INA219 Library Reference Manual

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Contents

Chapter 1

INA219_main

Basic implementation of the INA219

Developed with `embedXcode`

Author

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Date

Jun 06, 2013

Version

205

See Also

ReadMe.txt for references

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 3

File Index

3.1 File List

Here is a list of all documented files with brief descriptions:

Chapter 4

Class Documentation

4.1 INA219 Class Reference

INA219 Volt-Amp-Watt Meter.

`#include <INA219_library.h>`

Public Member Functions

- INA219 ()
  Constructor.
- void begin ()
  Initialisation.
- String WhoAmI ()
  Who am I?
- void get ()
  Acquisition.
- uint32_t mV ()
  Voltage.
- uint32_t mA ()
  Current.
- uint32_t mW ()
  Power.
- bool overflow ()
  Overflow.
- bool ready ()
  Read.

4.1.1 Detailed Description

INA219 Volt-Amp-Watt Meter.

4.1.2 Member Function Documentation

4.1.2.1 void INA219::get ( )

Acquisition.

Returns

Acquire shunt and bus voltage, current and power

4.1.2.2 uint32_t INA219::mA ( )

Current.

Returns

current in mA

4.1.2.3 uint32_t INA219::mV ( )

Voltage.

Returns

bus voltage in mV

4.1.2.4 uint32_t INA219::mW ( )

Power.

Returns

power in mW

4.1.2.5 bool INA219::overflow ( )

Overflow.

Returns

true if overflow

4.1.2.6 bool INA219::ready ( )

Read.

Returns

true if ready

4.1.2.7 String INA219::WhoAmI ( )

Who am I?

Returns

Who am I? string

The documentation for this class was generated from the following files:

- INA219_library.h
- INA219_library.cpp

Chapter 5

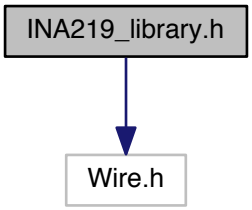
File Documentation

5.1 INA219_library.h File Reference

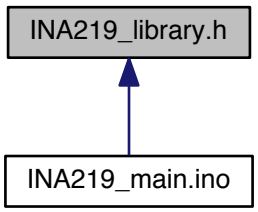
Class library header.

```
#include "Wire.h"
```

Include dependency graph for INA219_library.h:



This graph shows which files directly or indirectly include this file:



Classes

- class INA219

  INA219 Volt-Amp-Watt Meter.

Macros

- #define INA219_LIBRARY_RELEASE 203

  Library release number.

5.1.1 Detailed Description

Class library header. Library for INA219

Project INA219_main

Developed with embedXcode

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Date

Jun 06, 2013

Version

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Copyright

See Also

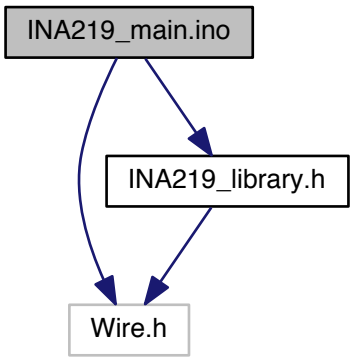
- INA219 - Zero-Drift, Bi-directional Current/Power Monitor in SOT23
  http://www.ti.com/product/ina219
- ReadMe.txt for references

5.2 INA219_main.ino File Reference

Main sketch.

```
#include "Wire.h"
#include "INA219_library.h"
```

Include dependency graph for INA219_main.ino:



Functions

- void setMinMax (uint16_t value, uint16_t &min, uint16_t &max, bool reset=false)

  Update minimum and maximum.
- String ui16toa (int32_t number, bool unit, uint8_t size)

  Convert number into text.
- void setup ()

  Setup.
- void loop ()

  Loop.

Variables

- INA219 myINA219

  Constants and variables.
- uint16_t valueV

  Constants and variables.
- uint16_t valueA

  Constants and variables.
- uint16_t valueW

  Constants and variables.
- uint16_t minV

  Constants and variables.
- uint16_t minA

  Constants and variables.
- uint16_t minW

Constants and variables.

- uint16_t maxV

  Constants and variables.
- uint16_t maxA

  Constants and variables.
- uint16_t maxW

  Constants and variables.
- uint8_t fsm = 6

  Constants and variables.
- bool unit = true

  Constants and variables.
- uint32_t chrono1

  Constants and variables.
- uint32_t chrono2

  Constants and variables.
- uint32_t chrono3

  Constants and variables.

5.2.1 Detailed Description

Main sketch. Basic implementation of the INA219

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Date

Jun 06, 2013

Version

203

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ReadMe.txt for references

5.2.2 Function Documentation

5.2.2.1 void setMinMax (uint16_t *value,* uint16_t & *min,* uint16_t & *max,* bool *reset* = `false`)

Update minimum and maximum.

Parameters

value	value, uint16_t
min	minimum, uint16_t
max	maximum, uint16_t
reset	force reset of min and max with min=max=value

5.2.2.2 String ui16toa (int32_t *number,* bool *unit,* uint8_t *size*)

Convert number into text.

Parameters

number	value, uint16_t
unit	LOW=FALSE=mU 00000, HIGH=TRUE=U 0.000
size	length of final text

Returns

formated text

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