

Trigger Frame Format

The trigger frame is output from the TI core for every trigger block.

- Trigger Header (64-bits)
 - Word 0 (32-bits)
 - 31:27 = 0x80 (block header indicator)
 - 26:22 = BoardID (TI Specific)
 - 21:18 = 0x0 (ID for TI Board)
 - 17:08 = Block number, (lower 10 bits)
 - 07:00 = Block size
 - Word 1 (32-bits)
 - 31:17 = 0xFF10 (bit 17 can be either 1 or 0)
 - 16 = 1 if timestamp is available, 0 if not
 - 15:08 = 0x20
 - 07:00 = Block size

After the trigger header there is a trigger event word for each trigger in the block

- Trigger Event (64-bits or 128-bits)
 - Word 0 (32-bits)
 - 31:24 = Trigger Type
 - 23:16 = 0x01
 - 15 = SYNC Flag
 - 14:00 = Event word count, word 0 is excluded from the count
 - Word 1 (32-bits)
 - 31:00 = Trigger number
 - Word 2 (32-bits) Included if Event word count is greater than 1
 - 31:00 = Trigger timing in 4ns steps
 - Word 3 (32-bits) Included if Event word count is greater than 1
 - 31:16 = Trigger number bit 47:32, to form 48 bit counter with word 1
 - 15:00 = Trigger timing bits 47:32, to form 48 bit timing with word 2