6.2.6 Register 5: PGA Configuration and Over/Under-Scale Limit Register (Read/Write, Address Pointer = 00101)

Bit #	D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	D0
Bit Name	RFB	RFB	CLK_ CFG1	CLK_ CFG0	EXT EN	INT EN	EXT POL	INT POL	RFB	OU EN	HL2	HL1	HL0	LL2	LL1	LL0
POR Value	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bit Descriptions:

RFB: (Reserved Factory Bit): Set to zero for proper operation

CLK_CFG[1:0]: Clocking scheme for Front-End PGA auto-zero and Coarse Offset DAC Chopping

EXTEN: Enable External Fault Comparator Group (INP_HI, INP_LO, INN_LO, INN_HI)
1 = Enable External Fault Comparator Group
0 = Disable External Fault Comparator Group

INTEN: Enable Internal Fault Comparator Group (A2SAT_LO, A2SAT_HI, A1SAT_LO, A1SAT_HI, A3_VCM)
1 = Enable Internal Fault Comparator Group
0 = Disable Internal Fault Comparator Group

EXTPOL: Selects V_{OUT} output polarity when External Fault Comparator Group detects a fault, if EXTEN = 1
1 = Force V_{OUT} high when any comparator in the External Fault Comparator Group detects a fault
0 = Force V_{OUT} low when any comparator in the External Fault Comparator Group detects a fault

INTPOL: Selects V_{OUT} output polarity when Internal Fault Comparator Group detects a fault, if INTEN = 1
1 = Force V_{OUT} high when any comparator in the Internal Fault Comparator Group detects a fault
0 = Force V_{OUT} low when any comparator in the Internal Fault Comparator Group detects a fault

OUEN: Over/Under-Scale Limit Enable.
1 = Enable Over/Under-Scale limits
0 = Disable Over/Under-Scale limits

HL[2:0]: Over-Scale Threshold Select

LL[2:0]: Under-Scale Threshold Select

Table 6−10. Clock Configuration (Front End PGA Auto-Zero and Coarse Adjust DAC Chopping)

CIK_CFG1 [13]	CLK_CFG0 [12]	PGA Front End Auto-Zero	Coarse Adjust DAC Chopping
0	0	7kHz typical	3.5kHz typical
0	1	7kHz typical	Off (none)
1	0	7kHz typical, Random Clocking	3.5kHz typical, Random Clocking
1	1	7kHz typical	3.5kHz typical, Random Clocking

Table 6−11. Over-Scale Threshold Select (V_{REF} = +5V)

HL2 [5]	HL1 [4]	HL0 [3]	Over-Scale Threshold (V)	Over-Scale Threshold
0	0	0	4.854	0.9708 V_{REF}
0	0	1	4.805	0.9610 V_{REF}
0	1	0	4.698	0.9394 V_{REF}
0	1	1	4.580	0.9160 V_{REF}
1	0	0	4.551	0.9102 V_{REF}
1	0	1	3.662	0.7324 V_{REF}
1	1	0	2.764	0.5528 V_{REF}
1	1	1	Reserved	—

Table 6−12. Under-Scale Threshold Select (V_{REF} = +5V)

LL2 [2]	LL1 [1]	LL0 [0]	Under-Scale Threshold (V)	Under-Scale Threshold
0	0	0	0.127	0.02540 V_{REF}
0	0	1	0.147	0.02930 V_{REF}
0	1	0	0.176	0.03516 V_{REF}
0	1	1	0.196	0.03906 V_{REF}
1	0	0	0.225	0.04492 V_{REF}
1	0	1	0.254	0.05078 V_{REF}
1	1	0	0.274	0.05468 V_{REF}
1	1	1	0.303	0.06054 V_{REF}