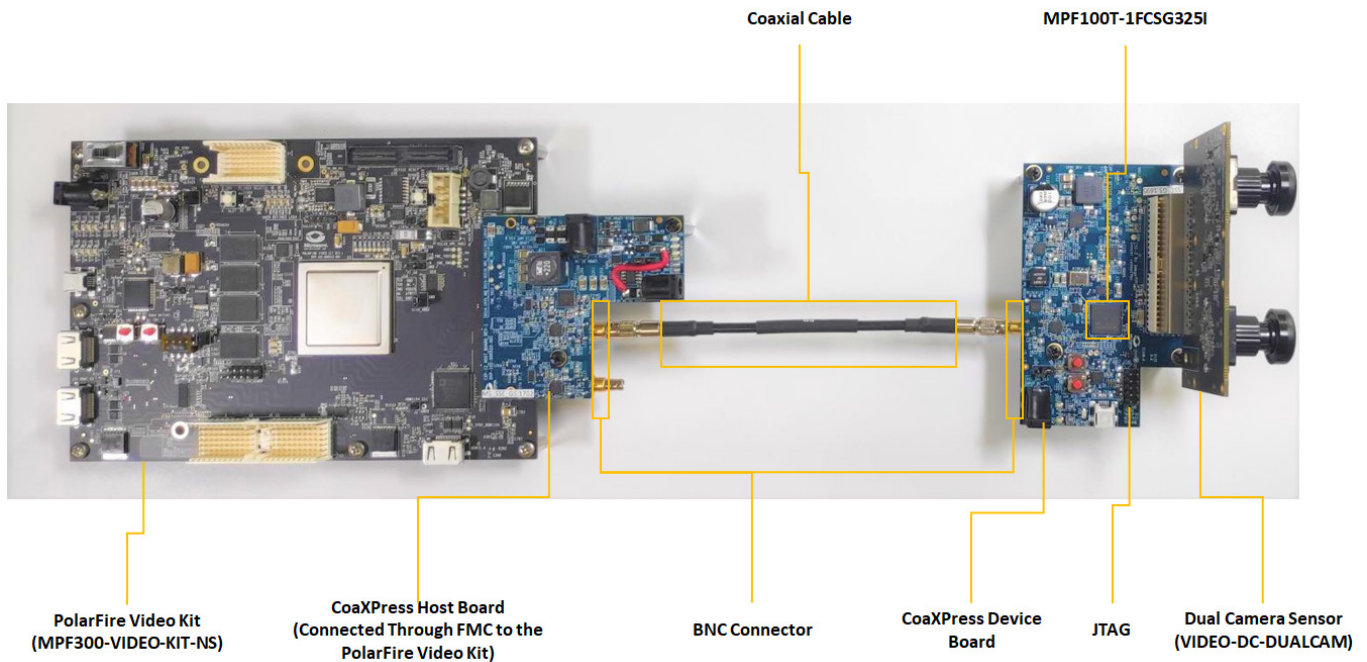


CoaXPress FMC Quickstart Card

Kit Contents - VIDEO-DC-CXP

Quantity	Description
1	CoaXPress device board with PolarFire FPGA with 100K LE MPF100T-1FCSG325I
1	CoaXPress host board
1	USB 2.0 A to Mini-B cable
1	FlashPro4
1	Coaxial HD-BNC to HD-BNC male-to-male cable
1	Quickstart card



Overview

Microchip's CoaXPress offering is a three-board solution that demonstrates high-speed transmission of high-resolution image data from a device to the host. It supports a 12.5G CoaXPress PHY and includes ready to use reference designs for quick prototyping.

Microchip's CoaXPress FMC daughter card is a hardware evaluation platform for evaluating and testing the CoaXPress protocol. The daughter card works with the PolarFire Video Kit (MPF300-VIDEO-KIT-NS) features the PolarFire FPGA device. This kit needs to be purchased separately. The kit is designed for effortless prototyping of popular imaging and video protocols including MIPI CSI-2 TX, MIPI CSI-2 RX, HDMI 1.4 TX, HDMI 2.0, DSI, and HD/3G/6G/12G SDI. With a 300K logic element (LE) PolarFire FPGA with DDR4 and SPI-flash, the kit is ideally suited for mid-bandwidth imaging and video applications.

Hardware Features

The hardware features are:

Device Board

- 12.5G CoaXPress PHY
- 100k LE PolarFire device in FCSG325 package
- Amphenol FCI connector
- One Micro BNC connectors –TX
- JTAG – programming (FP4)

Host Board

- 12.5G CoaXPress PHY
- HPC FMC connector
- Two Micro BNC connectors – RX and TX

Jumper Settings

The CoaXPress FMC daughter card comes with the following default jumper settings.

Jumper	Description	Factory Default
J7	CXP device board	Short 2–3
J19	CXP host board	Open

Programming

Microchip's PolarFire CoaXPress FMC daughter card provides programmability using the FlashPro4/5 hardware. IAP programming and debug support is also provided in the board. The PolarFire video kit must be programmed before use. An .stp file is available at <https://www.microsemi.com/existing-parts/parts/150887>. For more information about programming procedures, see [Documentation Resources](#).

Running the Demo

The CXP device board comes with a pre-programmed MIPI to CoaXPress bridge. The images captured from the camera over MIPI CSI-2 are converted to CoaXPress packets by the CoaXPress IP and

transmitted over the Micro BNC connector.

To run the demo, set up the board as outlined in the following steps. For detailed instructions, refer to DG0884: PolarFire FPGA 12.5G video over CoaXPress Demo Guide.

1. Connect the FMC connector J11 on CXP host board to the FMC connector J14 on the PolarFire video kit.
2. Insert the dual-camera module (part of the PolarFire Video kit) into J1 on the CXP device board. Ensure to remove the camera lens caps.
3. Connect the Micro BNC cable from BNC_HST1 on the CXP host board to the BNC1 connector on CXP-12 device board.
4. Connect the 12 V power supply to the J20 connector on the PolarFire video kit.
5. Connect the HDMI cable from J1 HDMI_TX to the HDMI port of the display monitor.
6. Power on the PolarFire video kit by sliding SW4 to the ON position.

Software and Licensing

The Libero® SoC PolarFire Design Suite is required for designing with the PolarFire Video Kit. Libero SoC PolarFire Design Suite offers high productivity with its comprehensive, easy-to-learn, easy-to-adopt development tools for designing with Microsemi's low power Flash FPGAs and SoC. The suite integrates industry standard Synopsys Synplify Pro® synthesis and Mentor Graphics ModelSim® simulation with best-in-class constraints management and debug capabilities.

Download the latest Libero SoC PolarFire release:

<https://www.microsemi.com/product-directory/design-resources/1750-libero-soc>

A Gold license is required to program the PolarFire Video Kit. A Software ID letter enclosed with the kit contains Software ID and instructions on how to generate a Libero Gold license. For more information, see <https://www.microsemi.com/existing-parts/parts/150804>.

Documentation Resources

For more information about the CoaXPress FMC daughter card, including schematics and user's guides, see the documentation at <https://www.microsemi.com/existing-parts/parts/150887>.

Support

For Technical Support, please login and create a case using the support portal at <https://soc.microsemi.com/Portal/Default.aspx>.

Microsemi sales offices, including representatives and distributors, are located worldwide.



Microsemi Headquarters

One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996
email: sales.support@microsemi.com
www.microsemi.com

Microsemi, a wholly owned subsidiary of Microchip Technology Inc. (Nasdaq: MCHP), offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions, security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Learn more at www.microsemi.com.

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.

©2019 Microsemi, a wholly owned subsidiary of Microchip Technology Inc. All rights reserved. Microsemi and the Microsemi logo are registered trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Programmable Logic IC Development Tools](#) category:

Click to view products by [Microchip](#) manufacturer:

Other Similar products are found below :

[DK-DEV-5SGXEA7N](#) [88980182](#) [DEV-17526](#) [DEV-17514](#) [LCMXO3L-SMA-EVN](#) [471-014](#) [80-001005](#) [iCE40UP5K-MDP-EVN](#)
[ALTHYDRAC5GX](#) [ALTNITROC5GX](#) [471-015](#) [Hinj](#) [SnoMakrR10](#) [DK-DEV-1SDX-P-0ES](#) [DK-DEV-1SMC-H-A](#) [DK-DEV-1SMX-H-0ES](#)
[DK-DEV-1SMX-H-A](#) [DK-DEV-4CGX150N](#) [DK-DEV-5CGTD9N](#) [DK-DEV-5CSXC6N](#) [DK-DEV-5SGSMD5N](#) [DK-MAXII-1270N](#) [DK-SI-](#)
[1SGX-H-A](#) [DK-SI-1STX-E-0ES](#) [DK-SI-1STX-E-A](#) [DK-SI-5SGXEA7N](#) [ABX00022](#) [ATF15XX-DK3-U](#) [SLG46826V-DIP](#) [240-114-1](#) [6003-](#)
[410-017](#) [DK-START-GW1N1](#) [ICE40UP5K-B-EVN](#) [DK-SOC-1SSX-L-D](#) [ICE5LP4K-WDEV-EVN](#) [L-ASC-BRIDGE-EVN](#) [LC4256ZE-B-](#)
[EVN](#) [LCMXO256C-S-EVN](#) [LCMXO3D-9400HC-B-EVN](#) [LCMXO3L-6900C-S-EVN](#) [LF-81AGG-EVN](#) [LFE3-MEZZ-EVN](#) [LPTM-ASC-B-](#)
[EVN](#) [M2S-HELLO-FPGA-KIT](#) [M1AFS-ADV-DEV-KIT-PWR-2](#) [12GSDIFMCCD](#) [SFP+X4FMCCD](#) [NAE-CW305-04-7A100-0.10-X](#)
[NOVPEK CVLite](#) [RXCS10S0000F43-FHP00A](#)