ICS Innovation Communications Systems

STRATIX10 based 100G Transceiver (ICS--100G-HST-01C)

DESCRIPTION:

STRATIX10 based 100G Transceiver comprising of custom developed hardware platform, COTS networking equipment's and EDA Tool. The test-bed comprising of four items Four numbers of custom developed H/W platform (HSDPU); FPGA firmware for IPv4/v6 data-path processing; Three numbers of ROADM; Quartus Prime Pro 19.3 or latest (fixed) with NIOS (2license). Primary boot code resides in SPI /NOR1 flash for the ADSP processor. FPGA interfaces of SFP+/SFP28 and also QSFP+/QSFP28. The front panel interfaces includes Keypad, Display, USB, two tri-speed Ethernet, two RS-232, i- button (ST), and LEDs. The rear panel interfaces includes two SFP+/SFP28 and two QSFP28 optical interfaces, AC power interface and power button. The Power supply unit takes standard 230VAC and converts in to appropriate DC voltages required for hardware platform. Further, the platform is a PCB based hardware consisting of two inter connected subsystem

FEATURES:

- Stratix-10 FPGA ADSP controller
- Optical Add-Drop Multiplexer
- HSDPU is a 19" rack mountable device with 1Uheight
- HSDPU is designed for 24x7operation
- It works with standard 230V AC power supply
- 1/10/25/40/100Gbps operation on optical interface OTN/SDH/Ethernet
- Full throughput in by pass mode.
- OLED display and alpha numeric keypad
- Dual Ethernet interface, DualRS-232, single USB port
- 10/100Mbps operation on electrical Ethernet interface
- Up to 1Mbps operation on RS-232port.
- AC/DC: 100 to 240 VAC, 50/60 Hz,-36 to -60 VDC, 170W max
- Operating Temperature: -5 deg C to +50 deg C

SPECIFICATIONS:

- Processor   : Stratix-10 FPGA , ADSP controller
- Supported clients   : 10G/40G/100G LAN, STM-64/ OC-192,OTU2/OTU2e,OTU4
- Management   : Web browser over HTTP/HTTPS, NMS over SNMP CLI over RS-232 or CLI over Telnet/SSH
- MSA SFP+   : (8G/10G/16G/32G client), QSFP+ (40G client), QSFP28 (100G client) and QSFP28 (100G uplink)
- Software Upgrade   : Hitless traffic –dual image
- Bit Rate   : 112 Gbps (OTU4)
- FEC Support   : Standard ITU-T G.709GFEC
- Optical Reach   : Up to 40km with BER-4
- Optical Output Power : 2dBm to -2dBm
- Optical Monitoring   : Tx and Rx power
- Optical Interface   : SFP+   : LR (1310nm)
                         QSFP+ : LR-4 (1310nm)
                         QSFP28 : LR-4 (1310nm)