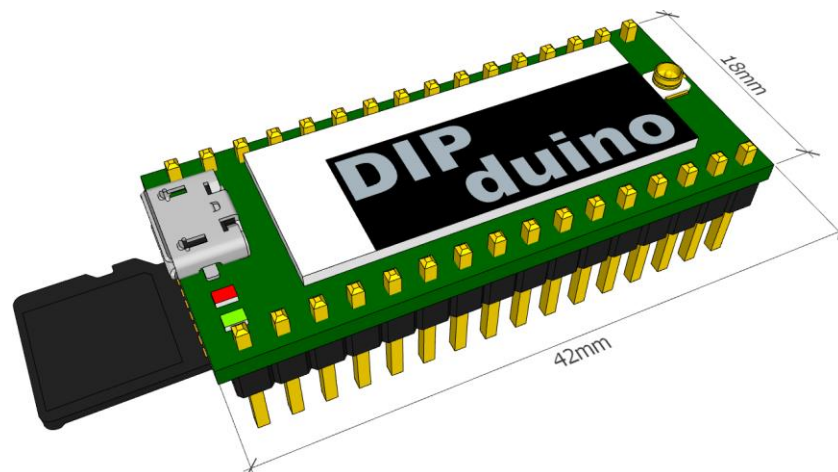## Overview

DIPDuino is an Arduino-compatible development board based on Atmel ATmega with embedded 2.4GHz ZigBee transceiver. The unit is equipped with a OLED display, a microSD card reader, a serial FTDI port, SRAM, USB and pin power supply, LEDs, and a stabilized 3V and 3.6V power output.

DIPDuino crams many useful interfaces all into one easy-to-use DIP32 package. It is most loaded with features breakout boards of today's market of such devices.
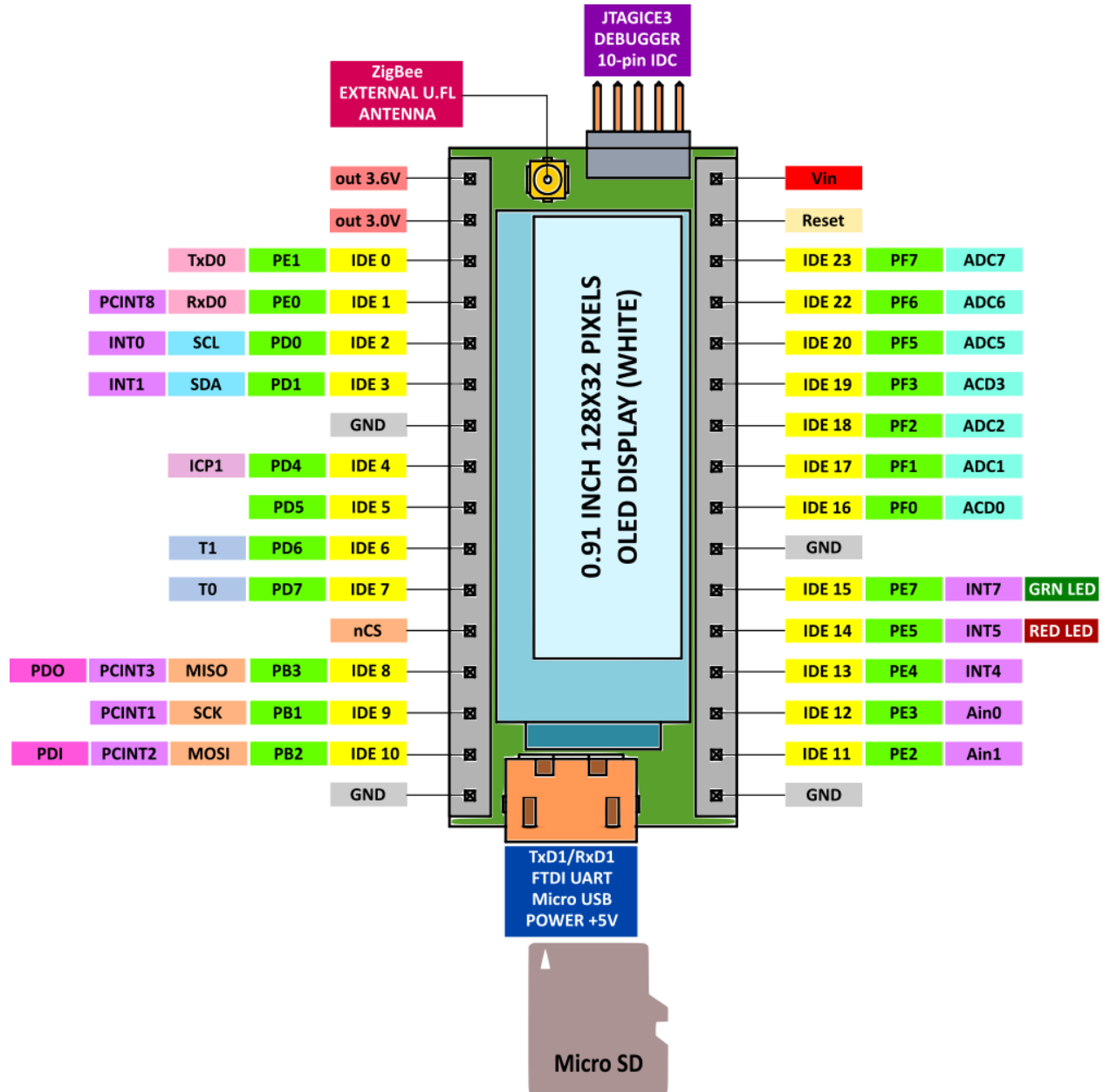
Features

- ATmega1284RFR2 or ATMega644RFR2 at 16MHz with 2.4GHz ZigBee Transceiver.
- 24 Digital and 7 Analog Pins accessible from Arduino IDE.
- 128x32 pixels monochrome SPI OLED display (UG-2832HSWEG04) on dedicated CS pin.
- 1Mbit SPI Serial SRAM (23LC1024) on dedicated CS pin.
- Micro SD card slot dedicated CS pin.
- Additional programmable SPI CS pin for external devices.
- Serial FTDI port on USART1 with 5V power input. Allows you to power your SOC directly from USB cable. Compatible with Arduino bootloader.
- Full set of interfaces on pins:
    - Master/Slave SPI Serial Interface;
    - Serial USART (USART0) independent from bootloader port of Arduino IDE;
    - 2-wire Serial Interface (TWI/I2C);
    - 10-bit, 330 KSamples/s ADC.
- Stabilized 3V and 3.6V Power Out.
- Green and Red LEDs (DIO14, DIO15).
- U.FL connector for external ZigBee antenna.

Dimensions

DIPDuino Pinouts

DIP DUINO

JTAGICE3 DEBUGGER 10-pin IDC

ZigBee EXTERNAL U.FL ANTENNA

0.91 INCH 128X32 PIXELS OLED DISPLAY (WHITE)

Left pins			
		out 3.6V	
		out 3.0V	
TxD0	PE1	IDE 0	
PCINT8	RxD0	PE0	IDE 1
INT0	SCL	PD0	IDE 2
INT1	SDA	PD1	IDE 3
		GND	
ICP1	PD4	IDE 4	
	PD5	IDE 5	
T1	PD6	IDE 6	
T0	PD7	IDE 7	
		nCS	
PDO	PCINT3	MISO	PB3	IDE 8
	PCINT1	SCK	PB1	IDE 9
PDI	PCINT2	MOSI	PB2	IDE 10
		GND	

Right pins		
Vin		
Reset		
IDE 23	PF7	ADC7
IDE 22	PF6	ADC6
IDE 20	PF5	ADC5
IDE 19	PF3	ACD3
IDE 18	PF2	ADC2
IDE 17	PF1	ADC1
IDE 16	PF0	ACD0
GND		
IDE 15	PE7	INT7	GRN LED
IDE 14	PE5	INT5	RED LED
IDE 13	PE4	INT4
IDE 12	PE3	Ain0
IDE 11	PE2	Ain1
GND		

TxD1/RxD1 FTDI UART Micro USB POWER +5V

Micro SD

Support

For more information, projects, libraries, code examples, schematics and support please visit
http://DIPDuino.com