SYSTEM

Product Information

SU9-RATTLE

CompactPCI® Serial • Dual-Port Isolated RS-232 Interface

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General

The SU9-RATTLE is a dual-port isolated RS-232 Interface for PICMG® CompactPCI® Serial systems. It is an assembly unit, comprised of the SK2-SESSION XMC module carrier card, and the DU2-PONY RS-232 XMC mezzanine module.

Both D-Sub front panel connectors are isolated against the board circuitry and withstand up to 250VAC. The 460kbps EIA/TIA-232 transceivers provide ±15 kV ESD protection and are suitable for many industrial applications e.g. data communication or diagnostic ports.

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Theory of Operation

The SU9-RATTLE requires a single PCI Express® lane from the CompactPCI® Serial backplane, passed through from the backplane connector P1 via an on-board PCIe redriver circuit to the XMC module connector J15.

The on-board XMC module is equipped with a PCI Express® to UART bridge. Two isolated transceivers are provided to meet the RS-232E physical layer specifications, and allow for 460kbps data transfer speed.

Summary of Features

- ▸ PICMG® CompactPCI® Serial standard (CPCI-S.0), peripheral slot card
- ▸ Assembly unit comprising carrier board SK2-SESSION & XMC module DU2-PONY
- ▸ Single size Eurocard 3U 4HP 100x160mm^2
- ▸ CPCI-S backplane connector P1
- ▸ XMC module carrier board, equipped with XMC connector J15
- ▸ PCI Express® Gen1 (2.5Gbps) or Gen2 (5.0Gbps) supported
- ▸ Bidirectional PCIe redriver/repeater for optimum signal integrity
- ▸ PCI Express® clock buffer for optimum signal integrity

- ▸ XMC Module single-width mezzanine card 139mm x 74mm, stack height 10mm
- ▸ Equipped with dual-port UART
- ▸ PLX Oxford 950 UART w. 128-byte transmit/receive FIFO
- ▸ Windows® & Linux device driver support

- ▸ 2.5kV isolation barrier RS-232 transceivers (Analog Devices *iso*Power)
- ▸ Transceivers meet EIA/TIA-232-E specifications
- ▸ High data rate up to 460kbps
- ▸ ±8 kV/±15 kV ESD protection on transceiver input/output pins
- ▸ High common-mode transient immunity >25 kV/μs
- ▸ Suitable for high noise environment data communication and diagnostic ports
- ▸ Two front bezel male 9-pin D-Sub connectors (RXD/TXD, CTS/RTS)
- ▸ RS-232 ports isolated against each other and board circuitry 250VAC

- ▸ Commercial and industrial temperature range
- ▸ Long term availability
- ▸ Rugged solution (coating/sealing available on request)
- ▸ RoHS compliant

System Integration Options

The SU9-RATTLE is a CompactPCI® Serial peripheral card. CompactPCI® Serial (CPCI-S.0) is a PICMG® standard for modular industrial computers, which provides high speed serial I/O (PCI Express®, SATA, USB, Gigabit Ethernet) over the backplane. The CPCI-S mechanical design is fully backward compatible to CompactPCI® Classic and will interoperate with existing systems, by means of a hybrid backplane.

Hybrid systems (providing card slots for both cPCI Classic & cPCI Serial) can be configured by means of a CompactPCI® PlusIO CPU card such as the PC1-GROOVE or PC2-LIMBO in combination with a suitable hybrid backplane.

Native CompactPCI® Serial systems (up to 8 cPCI Serial peripheral card slots) can be built around a suitable system slot CPU board such as the SC1-ALLEGRO.

SU9-RATTLE Assembly Unit (similar picture)

Detailed Information

The SU9-RATTLE is an assembly unit, which is comprised of a XMC module carrier card, and the XMC module itself. For more detailed information on these components please refer to the table below:

SU9-RATTLE Elements		
SK2-SESSION	XMC Carrier	www.ekf.com/s/sk2/sk2.html
DU2-PONY	XMC Module	www.ekf.com/d/dcom/du2/du2.html

Ordering Information

Ordering Information
For popular SU9-RATTLE SKUs please refer to www.ekf.com/liste/liste_21.html#SU9

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