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DT-Open Layers
FOR MICROSOFT® WINDOWS™

DT2821 Series Device Driver

FOR MICROSOFT® WINDOWS™

SP0928

For use with:

DataAcq SDK, VB-EZ, and DT VPI

UM-12538-E

DATA TRANSLATION®

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Table of Contents

Introduction 1
Windows 3.1 Installation 1
Installing Multiple Boards 3
Modifying Configuration of Existing Boards 4
Removing Boards 4
Uninstalling Drivers 5
Resolving Driver Conflicts 5
Windows 95 Installation 7
Installing More Than One Type of Board 9
Adding a Board or Modifying Configuration of Existing Boards 9
Removing Boards and Drivers From Your System 11
Removing a Board From the Driver 11
Removing the Driver From the System 12
Removing Boards From the System 13
Resolving Driver Conflicts Under Windows 95 14
Supported Options 16
DT2821 and DT2825 Options 17
Related Notes 23
DT2821-F-16SE andDT2821-F-8DI Supported Options 24
Related Notes 29
DT2821-G-16SE and DT2821-G-8DI Supported Options . . 30
Related Notes 35
DT2823 Supported Options 36
Related Notes 41
DT2824-PGH and DT2824-PGL Supported Options 42
Related Notes 47

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DT2827 Supported Options 48
Related Notes 53
DT2828 Supported Options 54
Related Notes 59
DT2829 Supported Options 61
Related Notes 66
DT21-EZ Supported Options 67
Related Notes 72
DT23-EZ Supported Options 74
Related Notes 79
: DT24-EZ and DT24-EZ-PGL Supported Options 80
Related Notes 85

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Introduction

The DT2821 Series device driver is a Windows 3.1 and Windows 95 installable device. The driver is a DT-Open Layers compatible device driver that can be used with DataAcq SDK, version 2.20 or later. It can also be used with any library or application that adheres to the DT- Open Layers data acquisition API and SPI standards as defined in the *DataAcq SDK User Manual* (UM-11421).

The DT2821 Series installable driver supports the following models:

DT2821
DT2821-F-16SE
DT2821-F-8DI
DT2821-G-16SE
DT2821-G-8DI
DT2823
DT2824-PGH
DT2824-PGL
DT2825
DT2827
DT2828
DT2829
DT21-EZ
DT23-EZ
DT24-EZ
DT24-EZ-PGL

Windows 3.1 Installation

Before installing the software, do the following:

- Install Microsoft Windows 3.1 or later.
- Read the file \README.TXT (if present on the distribution diskette) for any information not included in this documentation at release time.

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Note: The device driver may be installed either before or after you install DataAcq SDK (or other DT-Open Layers compliant software).

Perform the following steps to install the software:

1. Start Windows.
2. From the Main program group, choose the Control Panel.
3. Choose the Drivers icon.
   The Drivers dialog box appears.
4. Click Add**...** .
5. Select Unlisted or Updated Driver and then click OK.
   A dialog box appears, asking you to insert the driver diskette.
6. Insert your backup copy of the diskette into drive A, type a:\Win31\ and click OK. (If your diskette is not in drive A, type in the letter of the drive where your diskette is located.)
   The Install Driver dialog box appears.
7. Select DT-Open Layers DT2821 Series and click OK.
   The DT2821 Series Installation dialog box appears.
8. Select the board's address and type a board name.
   Make sure that the specified board address does not conflict with settings used by any other device in your system.
9. Click Add**...** .
   A dialog box confirms that the board was located.
10. Click Yes to add the board.
    The configuration dialog box appears.
11. Use the list boxes to select the board model, IRQ (interrupt level), DMA channel 1 and 2, A/D channel type, A/D range, A/D output coding, and DAC 0 and 1 range settings. When the correct settings are selected, Click Update, then Click Close.

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A dialog box appears stating that the driver has been added.

Note: The DAC 0 and 1 Range list boxes are disabled for the DT23-EZ, DT24-EZ, DT24-EZ-PGL, and DT2824, as these boards do not provide analog output capability.

12. Choose Restart Now to restart Windows and enable the driver.

Note: The DT2821 Series and DT21-EZ Series boards do not provide a hardware ID register for board identification. To ensure the driver works properly with your board, make sure you choose the correct model in the Configuration dialog box.

Be sure the settings you choose for the DT2821 Series and DT21-EZ Series boards match the jumper configuration on these boards. If you have not changed any jumpers, select the factory configurations.

Installing Multiple Boards

To install additional boards after completing the initial driver installation, perform the following procedure.

1. From the Control Panel, choose the Drivers icon.
   The Drivers dialog box appears.
2. Select DT-Open Layers DT2821 Series and click OK.
3. Click Setup.
   The driver configuration dialog box appears.
4. Click New.
   The installation dialog box appears.
5. Select a board address and type a board name.
   Make sure that the specified board address does not conflict with settings used by any other devices in your system.

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6. Click Add**...** .
   A dialog box confirms that the board was located.

7. Click Yes to add the board.
   The DT2821 Series Driver Configuration dialog box appears.

8. Recall the desired settings for your DT2821 Series board. Use the default settings or select the base clock frequency.

9. Click Update, and then click Close.

Modifying Configuration of Existing Boards

To modify the configuration of boards already installed through driver installation, perform the following procedure.

1. From the Control Panel, choose the Drivers icon.
   The Drivers dialog box appears.

2. Select DT-Open Layers DT2821 Series.

3. Click Setup.
   The driver configuration dialog box appears.

4. Select the name of the board you want to modify

5. Recall the desired settings for your DT2821 Series board. Use the default settings or select the base clock frequency.

6. Click Update, and then click Close.

Removing Boards

To remove boards already installed through driver installation, perform the following procedure.

1. From the Control Panel, choose the Drivers icon.
   The Drivers dialog box appears.

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2. Select DT-Open Layers DT2821 Series.

3. Click Setup.
   The driver configuration dialog box appears.

4. Select the name of the board you want to remove.

5. Click Delete.
   A dialog box confirms the board is to be removed.

6. Click Yes to remove the board.
   When the board has been removed, click Close.

Uninstalling Drivers

To remove a driver from the system, perform the following procedure.

1. From the Control Panel, choose the Drivers icon.
   The Drivers dialog box appears.

2. Select DT-Open Layers DT2821 Series.

3. Click Remove.
   The Remove dialog box appears.

4. Click Yes.

5. The Systems Settings Change dialog box will appear. Click Restart Now to restart Windows and disable the system settings for the removed driver.

Resolving Driver Conflicts

Occasionally certain interrupt system conflicts, or conflicts with other user's Virtual Device Drivers (VXDs) will result in an error when trying to restart Windows. If you are unable to restart Windows after loading or updating a DT-Open Layers Installable Driver, it will be

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necessary to edit your Windows SYSTEM.INI file, located in your Windows root directory. Editing must be done from DOS before starting Windows.

1. Locate the topic [OpenLayers.Boards] in the SYSTEM.INI file.

2. Delete all board entries from this topic. Board entries follow the format:

   DT2821 Series=DT2821 Series.DRV

3. Locate the topic [VDTDAD] in the SYSTEM.INI file.

4. If you have only one board, delete all configuration entries from this topic. Configuration entries include the following:

   irqs=
   buf128=
   buf64=

Note: If you have more than one board, be very careful which configuration entries you delete.

---

5. Save and exit the edited SYSTEM.INI file and restart Windows. If Windows starts without error, proceed to step 9. If Windows does not start, there could be a conflict between the DT-Open Layers VXD and another manufacturer's VXD. To resolve this, proceed to step 6.

6. Locate the topic [386Enh] in the SYSTEM.INI file.

7. Delete the entry device=vdtdad.386 from the SYSTEM.INI file.

Windows should now restart without error. If Windows does not start, there is a possible conflict with some other manufacturer's VXD. Proceed to Step 8.

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8. Edit the Windows SYSTEM.INI file, re-inserting the entry device=vdtdad.386 under the topic [386Enh]. If any other manufacturer's VXD's have been loaded, remove them following the manufacturer's instructions.

Windows should now restart without error.

9. Reinstall any DT-Open Layers device drivers removed in Step 7. Use a different base address or interrupt setting to avoid further system conflicts.

Windows 95 Installation

1. Start Windows.

2. Place the driver diskette in Drive A.

3. Open the Control Panel.
   Start -> Settings -> Control Panel.

4. Double-click on the Add New Hardware icon.
   The Add New Hardware Wizard dialog appears.

5. Click Next to begin installing your new hardware.
   A dialog box asks if you want Windows to search for your new hardware.

6. Select No and click Next.
   A new dialog box appears listing available hardware types. You are asked to select the type of hardware you want to install.

7. Scroll down the list and select Sound, Video, and Game Controllers as the desired hardware type, and click Next.
   A dialog box asks you to click the manufacturer and model of your hardware.

8. Click Have Disk... .
   The Install From Disk dialog appears.

9. Click Browse... .

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The Open file dialog appears.

10. Double-click on the Win95 directory on the floppy disk, select the "DT2821~1.inf" file, and press OK.

    A dialog appears asking you to insert the diskette. You've already done so in Step 2.

11. When you see Copy manufacturer's files from: A:\WIN95, click OK.

    The Select Device dialog appears after the files are copied and you are asked to click the controller that matches your hardware.
    DT-Open Layers DT2821 Series *is highlighted in the Select Device dialog list box.*

12. Click OK.

    A dialog appears letting you know that Windows can continue installing your hardware.

13. Click Finish to allow Windows to continue installing the software needed by your hardware. Once the files are copied, you are back in Control Panel.

14. In the Control Panel, double-click on the Multimedia icon, select the Advanced dialog tab, and double-click on Media Control Devices.

15. Select DT-Open Layers DT2821 Series Device Driver and click Properties.

    The DT-Open Layers DT2821 Series Device Driver Properties Dialog box appears.

16. Click Settings.

    The Data Translation DT2821 Series Driver Configuration dialog box appears.

17. Click New.

    The DT2821 Series Installation dialog box appears.

18. Verify the base address, the click Add!

    A dialog box appears confirming the board was found at the address you selected and asks to add it.

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19. Click Yes to add the board.
    The dialog box now shows available IRQ and DMA settings.

20. Verify the IRQ and DMA settings, then press Update to accept them.

21. Click Close.
    This change will not take effect until you restart Windows. Click OK *to continue.*

22. Click OK to close the Device Driver Properties dialog.

23. Click OK to close the Multimedia Properties dialog.

24. Press Start -> Shut Down -> Restart Computer to restart Windows and enable the new driver.

Installing More Than One Type of Board

To install other types of boards after completing the initial driver installation, repeat the Windows 95 installation process beginning on page 7.

Adding a Board or Modifying Configuration of Existing Boards

To add a second board of the same type or to modify the device driver configuration, perform the following steps:

1. Open the Control Panel.

2. Double click on Multimedia.
   The Multimedia Properties dialog appears.

3. Select the Advanced tab and double click on Media Control Devices.

4. Double click on DT-Open Layers DT2821 Series Device Driver.
   The DT-Open Layers DT2821 Series Device Driver Properties dialog box appears.

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5. Select Use this Media Control device and click Settings.
   The DT2821 Series Device Driver Configuration dialog box appears.

6. Click on New to add a DT2821 Series board or skip to step 10.
   The DT2821 Series Installation dialog box appears.

7. Select the board number (1), desired type, and enter a board name. (This can be any name that is not already used by another DT-Open Layers board.)

8. Click Add!
   A dialog box confirms that the board was located.

9. Click Yes to add the board.

10. Click Update, then on Close.

11. Click OK in the Changes Saved dialog.

12. Click OK to close the DT2821 Series properties dialog box and click on OK to close the Multimedia Properties box.

13. Close the Control Panel.

14. Restart Windows 95 in order for your changes to take effect.

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Removing Boards and Drivers From Your System

To remove your board and its driver from your system, you need to perform the following steps in the order shown:

- First, remove the board(s) from the driver
- Second, remove the driver(s) from the system
- Last, remove the board(s) from the system

Removing a Board From the Driver

Repeat the following steps for each board you are removing from the driver.

1. Open the Control Panel.
2. Double click on Multimedia.
   The Multimedia Properties dialog appears.
3. Select the Advanced tab and double click on Media Control Devices.
4. Double click on DT-Open Layers DT2821 Series Device Driver.
   The DT-Open Layers DT2821 Series Device Driver Properties dialog box appears.
5. Select Use this Media Control device and click Settings.
   The DT2821 Series Device Driver Configuration dialog box appears.
6. Select the board that you want to remove.
7. Click Delete.
   A dialog box confirms that the board was located.
8. Click Yes to remove the board.
9. Click Update, then on Close.
10. Click OK in the Changes Saved dialog.

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11. Click OK to close the DT2821 Series properties dialog box and click on OK to close the Multimedia Properties box.

12. Close the Control Panel.

13. Restart Windows 95 in order for your changes to take effect.

Removing the Driver From the System

To remove the driver from your system, perform the following steps.

1. Open the Control Panel and double click on Multimedia.
   The Multimedia Properties dialog appears.

2. Select the Advanced tab and double click on Media Control Devices**.**

3. Double click on DT-Open Layers DT2821 Series Device Driver.

4. Click Remove.
   The Remove dialog box appears.

5. Click Yes.
   The Device Removed dialog box appears.

6. Click OK.
   Another Device Removed dialog box appears telling you that you must restart Windows for the change to take effect.

7. Click OK.

8. Click OK to close the Multimedia Properties dialog box.
   This returns you to the Control Panel.

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Removing Boards From the System

1. Open the Control Panel and double click on System and select the Device Manager tab.

2. Double click on Sound, video and game controllers and then click on DT-Open Layers DT2821 Series.

3. Click Remove.
   The Confirm Device Removal dialog appears.

4. Click OK to confirm removal.

5. Click Close in the System Properties dialog box.

6. Close the Control Panel.

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Resolving Driver Conflicts Under Windows 95

Occasionally certain interrupt system conflicts, or conflicts with other user's Virtual Device Drivers (VXDs) results in an error when trying to restart Windows 95. If you are unable to restart Windows 95 after loading or updating a DT-Open Layers Installable Driver, it is necessary to edit your Windows SYSTEM.INI file, located in your Windows 95 root directory.

1. Shut off your computer.
   After a minute, turn it back on.

2. The following screen appears:

```
Microsoft Windows 95 Startup Menu
    1. Normal
    2. Logged (\BootLog.txt)
    3. Safe mode
    4. Safe mode with network support
    5. Step-by-step confirmation
    6. Command prompt only
    7. Safe mode command prompt only
Enter a choice: ______

Warning: Windows did not finish loading on the
previous attempt. Choose Safe mode to start with a
minimal set of drivers.
```

3. Choose #6 - Command prompt only.
   You are now in DOS.

4. Go to your Windows 95 directory.
   C:\cd win95 (or wherever it resides).

5. Follow steps 6 to 15 edit your SYSTEM.INI file.

6. Locate the topic [OpenLayers.Boards] in the SYSTEM.INI file.

7. Delete all board entries from this topic. Board entries follow the format:

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```
DT2821 Series=DT2821 Series.DRV
```

8. Locate the topic [Drivers] in the SYSTEM.INI file and delete all board entries from this topic.

9. Locate the topic [mci] in the SYSTEM.INI file and delete all board entries from this topic.

10. Locate the topic [VDTDAD] in the SYSTEM.INI file.

11. If you have only one board installed, delete all configuration entries from this topic. Configuration entries include the following:

```
irqs=
buf128=
buf64=
```

Note: If you have more than one board installed, be very careful which configuration entries you delete.

12. Save and exit the edited SYSTEM.INI file and restart Windows. If Windows starts without error, proceed to Step 15. If Windows does not start, there could be a conflict between the DT-Open Layers VXD and another manufacturer's VXD. To resolve this conflict, proceed to Step 13.

13. Locate the topic [386Enh] in the SYSTEM.INI file.

14. Delete the entry `device=vdtdad.386` from the SYSTEM.INI file. Windows should now restart without error. If Windows does not start, there is a possible conflict with some other manufacturer's VXD. Proceed to the next step.

15. Edit the Windows SYSTEM.INI file, re-inserting the entry `device=vdtdad.386` under the topic [386Enh]. If any other manufacturer's VXDs have been loaded, remove them following the manufacturer's instructions. Windows should now restart without error.

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16. Reinstall any DT-Open Layers device drivers removed in Step 7. Use a different base address or interrupt setting to avoid further system conflicts.

Supported Options

The DT2821 Series device driver provides support for digital input and output subsystems and for counter/timer output. Tables 1 through 11 provide an overview of board features available for use with *DataAcq SDK*. *DataAcq SDK* provides calls which return support information for specified subsystem capabilities at run-time.

The following tables list the subsystem options for the boards:

Table 1: DT2821, DT2825 page 17.

Table 2: DT2821-F-16SE, DT2821-F-8DI page 24.

Table 3: DT2821-G-16SE, DT2821-G-8DI page 30.

Table 4: DT2823 page 36.

Table 5: DT2824-PGH, DT2824-PGL page 42.

Table 6: DT2827 page 48.

Table 7: DT2828 page 54.

Table 8: DT2829 page 61.

Table 9: DT21-EZ page 67.

Table 10: DT23-EZ page 74.

Table 11: DT24-EZ, DT24-EZ-PGL page 80.

The first row in each table lists the subsystem types. The first column of each table lists all possible subsystem capabilities. A description of each capability is followed by the parameter used to describe the capability in DataAcq SDK.

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Note: Blank fields represent non-supported options.

If a subsystem capability lists a number in parentheses, refer to the corresponding note at the end of this document for more information.

DataAcq SDK uses the function calls **olDaGetSSCaps** and **olDaGetSSCapsEx** to return the supported subsystem capabilities for a device. For more information, refer to the description of these functions in the *DataAcq SDK User Manual* (UM-11421).

The following note applies to DT2821 Series subsystem operation:

- Resetting the A / D (D / A) subsystem while D / A (A / D) is running is not allowed. Resetting in these instances will return the error OLBOARDRUNNING.

Table 1: DT2821 and DT2825 Options

DT2821 DT2825	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	50 kHz (*6)	130 kHz *(*7)*	0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz	0.5 Hz	0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	50kHz	0	0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	1 Hz	0	0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1	1	0	0		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**	**1**	**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz	4 mHz	0	0		

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Table 1: DT2821 and DT2825 Options (Continued)

DT2821 DT2825	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
SE Channels OLSSC_MAXSECHANS	16 *(*1, *6)*	0	0	0		
DI Channels OLSSC_MAXDICHANS	8 *(*1)*	2	1	1		
CGL Depth OLSSC_CGLDEPTH	16SE *(*1)* *8DI*	2	1	1		
Number of Filters OLSSC_NUMFILTERS	4	1	1	1		
Number of Gains OLSSC_NUMGAINS	1 *(*1)*	1 *(*1)*	0	0		
Number of Voltage Ranges OLSSC_NUMRANGES	1 *(*1)*	1 *(*1)*	0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*2)*	2 *(*2)*	0	0		
Number of Channels OLSSC_NUMCHANNELS	16SE *(*1)* 8DI	2	1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0	0	0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0	0	0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1	1	1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes	Yes				
SE Support OLSSC_SUP_SINGLEENDED	Yes *(*1)*					
DI Support OLSSC_SUP_DIFFERENTIAL	Yes *(*1)*	Yes	Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY	Yes *(*1)*	Yes *(*1,*3)*				

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Table 1: DT2821 and DT2825 Options (Continued)

DT2821 DT2825	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Two's Complement Support OLSSC_SUP_2SCOMP	Yes	Yes *(*1,*3)*				
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes	Yes	Yes	Yes		
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes	Yes				
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*4)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes	Yes				
External Clock Support OLSSC_SUP_EXTCLOCK	Yes	Yes				
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						

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Table 1: DT2821 and DT2825 Options (Continued)

DT2821 DT2825	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN	Yes					
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*5)*	Yes				
Pause Operation Support OLSSC_SUP_PAUSE	Yes	Yes				
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes	Yes				
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes	Yes				
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes	Yes	Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes	Yes				
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						

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Table 1: DT2821 and DT2825 Options (Continued)

DT2821 DT2825	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL		Yes				
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH						
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes					
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL	Yes	Yes				
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes	Yes				
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA		Yes				
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA						

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Table 1: DT2821 and DT2825 Options (Continued)

DT2821 DT2825	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes	Yes				
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						

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Table 1: DT2821 and DT2825 Options (Continued)

DT2821 DT2825	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. This is a jumper-configurable setting and is determined during driver installation/configuration. (Refer to the *DT2821 Series User Manual* for information on jumper settings.)

*2. When using a single DMA channel, only the first DMA channel may be used.

*3. Offset binary coding is supported for unipolar outputs and two's complement coding is supported for bipolar outputs.

*4. The A/D subsystem may only be run using triggered scan mode if the external trigger is also being used.

*5. The A/D subsystem can only be run continuously using DMA.

*6. At gains of 100 or 500, the recommended maximum throughput to maintain maximum ENOB is 2.5 kHz.

*7. Maximum throughput per channel.

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Table 2: DT2821-F-16SE andDT2821-F-8DI Supported Options

DT2821-F-16SE **DT2821-F-8DI**	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	150 kHz	130 kHz *(*6)*	0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz	0.5 Hz	0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	150 kHz	0	0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	1 Hz	0	0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1	1	0	0		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**	**1**	**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz	4 mHz	0	0		
SE Channels OLSSC_MAXSECHANS	16 (F-16SE)	0	1	1		
DI Channels OLSSC_MAXDICHANS	8 (F-8DI)	2	1	1		
CGL Depth OLSSC_CGLDEPTH	16 (F-16SE) 8 (F-8DI)	2	1	1		
Number of Filters OLSSC_NUMFILTERS	1	1	1	1		
Number of Gains OLSSC_NUMGAINS	4	1	1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1 *(*1)*	1 *(*1)*	0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*2)*	2 *(*2)*	0	0		

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Table 2: DT2821-F-16SE andDT2821-F-8DI Supported Options (Continued)

DT2821-F-16SE DT2821-F-8DI	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	16 (F-16SE) 8 (F-8DI)	2	1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0	0	0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0	0	0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1	1	1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes	Yes				
SE Support OLSSC_SUP_SINGLEENDED	Yes (F-16SE)					
DI Support OLSSC_SUP_DIFFERENTIAL	Yes 8 (F-8DI)	Yes	Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY	Yes *(*1)*	Yes *(*1,*3)*				
Two's Complement Support OLSSC_SUP_2SCOMP	Yes *(*1)*	Yes *(*1,*3)*				
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes	Yes	Yes	Yes		
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes	Yes				
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 2: DT2821-F-16SE andDT2821-F-8DI Supported Options (Continued)

DT2821-F-16SE DT2821-F-8DI	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*4)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes	Yes				
External Clock Support OLSSC_SUP_EXTCLOCK	Yes	Yes				
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN	Yes					
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*5)*	Yes				
Pause Operation Support OLSSC_SUP_PAUSE	Yes	Yes				

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Table 2: DT2821-F-16SE andDT2821-F-8DI Supported Options (Continued)

DT2821-F-16SE DT2821-F-8DI	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes	Yes				
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes	Yes				
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes	Yes	Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes	Yes				
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 2: DT2821-F-16SE andDT2821-F-8DI Supported Options (Continued)

DT2821-F-16SE DT2821-F-8DI	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL		Yes				
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH						
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes					
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL	Yes	Yes				
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes	Yes				
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA		Yes				
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA						
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes	Yes				
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 2: DT2821-F-16SE andDT2821-F-8DI Supported Options (Continued)

DT2821-F-16SE DT2821-F-8DI	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. This is a jumper-configurable setting and is determined during driver installation/configuration. (Refer to the *DT2821 Series User Manual* for information on jumper settings.)

*2. When using a single DMA channel, only the first DMA channel may be used.

*3. Offset binary coding is supported for unipolar outputs and two's complement coding is supported for bipolar outputs.

*4. The A/D subsystem may only be run using triggered scan mode if the external trigger is also being used.

*5. The A/D subsystem can only be run continuously using DMA.

*6. Maximum throughput per channel.

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Table 3: DT2821-G-16SE and DT2821-G-8DI Supported Options

DT2821-G-16SE DT2821-G-8DI	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	250 kHz	130 kHz *(*6)*	0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz	0.5 Hz	0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	250 kHz	0	0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	1 Hz	0	0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1	1	0	0		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**	**1**	**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz	4 mHz	0	0		
SE Channels OLSSC_MAXSECHANS	16 (G-16SE)	0	0	0		
DI Channels OLSSC_MAXDICHANS	8 (G-8DI)	2	1	1		
CGL Depth OLSSC_CGLDEPTH	16 (G-16SE) 8 (G-8DI	2	1	1		
Number of Filters OLSSC_NUMFILTERS	1	1	1	1		
Number of Gains OLSSC_NUMGAINS	4	1	1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1 *(*1)*	1 *(*1)*	0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*2)*	2 *(*2)*	0	0		

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Table 3: DT2821-G-16SE and DT2821-G-8DI Supported Options (Continued)

DT2821-G-16SE **DT2821-G-8DI**	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	16 (G-16SE) 8 (G-8DI	2	1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0	0	0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0	0	0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1	1	1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes	Yes				
SE Support OLSSC_SUP_SINGLEENDED	Yes (G-16SE)					
DI Support OLSSC_SUP_DIFFERENTIAL	Yes (G-8DI)	Yes	Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY	Yes *(*1)*	Yes *(*1, *3)*				
Two's Complement Support OLSSC_SUP_2SCOMP	Yes *(*1)*	Yes *(*1, *3)*				
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes	Yes	Yes	Yes		
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes	Yes				
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 3: DT2821-G-16SE and DT2821-G-8DI Supported Options (Continued)

DT2821-G-16SE DT2821-G-8DI	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*4)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes	Yes				
External Clock Support OLSSC_SUP_EXTCLOCK	Yes	Yes				
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN	Yes					
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*5)*	Yes				
Pause Operation Support OLSSC_SUP_PAUSE	Yes	Yes				

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Table 3: DT2821-G-16SE and DT2821-G-8DI Supported Options (Continued)

DT2821-G-16SE DT2821-G-8DI	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes	Yes				
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes	Yes				
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes	Yes	Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes	Yes				
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 3: DT2821-G-16SE and DT2821-G-8DI Supported Options (Continued)

DT2821-G-16SE DT2821-G-8DI	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL		Yes				
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH						
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes					
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL	Yes	Yes				
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes	Yes				
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA		Yes				
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA						
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes	Yes				
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 3: DT2821-G-16SE and DT2821-G-8DI Supported Options (Continued)

DT2821-G-16SE DT2821-G-8DI	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. This is a jumper-configurable setting and is determined during driver installation/configuration. (Refer to the *DT2821 Series User Manual* for information on jumper settings.)

*2. When using a single DMA channel, only the first DMA channel may be used.

*3. Offset binary coding is supported for unipolar outputs and two's complement coding is supported for bipolar outputs.

*4. The A/D subsystem may only be run using triggered scan mode if the external trigger is also being used.

*5. The A/D subsystem can only be run continuously using DMA.

*6. Maximum throughput per channel.

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Table 4: DT2823 Supported Options

DT2823	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	100 kHz	100 kHz *(*5)*	0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz	0.5 Hz	0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	100 kHz	0	0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	1 Hz	0	0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1	1	0	0		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**	**1**	**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz	4 mHz	0	0		
SE Channels OLSSC_MAXSECHANS	0	0	0	0		
DI Channels OLSSC_MAXDICHANS	4	2	1	1		
CGL Depth OLSSC_CGLDEPTH	4	2	1	1		
Number of Filters OLSSC_NUMFILTERS	1	1	1	1		
Number of Gains OLSSC_NUMGAINS	4	1	1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1	1	0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*1)*	2 *(*1)*	0	0		

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Table 4: DT2823 Supported Options (Continued)

DT2823	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	4	2	1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0	0	0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0	0	0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1	1	1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes	Yes				
SE Support OLSSC_SUP_SINGLEENDED						
DI Support OLSSC_SUP_DIFFERENTIAL	Yes	Yes	Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY						
Two's Complement Support OLSSC_SUP_2SCOMP	Yes	Yes *(*2)*				
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes	Yes	Yes	Yes		
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes	Yes				
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 4: DT2823 Supported Options (Continued)

DT2823	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*3)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes	Yes				
External Clock Support OLSSC_SUP_EXTCLOCK	Yes	Yes				
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN						
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*4)*	Yes				
Pause Operation Support OLSSC_SUP_PAUSE	Yes	Yes				

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Table 4: DT2823 Supported Options (Continued)

DT2823	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes	Yes				
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes	Yes				
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes	Yes	Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes	Yes				
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 4: DT2823 Supported Options (Continued)

DT2823	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL		Yes				
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH						
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes					
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL	Yes	Yes				
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes	Yes				
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA		Yes				
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA						
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes	Yes				
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 4: DT2823 Supported Options (Continued)

DT2823	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. This is a jumper-configurable setting and is determined during driver installation/configuration. (Refer to the *DT2821 Series User Manual* for information on jumper settings.)

*2. Offset binary coding is supported for unipolar outputs and two's complement coding is supported for bipolar outputs.

*3. The A/D subsystem may only be run using triggered scan mode if the external trigger is also being used.

*4. The A/D subsystem can only be run continuously using DMA.

*5. Maximum throughput per channel.

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Table 5: DT2824-PGH and DT2824-PGL Supported Options

DT2824-PGH DT2824-PGL	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	50 kHz (*1, *5)		0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz		0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	50 kHz		0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	1 Hz		0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1		0	0		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**		**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz		0	0		
SE Channels OLSSC_MAXSECHANS	16 *(*1)*		0	0		
DI Channels OLSSC_MAXDICHANS	8 *(*1)*		1	1		
CGL Depth OLSSC_CGLDEPTH	16/8 *(*1)*		1	1		
Number of Filters OLSSC_NUMFILTERS	1		1	1		
Number of Gains OLSSC_NUMGAINS	4		1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1 *(*1)*		0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*2)*		0	0		

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Table 5: DT2824-PGH and DT2824-PGL Supported Options (Continued)

DT2824-PGH DT2824-PGL	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	16SE *(*1)* *8DI*		1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0		0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0		0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1		1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes					
SE Support OLSSC_SUP_SINGLEENDED	Yes *(*1)*					
DI Support OLSSC_SUP_DIFFERENTIAL	Yes *(*1)*		Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY	Yes *(*1)*					
Two's Complement Support OLSSC_SUP_2SCOMP	Yes *(*1)*					
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes		Yes	Yes		
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes					
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 5: DT2824-PGH and DT2824-PGL Supported Options (Continued)

DT2824-PGH DT2824-PGL	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*3)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes					
External Clock Support OLSSC_SUP_EXTCLOCK	Yes					
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN	Yes					
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*4)*					
Pause Operation Support OLSSC_SUP_PAUSE	Yes					

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Table 5: DT2824-PGH and DT2824-PGL Supported Options (Continued)

DT2824-PGH DT2824-PGL	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes					
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes					
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes		Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes					
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 5: DT2824-PGH and DT2824-PGL Supported Options (Continued)

DT2824-PGH DT2824-PGL	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL						
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH						
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes					
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL	Yes					
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes					
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA						
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA						
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes					
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 5: DT2824-PGH and DT2824-PGL Supported Options (Continued)

DT2824-PGH DT2824-PGL	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. This is a jumper-configurable setting and is determined during driver installation/configuration. (Refer to the *DT2821 Series User Manual* for information on jumper settings.)

*2. When using a single DMA channel, only the first DMA channel may be used.

*3. The A/D subsystem may only be run using triggered scan mode if the external trigger is also being used.

*4. The A/D subsystem can only be run continuously using DMA.

*5. At gains of 100 or 500, the recommended maximum throughput to maintain maximum ENOB is 2.5 kHz on the DT2824-PGL.

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Table 6: DT2827 Supported Options

DT2827	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	100 kHz (*1)	130 kHz *(*6)*	0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz	0.5 Hz	0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	100 kHz	0	0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	1 Hz	0	0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1	1	0	0		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**	**1**	**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz	4 mHz	0	0		
SE Channels OLSSC_MAXSECHANS	0	0	0	0		
DI Channels OLSSC_MAXDICHANS	4	2	1	1		
CGL Depth OLSSC_CGLDEPTH	4	2	1	1		
Number of Filters OLSSC_NUMFILTERS	1	1	1	1		
Number of Gains OLSSC_NUMGAINS	4	1	1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1	1 *(*1)*	0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*2)*	2 *(*2)*	0	0		

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Table 6: DT2827 Supported Options (Continued)

DT2827	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	4	2	1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0	0	0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0	0	0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1	1	1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes	Yes				
SE Support OLSSC_SUP_SINGLEENDED						
DI Support OLSSC_SUP_DIFFERENTIAL	Yes	Yes	Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY	Yes	Yes *(*1,*3)*				
Two's Complement Support OLSSC_SUP_2SCOMP	Yes	Yes *(*1,*3)*				
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes	Yes	Yes	Yes		
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes	Yes				
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 6: DT2827 Supported Options (Continued)

DT2827	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*3)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes	Yes				
External Clock Support OLSSC_SUP_EXTCLOCK	Yes	Yes				
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN						
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*4)*	Yes				
Pause Operation Support OLSSC_SUP_PAUSE	Yes	Yes				

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Table 6: DT2827 Supported Options (Continued)

DT2827	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes	Yes				
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes	Yes				
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes	Yes	Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes	Yes				
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 6: DT2827 Supported Options (Continued)

DT2827	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL		Yes				
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH						
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes					
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL	Yes	Yes				
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes	Yes				
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA		Yes				
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA						
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes	Yes				
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 6: DT2827 Supported Options (Continued)

DT2827	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. This is a jumper-configurable setting and is determined during driver installation/configuration. (Refer to the *DT2821 Series User Manual* for information on jumper settings.)

*2. When using a single DMA channel, only the first DMA channel may be used.

*3. Offset binary coding is supported for unipolar outputs and two's complement coding is supported for bipolar outputs.

*4. The A/D subsystem may only be run using triggered scan mode if the external trigger is also being used.

*5. The A/D subsystem can only be run continuously using DMA.

*6. Maximum throughput per channel.

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Table 7: DT2828 Supported Options

DT2828	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	100 kHz	130 kHz *(*7)*	0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz	0.5 Hz	0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	100 kHz	0	0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	1 Hz	0	0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1	1	0	0		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**	**1**	**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz	4 mHz	0	0		
SE Channels OLSSC_MAXSECHANS	4	0	0	0		
DI Channels OLSSC_MAXDICHANS	0	2	1	1		
CGL Depth OLSSC_CGLDEPTH	4	2	1	1		
Number of Filters OLSSC_NUMFILTERS	1	1	1	1		
Number of Gains OLSSC_NUMGAINS	1	1	1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1 *(*1)*	1 *(*1)*	0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*2)*	2 *(*2)*	0	0		

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Table 7: DT2828 Supported Options (Continued)

DT2828	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	4	2	1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0	0	0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0	0	0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1	1	1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes	Yes				
SE Support OLSSC_SUP_SINGLEENDED	Yes					
DI Support OLSSC_SUP_DIFFERENTIAL		Yes	Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY	Yes *(*1)*	Yes *(*1, *3)*				
Two's Complement Support OLSSC_SUP_2SCOMP	Yes *(*1)*	Yes *(*1, *3)*				
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes	Yes	Yes	Yes		
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes	Yes				
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 7: DT2828 Supported Options (Continued)

DT2828	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*4)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes	Yes				
External Clock Support OLSSC_SUP_EXTCLOCK	Yes	Yes				
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN						
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*5)*	Yes				
Pause Operation Support OLSSC_SUP_PAUSE	Yes	Yes				

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Table 7: DT2828 Supported Options (Continued)

DT2828	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes	Yes				
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes	Yes				
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes	Yes	Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes	Yes				
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 7: DT2828 Supported Options (Continued)

DT2828	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL		Yes				
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH	Yes					
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes *(*8)*					
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL		Yes				
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes	Yes				
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA		Yes				
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA						
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes	Yes				
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 7: DT2828 Supported Options (Continued)

DT2828	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. This is a jumper-configurable setting and is determined during driver installation/configuration. (Refer to the *DT2821 Series User Manual* for information on jumper settings.)

*2. When using a single DMA channel, only the first DMA channel may be used.

*3. Offset binary coding is supported for unipolar outputs and two's complement coding is supported for bipolar outputs.

*4. The A/D subsystem may only be run using triggered scan mode if the external trigger is also being used.

*5. The A/D subsystem can only be run continuously using DMA.

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*6. SingleValue data flow mode may only be used with channel 0.

*7. Maximum throughput per channel.

*8. Simultaneous sample and hold boards must have channel 0 as the first channel in the Channel List.

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Table 8: DT2829 Supported Options

DT2829	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	30 kHz	100 kHz	0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz	0.5 Hz	0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	30 kHz	0	0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	1 Hz	0	0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1	1	0	0		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**	**1**	**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz	4 mHz	0	0		
SE Channels OLSSC_MAXSECHANS	8	0	0	0		
DI Channels OLSSC_MAXDICHANS	0	2	1	1		
CGL Depth OLSSC_CGLDEPTH	8	2	1	1		
Number of Filters OLSSC_NUMFILTERS	1	1	1	1		
Number of Gains OLSSC_NUMGAINS	1	1	1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1	1	0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*1)*	2 *(*1)*	0	0		

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Table 8: DT2829 Supported Options (Continued)

DT2829	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	8	2	1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0	0	0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0	0	0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1	1	1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes	Yes				
SE Support OLSSC_SUP_SINGLEENDED	Yes					
DI Support OLSSC_SUP_DIFFERENTIAL		Yes	Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY	Yes					
Two's Complement Support OLSSC_SUP_2SCOMP		Yes *(*2)*				
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes	Yes	Yes	Yes		
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes	Yes				
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 8: DT2829 Supported Options (Continued)

DT2829	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*3)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes	Yes				
External Clock Support OLSSC_SUP_EXTCLOCK	Yes	Yes				
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN						
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*4)*	Yes				
Pause Operation Support OLSSC_SUP_PAUSE	Yes	Yes				

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Table 8: DT2829 Supported Options (Continued)

DT2829	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes	Yes				
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes	Yes				
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes	Yes	Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes	Yes				
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 8: DT2829 Supported Options (Continued)

DT2829	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL		Yes				
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH	Yes					
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL						
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL		Yes				
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes	Yes				
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA		Yes				
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA						
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes	Yes				
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 8: DT2829 Supported Options (Continued)

DT2829	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. When using a single DMA channel, only the first DMA channel may be used.

*2. Offset binary coding is supported for unipolar outputs and two's complement coding is supported for bipolar outputs.

*3. The A/D subsystem may only be run using triggered scan mode if the external trigger is also being used.

*4. The A/D subsystem can only be run continuously using DMA.

*5. Maximum throughput per channel.

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Table 9: DT21-EZ Supported Options

DT21-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	100 kHz *(*4)*	130 kHz *(*6)*	0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz	0.5 Hz	0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	100 kHz	0	0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	0.5 Hz	0	0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1	1	1	1		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**	**1**	**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz	4 mHz	0	0		
SE Channels OLSSC_MAXSECHANS	16 *(*1)*	0	0	0		
DI Channels OLSSC_MAXDICHANS	8 *(*1)*	2	1	1		
CGL Depth OLSSC_CGLDEPTH	16SE *(*1)* *8DI*	2	1	1		
Number of Filters OLSSC_NUMFILTERS	1	1	1	1		
Number of Gains OLSSC_NUMGAINS	4	1	1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1 *(*1)*	1 *(*1)*	0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*5)*	2 *(*5)*	0	0		

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Table 9: DT21-EZ Supported Options (Continued)

DT21-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	16SE *(*1)* *8DI*	2	1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0	0	0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0	0	0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1	1	1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes	Yes				
SE Support OLSSC_SUP_SINGLEENDED	Yes *(*1)*					
DI Support OLSSC_SUP_DIFFERENTIAL	Yes *(*1)*	Yes	Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY	Yes *(*1)*	Yes *(*1,*7)*	Yes	Yes		
Two's Complement Support OLSSC_SUP_2SCOMP	Yes *(*1)*	Yes *(*1,*7)*				
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes	Yes				
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes	Yes				
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 9: DT21-EZ Supported Options (Continued)

DT21-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*2)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes	Yes	Yes	Yes		
External Clock Support OLSSC_SUP_EXTCLOCK	Yes	Yes				
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN	Yes					
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*3)*	Yes				
Pause Operation Support OLSSC_SUP_PAUSE	Yes	Yes				

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Table 9: DT21-EZ Supported Options (Continued)

DT21-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes	Yes				
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes	Yes				
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes	Yes	Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes	Yes				
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 9: DT21-EZ Supported Options (Continued)

DT21-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL		Yes				
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH						
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes	Yes				
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL	Yes	Yes				
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes	Yes				
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA		Yes				
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA	Yes	Yes				
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes	Yes				
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 9: DT21-EZ Supported Options (Continued)

DT21-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**1**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. This is a jumper-configurable setting and is determined during driver installation/configuration. Refer to the *DataAcq-EZ Hardware User Manual for DT01-EZ, DT16-EZ,* and *DT21-EZ Data Acquisition Boards* (UM-12664) for information on jumper settings.

*2. The A/D subsystem may be run in triggered scan mode only if the external trigger is also being used.

*3. The A/D subsystem can only be run continuously using DMA.

*4. Maximum throughput is 100 kHz single channel. When using channel scan, 80 kHz is recommended to maintain maximum ENOB.

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*5. When using a single DMA channel, only the first DMA channel may be used.

*6. Maximum throughput per channel.

*7. Offset binary coding is supported for Unipolar outputs and two's compliment coding is supported for bipolar outputs.

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Table 10: DT23-EZ Supported Options

DT23-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	100 kHz (*1,*6)		0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz		0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	100 kHz		0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	0.5 Hz		0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1		1	1		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	1		1	1		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz		0	0		
SE Channels OLSSC_MAXSECHANS	16 *(*2)*		0	0		
DI Channels OLSSC_MAXDICHANS	8 *(*2)*		1	1		
CGL Depth OLSSC_CGLDEPTH	16SE *(*2)* *8DI*		1	1		
Number of Filters OLSSC_NUMFILTERS	1		1	1		
Number of Gains OLSSC_NUMGAINS	4		1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1 *(*2)*		0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*5)*		0	0		

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Table 10: DT23-EZ Supported Options (Continued)

DT23-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	16SE *(*2)* *8DI*		1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0		0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0		0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1		1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes					
SE Support OLSSC_SUP_SINGLEENDED	Yes *(*2)*					
DI Support OLSSC_SUP_DIFFERENTIAL	Yes *(*2)*		Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY			Yes	Yes		
Two's Complement Support OLSSC_SUP_2SCOMP	Yes					
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes					
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes					
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 10: DT23-EZ Supported Options (Continued)

DT23-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*3)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes		Yes	Yes		
External Clock Support OLSSC_SUP_EXTCLOCK	Yes					
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN	Yes					
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*4)*					
Pause Operation Support OLSSC_SUP_PAUSE	Yes					

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Table 10: DT23-EZ Supported Options (Continued)

DT23-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes					
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes					
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes		Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes					
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 10: DT23-EZ Supported Options (Continued)

DT23-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL						
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH						
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes					
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL	Yes					
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes					
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA						
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA	Yes					
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes					
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 10: DT23-EZ Supported Options (Continued)

DT23-EZ	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. Maximum throughput is 100 kHz single channel. When using channel scan, 50 kHz is recommended to maintain maximum ENOB.

*2. This is a jumper-configurable setting and is determined during driver installation/configuration. Refer to the *DataAcq-EZ Hardware User Manual for DT01-EZ, DT16-EZ, and DT21-EZ Data Acquisition Boards* (UM-12664) for information on jumper settings.

*3. The A/D subsystem may be run in triggered scan mode only if the external trigger is also being used.

*4. The A/D subsystem may only be run continuously using DMA.

*5. When using a single DMA channel, only the first DMA channel may be used.

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Table 11: DT24-EZ and DT24-EZ-PGL Supported Options

DT24-EZ DT24-EZ-PGL	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Maximum Throughput OLSSCE_MAX_THROUGHPUT	100 kHz *(*1, *6)*		0	0		
Minimum Throughput OLSSCE_MIN_THROUGHPUT	0.5 Hz		0	0		
Maximum Retrigger Frequency OLSSCE_MAXRETRIGGER	100 kHz		0	0		
Minimum Retrigger Frequency OLSSCE_MINRETRIGGER	0.5 Hz		0	0		
Maximum External Clock Divider OLSSCE_MAXCLOCKDIVIDER	1		1	1		
Minimum External Clock Divider OLSSCE_MINCLOCKDIVIDER	**1**		**1**	**1**		
Base Clock Frequency OLSSCE_BASECLOCK	4 mHz		0	0		
SE Channels OLSSC_MAXSECHANS	16 *(*2)*		0	0		
DI Channels OLSSC_MAXDICHANS	8 *(*2)*		1	1		
CGL Depth OLSSC_CGLDEPTH	16SE *(*2)* *8DI*		1	1		
Number of Filters OLSSC_NUMFILTERS	1		1	1		
Number of Gains OLSSC_NUMGAINS	4		1	1		
Number of Voltage Ranges OLSSC_NUMRANGES	1 *(*2)*		0	0		
Number of DMA Channels OLSSC_NUMDMACHANS	2 *(*5)*		0	0		

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Table 11: DT24-EZ and DT24-EZ-PGL Supported Options (Continued)

DT24-EZ DT24-EZ-PGL	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Number of Channels OLSSC_NUMCHANNELS	16SE *(*2)* *8DI*		1	1		
Number of Extra Clocks OLSSC_NUMEXTRACLOCKS	0		0	0		
Number of Extra Triggers OLSSC_NUMEXTRATRIGGERS	0		0	0		
Number of Resolutions OLSSC_NUMRESOLUTIONS	1		1	1		
Interrupt Support OLSSC_SUP_INTERRUPT	Yes					
SE Support OLSSC_SUP_SINGLEENDED	Yes *(*2)*					
DI Support OLSSC_SUP_DIFFERENTIAL	Yes *(*2)*		Yes	Yes		
Binary Coding Support OLSSC_SUP_BINARY	Yes *(*2)*		Yes	Yes		
Two's Complement Support OLSSC_SUP_2SCOMP	Yes *(*2)*					
Software Trigger Support OLSSC_SUP_SOFTTRIG	Yes					
External Trigger Support OLSSC_SUP_EXTERNTRIG	Yes					
Threshold Trigger Support OLSSC_SUP_THRESHTRIGPOS						
Threshold Trigger Support OLSSC_SUP_THRESHTRIGNEG						
Analog Event Trigger Support OLSSC_SUP_ANALOGEVENTTRIG						
Digital Event Trigger Support OLSSC_SUP_DIGITALEVENTTRIG						

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Table 11: DT24-EZ and DT24-EZ-PGL Supported Options (Continued)

DT24-EZ DT24-EZ-PGL	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Timer Event Trigger Support OLSSC_SUP_TIMEREVENTTRIG						
Triggered Scan Support OLSSC_SUP_TRIGSCAN	Yes *(*3)*					
Internal Clock Support OLSSC_SUP_INTCLOCK	Yes		Yes	Yes		
External Clock Support OLSSC_SUP_EXTCLOCK	Yes					
Software Calibration Support OLSSC_SUP_SWCAL						
DT2896 Channel Expansion Support OLSSC_SUP_EXP2896						
DT727 Channel Expansion OLSSC_SUP_EXP727	Yes					
Filter/Channel Support OLSSC_SUP_FILTERPERCHAN						
DT-Connect Support OLSSC_SUP_DTCONNECT						
FIFO in Data Path Support OLSSC_SUP_FIFO						
Programmable Gain Support OLSSC_SUP_PROGRAMGAIN	Yes					
Data Processing Capability OLSSC_SUP_PROCESSOR						
Software Programmable Resolution OLSSC_SUP_SWRESOLUTION						
Continuous Operation Support OLSSC_SUP_CONTINUOUS	Yes *(*4)*					
Pause Operation Support OLSSC_SUP_PAUSE	Yes					

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Table 11: DT24-EZ and DT24-EZ-PGL Supported Options (Continued)

DT24-EZ DT24-EZ-PGL	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Multiple Buffer Wrap Mode Support OLSSC_SUP_WRPMULTIPLE	Yes					
Single Buffer Wrap Mode Support OLSSC_SUP_WRPSINGLE	Yes					
Single Value Operation Support OLSSC_SUP_SINGLEVALUE	Yes		Yes	Yes		
Asynchronous Operation Support OLSSC_SUP_POSTMESSAGE	Yes					
Cascading Support OLSSC_SUP_CASCADING						
Event Count Mode Support OLSC_SUP_CTMODE_COUNT						
Rate Generation Mode Support OLSSC_SUP_CTMODE_RATE						
One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT						
Repeatable One-Shot Mode Support OLSSC_SUP_CTMODE_ONESHOT_RPT						
Maximum Synchronous Digital I/O Value OLSSC_MAX_DIGITALIOLIST_VALUE						
Continuous DT-Connect Support OLSSC_SUP_DTCONNECT_CONTINUOUS						
Burst DT-Connect Support OLSSC_SUP_DTCONNECT_BURST						
Channel List Inhibit Support OLSSC_SUP_CHANNEL_LIST_INHIBIT						
Synchronous Digital I/O Support OLSSC_SUP_SYNCHRONOUS_DIGITALIO						
Simultaneous Start List Support OLSSC_SUP_SIMULTANEOUS_START						

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Table 11: DT24-EZ and DT24-EZ-PGL Supported Options (Continued)

DT24-EZ DT24-EZ-PGL	**A/D**	**D/A**	**DIN**	**DOUT**	**Serial I/O**	**Counter/ Timer**
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Inprocess Buffer Flush Support OLSSC_SUP_INPROCESSFLUSH	Yes					
Range per Channel Support OLSSC_SUP_RANGEPERCHANNEL						
Simultaneous Sample and Hold Support OLSSC_SUP_SIMULTANEOUS_SH						
Random Channel Gain List Support OLSSC_SUP_RANDOM_CGL	Yes					
Sequential Channel Gain List Support OLSSC_SUP_SEQUENTIAL_CGL	Yes					
Zero Start Sequential Channel Gain List Support OLSSC_SUP_ZEROSEQUENTIAL_CGL	Yes					
Supports Gap Free Data with No DMA OLSSC_SUP_GAPFREE_NODMA						
Supports Gap Free Data with Single DMA OLSSC_SUP_GAPFREE_SINGLEDMA	Yes					
Supports Gap Free Data with Dual DMA OLSSC_SUP_GAPFREE_DUALDMA	Yes					
High to Low Output Pulse Support OLSSC_SUP_PLS_HIGH2LOW						
Low to High Output Pulse Support OLSSC_SUP_PLS_LOW2HIGH						
None (internal) Gate Type Support OLSSC_SUP_GATE_NONE						
High Level Gate Type Support OLSSC_SUP_GATE_HIGH_LEVEL						
Low Level Gate Type Support OLSSC_SUP_GATE_LOW_LEVEL						
High Edge Gate Type Support OLSSC_SUP_GATE_HIGH_EDGE						

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Table 11: DT24-EZ and DT24-EZ-PGL Supported Options (Continued)

DT24-EZ DT24-EZ-PGL	A/D	D/A	DIN	DOUT	Serial I/O	Counter/ Timer
Total Subsystems on Board	**1**	**0**	**2**	**2**	**0**	**0**
Low Edge Gate Type Support OLSSC_SUP_GATE_LOW_EDGE						
Level Change Gate Type Support OLSSC_SUP_GATE_LEVEL						
High Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_LEVEL_DEBOUNCE						
Low Level Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_LEVEL_DEBOUNCE						
High Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_HIGH_EDGE_DEBOUNCE						
Low Edge Gate Type with Input Debounce Support OLSSC_SUP_GATE_LOW_EDGE_DEBOUNCE						
Level Change Gate Type with Input Debounce Support OLSSC_SUP_GATE_LEVEL_DEBOUNCE						
Supports Internal Retriggered Triggered Scan OLSSC_SUP_RETRIGGER_INTERNAL						
Supports Scan per Trigger Event Triggered Scan OLSSC_SUP_RETRIGGER_SCAN_PER_TRIGGER	Yes					

Related Notes

*1. Maximum throughput is 100 kHz single channel. When using channel scan, 80 kHz is recommended to maintain maximum ENOB.

*2. This is a jumper-configurable setting and is determined during driver installation/configuration. Refer to the *DataAcq-EZ Hardware User Manual for DT01-EZ, DT16-EZ, and DT21-EZ Data Acquisition Boards* (UM-12664) for information on jumper settings.

*3. The A/D subsystem may be run in triggered scan mode only if the external trigger is also being used.

*4. The A/D subsystem may only be run continuously using DMA.

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*5. When using a single DMA channel, only the first DMA channel may be used.

*6. At gains of 100 or more, the maximum recommended throughput to maintain maximum ENOB is 2.5 kHz for DT24-EZ-DGL boards only.

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