

I fully agree with what was said above, that is exactly how I read it from the datasheet, and matches what I included in the question, and hence the expected result.

This is my original question:

"We are connected to I2C2. **ADCIN2** should have no effect on I2C2 address, which based on the table should be fixed at **0x38**"

So maybe a way to rephrase it is.

When I talk to the I2C2 I do NOT get an ACK at 0x38 as the datasheet and you agree should be the case.

I instead get ACK's at 0x20 and 0x23 depending on the state of **ADCIN2**.

Or another way of looking at it is the following:

	I2C2 Address	
	ADCIN2 = 0V	ADCIN2 = 3.3V
Expected Results Based on Datasheet	0x38	0x38
Measured Results based on Testing	0x20	0x23