

INA219 Library Reference Manual

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Chapter 1

INA219_main

Basic implementation of the [INA219](#)

Developed with [embedXcode](#)

Author

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Date

Jun 06, 2013

Version

205

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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:

INA219	
INA219 Volt-Amp-Watt Meter	7

Chapter 3

File Index

3.1 File List

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

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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 [WhoAml](#) ()
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

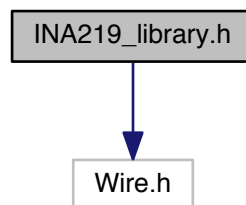
File Documentation

5.1 INA219_library.h File Reference

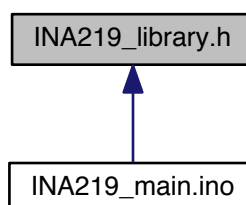
Class library header.

```
#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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See Also

- [INA219](#) - Zero-Drift, Bi-directional Current/Power Monitor in SOT23
<http://www.ti.com/product/ina219>
- ReadMe.txt for references

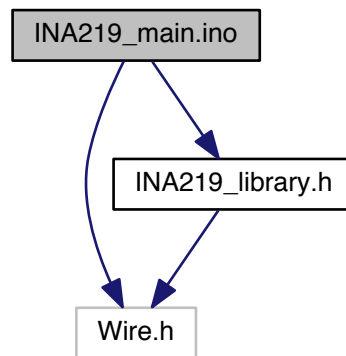
5.2 INA219_main.ino File Reference

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](#)

Developed with [embedXcode](#)

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See Also

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

<i>value</i>	value, uint16_t
<i>min</i>	minimum, uint16_t
<i>max</i>	maximum, uint16_t
<i>reset</i>	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

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

Returns

formatted text

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