Spectrum Digital
Emulator Selection Guide
04/13/2013
Selection Flowchart

START

Using C30, C31, C32?

Y

Use XDS510PP MPSD

SPI530 MPSD

N

Use XDS220 ISO USB/Enet

XDS510 USB Galvanic

SPI110LV + any other emulator

Using F24xx, C/F28xxx Only?

Y

Use XDS510LC USB

N

Using C55xx, F28xxx, M4?

Y

Use XDS5200, XDS220

XDS220 ISO

N

Using OMAP, AM1xxx, AM33xx, DaVinci™, or CCS v5.2?

Y

Use XDS560v2 STM

XDS560v2 STM Traveler

XDS560v2 LC Traveler

XDS200, XDS220

XDS510USB PLUS

N

Using C62x, C64xx, C67xx?

Y

Use XDS560v2 STM

XDS560v2 STM Traveler

XDS560v2 LC Traveler

XDS200, XDS220

XDS510USB PLUS

N

Using OMAP3-5, C66xx, C6A81xx, System Trace or CCS v4.2 or later?

Y

Use XDS510USB PLUS

XDS100v2

XDS100v3

XDS200

XDS220

Note 1: C30, C31, C32 processors are not recommended for new designs. These processors use MPSD scan technology instead of JTAG

Note 2: This emulator cannot be used outside the C2xxx family

Note 3: Full featured emulators generally provide better performance and processor compatibility

Note 4: Users with large code/data sets, use System Trace, and use CCS v4.2+ should select XDS560V2 STM or XDS560v2 STM Traveler

Note 5: VC33 support for XDS510USB PLUS is not available

© Copyright 2013 www.spectrumdigital.com 281.494.4500 x-113
Features of the XDS560v2 STM

**HARDWARE**

- Spectrum Digital’s XDS560v2 is the TI XDS560v2 reference design
- Supports following TI Processors families: C64x+, ARM, C28xxx, OMAP3-5, C5000, C6000, OMAP-L137, C6A816x, C66xx, AM1xxx, AM3xxx with JTAG and CJTAG interfaces
- Modular tail connector for alternate JTAG headers (4 adapters included)
- Advanced emulation controller for high performance
- MIPI System Trace capability, with 128 Mbyte trace buffer, up to 100 MHz export clock
- USB 2.0 and Ethernet communications to host PC
- Supports +1.2 volt to +4.1 volt JTAG interfaces
- 9 LEDs for operational status
- User accessible RESET switch
- Power provided by supplied power supply

**SOFTWARE**

- Compatible with TI Code Composer Studio v4.2 and later
- Compatible with SYS/BIOS
- Compatible with Windows 2000, XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems

© Copyright 2013 www.spectrumdigital.com 281.494.4500 x-113
Features of the XDS560v2 STM Traveler

HARDWARE

• Spectrum Digital's XDS560v2 is the TI XDS560v2 reference design

• Supports following TI Processors families: C64x+, ARM, C28xxx, OMAP3-5, C5000, C6000, OMAP-L137, C6A816x, C66xx, AM1xxx, AM3xxx with JTAG and CJTAG interfaces

• Modular tail connector with CTI20 header, CTI20-TI14 adapter included

• Advanced emulation controller for high performance

• MIPI System Trace capability, with 128 Mbyte trace buffer, up to 100 MHz export clock

• USB 2.0 communications to host PC

• Supports +1.2 volt to +4.1 volt JTAG interfaces

• 6 LEDs for operational status

• User accessible RESET switch

• Power provided by USB cable, no power supply required

SOFTWARE

• Compatible with TI Code Composer Studio v4.2 and later

• Compatible with SYS/BIOS

• Compatible with Windows 2000, XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems
Features of the XDS560v2 LC Traveler

HARDWARE

• Spectrum Digital’s XDS560v2 is the TI XDS560v2 reference design

• Supports following TI Processors families: C64x+, ARM, C28xxx, OMAP3-5, C5000, C6000, OMAP-L137, C6A816x, C66xx, AM1xxx, AM3xxx with JTAG and CJTAG interfaces

• Modular tail connector with CTI20 header, CTI20-TI14 adapter included

• Advanced emulation controller for high performance

• USB 2.0 communications to host PC

• Supports +1.2 volt to +4.1 volt JTAG interfaces

• 6 LEDs for operational status

• User accessible RESET switch

• Power provided by USB cable, **no power supply** required

SOFTWARE

• Compatible with TI Code Composer Studio v4.2 and later

• Compatible with SYS/BIOS

• Compatible with Windows 2000, XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems
# Features of the XDS200 USB

## HARDWARE
- Supports TI Processors with CJTAG/JTAG Interface
- USB 2.0 interface to host, no adapter card required
- CTI20 tail connector with 3 JTAG adapters (CTI20-TI14, CTI20-ARM20, CTI20-ARM10)
- Advanced emulation controller for high performance
- Supports Embedded Trace (ECB on selected TI devices)
- Supports +1.5 volt to +5 volt JTAG interfaces
- 2 status LEDs
- RoHS compliant
- Power provided by host USB port

## SOFTWARE
- Compatible with TI Code Composer Studio 5.2 or later
- Compatible with SYS/BIOS
- Support UniFlash programming utility from TI
- Supports CCS DSS Java scripting
- Compatible with Windows 2000, XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems
Features of the
XDS220 USB/Ethernet

HARDWARE

• Supports TI Processors with CJTAG/JTAG Interface
• USB 2.0 and Ethernet interface to host, no adapter card required
• CTI20 tail connector with 3 JTAG adapters (CTI20-TI14, CTI20-ARM20, CTI20-ARM10)
• Advanced emulation controller for high performance
• Supports Embedded Trace (ECB on selected TI devices)
• 5 Expansion I/O interfaces
• Supports +1.5 volt to +5 volt JTAG interfaces
• 2 status LEDs
• RoHS compliant
• Power provided by host USB port or Power Supply to USB adapter

SOFTWARE

• Compatible with TI Code Composer Studio 5.2 and later
• Compatible with SYS/BIOS
• Support UniFlash programming utility from TI
• Supports CCS DSS Java scripting
• Compatible with Windows 2000, XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems
Features of the
XDS220 ISO USB/Ethernet

HARDWARE

• Supports TI Processors with CJTAG/JTAG Interface
• Provides isolation between target board and emulator/host
• USB 2.0 and Ethernet interface to host, no adapter card required
• CTI20 tail connector with 3 JTAG adapters (CTI20-TI14, CTI20-ARM20, CTI20-ARM10)
• Advanced emulation controller for high performance
• Supports Embedded Trace (ECB on selected TI devices)
• Supports +1.5 volt to +5 volt JTAG interfaces
• 2 status LEDs
• RoHS compliant
• Power provided by host USB port or Power Supply to USB adapter

SOFTWARE

• Compatible with TI Code Composer Studio 5.2 and later
• Compatible with SYS/BIOS
• Support UniFlash programming utility from TI
• Supports CCS DSS Java scripting
• Compatible with Windows 2000, XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems
Features of the XDS510USB PLUS

HARDWARE

• Supports TI Processors with JTAG Interface (IEEE 1149.1)
• Compatible with Spectrum Digital XDS510USB
• Modular tail connector for alternate JTAG headers
• Advanced emulation controller for high performance
• ARM Ltd. style adaptive clocking support
• Variable/Programmable TCLK
• Compatible with USB 2.0 interface on PC, no adapter card required
• Supports +1.0 volt to +5 volt JTAG interfaces
• 1 LED for operational status
• User accessible RESET switch
• Power provided by host USB port or USB hub

SOFTWARE

• Compatible with TI Code Composer Studio
• Compatible with SYS/BIOS
• Compatible with Spectrum Digital's Flash Programming Utility
• Compatible with Temento DiaTem Boundary Scan Debugger
• Compatible with Windows 2000, XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems
Features of the XDS510USB Galvanic

HARDWARE

• Supports TI Processors (C2xxx, C54xx, C55xx, C67xx, C64xx, TMS470 ARM, OMAP) with JTAG Interface (IEEE 1149.1)

• Compatible with Spectrum Digital XDS510 USB JTAG Emulator

• Voltage isolation provided by IL715, IL717, HCPL-260L (UL1577 rated for 2500Vrma for 1 minute and IEC 61010-1, Pollution Degree II, Material Group III, Max working voltage 300 Vrms Common Mode Transient Immunity 30KV/us @ Vcm=300V)

• Voltage isolation on PWB with 6mm. Minimum clearances and creepage distances

• Compatible with USB 1.x and USB 2.0 (full speed)

• Compatible with USB interface on PC, no adapter card required

• Supports +3.3 volt and +5 volt JTAG interfaces (+3.3 to 1.8 with Low Voltage Adapter)

• 1 status LED for USB operational status

• Power provided by host USB port/hub and target system

SOFTWARE

• Compatible with TI Code Composer Studio

• Compatible with Spectrum Digital’s Flash Programming Utility

• Works with emulation driver releases 2.21.03 or higher

• Compatible with Windows 2000, XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems
Features of the XDS510 USB

**HARDWARE**

- Supports TI Processors with JTAG Interface (IEEE 1149.1) (C24x, F240x, F28xxx, VC33, C5xxx, C6xxx, TMS470 ARM, OMAP, DaVinci™)
- Operates off PC/laptop/HUB USB port, no power adapter required
- Supports USB 1.x and USB 2.0 (full speed)
- Compatible with +3.3V or +5V processors (+1.8 with LVA)
- 1 LED for operational status
- Compatible with SPI110LV opto pod
- Compatible with 4 channel JTAG expander
- Compatible with Low voltage Adapters

**SOFTWARE**

- Compatible with TI Code Composer Studio
- Compatible with SYS/BIOS
- Compatible with Windows 2000, XP, Vista, Win 7, Linux (CCS 5.x) Operating Systems
- Operates with “SDFlash” stand alone programming utility from Spectrum Digital
- Compatible with Programming utilities developed by Texas Instruments
Features of the C2000 XDS510LC USB

HARDWARE

• Supports TI C24xx, C28xxx Digital Signal Controllers only with JTAG Interface (IEEE 1149.1)
• Operates off PC/laptop/HUB USB port, no power adapter required
• Supports USB 1.x and USB 2.0 (full speed)
• Compatible with +3.3V or +5V processors (+1.8 with LVA)
• 1 LED for operational status
• Compatible with SPI110LV opto pod
• Compatible with 4 channel JTAG expander
• Compatible with Low voltage Adapters

SOFTWARE

• Compatible with TI Code Composer Studio Rev 3.1 or later
• Compatible with SYS/BIOS
• Compatible with Windows 2000, XP, Vista, Win 7, Linux (CCS 5.x) Operating Systems
• Compatible with Windows 2000, XP Operating Systems
• Operates with “SDFlash” stand alone programming utility from Spectrum Digital
• Compatible with Spectrum Digital’s “C language “XMLGUI” interface
• Compatible with Programming utilities developed by Texas Instruments
Features of the XDS510PP PLUS

HARDWARE

• Supports TI Processors with JTAG Interface (IEEE 1149.1) (C2xx, C24x, F240x, F28xxx, VC33, C4x, C5x, C5xxx, C6xxx, TMS470 ARM, OMAP, DaVinci™)

• Operates with parallel port on PC or laptop, no external power adapter required when +5 supplied by target

• Supports bi-directional, ECP, and EPP transfers

• Compatible with +3.3V or +5V processors (+1.8 with LVA)

• 1 LED for JTAG active status

• Powered by target or supplied adapter (+5 volts required)

• Compatible with SPI110LV opto pod

• Compatible with 4 channel JTAG expander

• Compatible with Low voltage Adapters

SOFTWARE

• Compatible with TI Code Composer Studio

• Compatible with SYS/BIOS

• Compatible with Windows 2000, XP, Vista, and Win 7 32 bit Operating Systems

• Operates with “SDFlash” stand alone programming utility from Spectrum digital

• Compatible with Programming utilities developed by Texas Instruments
Features of the XDS100v2

HARDWARE

• Supports TI C28xx, C550x, C674x, C64+, TMS470 ARM 9, ARM Cortex Digital Signal processors only with JTAG Interface (IEEE 1149.1). See the TI wiki for all devices supported
• Operates off PC/laptop/HUB USB port, no power adapter required
• Supports USB 2.x
• Supports targets with +1.8V and +3.3V I/O levels
• Supports targets with 14-pin JTAG header
• Dimensions: 2.2"L x 1.0"W x .45H

SOFTWARE

• Compatible with Code Composer Studio IDE™ Ver 4.2 and later from Texas Instruments
• Compatible with Windows XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems
Features of the XDS100v3

HARDWARE

• Supports TI F28xx, C54xx, C55xx, C674x, C64+, C66x, TMS470, ARM 9, ARM Cortex™ Digital Signal processors only with JTAG and CJTAG Interface. See the TI wiki for all devices supported
• Operates off PC/laptop/HUB USB port, no power adapter required
• Supports USB 2.x
• Supports targets with +1.8V and +3.3V I/O levels
• Supports targets with CTI20 or TI14-pin JTAG headers
• Dimensions: 3.2"L x 1.2"W x .45H

SOFTWARE

• Compatible with Code Composer Studio IDE™ Ver 5.x and later from Texas Instruments
• Supports Code composer Studio™ C2000 On-Chip Flash Programmer
• Compatible with Windows XP, Vista, Win 7, and Linux (CCS 5.x) Operating Systems
Features of the XDS510PP MPSD

**HARDWARE**

- Supports TI Digital Signal Processors with MPSD Interface (TMS320C30/C31/C32)
- Operates with parallel port on PC or laptop, no external adapter required
- Supports 8 bit bi-directional parallel port interface
- Compatible with +3.3V or +5V processors
- 1 LED for active status
- Powered by target or supplied adapter (+5 volts required)

**SOFTWARE**

- Compatible with TI Code Composer for TMS320C3x (includes ‘C’ compiler, assembler, linker, and debugger)
- Compatible with Win 98, ME, NT, 2000, XP Operating Systems
Features of the SPI530 MPSD

HARDWARE

• Supports TI Digital Signal Processors with MPSD Interface (TMS320C30/C31/C32)
• Provides highest performance with internal high speed control processor
• Operates with parallel port on PC or laptop, no external adapter required
• Supports 8 bit bi-directional parallel port interface
• Compatible with +3.3V or +5V processors
• 1 LED for active status
• Powered by supplied adapter

SOFTWARE

• Compatible with TI Code Composer for TMS320C3x (includes ‘C’ compiler, assembler, linker, and debugger)
• Compatible with Win 98, ME, NT, 2000, XP Operating Systems
# Ordering Information

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>702592</td>
<td>XDS560v2 STM JTAG Emulator with 4 adapters</td>
<td>$ 1495.00</td>
</tr>
<tr>
<td>702598</td>
<td>XDS560v2 STM Traveler JTAG Emulator (CTI20), with</td>
<td>$ 1199.00</td>
</tr>
<tr>
<td></td>
<td>CTI20-TI14 pin adapter</td>
<td></td>
</tr>
<tr>
<td>702597</td>
<td>XDS560v2 LC Traveler JTAG Emulator (CTI20), with</td>
<td>$ 989.00</td>
</tr>
<tr>
<td></td>
<td>CTI20-TI14 pin adapter</td>
<td></td>
</tr>
<tr>
<td>702320</td>
<td>XDS200 USB JTAG Emulator (CTI20), with CTI20-TI14,</td>
<td>$ 295.00</td>
</tr>
<tr>
<td></td>
<td>CTI20-ARM20, CTI20-ARM10 adapters</td>
<td></td>
</tr>
<tr>
<td>702330</td>
<td>XDS220 USB/Ethernet JTAG Emulator (CTI20), with</td>
<td>$ 429.00</td>
</tr>
<tr>
<td></td>
<td>PS-USB, CTI20-TI14, CTI20-ARM20, CTI20-ARM10 adapters</td>
<td></td>
</tr>
<tr>
<td>702332</td>
<td>XDS220 ISO USB/Ethernet JTAG Emulator (CTI20), with</td>
<td>$ 495.00</td>
</tr>
<tr>
<td></td>
<td>PS-USB, CTI20-TI14, CTI20-ARM20, CTI20-ARM10 adapters</td>
<td></td>
</tr>
<tr>
<td>701907</td>
<td>XDS510USB PLUS JTAG Emulator , 20 pin CTI header</td>
<td>$ 1199.00</td>
</tr>
<tr>
<td></td>
<td>20-14 pin adapter included</td>
<td></td>
</tr>
<tr>
<td>701910</td>
<td>XDS510USB Galvanic JTAG Emulator, 14 pin header</td>
<td>$ 1995.00</td>
</tr>
<tr>
<td>701900</td>
<td>XDS510 USB JTAG Emulator, 14 pin header</td>
<td>$ 989.00</td>
</tr>
<tr>
<td>701902</td>
<td>C2000 XDS510LC USB JTAG Emulator, 14 pin header</td>
<td>$ 249.00</td>
</tr>
<tr>
<td>701014</td>
<td>XDS510PP PLUS JTAG Emulator, 14 pin header</td>
<td>$ 495.00</td>
</tr>
<tr>
<td>702302</td>
<td>XDS100v2 JTAG Emulator</td>
<td>$ 89.00</td>
</tr>
<tr>
<td>702305</td>
<td>XDS100v3 CJTAG/JTAG Emulator</td>
<td>$ 129.00</td>
</tr>
<tr>
<td>701041</td>
<td>XDS510PP MPSD Emulator, (C30/31/32) 14 pin header</td>
<td>$ 1299.00</td>
</tr>
<tr>
<td>701121</td>
<td>SPI530 MPSD Intelligent Emulator, (C30/31/32) 14 pin header</td>
<td>$ 2499.00</td>
</tr>
</tbody>
</table>
Spectrum Digital Emulator Support and Contact Information

Main Support Site: http://support.spectrumdigital.com/
Emulator and Target Board support, drivers and documentation may be found at the link above.

Emulator Support Website: http://emulators.spectrumdigital.com/


Support email: support@spectrumdigital.com

Support telephone: 1.281.494.4500 x-113

Fax: 1.281.494.5310
Spectrum Digital Warranty and Repair Information

Warranty Policy Website:  http://support.spectrumdigital.com/service/warranty/

Repair and Return Website:  http://www.spectrumdigital.com/rma_form2.php

RMA support telephone:  1.281.494.4500 x-131

Fax:  1.281.494.5310
Authorized Resellers

United States and Canada

- Spectrum Digital, Inc., 1.281.494.4500 x-113
- Arrow Electronics, 1.800.833.3557
- Avnet, 1.800.332.8638
- Digi-Key Corporation, 1.800.344.4539
- Enable Engineering, 1.800.686.6428
- Mouser Electronics, 1.800.346.6873
- Newark, 1.800.463.9275
Authorized Resellers International

- **Argentina-Chile-Ecuador-Uruguay**: walterd.gallegos, 598.27.12.06.60
- **Australia**: Alfatek-Australia, 61.3.9720.5344
- **Brazil**: Anacom Software, 55.11.3422.4200
- **Bulgaria**: Akermann Electronics, 359.2.953.0078
- **Columbia**: HI-TECH AUTOMATIZACION S.A., 57.6.3257.441
- **France**: ISIT Societe, 33.561.30.69.00
- **Germany**: D.SignT, 49.2833.570977
- **India**: Embed Technologies Pvt Ltd, 91.80.26668180
- **India**: Trident Pvt Ltd, 91.011.5100.8155
- **Israel**: GS Tech, 972.3.9002727
- **Israel**: G.R Communication, Ltd, 972.77.49000327
- **Italy**: ART S.r.l., 39.0758.298501
- **Japan**: Monte System Corp, 81.3.5823.0191
- **Japan**: Roinos Company Ltd, 81.53.762.3681
- **Korea**: DS Technology, 82.2.855.4357
- **Korea**: Aditec, Inc. 82.2.2025.0088
- Pakistan: Instrument Technology Links, 92.21.32721670
- **Mexico**: DSPPROJECTS, SA DE CV, 33.3825.0667
- **PRC**: Beijing Open Lab System Inc, 86.10.8235.7579
- **PRC**: Premier Electronics, Shanghai-021.6196.1388, Beijing-010.6260.8088,
  Shenzhen-86.755.8305.4888, Chendu-86.28.8665.5313, HongKong-852.2268.9888
- **Poland**: RK System, 48.22.724.30.39
- **Netherlands/Benelux**: INDES, 31.0345.545.535
- **Russia**: SCANTI-Rus, Ltd., 7.095.781.4945
- **Singapore-Malaysia**: FTD Solutions, Pte Ltd, 65.6744.9789
- **Spain-Portugal**: Kyhe Ingenieria S.L., 34.934.18.5047
- **Switzerland**: MSP Kofel, 41.31972.3152
- **South Africa**: Technology Marketing Solutions cc, 27.11.882.6836
- **Sweden-Scandinavia**: Tricon AB, 46.40.67.017.10
- **Taiwan**: Microtime Computer Inc, 866.2.28811791
- **Turkey**: EMPA Electronik, 90.212.465.7199 x-142
- **United Kingdom**: Kane Computing, 44 (0) 1606 351006
- **Viet Nam**: Vijatech Co. LTD. 84.4.785.3060