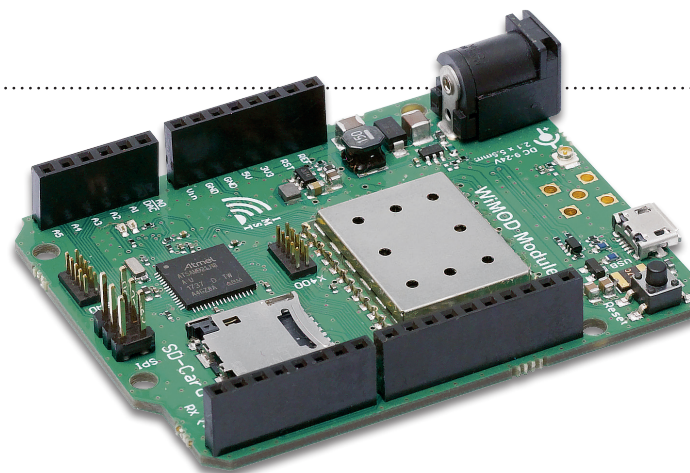


WiMODino

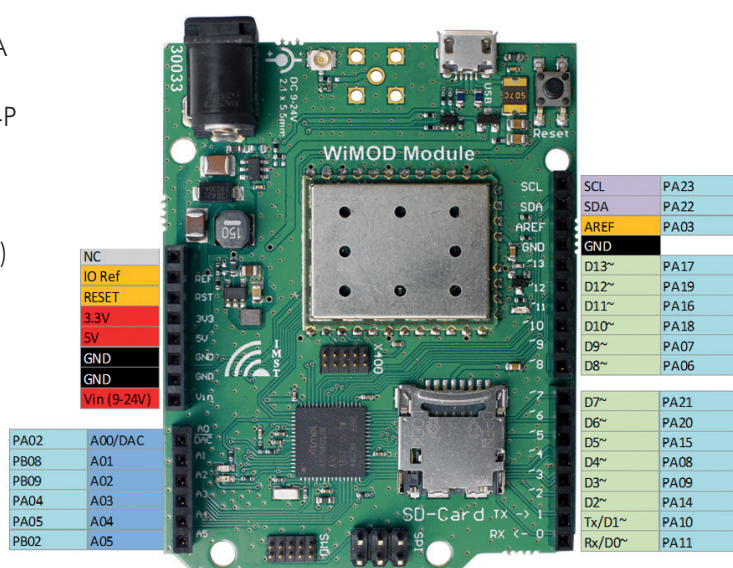
ADVANTAGE:

- Different LoRa® protocol stacks supported
- RF hardware and protocol stack are completely encapsulated
- RED¹ conformant and LoRaWAN® certified
- Small footprint (70mm x 55mm)
- Very fast prototyping on powerful Cortex M0+
- Low cost and mature technology
- Easy to use (Arduino™ IDE and standard Arduino™ bootloader)



FEATURES:

- Assembled with RED pre-certified LoRa® radio modules iM880B, iM282A, iM881A or iM980A
- Supports certified LoRaWAN® protocol stack
- Supports LR_Base (LoRa® protocol stack for P-2-P and P-2-Multi-P communication)
- RF range up to 15 km (LoS: Line of Sight)
- U.FL. connector for external antenna
- power supply external 9-24V DC or USB (micro)
- USB (micro), SPI, 2 USART, reset button, SD card holder, programming interfaces
- Compatible to Arduino™ UNO R3 pinout (3.3V)
- Powerful Cortex M0+ ATSAM21J18 (256KB flash, 32KB SRAM)
 - Interfaces SPIs, I²C, ADCs, UARTs, PWM channels, USB
 - Timer Counters (8/16/32 bit), RTC, Watchdog Timer
 - Debug support by non Arduino™ IDEs²



¹ RED: Radio Equipment Directive

² Atmel Studio, IAR, Keil, TrueStudio is a registered trademark of atmel

ARDUINO IDE:

- Board definition for Arduino™ IDE available
- Arduino™ Libraries for LoRaWAN®, LR_Base, I²C, SPI, SD card, ...
- Compatible to lots of 3rd party libraries
- Example Sketches for LoRa® and LoRaWAN® communication
- Simple API to access the LoRa® radio modules

APPLICATIONS:

- IoT
- Smart Cities
- M2M
- LongRange Communication
- Industrial Monitoring and Control
- Home and Building Automation
- Sensor Networks
- ...



```

73 Serial3.begin(WIMOD_LR_BASE_SERIAL_BAUDRATE);
74 // init the communication stack
75 wimod.begin();
76
77 // debug interface
78 Serial.begin(115200);
79
80 printStartMsg();
81
82 delay(100);
83 }
84
85
86 void loop()
87 {
88   debugMsg(F("Ping WiMOD: "));
89   if (wimod.Ping() == true) {
90     debugMsg(F("OK\n"));
91   } else {
92     debugMsg(F("FAILED\n"));
93   }
94
95   // check for any pending data of the WiMOD
96   wimod.Process();
97
98   delay(2000);
99 }
  
```

Ping Example

SIMPLE API CALLS TO WIMOD RADIO MODULE

LR-BASE API

Ping()
 Reset()
 GetDeviceInfo()
 GetFirmwareInfo()
 GetSystemStatus()
 GetRtc()
 SetRtc()
 GetRadioConfig()
 SetRadioConfig()
 SetAesKey()
 GetAesKey()
 SendUData()
 SendCDData()
 SetAckData()
 ...

LR_Base API

LoRaWAN API

Ping()
 Reset()
 GetDeviceInfo()
 GetFirmwareInfo()
 GetSystemStatus()
 Activate device()
 ReactivateDevice()
 SetJoinParameter()
 JoinNetwork()
 DeactivateDevice()
 GetNwkStatus()
 SendUData()
 SendCDData()
 ...

LoRaWAN API

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