

FMC-Video Daughter Card

Quick Start Guide

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Revision History

The following table shows the revision history for this document.

| Date | Version | Revision |
|----------|---------|-------------------------|
| 10/29/07 | 1.0 | Initial Xilinx release. |

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FMC-Video Daughter Card

Overview

This document provides initial setup and default settings for using the FMC-Video daughter card purchased as a stand-alone product. If you purchased an FMC-Video daughter card with an FPGA carrier platform, you do not need this document.

System Requirements

Hardware

The specific carrier platform that is currently validated to support the FMC-Video daughter card is:

| Platform | Part Number | Revision |
|--|-------------------------|----------|
| Spartan-3A DSP FPGA 3400A Development Platform | HW-SD3400A-DSP-DB-UNI-G | D |

This FMC-Video compatible carrier platform can be purchased directly from Xilinx. While every effort has been made to comply with the FPGA Mezzanine Card Specification, Xilinx cannot claim nor assume full compliance with the FMC/VITA-57 specification. Consequently, Xilinx cannot claim nor support the usage of this daughter card on any other FMC (VITA-57.1) carrier board.

Note: To identify the revision version of carrier board you have, see [Figure 1-1](#). The line of text below the part number should end in the revision letter given above (for example, in [Figure 1-1](#), the line below the part number is “LYR178-101D”, so this is the correct revision).

Software

The example designs that use this hardware are described in the *Spartan-3A DSP Video Starter Kit User Guide* ([UG456](#))

Package Contents

Hardware

The following hardware are included in the FMC-Video shipment:

- 1 – FMC-Video Daughter Card
- 4 – Mounting bolts

- 1 – DVI Cable
- 1 – Composite Cable
- 1 – CD-ROM

CD ROM

The following documents are included on the CD-ROM:

- *FMC-Video Daughter Card Quick Start Guide* ([UG457](#))
- *FMC-Video Technical Reference Guide* ([UG458](#))
- Schematics/Gerbers/BOM

Necessary Equipment

- Small Phillips screwdriver
- Compact Flash card (128 MB recommended)
- PC with:
 - ♦ Compact Flash reader/writer
 - ♦ CD reader
 - ♦ Internet access

System Setup

Caution! The devices on these boards are sensitive to static electricity and can be damaged if handled improperly. Please familiarize yourself with proper static grounding techniques if you have not already done so.

1. Make sure the power is disconnected from the carrier board.
2. Locate the FMC 2 connector (J19). See [Figure 1-1](#).

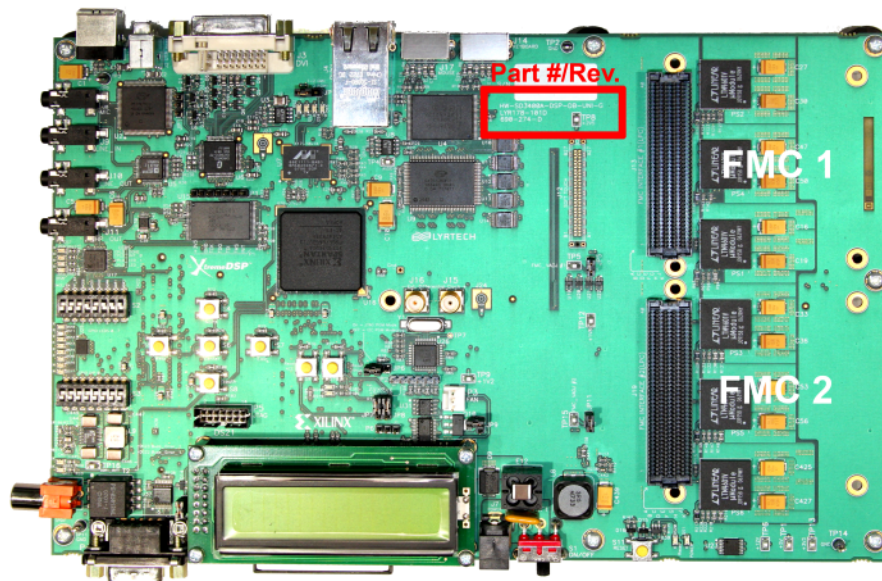


Figure 1-1: Spartan-3A DSP Development Platform Rev. D

Note: To work with the Spartan-3A DSP FPGA 3400A Development Platform, the Compact Flash card must be formatted with the FAT12 or FAT16 file system. The format utility built into Windows 2000/XP will **not** work correctly. A free third party command line utility such as `mkdosfs` (www1.mager.org/mkdosfs) can be used to correctly format the card from the command line.

4. Remove the FMC-Video daughter card from the anti-static packaging and align it with the carrier's FMC 2 connector (J19).
5. Press the FMC-Video daughter card firmly until the board is fully seated. (The standoffs should lay flush against the carrier board.)
6. Screw in the supplied bolts to secure the FMC-Video daughter card to the carrier board. See [Figure 1-2](#).

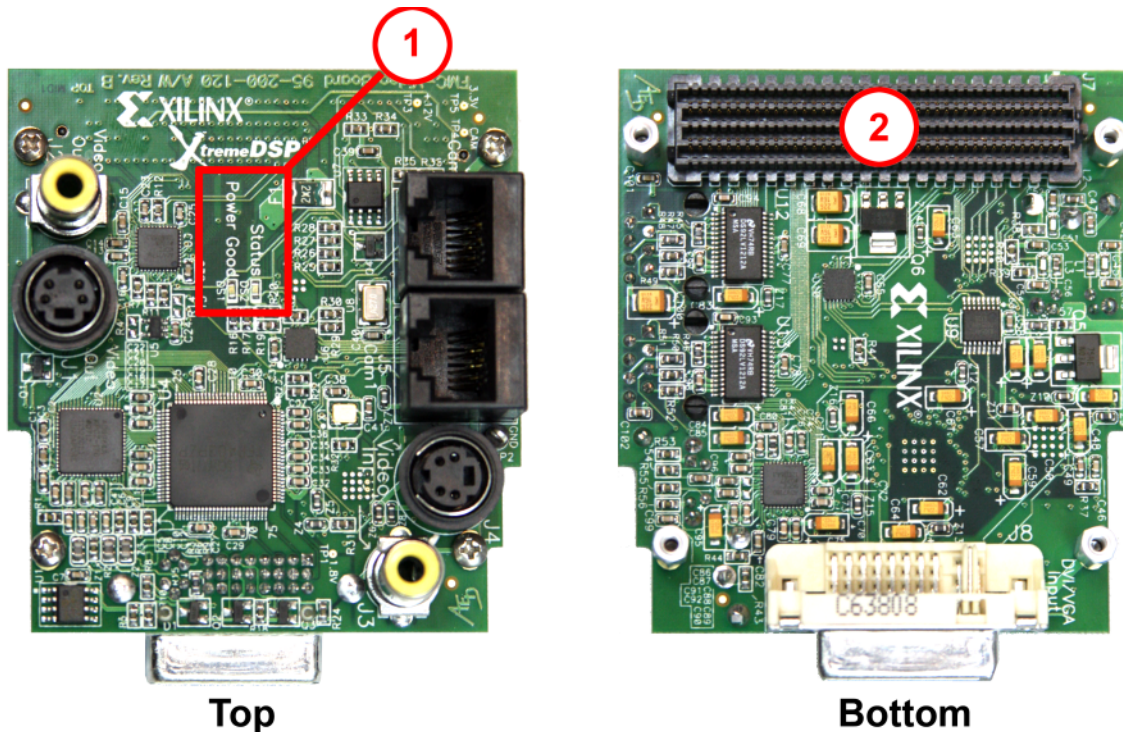


Figure 1-2: FMC-Video Port Diagram (1= Power Good and Status LEDs, 2 = FMC Connector)

7. Connect the power supply to the carrier board. (See [Spartan-3A DSP FPGA Development Board Technical Reference Guide](#) if necessary.)
8. Format the Compact Flash card using the Compact Flash reader/writer.
9. Copy the contents from the `VSK_CD\Demonstrations\SystemACE` folder of the supplied CD to the formatted Compact Flash card.
10. Verify that the carrier board boot mode switch (S2) is set to `01010111` (arranged switch 1-8, 0 = OFF, 1 = ON). This allows a bootloader program to be loaded from the Compact Flash card by the System ACE™ controller.
11. With the carrier board power switch (S1) set to OFF, insert the Compact Flash memory card into the Compact Flash slot (P7) on the carrier.
12. Set the carrier board power switch (S1) to ON.
13. The Power Good LED (DS1) on the carrier board and Power Good LED (DS1) on the FMC-Video board should be illuminated.

Further details on the functionality can be found in ["References."](#)

References

1. *FMC-Video Technical Reference Guide* ([UG458](#)) – Detailed specification and designer’s notes of the functionality of this hardware module.
2. [Spartan-3A DSP FPGA Development Board Technical Reference Guide](#) – This reference manual provides detailed information regarding the carrier board specifications and features.
3. *Spartan-3A DSP Video Starter Kit User Guide* ([UG456](#)) – This user guide provides information about reference designs and tools that support the FMC-Video daughter card.

Technical Support

Xilinx does not offer any technical support on this product if used in conjunction with any carrier board other than the Spartan-3A DSP FPGA 3400A Development Platform. If you have one of these carrier boards, contact Xilinx support at: www.xilinx.com/support.

