

# Customer Training Workshop

## Traveo™ II Trigger Multiplexer

Q4 2020



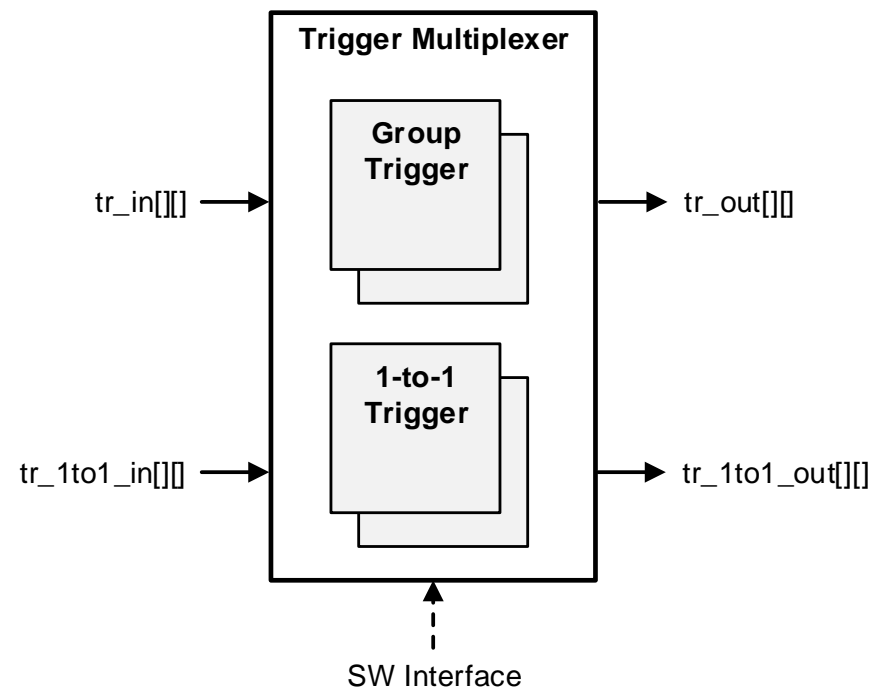
# Target Products

› Target product list for this training material:

Family Category	Series	Code Flash Memory Size
Traveo™ II Automotive Body Controller Entry	CYT2B6	Up to 576 KB
Traveo II Automotive Body Controller Entry	CYT2B7	Up to 1088 KB
Traveo II Automotive Body Controller Entry	CYT2B9	Up to 2112 KB
Traveo II Automotive Body Controller Entry	CYT2BL	Up to 4160 KB
Traveo II Automotive Body Controller High	CYT3BB/4BB	Up to 4160 KB
Traveo II Automotive Body Controller High	CYT4BF	Up to 8384 KB
Traveo II Automotive Cluster	CYT3DL	Up to 4160 KB
Traveo II Automotive Cluster	CYT4DN	Up to 6336 KB

# Trigger Multiplexer Overview

- > The trigger multiplexer helps the user route triggers from a source peripheral block to a destination
- > Features
  - Up to 16 multiplexer-based trigger groups
  - Up to 16 one-to-one trigger groups
  - Software (SW) trigger support to trigger any signal in the block

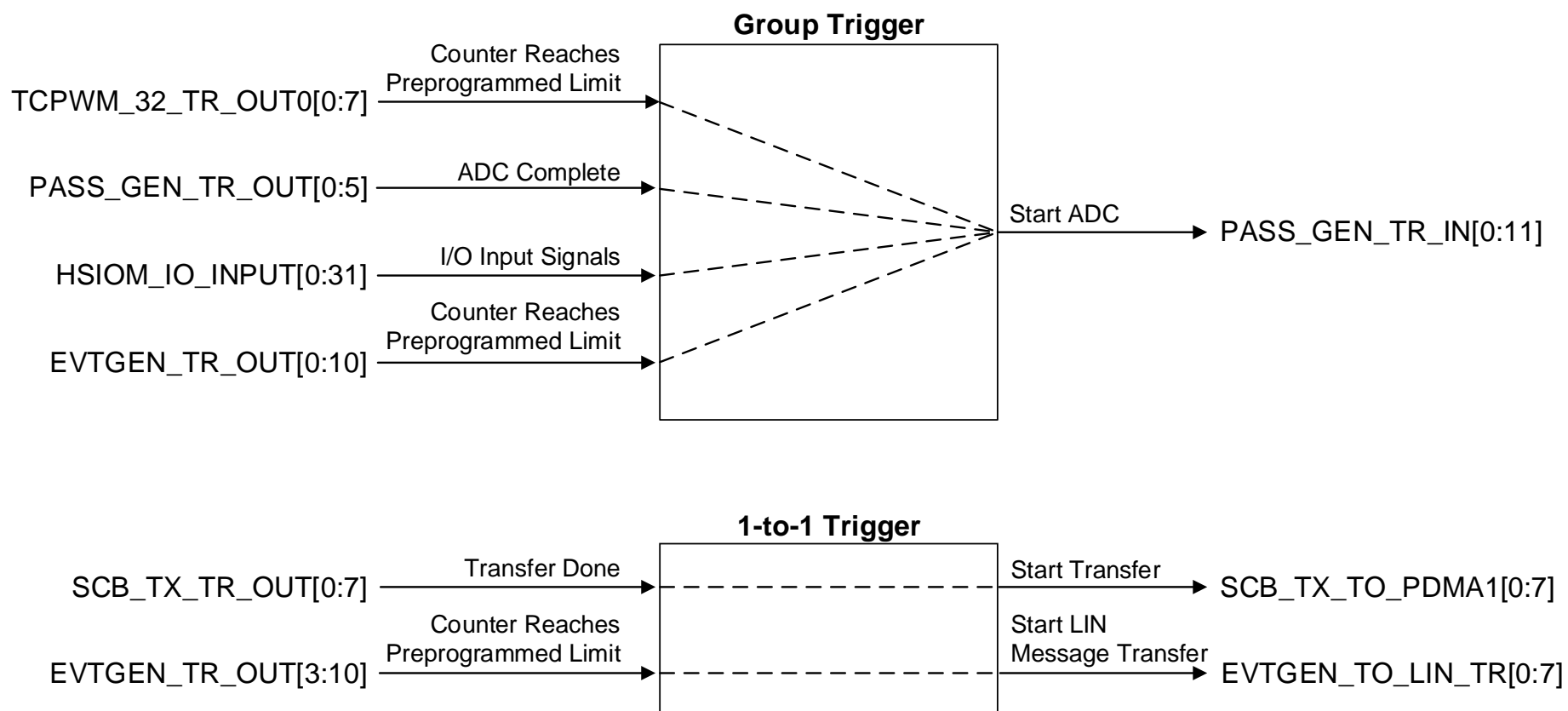


## Hint Bar

Review TRM section 29.1 for additional details

# Trigger Multiplexing

- > A trigger input signal indicates the completion of a peripheral action or a peripheral event
- > A trigger output signal initiates a peripheral action



## Hint Bar

Review TRM section 29.3 for additional details

Refer to the datasheet for the trigger list for each device

**Trigger input:**

- Level sensitive: FIFO empty

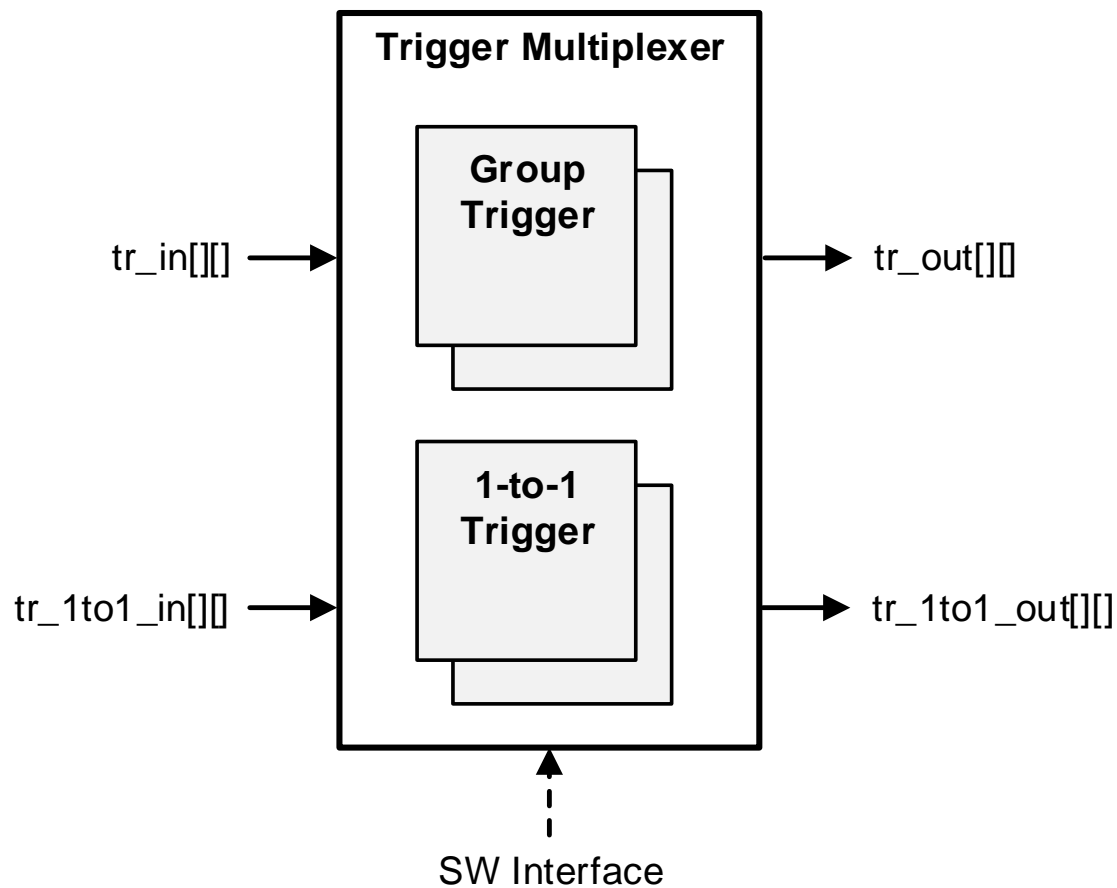
- Edge sensitive: ADC channel done

**Trigger output:**

- Invert

# Trigger Multiplexer Block Diagram

- > A trigger multiplexer consists of multiple trigger groups, which are of two types
  - Group Trigger
  - 1-to-1 Trigger

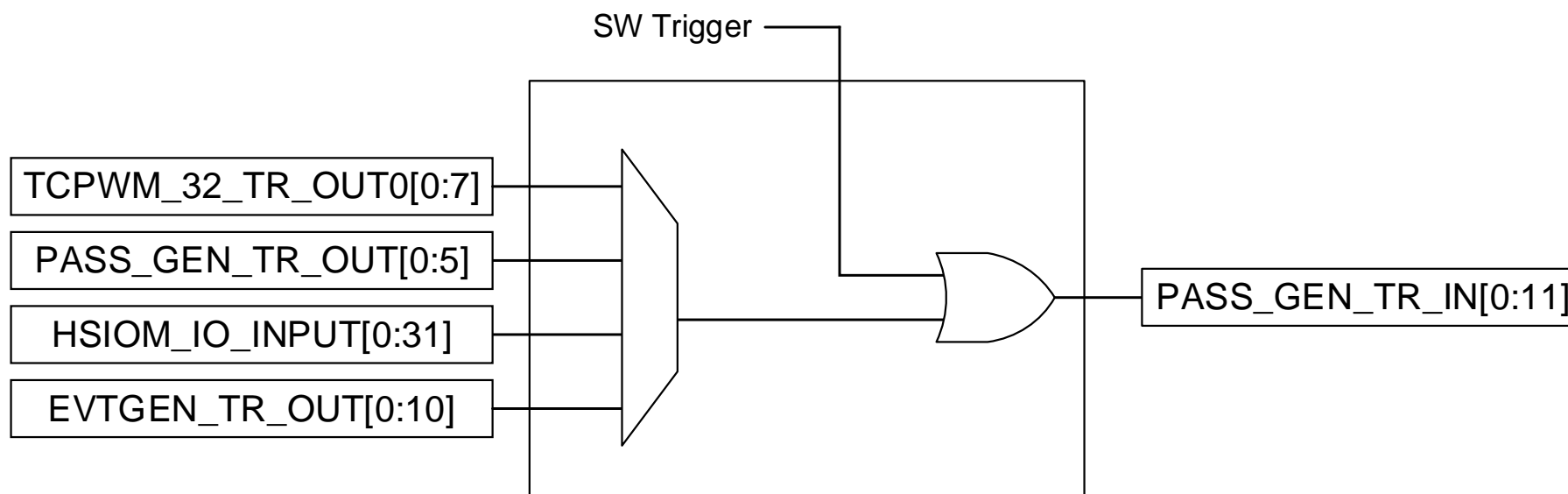


## Hint Bar

Review TRM section 29.3 for additional details

# Group Trigger

- > Functionalities
  - Connects a peripheral input trigger to multiple peripheral output triggers
  - Generates a SW trigger



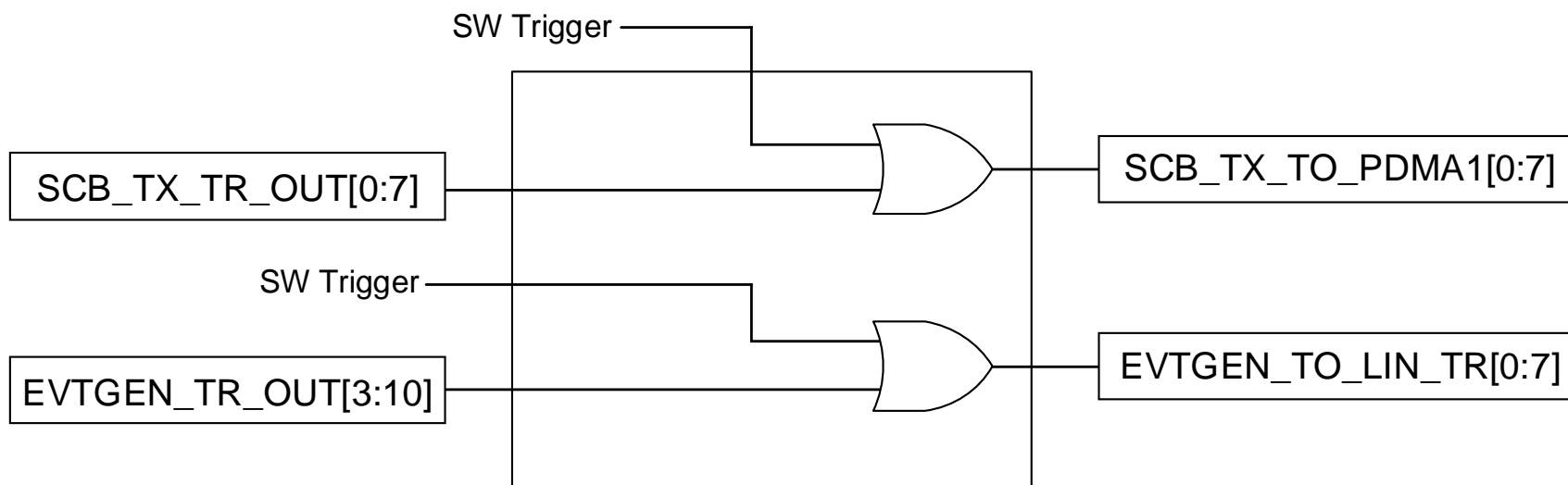
## Hint Bar

Review TRM section 29.3 for additional details

**Multiple peripheral output triggers are selected by the software**

# 1-to-1 Trigger

- > Functionalities
  - Connects a peripheral input trigger to one specific peripheral output trigger
  - Generates a SW trigger

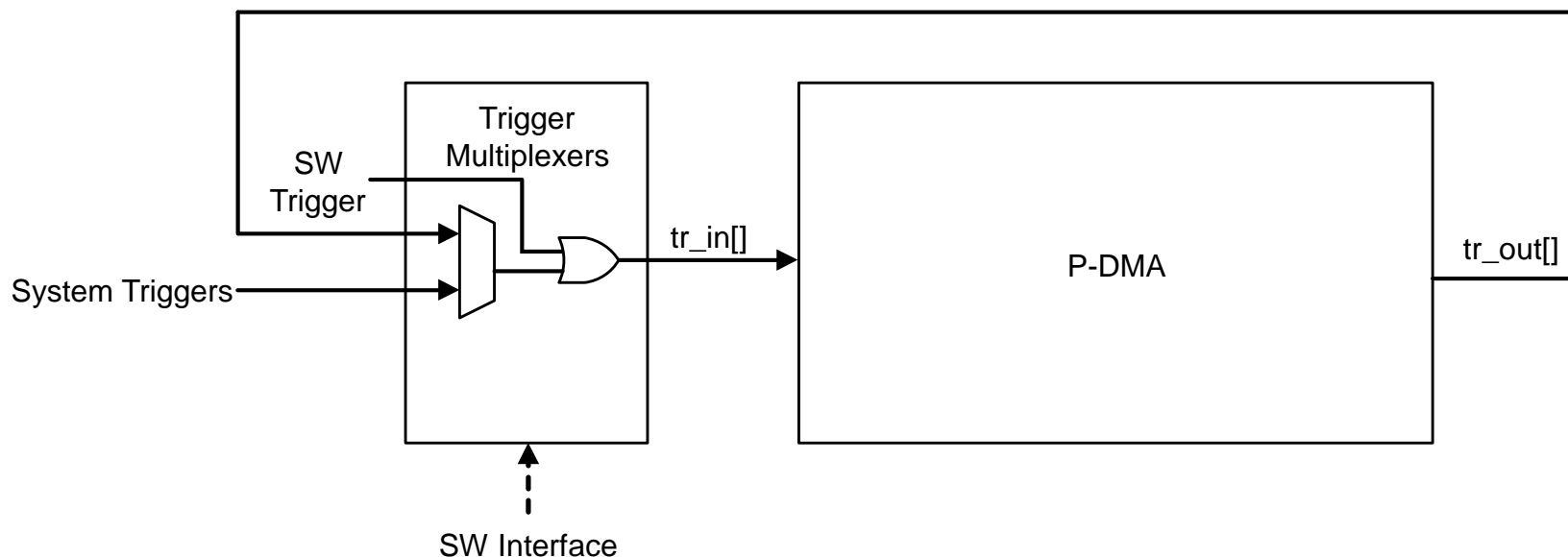


## Hint Bar

Review TRM section 29.3 for additional details

# Use Case: SW Trigger

- > SW trigger is written as one of the system triggers of a bit-encoded interrupt in P-DMA
  - P-DMA activation made through the SW trigger can enable the initial CRC on program data



## Hint Bar

Review TRM section 29.4 for additional details

Refer to the Direct Memory Access Training section for additional details on P-DMA





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# Revision History

Revision	ECN	Submission Date	Description of Change
**	6086858	03/12/2018	Initial release
*A	6385302	11/19/2018	Added page 2 and the note descriptions for all pages Updated pages 4, 6, and 7 Deleted the Appendix section and TVII-B-E-1M Trigger pages
*B	6649424	08/07/2019	Added note description to page 9 Updated page 2
*C	7048497	12/18/2020	Updated page 2.