







## Radar Interface Card -ICS-RIC-01R

## **DESCRIPTION:**

The Radar Interface Card consists of Com express module and Altera Cyclone V series FPGA (RIC card). The main application of this project is receives the Radar data in the form of 32 bit data, parity and clock signal. This 32 bit parallel data is captured by FPGA and converted in to serial and sends to Com express (INTEL processor) via 10/100 Ethernet Interface. The Com express module reads data and sends to server via 10/100/1000 G bit Ethernet Interface. Cyclone V FPGA reads the RIC data in the from of RS422 and sends to Com express module in 10/100 Ethernet format

2 x DDR4 SO-DIMM





## **FEATURES:**

- Intel® Xeon® E3 and 7th gen Intel® Core™ i7/i5/i3 processors (Kaby Lake-H)
- 2 DDR4-2133 SO-DIMM slots, up to 32GB ECC or non-ECC
- 1 PCIe x16 and 8 PCIe x1 Gen. 3
- 4 SATA-600 with RAID 0/1/5/10
- 4 USB 3.0 and 8 USB 2.0

- Intel / Altera FPGA with 25K LE
- Maximum Operating Frequency of 800 MHz
- Serial EEPROM
- 10/100/1000 Ethernet Transceiver
- RS422 Line Receiver
- Supports HDMI 1.4 Data Rate

## **SPECIFICATIONS:**

- Processor: Intel® Xeon® E3 and 7th gen Intel® Core™ i7/i5/i3
- Chipset: Intel® CM238/QM175/HM175
- System Memory: 2 x DDR4-2133 SO-DIMM, up to 32GB
- Display: 1 x LVDS ;18/24-bit single/dual channel; 1 x VGA up to
  1920 x 1200 @60Hz (default); 2 x DDI (DP/HDMI/DVI)
- Audio: HD link interface to baseboard for Codec
- Storage: 4 x SATA-600 with RAID 0/1/5/10
- Expansion: 1 x PCIe x16 Gen 3.0; 8 x PCIe x1 Gen 3.0
- Power Input: ATX: +12V, +5VSB; AT: +12V

- Processor: Altera Cyclone V Series FPGA
- OS: RHEL 7.1(Server with GUI)
- Clock Source: On board 25 & 33.3MHz
- Bus Interfaces: SATA
- Ethernet: 10/100/1000 base-T interface
- VGA: Up to 1920 x 1200 @60Hz (default)
- USB PORT: USB 2.0– 2 Nos; USB 3.0– 1 No
- AUDIO Codec : High Definition Audio Codec
- HDMI: Supports HDMI 1.4
- Operating Temperature: -40°C ~ +85°C

APPLICATIONS: RADAR