

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			D D																C C B B B B A A A A															
Reset 0x00000000			0 0																															
D	R/W	Field	Value ID	Value	Description																													
A	RW	PIN			GPIO pin selection.																													
B	RW	PORT			GPIO Port selection																													
C	RW	INTERNAL			Internal input selection for analog negative input when																													
					CH[n].PSELN.CONNECT = Internal																													
			Avdd	0	Connected to the internal 0.9V analog supply rail																													
			Dvdd	1	Connected to the internal 0.9V digital supply rail																													
			Vdd	2	Connected to VDD																													
D	RW	CONNECT			Connection																													
			NC	0	Not connected																													
			AnalogInput	1	Select analog input																													
					The analog input is connected based on CH[n].PSELN.PIN and																													
					CH[n].PSELN.PORT																													

### 8.18.11.32 CH[n].CONFIG (n=0..7)

Address offset: 0x518 + (n × 0x10)

Input configuration for CH[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				F F F			E E E E E E E E D																C B A A A												
Reset 0x00020000				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 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	GAIN			Gain control																														
			Gain2	0	2																														
			Gain1	1	1																														
			Gain2_3	2	2/3																														
			Gain2_4	3	2/4																														
			Gain2_5	4	2/5																														
			Gain2_6	5	2/6																														
			Gain2_7	6	2/7																														
Gain2_8	7	2/8																																	
B	RW	BURST			Enable burst mode																														
			Disabled	0	Burst mode is disabled (normal operation)																														
			Enabled	1	Burst mode is enabled. SAADC takes 2^OVERSAMPLE number of samples as fast as it can, and sends the average to Data RAM.																														
C-	RW	REFSEL			Reference control																														
			Internal	0	Internal reference (0.9 V)																														
			External	1	External reference given at PADC_EXT_REF_1V2																														
D	RW	MODE			Enable differential mode																														
			SE	0	Single ended, PSELN will be ignored, negative input to ADC shorted to GND																														
			Diff	1	Differential																														
E	RW	TACQ		[1..319]	Acquisition time, the time the ADC uses to sample the input voltage. Resulting acquisition time is ((TACQ+1) x 125 ns)																														
F	RW	TCONV		[1..7]	Conversion time. Resulting conversion time is ((TCONV+1) x 250 ns)																														