

TI81XX PSP 04.04.00.02 Release Notes



TI81XX PSP 04.04.00.02 Release Notes

Linux PSP

IMPORTANT

TI81XX refers to TI816X, TI814X and TI813X.

This page is currently under construction. The content of this page is due to change quite frequently and thus the quality and accuracy are not guaranteed until this message has been removed. Please feel free to contribute to this page while construction is in progress.

Important

This document is applicable for 04.07.00.02 Release only.

About This Manual

This document gives an overview of the Linux PSP Release 04.04.00.02. Contains information of bug fixes, features added and online code repositories. This release has been tested on DM8168/AM389x EVM (Base board + Daughter Card required for second Ethernet port and NOR), DM8148/AM387x EVM and TI813X EVM. Refer Validation Information section for validation details.

Release Date: October, 2012

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Read This First

TI814x and TI813x

CPSW Switch configuration

- Switch configuration IOCTL command interface is changed from SIOCDEVPRIVATE to SIOCSWITCHCONFIG.

Introduction

This is Release 04.04.00.02 of TI81xx Linux PSP tested on following devices:

- DM8168/AM389x EVM. The EVM consists of base board (Rev B/C/D DDR2/DDR3) with daughter card having second Ethernet port and NOR. **In the rest of the document, we will refer this setup as DM8168 EVM.**
- DM8148 EVM. The EVM(Rev B DDR3) consists of base board, catalog application card and LCD adapter board **In the rest of the document, we will refer this setup as DM8148 EVM.**
- TI813X EVM. The EVM(Rev A DDR3) consists of base board **In the rest of the document, we will refer this setup as TI813X EVM.**

Code Repositories

The Linux PSP serves to provide a fundamental software platform for development, deployment and execution of Linux based applications on Texas Instruments DM8168/DM8148 EVM. The Linux kernel and U-Boot software in this release are based on the following open source repositories:

The code base for Linux kernel and U-Boot included in this release is hosted at the following repositories:

Kernel and Uboot Source

Component	Repository (Branch)	Baseline Tag/Commit	Release Tag/Commit
TI81xx Linux Kernel	KernelRepo ^[1]	2b3ea6aa16956e15f1ba8e7b70898aaacbec2237	v2010.06_TI81XXPSP_04.04.00.02.patch1
TI81xx U-Boot	U-Boot Repo ^[2]	v2010.06	v2.6.37_TI81XXPSP_04.04.00.02.patch1

Cross Compiler: The kernel and U-Boot have been compiled with **Arago Cross Compiler Toolchain v2011.09 with GCC 4.5.3**, this can be downloaded from Arago Toolchain ^[3].

Documentation

For detailed information on the various software components included in the release and how to use them, please refer to the User Guide included in the `docs` folder of the package.

Dependencies

For complete list of components versions that will work with this release, please refer to the Software BOM page at EZSDK_Software_BOM ^[4]

This release requires following tools/packages to be installed for fbdev/v4l2 drivers:

Table Title

Tool/Component	Release Version
CCS	5.0.3.00013
CGTools	4.9.2
XDC	3_23_01_37
BIOS	6_33_02_27_eng
IPC	1_24_01_24
Syslink	2_10_02_17
HDVPSS Binary	01.00.01.37

What's Supported

The Linux PSP package supports the following components:

Boot Modes Supported

Boot Mode	TI8168	TI8148	TI813X
NAND	YES	YES	YES
NOR	YES	YES	YES
SPI	YES	YES	YES
SD	YES	YES	YES
Ethernet	YES	YES	YES
PCIe	YES	YES	NO

U-Boot Features

Feature	TI8168	TI8148	TI813X
NAND	YES	YES	YES
NOR	YES	YES	YES
SPI	YES	YES	YES
SD	YES	YES	YES
Ethernet Switch 1-Port	YES	YES	YES
I2C	YES	YES	YES
PCIe	YES	YES	NO

- For Power management support details refer to PM Support

Linux Device Drivers

Driver	Supported on This Platform(YES/NO)			Remarks
	TI816X	TI814X	TI813X	
	NA	YES	NO	
DCAN	NA	YES	NO	
NAND	YES	YES	YES	
UART	YES	YES	YES	
I2C	YES	YES	YES	
SATA	YES	YES	YES	
NOR	YES	YES	YES	
EDMA	YES	YES	YES	
SPI	YES	YES	YES	
V4L2 Capture	YES	YES	YES	
V4L2 Display	YES	YES	YES	
SII9022a external HDMI transmitter driver	YES	YES	YES	

HDMI Audio	YES	YES	YES	
AIC3106 Audio	YES	YES	YES	
ADC3101 Audio	NO	NO	NA	NA
Ethernet	YES	NA	NA	
Ethernet Switch	NA	YES	YES	
PCIe RC	YES	YES	NO	
PCIe EP Boot	YES	YES	NO	Bootimg TI814X/TI816X EP set in PCIe boot mode when connected to TI816X, x86 PC or TI814X Root Complex. Refer this application note ^[5] for considerations when using a non TI816X/TI814X RC.
PCIe EP Driver	YES	YES	NO	
MMC/SD	YES	YES	YES	
Watchdog Timer	YES	YES	YES	
GPIO	YES	YES	YES	
TILER	YES	YES	YES	
IOMMU	YES	YES	YES	
AVS	YES	NA	NA	
Pinmux	YES	YES	YES	
USB Host	YES	YES	YES	HID/MSC/Audio/Video
USB Gadget	YES	YES	YES	CDC/RNDS/FSG
RTC	NO	NO	NO	
CIR	YES	YES	YES	

New in this Release

Following features have been added in this release:

- MMC/SD: Card detection through GPIO pin

Fixed in this Release

Audio

TI81XX

Issue Identifier	Issue Headline
SDOCM00085423 ^[6]	aplay takes 4 time the buffer size set using option --buffer-size.
SDOCM00089521 ^[7]	ALSA first capture sample is always zero on EVM.
SDOCM00093067 ^[8]	HDMI audio support for newly added video mode (480p@60 etc..)

TI814X

Issue Identifier	Issue Headline
SDOCM00089067 ^[9]	ALSA: Fixed the support for HDMI audio H/W CTS mode for ACR generation

Base Port

TI81XX

Issue Identifier	Issue Headline
SDOCM00093920 ^[10]	PINMUX: Enabling pins with multiple entries in partition table fails with duplicate path error
SDOCM00082356 ^[11]	PINMUX: DebugFS entries for pinmux show incorrect status for pins and do not allow changing pullup/down for TI814X

Ethernet Switch

TI814X and TI813X

Issue Identifier	Issue Headline
SDOCM00096711 ^[12]	switch-config utility: delete vlan does not delete the vlan entry from ALE table
SDOCM00096713 ^[13]	Rmmod of ti_cpsw module causes segmentation fault
SDOCM00096714 ^[14]	Warning and backtrace while dumping ALE table using switch-config
SDOCM00095811 ^[15]	Shows extra bytes in the packet when captured using tcpdump
SDOCM00096458 ^[16]	Kernel module build error when CPTS is build as module
SDOCM00095689 ^[17]	Multiple insert cpsw module generates kernel warning
SDOCM00090682 ^[18]	VLAN - switch-config -F command does not work as expected
SDOCM00095691 ^[19]	dual emac: ethtool is showing eth1 interface phy settings
SDOCM00085147 ^[20]	ethaddr in uboot env is showing garbage characters
SDOCM00086216 ^[21]	"#ethtool eth0" is not showing complete information of Ethernet device

McSPI

TI81XX

Issue Identifier	Issue Headline
SDOCM00082504 ^[22]	TI81XX: McSPI module support: second insmod of McSPI driver fails

MMC/SD

TI81XX

Issue Identifier	Issue Headline
SDOCM00082602 ^[23]	SD/MMC: SD removal while IO is in progress causes system hang.
SDOCM00092479 ^[24]	SD/MMC: HSPE bit for High Speed cards is not set oin the MMC/SD module driver.

NAND

TI81XX

Issue Identifier	Issue Headline
SDOCM00094126 ^[25]	NAND: misalignment on format for storing ECC in OOB, between ROM code and UBoot/Kernel driver causing NAND Read issue with BCH8 ECC scheme.
SDOCM00095669 ^[26]	NAND: Fake bad blocks reported due to WRITE timeouts, on frequent context switching and high CPU load.
SDOCM00085204 ^[27]	Nand 4-bit ECC is not working in both kernel and uboot
SDOCM00092479 ^[24]	HSPE bit for High Speed cards is not set in the MMC/SD module driver

Power Management

TI81XX

Issue Identifier	Issue Headline
SDOCM00093925 ^[28]	CLOCK: When Clock parent is changed dynamically using clk_set_parent(), change is not reflected in clock entries in debugfs

TI814X

Issue Identifier	Issue Headline
SDOCM00089416 ^[29]	PM: DVFS: Arm frequency scaling is not reflected in system performance

SATA**TI81XX**

Issue Identifier	Issue Headline
SDOCM00082503 ^[30]	SATA: module support: System hang observed when ahci_platform.ko module was unloaded.
SDOCM00085341 ^[31]	SATA: SATA device could not be detected anymore after unplug SATA during the write operation.

U-BOOT**TI81XX**

Issue Identifier	Issue Headline
SDOCM00082446 ^[32]	TI81XX: Build warning seen in U-Boot for TI816x and TI814x platforms
SDOCM00087413 ^[33]	TI81XX: Unable to modify the u-boot environment variable from kernel using fw_printenv return CRC error
SDOCM00085172 ^[34]	TI81XX: Incomplete information about the boot mode switch settings in the u-boot user guide

TI814X and TI813X

Issue Identifier	Issue Headline
SDOCM00093533 ^[35]	Added the byte-wise leveling support for TI8148 and TI813X platforms
SDOCM00086113 ^[36]	TI8148: NOR Flash writer utility is missing in the in the 04.01.00.06 release package

USB

Issue Identifier	Issue Headline
SDOCM00091462 ^[37]	USB: Kernel crash seen when booting the Kernel during usbss init function
SDOCM00092463 ^[38]	USB: kernel hangs during usb initialization(after write to rxcalib reg) after rmmmod and insmod of usb module ti81xx.ko
SDOCM00089945 ^[39]	USB: USB modular insertion and removal multiple times does not work
SDOCM00092748 ^[40]	With usb modular build, Invalid teardown PD popped during teardown of dma channel when audio aplay completed.
SDOCM00095074 ^[41]	USB: Use CPPI41 RXDMA will impact when system load is high due to interconnect bridge delay during desc-update by DMA

SDOCM00089892 [42]	USB: video capture and play from usb camera (Logitech pro 9000) fails for 640X480 resolution
SDOCM00090880 [43]	USB: USB Device mode does not work in DMA mode for composite or multi gadget device classes
SDOCM00088385 [44]	USB: Audio gap seen while playing audio test tone file on audio headset
SDOCM00091136 [45]	USB: Babble workaround fix in software shall reinitialize the FIFO address after controller reset
SDOCM00090443 [46]	USB: HP DVD-RW drive connected to TI814X causes kernel crashes
SDOCM00088387 [47]	USB: USB audio through aplay does not work intermittently when stopped (by control-c) and started again
SDOCM00090821 [48]	USB: video capture using usb logitech pro 9000 camera does not work for 1600x1200 resolution
SDOCM00090854 [49]	USB: musb driver shall use the non-posted read/write API for all register access.
SDOCM00096698 [50]	USB: device busy observed on reinserting of gadget module for usb0 if gadget module is already inserted for usb1.
SDOCM00095673 [51]	USB: rmmod of g_file_storage gadget module is not working when nfs-file is used as storage media exposing to host
SDOCM00096357 [52]	USB: CPPI41DMA: Zero length packet in rx-dma is not handled in cpqi41 dma driver

VIDEO

TI81XX

Issue Identifier	Issue Headline
SDOCM00087388 [53]	TI81xx:V4L2 Capture: I2CAdapter on which slave is connected should be a platform device field.
SDOCM00091210 [54]	Insmmod of capture crashed if loaded before loading tvp700.ko
SDOCM00091236 [55]	Return value is positive for overflow error
SDOCM00091536 [56]	Memory leak in HDMI driver (In the HDMI driver init, we ioremap for OMAP first and override with TI814x or TI816x. While overriding, we do not release memory acquired for OMAP.)
SDOCM00087438 [57]	Compliance Testing failing for HDMI
SDOCM00085993 [58]	TI81xx:V4L2 Capture: Kernel dump is seen on starting capture
SDOCM00086261 [59]	TI81xx:V4L2 Capture: Filter is always selected for 1080P60 mode

Known Issues

This section lists known issues observed in this release:

Audio

TI81XX

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00082447 [60]	TI81XX: Audio pop noise while powering up the codec due to the AIC3106 Codec hardware limitation	None
SDOCM00096893 [61]	TI814X: HDMI audio doesn't work when Ethernet is connected to 1000Mbps switch due to the sharing of same clock	Enable Software CTS mode by defining the macro HDMI_FORCE_SW_ACR in "sound/soc/davinci/davinci-hdmi.c"
SDOCM00095980 [62]	TI81XX: Audio over HDMI stops when the input on the TV is switched and brought back to HDMI or the cable is reconnected.	None
SDOCM00096289 [63]	TI81XX: HDMI audio does not work with Sony Bravia TVs and some other TV models due to the incorrect audio infoframe data send out.	None
SDOCM00096969 [64]	TI81XX: Kernel crash observed when ALSA loop-back is run while doing suspend/resume	None

TI814X and TI813X

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00095561 [65]	Audio: HDMI auto cts clock cannot be reconfigured as multiple modules reuse the same clock source - sysclk20.	None.

Ethernet Switch

TI814X and TI813X

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00084809 [66]	cpsw: PTP time synchronization not happening when connected to Port 2	None
SDOCM00096415 [67]	davinci_mdio timeout error is seen and NFS timeout while running sata stress test	None

MMC/SD

TI816X

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00095490 [68]	SD/MMC: card removal while IO is in progress causes system hang	None. It is recommended not to remove the card while I/O is in progress.

TI814X and TI813X

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00078276 [69]	SD/MMC: card's write protect status is not detected	Cause: The signal MMC1_SD_WP is by default not connected to pin AG4. Instead signal UART0_DSRn is connected. So I2C2 on the daughter cards will be lost on using Write Protect functionality. Writes can happen on the SD/MMC card irrespective of whether the write protect switch on the card is on or off.

NAND

TI81XX

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00089115 [70]	NAND: Subpage support in NAND is not implemented	None
SDOCM00096734 [71]	NAND: 1-bit data corruption observed while running stress test	None.
SDOCM00096732 [72]	NAND: modular read write stress test failed. kernel crash seen on repeated iteration of the sequence: 'module_insert -> r/w -> module_remove'	None
SDOCM00078359 [73]	NAND: Flashing tool can be used only to flash bootloader, and not File-system or kernel	File-System and Kernel can be flashed after loading boot-loader, from boot-loader prompt.

Power Management

TI814X and TI813X

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00087657 [74]	suspend to memory hangs when "reset unused clocks" is enabled	None
SDOCM00095387 [75]	higher power consumption seen on DDR rail in suspend to memory than expected	None

SATA**TI81XX**

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00076137 [76]	SATA: SATA controller will not work with Port Multipliers which do not support command based switching	None
SDOCM00076137 [76]	SATA: On TI816X/TI814X platforms, SATA Link negotiation may fail when Gen3 disks are connected directly	Connect the HDD behind a Gen2 PMP or force Gen2 mode of operation on the device(usually Gen3 devices come with jumpers for forcing Gen2 mode of operation)
SDOCM00096626 [77]	SATA: harddisks behind the eSATA hub doesn't work.	None

USB**TI81XX**

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00087448 [78]	USB_Audio : DUT hangs for 8 to 10 sec when unplugging the USB audio device during playback	Issue observed while using aplay utility, the aplay application does not exit after device disconnect. Recommended to stop the audio playback before unplugging of audio device.
SDOCM00088375 [79]	USB: Truncated packets with CRC error observed during transmit operation causing multiple resets while creating a file on HP flash drive	The requires both (a) following the TI recommended USB PCB Design guideline and (b) SW workaround to fine-tune USBPHY calibration parameters. The SW patch is available as part of release package.
SDOCM00091461 [80]	USB: CPPI41DMA: TX DMA generates the early completion interrupt before last byte from endpoint TxFifo is transferred out.	SW workaround is to poll till last byte is transferred out on bus, the patch available as part of release package.
SDOCM00095074 [41]	USB: Use CPPI41 RXDMA will impact when system load is high due to interconnect bridge delay during desc-update by DMA	Fixed by SW workaround, due to DMA does not guarantee rx transfer descriptor update is complete before generation of rx completion interrupt.
SDOCM00086734 [81]	USB: CPPI41DMA: Feature: TxFIFOEmpty interrupt logic is disabled in musb driver due to intermittent functional failures	No SW workaround, The TxFifoEmpty interrupt feature does not work reliably for non-isochronous transfer.
SDOCM00086738 [82]	Extra IN token issue: While transferring file through usb-wifi client(to tftp server) & concurrent i/o to connected USB HDD, causes intermittent resets on the USB bus	SW workaround is to configure the rx transfer in transparent DMA mode and handle USB data toggle appropriately. The workaround is included in the release package
SDOCM00091179 [83]	USB: MUSB spurious interrupt observed during Isochronous transfer. The PID/CRC errors interrupts gets cleared by USB DMA before CPU could read error status, thus making the interrupt spurious.	No workaround. Though CRC errors of Isochronous does not impact functionally, this prevents application to take any further action in case of very bad USB signal quality.
SDOCM00086741 [84]	USB: While performing USBCV test with Remote wake-up capability(rndis) the EVM console freezes till test is completed.	None
SDOCM00096335 [85]	USB: feeble, momentary audio glitch observed when new device inserted while playing audio out through usb headset	None

TI814X and TI813X

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00084561 [86]	USB: Dynamic detection of USB-ID pin not working on TI814X PG2 when device connected after linux bootup	Use onboard jumper J22/J23 (on TIEVM) to short (for host mode) and open (for device mode) to configure usb-id pin of usb0/usb1.
SDOCM00086735 [87]	USB: OTG: The SRP (Session Request Protocol) initiated from OTG-B peripheral device is not working	None.

Video**TI81XX**

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00085989 [88]	TI81xx:V4L2 Capture: FPS is low with capture +fbdev loop back	None
SDOCM00080561 [89]	[on-chip HDMI] Range compression should be turned on for consumer electronics TV.(For displaying black level etc properly on Sony TV, on-chip HDMI range compression should be turned on. This is bit #1 of 0x46c00524. This is for compressing RGB level from full range [0, 256] to limited range [16, 235].)	None
SDOCM00095231 [90]	Screen goes blank on calling fbdev ioctls in loop or under heavy load	None
SDOCM00087886 [91]	V4l2 capture does not return proper "captured bytes" for YUV420SP(NV12)	None
SDOCM00088666 [92]	v4l2 capture driver crashes when streaming YUV420SP data	
SDOCM00093707 [93]	Reducing the size of "HDVPSS SHARED MEM in vpss.ko" to less than 640K, causes a kernel panic.	None
SDOCM00094907 [94]	[HDVPSS-HDMI] VIC should be 0 for non-standard video modes.(currently non-standard/un-supported video modes, VIC is reported as 16)	None

TI816X

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00089124 [95]	Usecase: fbdev from A8 and Video from M3. For periodically changing the resolution on Venc, video and graphics needs to stop, change venc resolution and restart again. In this sequence sometime code hangs in FVID2_stop API on graphics side.	None

TI814X

Issue Identifier	Issue Headline	Known Workaround(s)
SDOCM00093034 [96]	Cable connect/disconnect results in continuous overflow for RGB Capture through TVP7002 Decoder	None
SDOCM00078546 [97]	PLL doesn't get locked on some of Centaurus boards. (Some times HDMI pll doesn't get locked on installing the TI81xx_hdmi.ko module. This is seen primarily on A2/A1 revision of the boards. This is because PF1.0 has not closed for all the clock restratins. This will be solved in PG2.0)	None

Installation and Usage

Please look for detailed installation and usage instructions in the User Guide

Upgrade and Compatibility Information

To upgrade to new PSP release, simply delete the old release and extract the new release in its place.

Device Support

This release supports following setups

- TI8168 EVM
- TI8148 EVM
- TI813X EVM

Validation Information

This release is tested on

- TI816X
 - DM8168 EVM (Rev-B DDR2/ Rev C/D DDR3) with AM389x filesystem built from arago.
 - ARM is running at 1 GHz and DDR2 at 400 MHz (effective 800MHz data rate) or DDR3 running at 800MHz clock.
 - Note that the DDR2 based setup has undergone sanity test only.
- TI814X
 - DM8148EVM (Rev.B DDR3, PG2.1)
 - ARM running at 600Mhz and DDR3 at 400Mhz
- TI813X
 - TI813XEVM (Rev.A, DDR3,PG1.0)
 - ARM running at 600Mhz and DDR3 at 400Mhz

Versioning

This is 04.04.00.02 release of TI81XX Linux PSP product.

Useful Links

PSP 04.04.00.02 User Guide

PSP 04.04.00.02 Feature and Performance Guide

PSP 04.04.00.02 Release Download Page ^[98]

Technical Support and Product Updates

For further information or to report any problems, contact <http://community.ti.com> or <http://support.ti.com>.

OMAP Linux Mailing List: <http://vger.kernel.org/vger-lists.html#linux-omap>

References

- [1] <http://arago-project.org/git/projects/?p=linux-omap3.git;a=shortlog;h=refs/heads/ti81xx-master>
- [2] <http://arago-project.org/git/projects/?p=u-boot-omap3.git;a=shortlog;h=refs/heads/ti81xx-master>
- [3] http://software-dl.ti.com/dsps/dsps_public_sw/am_bu/sdk/AM335xSDK/latest/exports/ti-sdk-am335x-evm-05.05.00.00-Linux-x86-Install
- [4] http://processors.wiki.ti.com/index.php/Category:EZSDK_Software_BOM
- [5] http://processors.wiki.ti.com/index.php/TI816X_C6A816x_AM389x_PCIE_Clocking_Schemes
- [6] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00085423&entityDefName=IncidentReport&username=readonly&password=readonly>
- [7] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00089521&entityDefName=IncidentReport&username=readonly&password=readonly>
- [8] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00093067&entityDefName=IncidentReport&username=readonly&password=readonly>
- [9] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00089067&entityDefName=IncidentReport&username=readonly&password=readonly>
- [10] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00093920&entityDefName=IncidentReport&username=readonly&password=readonly>
- [11] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00082356&entityDefName=IncidentReport&username=readonly&password=readonly>
- [12] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00096711&entityDefName=IncidentReport&username=readonly&password=readonly>
- [13] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00096713&entityDefName=IncidentReport&username=readonly&password=readonly>
- [14] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00096714&entityDefName=IncidentReport&username=readonly&password=readonly>
- [15] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00095811&entityDefName=IncidentReport&username=readonly&password=readonly>
- [16] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00096458&entityDefName=IncidentReport&username=readonly&password=readonly>
- [17] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00095689&entityDefName=IncidentReport&username=readonly&password=readonly>
- [18] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00090682&entityDefName=IncidentReport&username=readonly&password=readonly>
- [19] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00095691&entityDefName=IncidentReport&username=readonly&password=readonly>
- [20] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00085147&entityDefName=IncidentReport&username=readonly&password=readonly>
- [21] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00086216&entityDefName=IncidentReport&username=readonly&password=readonly>
- [22] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00082504&entityDefName=IncidentReport&username=readonly&password=readonly>

- [illegible]

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- [82] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00086738&entityDefName=IncidentReport&username=readonly&password=readonly>
- [83] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00091179&entityDefName=IncidentReport&username=readonly&password=readonly>
- [84] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00086741&entityDefName=IncidentReport&username=readonly&password=readonly>
- [85] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00096335&entityDefName=IncidentReport&username=readonly&password=readonly>
- [86] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00084561&entityDefName=IncidentReport&username=readonly&password=readonly>
- [87] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00086735&entityDefName=IncidentReport&username=readonly&password=readonly>
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- [89] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00080561&entityDefName=IncidentReport&username=readonly&password=readonly>
- [90] <https://cqweb.ext.ti.com/cqweb/main?command=GenerateMainFrame&service=CQ&schema=SDO-Web&contextid=SDOWP&entityID=SDOCM00095231&entityDefName=IncidentReport&username=readonly&password=readonly>
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