TALO-F3000

NeuronEDGE Data Capture
Advanced GMSL Camera Video Data Capture with Time Synchronization and gPTP Ethernet PCIe Card

Preliminary



Features:

- Powered by Xilinx Zynq™ UltraScale+™ MPSoC with multiple processing engines.
- Ultra-low latency and drift capability with a 0.1 ppm crystal for time stamping and IEEE 1588v1/v2 synchronization
- 1x PCIe Gen3 x8 slot for camera data capture flow
- 8× GMSL2 camera interfaces with time-stamped frames and 6Gbps bandwidth for synchronized multi-camera operation
- 1× GNSS PPS input via SPE connector for precise external pulse time synchronization
- 1× GNSS ToD input via SPE connector for accurate external time-of-date referencing
- 1x 1GBase-T1 Single Pair Ethernet with IEEE 1588 PTP/gPTP master, SPE connector
- 12V DC power input

Specifications

System	
Processor	Xilinx Zynq™ UltraScale+™ MPSoC
OS	Real-time OS, Yocto
I/O Interface	
Camera	8x GMSL2 camera interface with dual FAKRA Z connectors
SPE CON.	1x IEEE 1588 Ethernet port with SPE connector 1x GNSS PPS input with SPE connector 1x GNSS ToD input with SPE connector
PCIe	1x Gen3 x8 PCIe Interface
Header	4x 3.3V sync trigger pulse output with 8-pin header 1x VCHAIN channel with 6-pin header 1x external 12V power input header with 4-pin connector
Pin Header	1x 8-pin header for JTAG 1x FAN header
Micro USB	Debugging Port
LED Indicators	
Power	Green for Power on
Status	16x status LED for each GMSL camera channel 1x status LED for PCIe link up

Power	
Power Input	12V DC on PCIe Slot
Mechanical	
Dimensions (W x L)	TBD
Weight	TBD
Environment	
Operating Temperature	-40℃ to 70℃, Fanless
Storage Temperature	-40℃ to 85℃
Humidity	5% to 95% Humidity, Non-condensing
Relative Humidity	95% @ 75℃
EMC	FCC, CE

I/O Interface

Dimensions

Ordering Information

Model Name	Description
TALO-F3000	NeuronEDGE Data Capture with 8x GMSL2 camera, 1x IEEE 1588 Ethernet, 1x PPS input, 1x ToD input PCIe Card

Accessories

Others

CSI Camera Kit	ISX031 CSI camera with FPC cable 20cm
Ethernet SPE	SPE Ethernet Port to RJ45 cable, 30cm
PPS SPE	SPE PPS port to wire cable, 30cm
ToD SPE	SPE ToD port to wire cable, 30cm