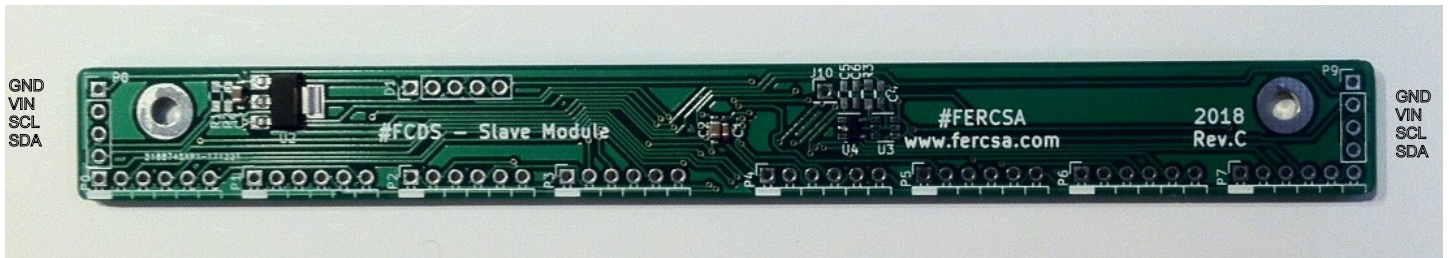


FERCSA – 32 channel ADC w/I2C

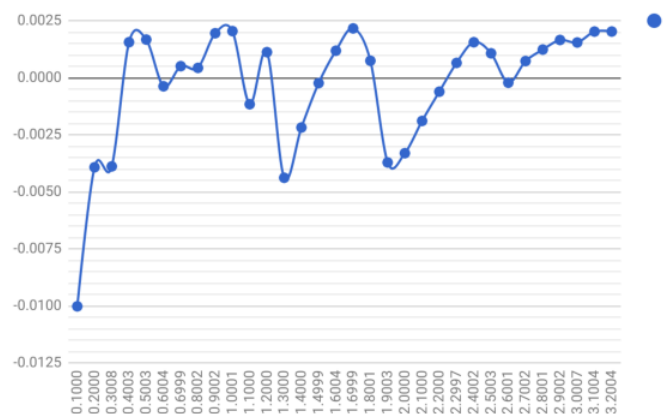
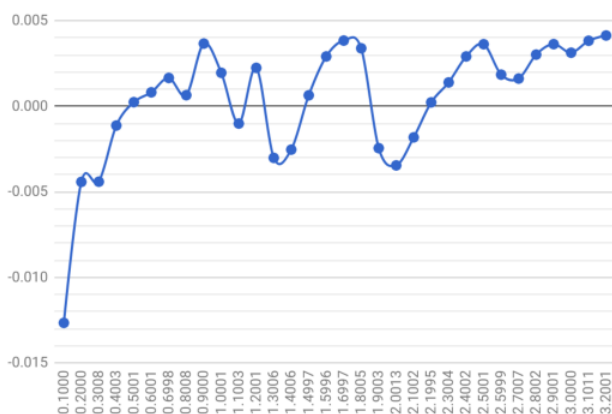


GND AIN 0 AIN 1 AIN 2 AIN 3 VOUT GND AIN 4 AIN 5 AIN 6 AIN 7 VOUT GND AIN 8 AIN 9 AIN 10 AIN 11 VOUT GND AIN 12 AIN 13 AIN 14 AIN 15 VOUT GND AIN 16 AIN 17 AIN 18 AIN 19 VOUT GND AIN 20 AIN 21 AIN 22 AIN 23 VOUT GND AIN 24 AIN 25 AIN 26 AIN 27 VOUT GND AIN 28 AIN 29 AIN 30 AIN 31 VOUT

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Typical (for 3.3V variant)	Typical (for 5.0V variant)	Units
VIN	Voltage supply input	5	7 (max.12)	V
AIN(n)	Analog input voltage	0 – 3.3	0 – 5.0	V
VOUT	Voltage supply output	3.3	5.0	V
SCL	I2C clock line	3.3	3.3 – 5.0 (based on pull-up)	V
SDA	I2C data line	3.3	3.3 – 5.0 (based on pull-up)	V
-	I2C bus speed	100	100	Kbits/s
R1, R2	I2C pull-up resistors (optional)	1.7	1.7	kOhm
J10	Vref output voltage	3.3	5.0	V
-	ADC bitrate	12 (11 effective)	12 (11 effective)	bit
-	ADC sampling rate	~8000	~8000	SPS
-	ADC input impedance	~2.2	~2.2	kOhm

ANALOG INPUT LINEARITY (based on two different channel)



CODE EXAMPLES

- Available for Arduino and Linux C.
- Please visit https://github.com/FERCSA/FCDS/tree/master/SM_demo