

System Timer (STM)

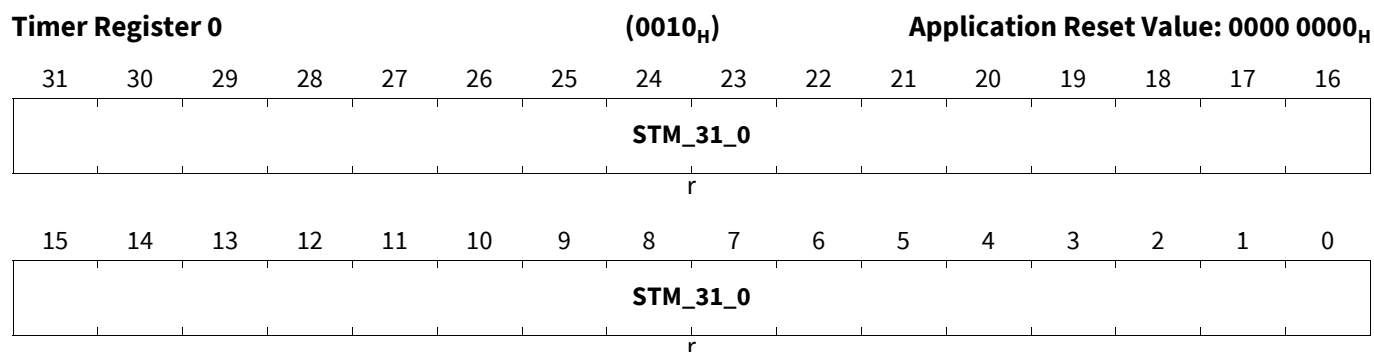
27.4.2 Timer/Capture Registers

Registers TIM0 to TIM6 provide 32-bit views at varying resolutions of the underlying STM counter.

Timer Register 0

Register TIM0SV address the STM[31:0] bits at a second optional address as TIM0.

TIM0

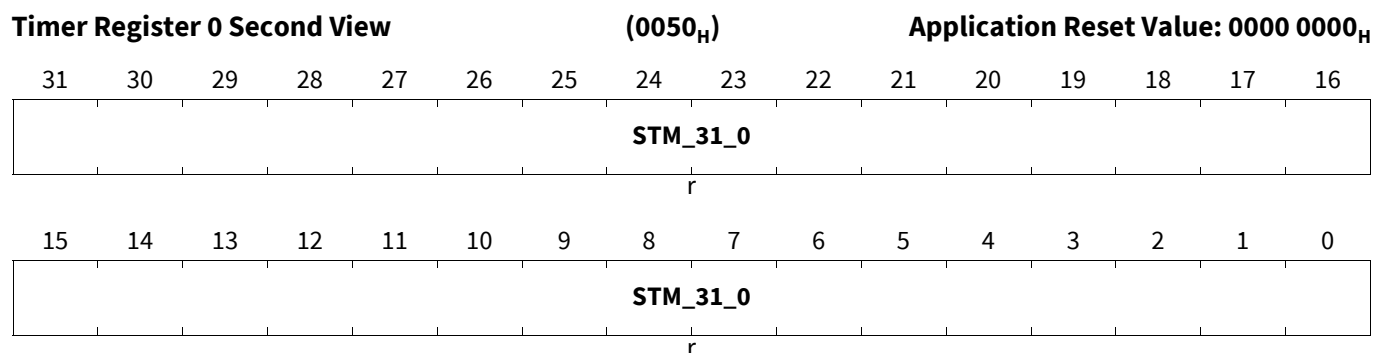


Field	Bits	Type	Description
STM_31_0	31:0	r	System Timer Bits [31:0] - STM[31:0] This bit field contains bits [31:0] of the 64-bit STM.

Timer Register 0 Second View

Register TIM0SV address the STM[31:0] bits at a second optional address as TIM0.

TIM0SV



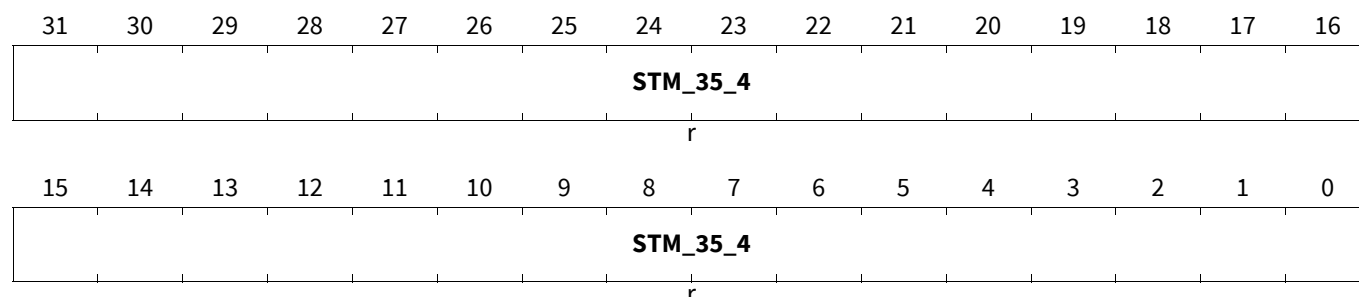
Field	Bits	Type	Description
STM_31_0	31:0	r	System Timer Bits [31:0] - STM[31:0] This bit field contains bits [31:0] of the 64-bit STM.

System Timer (STM)

Timer Register 1

TIM1

Timer Register 1 (0014_H) **Application Reset Value: 0000 0000_H**

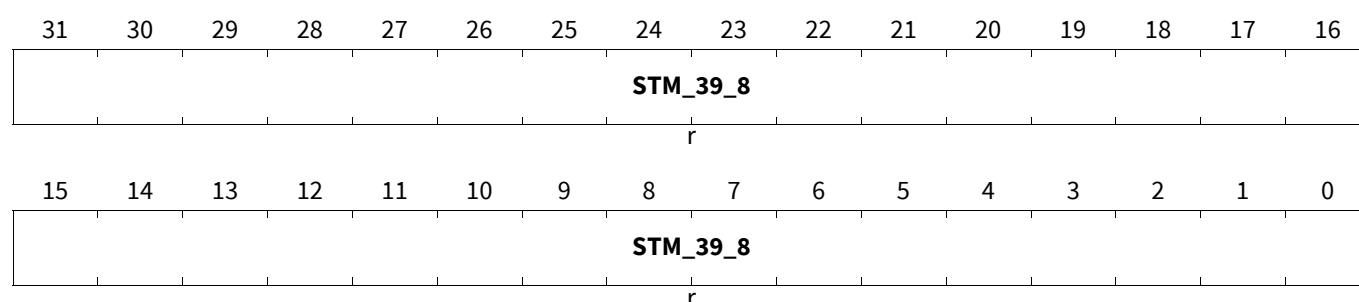


Field	Bits	Type	Description
STM_35_4	31:0	r	System Timer Bits [35:4] - STM[35:4] This bit field contains bits [35:4] of the 64-bit STM.

Timer Register 2

TIM2

Timer Register 2 (0018_H) **Application Reset Value: 0000 0000_H**

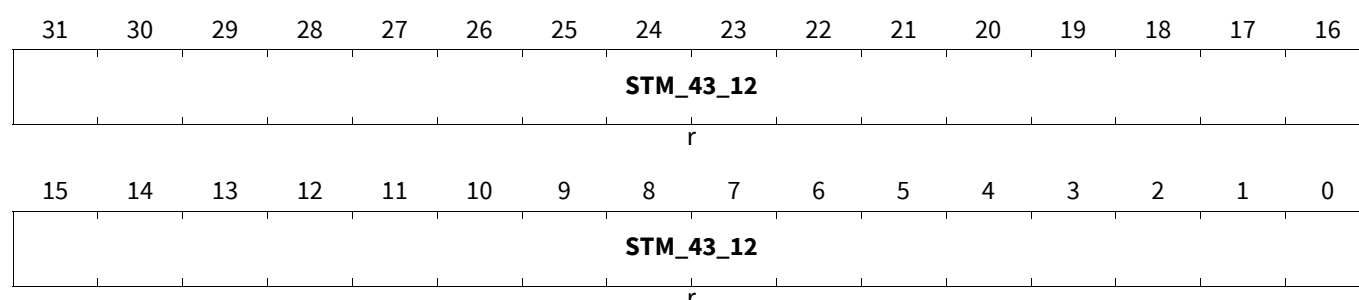


Field	Bits	Type	Description
STM_39_8	31:0	r	System Timer Bits [39:8] - STM[39:8] This bit field contains bits [39:8] of the 64-bit STM.

Timer Register 3

TIM3

Timer Register 3 (001C_H) **Application Reset Value: 0000 0000_H**



System Timer (STM)

Field	Bits	Type	Description
STM_43_12	31:0	r	System Timer Bits [43:12] - STM[43:12] This bit field contains bits [43:12] of the 64-bit STM.

Timer Register 4

TIM4

Timer Register 4															
(0020 _H)								Application Reset Value: 0000 0000 _H							
31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
STM_47_16															
r															
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
STM_47_16															
r															

Field	Bits	Type	Description
STM_47_16	31:0	r	System Timer Bits [47:16] - STM[47:16] This bit field contains bits [47:16] of the 64-bit STM.

Timer Register 5

TIM5

Timer Register 5															
(0024 _H)								Application Reset Value: 0000 0000 _H							
31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
STM_51_20															
r															
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
STM_51_20															
r															

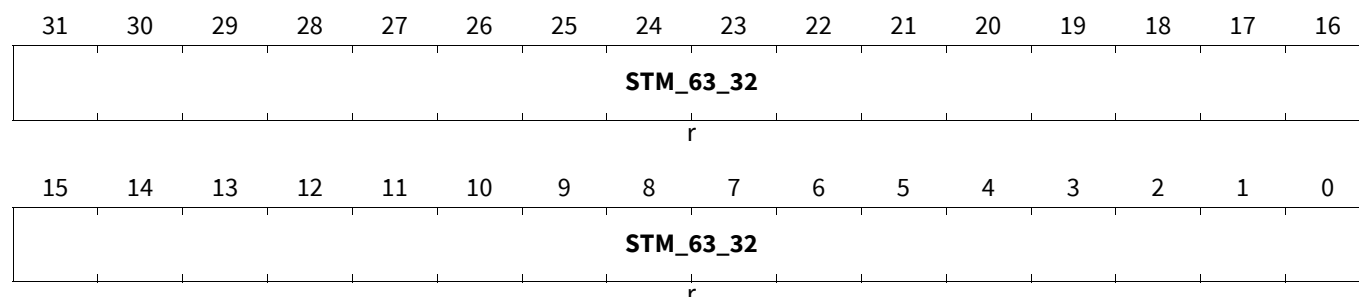
Field	Bits	Type	Description
STM_51_20	31:0	r	System Timer Bits [51:20] - STM[51:20] This bit field contains bits [51:20] of the 64-bit STM.

System Timer (STM)

Timer Register 6

TIM6

Timer Register 6 (0028_H) Application Reset Value: 0000 0000_H

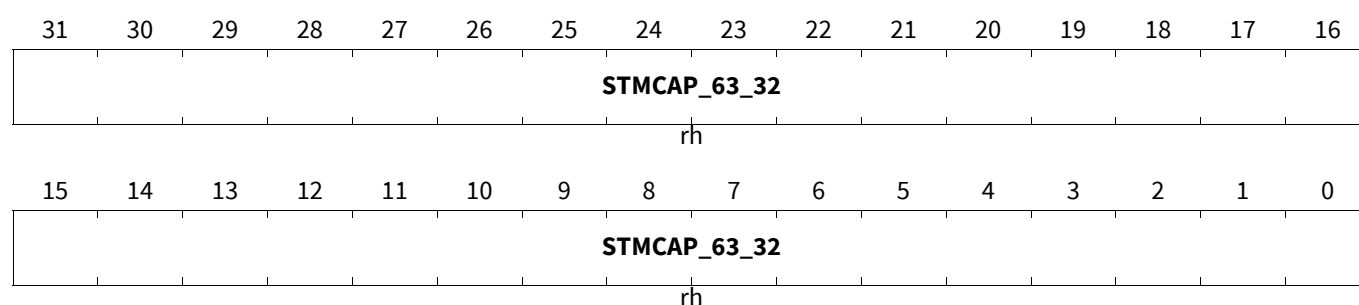


Field	Bits	Type	Description
STM_63_32	31:0	r	System Timer Bits [63:32] - STM[63:32] This bit field contains bits [63:32] of the 64-bit STM.

Timer Capture Register

CAP

Timer Capture Register (002C_H) Application Reset Value: 0000 0000_H



Field	Bits	Type	Description
STMCAP_63_32	31:0	rh	Captured System Timer Bits [63:32] - STMCAP[63:32] The capture register STMCAP always captures the STM bits [63:32] when one of the registers TIM0 to TIM6 or TIM0SV is read. This capture operation is performed in order to enable software to operate with a coherent value of all the 64 STM bits at one time stamp. This bit field contains bits [63:32] of the 64-bit STM. <i>Note: Reading register TIM0SV captures also the read value for register TIM6. In this way reading TIM0SV followed by CAPSV delivers the timer values for the first read request.</i>