

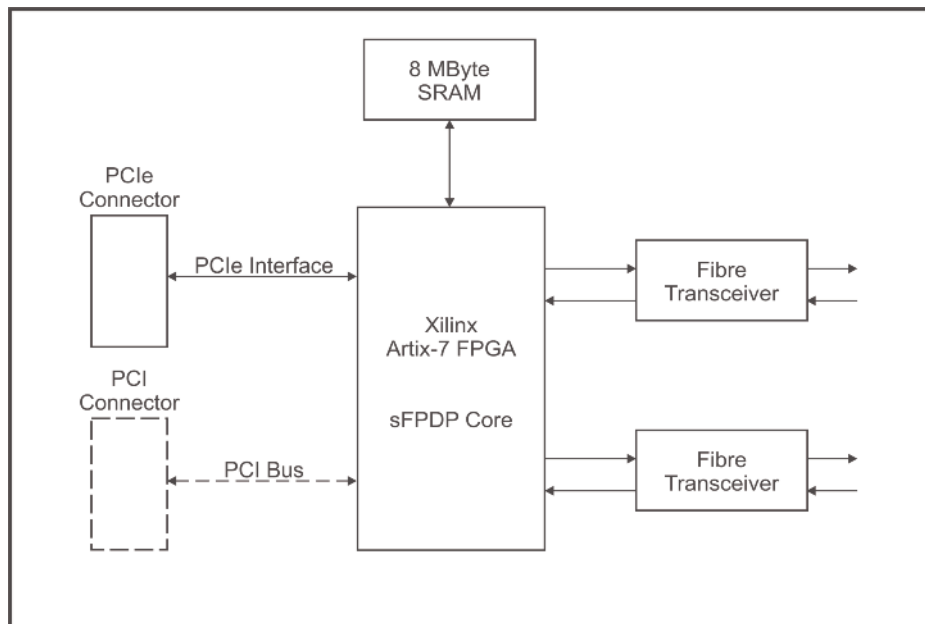
► Dual Channel Serial Front Panel Data Port Adapter

The Dual Channel Serial Front Panel Data Port (sFPDP) Adapter provides two channels of sFPDP on a single PC/104, PMC or XMC formfactor adapter. The sFPDP Adapter uses a Xilinx Artix-7 Field Programmable Gate Array (FPGA) to interface the sFPDP channels with the host over PCI Express or PCI.

The sFPDP Adapter is available in the following industry standard compliant formfactors :

- PMC
- XMC
- PCI-104
- PCI/104-Express
- PCIe/104

The sFPDP Adapter complies with the ANSI/VITA standard for Serial Front Panel Data Port (ANSI/VITA 17.1-2003).



Block Diagram of sFPDP Adapter with Fibre Transceivers

Features

- multimode fibre media for over distances of at least 200 m
- singlemode fibre media for over distances of at least 2 km
- copper media for up to a distance of 30 m
- standard 1,0625 Gbit/s, 2,125 Gbit/s and 2,500 Gbit/s data rates supported
- PMC, XMC and PC/104 formfactors available
- PCIe/104 Type 1 and Type 2 compatible
- 8 MByte Static RAM with Error-Correcting Code (ECC)



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Specifications	
PCIe	4-Lane PCIe, 2,5 GHz PCIe (for XMC, PCI/104-Express and PCIe/104) electrically : PCI Express Rev. 2.0
PCI	64-bit, 66 MHz PCI-bus (for PMC) 32-bit, 66 MHz PCI-bus (for PCI-104) Electrically : PCI Rev. 2.3
I/O Options	2 x multimode fibre media (850 nm wavelength) for over distances of at least 200 m 2 x singlemode fibre media (1 270 to 1 355 nm wavelength) for over distances of at least 2 km 2 x copper media, up to a distance of 30 m for 1,0625 Gbit/s and 15 m for 2,500 Gbit/s
Buffer Memory	8 MByte Static RAM with Error-Correcting Code (ECC)
Data Rate	standard sFPDP data rates are supported : 1,0625 Gbit/s, 2,125 Gbit/s and 2,500 Gbit/s (non-standard data rates available on request) note : total data throughput (adapter to host) is limited to a maximum of 266 MByte/s for PCI-104 Adapters and 533 MByte/s for PMC Adapters
Standard Compliance	fully compliant to ANSI/VITA 17.1-2003 sFPDP standard
Software	Linux standard VxWorks and Windows are costed options

Characteristics		
Formfactor	Dimensions	Mass
PMC and XMC	149,0 mm x 74,0 mm x 13,5 mm	200 g +/- 50 g
PC/104	90,0 mm x 96,0 mm x 24,0 mm	190 g +/- 50 g
CCPMC	143,75 mm x 74,00 mm, conforming to VITA 20 height envelope	90 g +/- 20 g

Reliability				
MTBF	Figures according to MIL-HDBK-217F, Parts Stress Method			
	Ground, Mobile Naval, Sheltered Airborne, Inhabited Cargo	T _j = 65 C T _j = 60 C T _j = 75 C	T _a = 45 C T _a = 40 C T _a = 55 C	25 000 hrs 35 000 hrs 25 000 hrs

Environmental Specifications			
	Commercial Grade	Industrial Grade	Ruggedised Grade
Temperature - Operating - Storage	0 C to +55 C -40 C to +85 C	-15 C to +75 C -50 C to +85 C	-40 C to + 85 C -60 C to +125 C
Humidity	0% - 90%	0% - 95%	0% - 95%
Shock	N/A	30 g peak for 11 ms	40 g peak for 11 ms
Vibration - Sine - Random	2 g (peak) 10 Hz to 100 Hz 0,04 g ² /Hz at 15 Hz to 2 kHz	10 g (peak) 5 Hz to 2 kHz 0,1 g ² /Hz at 15 Hz to 2 kHz	10 g (peak) 5 Hz to 2 kHz 0,1 g ² /Hz at 15 Hz to 2 kHz

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Part Selector			
Part Designation	Formfactor	Grade	I/O Media Type
CCII/FPDP/PMC/SR/FP/COM	PMC	Commercial	Fibre, Multimode
CCII/FPDP/PMC/SR/FP/IND	PMC	Industrial	Fibre, Multimode
CCII/FPDP/PMC/SR/FP/RGD	PMC	Ruggedised	Fibre, Multimode
CCII/FPDP/PMC/LR/FP/COM	PMC	Commercial	Fibre, Singlemode
CCII/FPDP/PMC/LR/FP/IND	PMC	Industrial	Fibre, Singlemode
CCII/FPDP/PMC/LR/FP/RGD	PMC	Ruggedised	Fibre, Singlemode
CCII/FPDP/PMC/DA/FP/COM	PMC	Commercial	Copper, SFP+ Direct Attach
CCII/FPDP/PMC/DA/FP/IND	PMC	Industrial	Copper, SFP+ Direct Attach
CCII/FPDP/PMC/DA/FP/RGD	PMC	Ruggedised	Copper, SFP+ Direct Attach
CCII/FPDP/PMC/BP/CC	PMC	Conduction-Cooled	Copper, Backplane
CCII/FPDP/XMC/SR/FP/COM	XMC	Commercial	Fibre, Multimode
CCII/FPDP/XMC/SR/FP/IND	XMC	Industrial	Fibre, Multimode
CCII/FPDP/XMC/SR/FP/RGD	XMC	Ruggedised	Fibre, Multimode
CCII/FPDP/XMC/LR/FP/COM	XMC	Commercial	Fibre, Singlemode
CCII/FPDP/XMC/LR/FP/IND	XMC	Industrial	Fibre, Singlemode
CCII/FPDP/XMC/LR/FP/RGD	XMC	Ruggedised	Fibre, Singlemode
CCII/FPDP/XMC/DA/FP/COM	XMC	Commercial	Copper, SFP+ Direct Attach
CCII/FPDP/XMC/DA/FP/IND	XMC	Industrial	Copper, SFP+ Direct Attach
CCII/FPDP/XMC/DA/FP/RGD	XMC	Ruggedised	Copper, SFP+ Direct Attach
CCII/FPDP/XMC/BP/CC	XMC	Conduction-Cooled	Copper, Backplane
CCII/FPDP/PCI104E/SR/FP/COM	PCI/104-Express	Commercial	Fibre, Multimode
CCII/FPDP/PCI104E/SR/FP/IND	PCI/104-Express	Industrial	Fibre, Multimode
CCII/FPDP/PCI104E/SR/FP/RGD	PCI/104-Express	Ruggedised	Fibre, Multimode
CCII/FPDP/PCI104E/LR/FP/COM	PCI/104-Express	Commercial	Fibre, Singlemode
CCII/FPDP/PCI104E/LR/FP/IND	PCI/104-Express	Industrial	Fibre, Singlemode
CCII/FPDP/PCI104E/LR/FP/RGD	PCI/104-Express	Ruggedised	Fibre, Singlemode
CCII/FPDP/PCI104E/DA/FP/COM	PCI/104-Express	Commercial	Copper, SFP+ Direct Attach
CCII/FPDP/PCI104E/DA/FP/IND	PCI/104-Express	Industrial	Copper, SFP+ Direct Attach
CCII/FPDP/PCI104E/DA/FP/RGD	PCI/104-Express	Ruggedised	Copper, SFP+ Direct Attach
CCII/FPDP/PCle104/SR/FP/COM	PCle/104	Commercial	Fibre, Multimode
CCII/FPDP/PCle104/SR/FP/IND	PCle/104	Industrial	Fibre, Multimode
CCII/FPDP/PCle104/SR/FP/RGD	PCle/104	Ruggedised	Fibre, Multimode
CCII/FPDP/PCle104/LR/FP/COM	PCle/104	Commercial	Fibre, Singlemode
CCII/FPDP/PCle104/LR/FP/IND	PCle/104	Industrial	Fibre, Singlemode
CCII/FPDP/PCle104/LR/FP/RGD	PCle/104	Ruggedised	Fibre, Singlemode
CCII/FPDP/PCle104/DA/FP/COM	PCle/104	Commercial	Copper, SFP+ Direct Attach
CCII/FPDP/PCle104/DA/FP/IND	PCle/104	Industrial	Copper, SFP+ Direct Attach
CCII/FPDP/PCle104/DA/FP/RGD	PCle/104	Ruggedised	Copper, SFP+ Direct Attach
CCII/FPDP/PCI104/SR/FP/COM	PCI-104	Commercial	Fibre, Multimode
CCII/FPDP/PCI104/SR/FP/IND	PCI-104	Industrial	Fibre, Multimode
CCII/FPDP/PCI104/SR/FP/RGD	PCI-104	Ruggedised	Fibre, Multimode
CCII/FPDP/PCI104/LR/FP/COM	PCI-104	Commercial	Fibre, Singlemode
CCII/FPDP/PCI104/LR/FP/IND	PCI-104	Industrial	Fibre, Singlemode
CCII/FPDP/PCI104/LR/FP/RGD	PCI-104	Ruggedised	Fibre, Singlemode
CCII/FPDP/PCI104/DA/FP/COM	PCI-104	Commercial	Copper, SFP+ Direct Attach
CCII/FPDP/PCI104/DA/FP/IND	PCI-104	Industrial	Copper, SFP+ Direct Attach
CCII/FPDP/PCI104/DA/FP/RGD	PCI-104	Ruggedised	Copper, SFP+ Direct Attach