

8.10.7.51 SYSCOUNTER[n].SYSCOUNTERH (n=0..3)

Address offset: 0x724 + (n × 0x10)

The higher 20-bits of the SYSCOUNTER for index [n]

Bit number		31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		
ID		C	B																																
Reset 0x40000000		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ID	R/W	Field	Value ID	Value	Description																														
A	R	VALUE			The higher 20-bits of the SYSCOUNTER value.																														
B	R	BUSY			SYSCounter busy status																														
			Ready	0	SYSCounter is ready for read																														
			Busy	1	SYSCounter is busy, so not ready for read (value returned in the VALUE field of this register is not valid)																														
C	R	OVERFLOW			The SYSCOUNTERL overflow indication after reading it.																														
			NoOverflow	0	SYSCounterL is not overflowed																														
			Overflow	1	SYSCounterL overflowed																														

8.10.7.52 SYSCOUNTER[n].ACTIVE (n=0..3)

Address offset: 0x728 + (n × 0x10)

Request to keep the SYSCOUNTER in the active state and prevent going to sleep for index [n]

Bit number		31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0			
ID																																				
Reset 0x00000000		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
ID	R/W	Field	Value ID	Value	Description																															
A	RW	ACTIVE			Keep SYSCOUNTER in active state																															
			NotActive	0	Allow SYSCOUNTER to go to sleep																															
			Active	1	Keep SYSCOUNTER active																															

8.11 I²S – Inter-IC sound interface

The I²S (Inter-IC Sound) module, supports the original two-channel I²S format, and left- or right-aligned formats. It implements EasyDMA for sample transfer directly to and from RAM without CPU intervention.

The I²S peripheral has the following main features:

- Master and Slave mode
- Simultaneous bidirectional (TX and RX) audio streaming
- Original I²S and left- or right-aligned format
- 32, 24, 16 and 8-bit sample widths
- Separate sample and word widths
- Low-jitter master clock generator
- Various sample rates