TI Deep learning Library on EVE and DSP
Version 01.01
Release Notes
December 2018

Build ID: 01.01.03.00

The release note is divided into the following sections:

- New In This release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- Added support in Eltwise layer for signed and unsigned inputs combination
- Bug Fixes.

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	TDA2x and TDA3x
		[Datasheet][User Guide]

This release is validated on the following:

- TDA2x EVM with:
    - Code Composer Studio version 5.1.0.09000
    - DSP Code Generation Tool version 7.4.2
    - EVE/ARP32 Code Generation Tool version 1.0.7
    - XDAIS version 7.22.00.03
    - DMAUTILS version 00.08.00.02

![Texas Instruments]

Fixed In This Release

Defect ID	Description	Applicable Release Configuration
TIDL-361	TIDL SSD - Multiple objects detected when TIDL inference ran with same image video	TIDL_001
TIDL-392	Imported Squeezenet does not create proper results	TIDL_001
TIDL-394	Import tool doesn't generate consistent binary file for same config file	TIDL_001
TIDL-395	Inner product layer failed in TIDL inference for LeNet model	TIDL_001
TIDL-396	TIDL global pooling layer issue in the import tool	TIDL_001
TIDL-397	TIDL Eltwise layer DMA hang on target	TIDL_001
TIDL-398	TIDL Convolution 1xN layer poor performance	TIDL_001
TIDL-400	TIDL algo provides wrong output size for buffer allocation	TIDL_001

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

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TI Deep learning Library on EVE and DSP
Version 01.01
Release Notes
September 2018

Build ID: 01.01.02.00

The release note is divided into the following sections:

- New in This release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- Bug Fixes.

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	TDA2x and TDA3x
		[Datasheet][User Guide]

This release is validated on the following:

- TDA2x EVM with:
  - Code Composer Studio version 5.1.0.09000
  - DSP Code Generation Tool version 7.4.2
  - EVE/ARP32 Code Generation Tool version 1.0.7
  - XDAIS version 7.22.00.03
  - DMAUTILS version 00.08.00.02

Fixed In This Release

Defect ID	Description	Applicable Release Configuration
TIDL-354	TIDL caffe import tool fails to import two detectionOutput layers in caffe model	TIDL_001
TIDL-355	SSD model with 9 classes crashing in VSDK	TIDL_001
TIDL-356	TIDL host emulation output is not matching with EVE target output	TIDL_001

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

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TI Deep learning Library on EVE and DSP
Version 01.01
Release Notes
June 2018

Build ID: 01.01.01.00

The release note is divided into the following sections:

- New In This Release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- Support for "Deconvolution 2x2 signed outputs".
- Support for "Signed outputs in Concat and Argmax layers".
- Optimized Flatten and Concat layers on EVE and DSP.

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	TDA2x and TDA3x
		[Datasheet][User Guide]

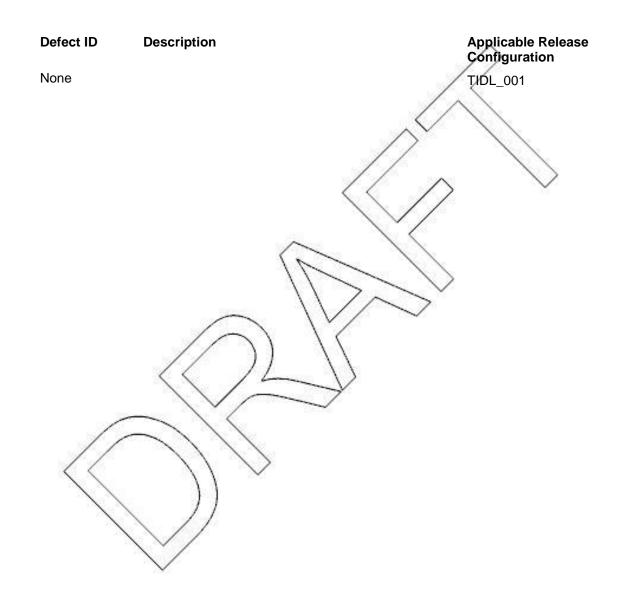This release is validated on the following:

- TDA2x EVM with:
  - Code Composer Studio version 5.1.0.09000
  - DSP Code Generation Tool version 7.4.2
  - EVE/ARP32 Code Generation Tool version 1.0.7
  - XDAIS version 7.22.00.03
  - DMAUTILS version 00.08.00.02

Fixed In This Release

Defect ID	Description	Applicable Release Configuration
TIDL-292	Issue in Max pooling output size calculation with Tensorflow	TIDL_001
TIDL-293	Bug in Max pooling for 2x2 size with odd image size: Tensor flow	TIDL_001
TIDL-295	Bug in merging pooling layer with Convolution layer	TIDL_001
TIDL-296	Converted SSD model running too slow	TIDL_001
TIDL-297	Bug in crop layer of caffe import while reading offset	TIDL_001
TIDL-298	Memory Issue in Conv layer with kernel size 1x1	TIDL_001
TIDL-299	Memory corruption issue in Conv layer with kernel size 5x5	TIDL_001
TIDL-300	Error while setting conv2dKernelType from import config file	TIDL_001
TIDL-302	TIDL 01.01 SSD model import problems - Setting proper layerGropuIDs	TIDL_001
TIDL-303	Issue in defining TIDL_MAX_DATA_BUFS macro	TIDL_001
TIDL-310	TF import - Bug in setting conv2dKernelType from the import config file	TIDL_001
TIDL-311	Bug in running SSD full net all the layers on DSP	TIDL_001
TIDL-312	Caffe Import - Bug in setting layer as Innerproduct for moblie net 0.5	TIDL_001
TIDL-313	Bug in Detection output layer for 21 class detections on DSP target	TIDL_001
TIDL-314	TF import - Bug in setting numInnodes in InnerProduct layer	TIDL_001
TIDL-136	TIDL Deconvolution layer initialization	TIDL_001
TIDL-137	Simple topology does not run to completion on target (EVE)	TIDL_001

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| TIDL-288 | Memory corruption: edmaCopy transfer in TIDL_initConv2dParamsRingBuff | TIDL_001 |

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

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TI Deep learning Library on EVE and DSP
Version 01.01
Release Notes
Apr 2018

Build ID: 01.01.00.00

The release note is divided into the following sections:

- New In This Release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- Support for "Detection Output Layer".
- Validated Caffe-Jacinto based SSD Network.

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	TDA2x and TDA3x
		[Datasheet][User Guide]

This release is validated on the following:

- TDA2x EVM with:
    - Code Composer Studio version 5.1.0.09000
    - DSP Code Generation Tool version 7.4.2
    - EVE/ARP32 Code Generation Tool version 1.0.7
    - XDAIS version 7.22.00.03
    - DMAUTILS version 00.08.00.02
    - C6x MATHLIB version 3_1_0_0

Fixed In This Release

Defect ID	Description	Applicable Release Configuration
TIDL-130	CCS stopped on the layer "conv1_0" with group: 8 and num_output: 32	TIDL_001
TIDL-131	Conv output for DSP build is not matching with EVE build	TIDL_001
TIDL-132	Issue in TIDL to process small ROI	TIDL_001

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

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TI Deep learning Library on EVE and DSP
Version 01.00
Release Notes
Dec 2017

Build ID: 01.00.00.00

The release note is divided into the following sections:

- New In This Release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- Support for additional layers.
  - Crop layer
  - Slice layer
  - Flatten layer
  - Split Layer
  - Max and Product support in EltWsie Layer
- Performance optimization for small ROIs
  - Convolution layer with 3x3 kernel size.
- MISRA C compliance of TIDL SW

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	TDA2x and TDA3x
		[Datasheet][User Guide]

This release is validated on the following:
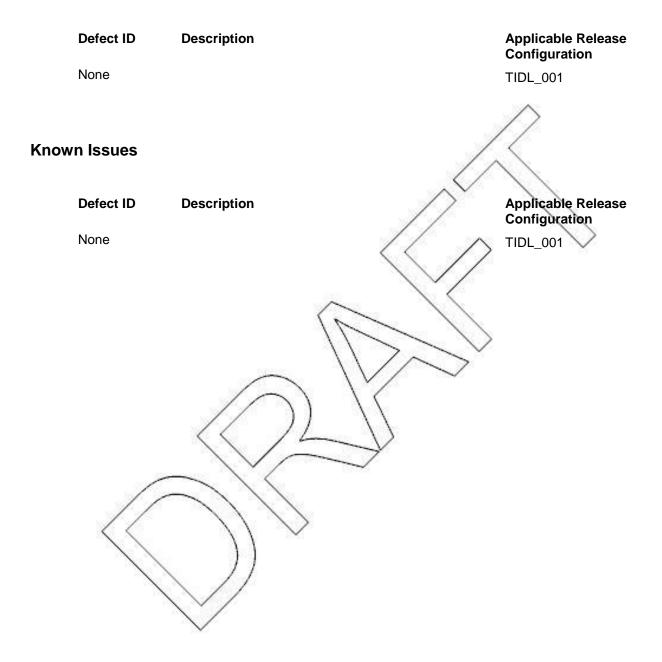
- TDA2x EVM with:
  - Code Composer Studio version 5.1.0.09000
  - DSP Code Generation Tool version 7.4.2

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- − EVE/ARP32 Code Generation Tool version 1.0.7
- − XDAIS version 7.22.00.03
- − DMAUTILS version 00.08.00.02

TEXAS INSTRUMENTS

Fixed In This Release

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

TI Deep learning Library on EVE and DSP
Version 00.08
Release Notes
Sep 2017

Build ID: 00.08.00.00

The release note is divided into the following sections:

- New In This Release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- Configurable bit-depth for layer Parameters (Convolution kernel weights, Scale weights etc).
  - 4 to 12 bits
- Support for additional layers.
  - Scale Layer
  - PReLU Layer
  - Batch Normalization layer
  - ReLU6 Layer
- Performance optimization for small ROIs
  - Convolution layer with 1x1 kernel size.
- Validated Mobilenet1.0 Tensorflow model.
- External memory requirement optimization.
- Impartments to import tool user interface.

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	TDA2x and TDA3x
		[Datasheet][User Guide]

This release is validated on the following:

- TDA2x EVM with:

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- Code Composer Studio version 5.1.0.09000
- DSP Code Generation Tool version 7.4.2
- EVE/ARP32 Code Generation Tool version 1.0.7
- XDAIS version 7.22.00.03
- DMAUTILS version 00.08.00.02

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Fixed In This Release

Defect ID	Description	Applicable Release Configuration
TIDL-107	ReLU is not supported in InnerProduct layer when dynamic quantization is enabled	TIDL_001
TIDL-108	Bias Parameter is not used in Dynamic quantization flow	TIDL_001
TIDL-109	Wrong Min and Max observed for convolution without padding	TIDL_001
TIDL-110	Inner Product layer output type set wrongly when ReLU is enabled	TIDL_001
TIDL-111	TIDL test application crash observed in simulator when number of input channel is 1	TIDL_001
TIDL-112	Not able to import the segmentation model available in caffe-jacinto-models github	TIDL_001

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

TI Deep learning Library on EVE and DSP
Version 00.07
Release Notes
Jun 2017

Build ID: 00.07.00.00

The release note is divided into the following sections:

- New In This Release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- Added support for Tensorflow trained model Import
- Added support to process feature size non multiple of block size.
- Added support for concatenate layer
- Validated Squeezenet 1.1 caffe model
- Validated Inception net V1 (Googlnet) Tensorflow model

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	TDA2x and TDA3x [Datasheet][User Guide]

This release is validated on the following:

- TDA2x EVM with:
  - Code Composer Studio version 5.1.0.09000
  - DSP Code Generation Tool version 7.4.2
  - EVE/ARP32 Code Generation Tool version 1.0.7
  - XDAIS version 7.22.00.03
  - DMAUTILS version 00.08.00.02

Fixed In This Release

Defect ID	Description	Applicable Release Configuration
TIDL-101	Support for floating point Tensorflow Model and On the fly quantization to 8-bit	TIDL_001
TIDL-103	Divide by zero error is observed in dynamic quantization flow	TIDL_001

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

TI Deep learning Library on EVE and DSP
Version 00.06
Release Notes
May 2017

Build ID: 00.06.00.01

The release note is divided into the following sections:

- New In This Release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- Fixed a bug in C6x DSP 2x2 Max Pooling kernel

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	TDA2x and TDA3x [Datasheet][User Guide]

This release is validated on the following:

- TDA2x EVM with:
  - Code Composer Studio version 5.1.0.09000
  - DSP Code Generation Tool version 7.4.2
  - EVE/ARP32 Code Generation Tool version 1.0.7
  - XDAIS version 7.22.00.03
  - DMAUTILS version 00.08.00.00

Fixed In This Release

Defect ID	Description	Applicable Release Configuration
TIDL-100	2x2 Max Pooling C6x kernel not functional for unaligned memory	TIDL_001

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

TI Deep learning Library on EVE and DSP
Version 00.06
Release Notes
May 2017

Build ID: 00.06.00.00

The release note is divided into the following sections:

- New In This Release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- Added support to translate floating point caffe model and quantize the parameters in using the translator tool. The data will be dynamically quantized during TIDL execution

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	TDA2x [Datasheet][User Guide]

This release is validated on the following:

- TDA2x EVM with:
    - Code Composer Studio version 5.1.0.09000
    - DSP Code Generation Tool version 7.4.2
    - EVE/ARP32 Code Generation Tool version 1.0.7
    - XDAIS version 7.22.00.03
    - DMAUTILS version 00.08.00.00

TEXAS INSTRUMENTS

Fixed In This Release

Defect ID	Description	Applicable Release Configuration
None	NA	TIDL_001

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

TI Deep learning Library on EVE and DSP
Version 00.05
Release Notes
Mar 2017

Build ID: 00.05.00.00

The release note is divided into the following sections:

- New In This Release
- Validation Information
- Fixed In This Release
- Known Issues

New In This Release

- First release of TI Deep learning library for Convolution Neural network / Deep Neural Networks (CNN/DNN) acceleration on TI devices (DSP and EVE)

Validation Information

Release Configuration	Description	Validation Platform
TIDL_001	TIDL on DSP and EVE	Code Composer Studio [Datasheet][User Guide]

This release is validated on the following:

- TDA2x EVM with:
  - Code Composer Studio version 5.1.0.09000
  - DSP Code Generation Tool version 7.4.2
  - EVE/ARP32 Code Generation Tool version 1.0.7
  - XDAIS version 7.22.00.03

Fixed In This Release

Defect ID	Description	Applicable Release Configuration
None	NA	TIDL_001

Known Issues

Defect ID	Description	Applicable Release Configuration
None		TIDL_001

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