



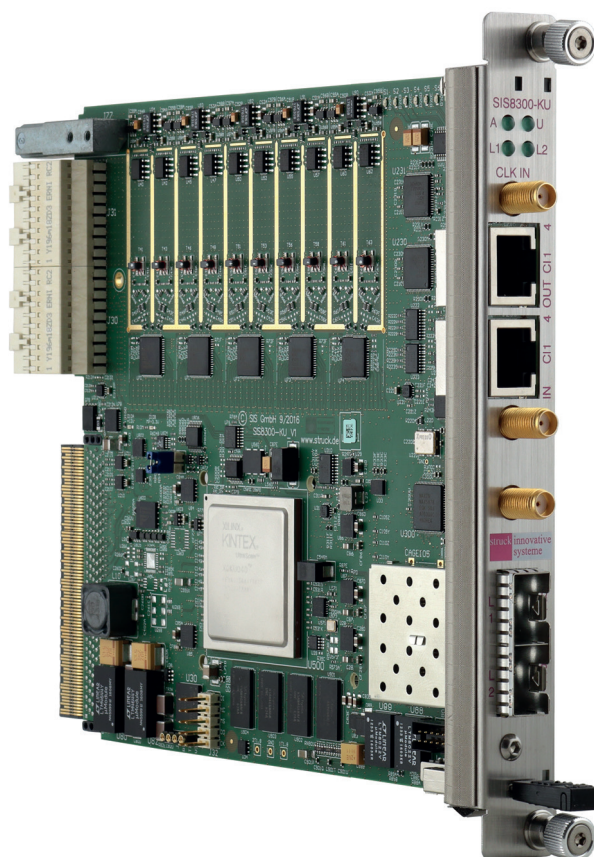
new

Kintex Ultrascale based SIS8300-KU 10 channel 16-bit 125 MS/s MTCA.4 Digitizer

The SIS8300-x digitizer board family is in use for LLRF, BPM and controls applications in several accelerators. The brand new SIS8300-KU is targeted at users who would like to develop or customize firmware with the Xilinx Vivado toolchain. The higher MGT speeds of the Ultrascale family result in performance improvements on the PCIe, memory and link side.

Central Design Parameters

- 4 lane PCI Express Gen3 Connectivity
- 10 Channels 125 MS/s 16-bit ADC
- 10 MS/s to 125 MS/s Per Channel Sampling Speed
- AC or DC Input Stage
- Internal, Front Panel, RTM and Backplane Clock Sources
- Two 16-bit 250 MS/s DACs for Fast Feedback Implementation
- High Precision Clock Distribution Circuitry
- Programmable Delay of Dual Channel Digitizer Groups
- Multi Gigabit Link Port Implementation to Backplane
- Twin SFP+ Card Cage for High Speed System Interconnects
- White Rabbit Clock Option for SFP+ Ports
- Two RJ45 Connectors (One Clock + 3 Data or 4 Data In/Out)
- XCKU040-1FFVA1156C Kintex Ultrascale FPGA
- 2 GByte DDR4 Memory (flexible partitioning scheme)
- Dual boot
- MMC1.0 under DESY license LV91
- In Field Firmware Upgrade Support
- Zone 3 class A1.0, A1.0C or A1.1CO Compatible



SIS8300-KU with FPIO

new DWC8VM1 MTCA.4 Downconverter/Vectormodulator RTM

new LF version covering down to 350 MHz

The DWC8VM1 Downconverter/Vectormodulator RTM was developed at DESY for single cavity LLRF applications under the designation DRTM-DWC8VM1 and is built by Struck under license of DESY.

Functionality

- MTCA.4 RTM
- 8 Channels Downconverter on FBM Multi Coax. Connector
- 2 Channels DC on MMCX Connectors
- 350 MHz - 6 GHz (see Table)
- Various Intermediate Frequencies
- Switchable Frontend Attenuators
- VM Output 50 MHz - 6 GHz
- Switchable Output Attenuator
- LO Clock from Front Panel or RF Backplane
- LO and REF Power Level Monitor
- Digitizer Clock Input (5 - 130 MHz) from Front Panel or RF Backplane
- MMCX Clock and Interlock Input
- I²C Support
- Zone 3 Class A1.1CO Compatible

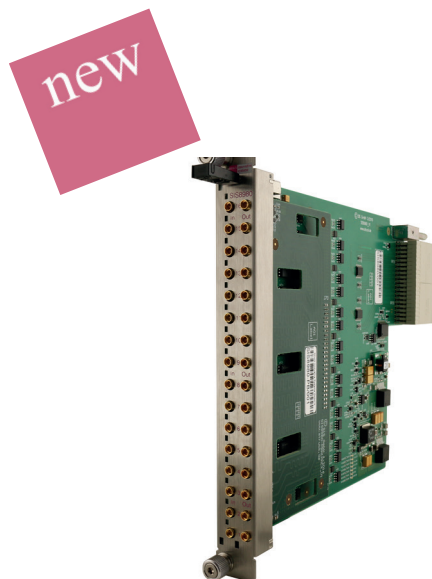


DWC8VM1 RTM

Production under DESY license LV 71

Model	f_{\min} in MHz	f_{\max} in MHz
DWC8VM1LF	350	500
DWC8VM1	500	3500
DWC8VM1HF	3500	6000

DWC8VM1 Overview Table



SIS8980 Discriminator RTM

SIS8980 MTCA.4 Discriminator RTM

The SIS8980 card is a discriminator input card for the SIS8800 MTCA.4 scaler/counter. It was developed with counter based beam loss monitoring systems and similar applications in mind.

Functionality

- MTCA.4 RTM
- 16 Discriminator Inputs, Connector Type MMCX
- Leading Edge
- 50 Ohm +/- 1% DC Inputs
- 14 Bit Threshold DAC for each Channel, 0,4 mV/Step
- 16 Outputs with NIM Level, Connector Type MMCX
- Programmable Pulse Length 10 ns - 250 ns
- 16 Front Panel Channel Activity LEDs
- MMC 1.0 Compatible
- Zone 3 class D1.1 Compatible

