

MUX Register

Description	Operational Status	Input Multiplexer			Programmable Gain Amplifier (Full Scale)			MODE	Data Rate			Comparator Mode	Compaitor Polarity	LATCHING ALERT	Comparator Queue	
BIT	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
INFO	READ 0	000	Port 0 to 1 Diff		000	6.144v (< 5vdc)		0 CONT Mode	000	8 Samples Per Sec		0 Traditional Comparator	0 Active LOW	0 Momentary Signal	00	One Sample
	Converting	001	Port 0 to 3 Diff		001	4.096v			001	16 Samples Per Sec					01	Two Samples
	READ 1	010	Port 1 to 3 Diff		010	2.048v (Default)			010	32 Samples Per Sec						
	IDLE	011	Port 2 to 3 Diff		011	1.024v			011	64 Samples Per Sec						
	WRITE 0	100	Port 0 to GND Single		100	0.512v		1 Single Shot	100	128 Samples Per Sec		1 Window Comparator	1 Active HIGH	1 Latching Signal	10	Three Samples
	No Effect	101	Port 1 to GND Single		101	0.256v			101	250 Samples Per Sec					11	DISABLE
	WRITE 1	110	Port 2 to Gnd Single		110	0.256v			110	475 Samples Per Sec						
	Start Conv.	111	Port 3 to GND Single		111	0.256v			111	860 Samples Per Sec						
	MOST SIGNIFICANT								LEAST SIGNIFICANT							

1. Write to Config register:

- First byte: 0b10010000 (first 7-bit I2C address followed by a low R/W bit)
- Second byte: 0b00000001 (points to Config register)
- Third byte: 0b10000100 (MSB of the Config register to be written)
- Fourth byte: 0b10000011 (LSB of the Config register to be written)

WRITE WORD 1

WRITE WORD 2

2. Write to Address Pointer register:

- First byte: 0b10010000 (first 7-bit I2C address followed by a low R/W bit)
- Second byte: 0b00000000 (points to Conversion register)

WRITE WORD 3

3. Read Conversion register:

- First byte: 0b10010001 (first 7-bit I2C address followed by a high R/W bit)
- Second byte: the ADS111x response with the MSB of the Conversion register
- Third byte: the ADS111x response with the LSB of the Conversion register

WRITE Byte 1

Read WORD

4. Complete

Connection	Binary	Hex	Decimal
GND	1001000	48	72
VDD	1001001	49	73
SDA	1001010	50	74
SCL	1001011	51	75

MSB	1	Operational Status Input Multiplexer Gain Mode
	000	
	001	
	1	
LSB	100	Data Rate Mode Polarity Latching Comparator
	0	
	0	
	11	

10000011	83
10000011	83

8383
Program As