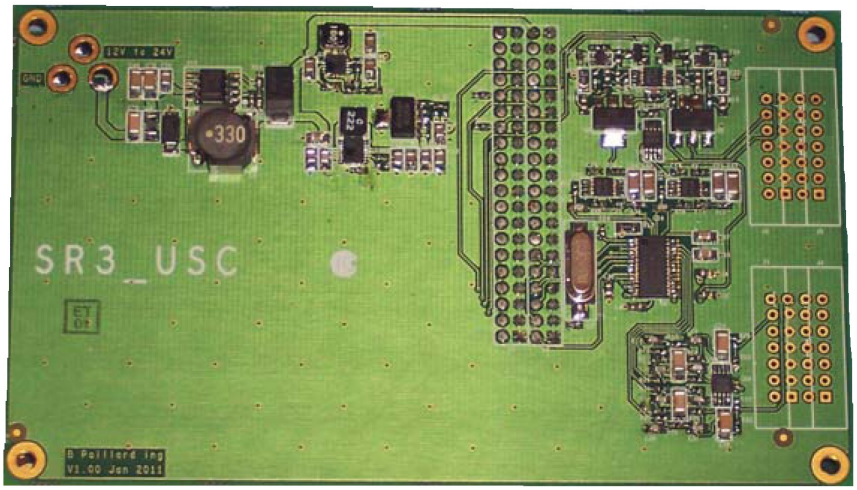
SR3-USC Datasheet



SR3-USC

The SR3-USC acquisition board can be used with the DSP board Signal Ranger Mk3. This high-resolution acquisition board allows sampling on 2 channels at 192 kHz, which is ideal for ultrasound applications. The board comes with DSP driver and example codes.

Input specifications

- 2 Single ended inputs (+-2.5V)
- Resolution: 24 bits
- Input Coupling: AC or ICP
- Noise: 10 µV RMS (106 dB dynamic range) @ 48 kHz 15 µV RMS (102 dB dynamic range) @ 96 kHz 200 µV RMS (80 dB dynamic range) @ 192 kHz
- Harmonic distortion: 115 dB @ 1 kHz – 500 mV RMS @ 48 kHz
- Sampling rate: 48 kHz, 96 kHz, 192 kHz
- Analog input bandwidth: up to 96 kHz
- Anti-aliasing filter: Integrated
- Input impedance: 10 Ω*k*
- Low-Frequency Cutoff 4 Hz
- Group-delay: 12 samples @ 48 kHz 10 samples @ 96 kHz 9 samples @ 192 kHz

Output specifications

- 2 Single ended outputs (+-2.2 V)
- Resolution: 24 bits
- Output coupling: AC
- Noise: 9 µV RMS (104 dB dynamic range) @ 48 kHz 80 µV RMS (85 dB dynamic range) @ 96 kHz 1.2 mV RMS (62 dB dynamic range) @ 192 kHz
- Harmonic distortion: 115 dB @ 1 kHz – 500 mV RMS @ 48 kHz
- Sampling rate: 48 kHz, 96 kHz, 192 kHz
- Analog input bandwidth: up to 96 kHz
- Anti-aliasing filter: Integrated
- Low-Frequency Cutoff 6.5 Hz (on 10 kΩ load)
- Output impedance: 50 Ω
- Source/Sink ability: +-2 mA @ 25 degC +-1 mA @ 100 degC