

SERIAL BACKPLANE FOR SPACEWIRE

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Short Paper

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ABSTRACT

ATCA and μ TCA are serial backplanes introduced for telecom and embedded applications. They provide point-to-point star connections between modules. Because the connection is LVDS signals, most of serial data link protocols including SpaceWire can be hosted. PICMG (PCI Industrial Computer Manufacturers Group), which defines ATCA/ μ TCA specifications, assigns PCI express and Gigabit Ethernet and user area. We report an example to use the user area as SpaceWire connections. SpaceWire on the backplane will provide ideal prototyping for onboard modules. It is also useful for ground support systems.