GS103B3

AR9331- minimodule(5FE)-WIFI

Develop Board Spec V1

General Description

Oolite-9331(5FE) is a highly integrated wireless routing module. It is not only a wireless module, it is a complete route, only energized, it can work in a wireless AP module, if coupled with 5 network transformer and RJ45 network ports,she is a wireless router.

Oolite-9331(5FE) power is very low, working alone, only 0.36W, very suitable for battery products, it has a 150M wireless transmission rate, up to 22 GPIOs,and 5 Ethernet port can be defined as input and output.

It's design for wifi hard disk, WiFi router, remote monitoring, remote video, Industrial control DIY and so on.

The module based on the single chip AR9331 which integrates an 802.11n 1x1 MAC/BB/radio with internal PA and LNA. It supports 802.11n operations up to 72 Mbps for 20 MHz and 150 Mbps for 40 MHz channel respectively, and IEEE 802.11b/g data rates.

Our module base is all for it.

Because our module doesn't support by openwrt offical website now. we will send you our patch.

Please pay attention to the source code version. Thanks.
Most source you can get from:
Http://openwrt.org
https://dev.openwrt.org/
And the module can only use our own.

Characteristics:

Wireless speed: 150Mbps

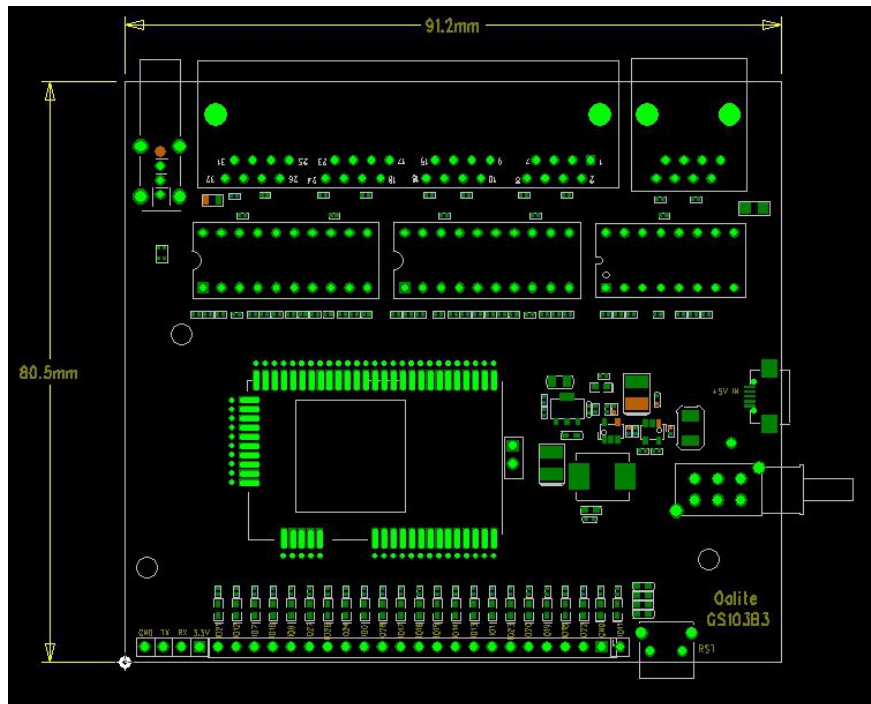General GPIO: 22 (not including TX, RX)

Power supply voltage: 5V.

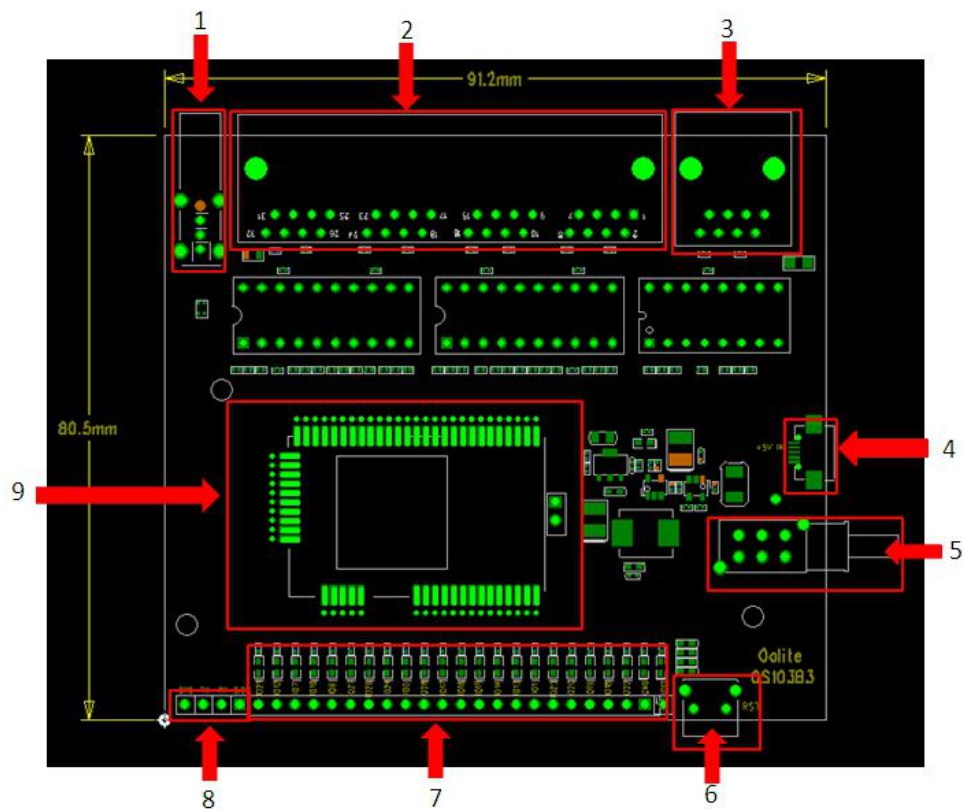Port: 5×100Mbps network interface

5V input

SPI interface pin out.

Product size: 80.5* 91.2MM.

Picture of the module base:

Functions Description：

Spec：

No	Name	spec
1	USB 2.0	USB 2.0,Can plug in U-disk,Wifi adapter, USB camera and so on.
2	Lan port	4Network Port
3	Wan/Lan port	1Network Port
4	DC inject	Power volt: +5V Micro-USB Input
5	Power Push-switch	Switching mode power supply
6	Reset	Reset
7	LEDs and Headers	All GPIOs
8	TTL debug	GND
		RX
		TX
		VDD:3.3V
9	Oolite module	Our module

Signal to Pin Relationships and Description
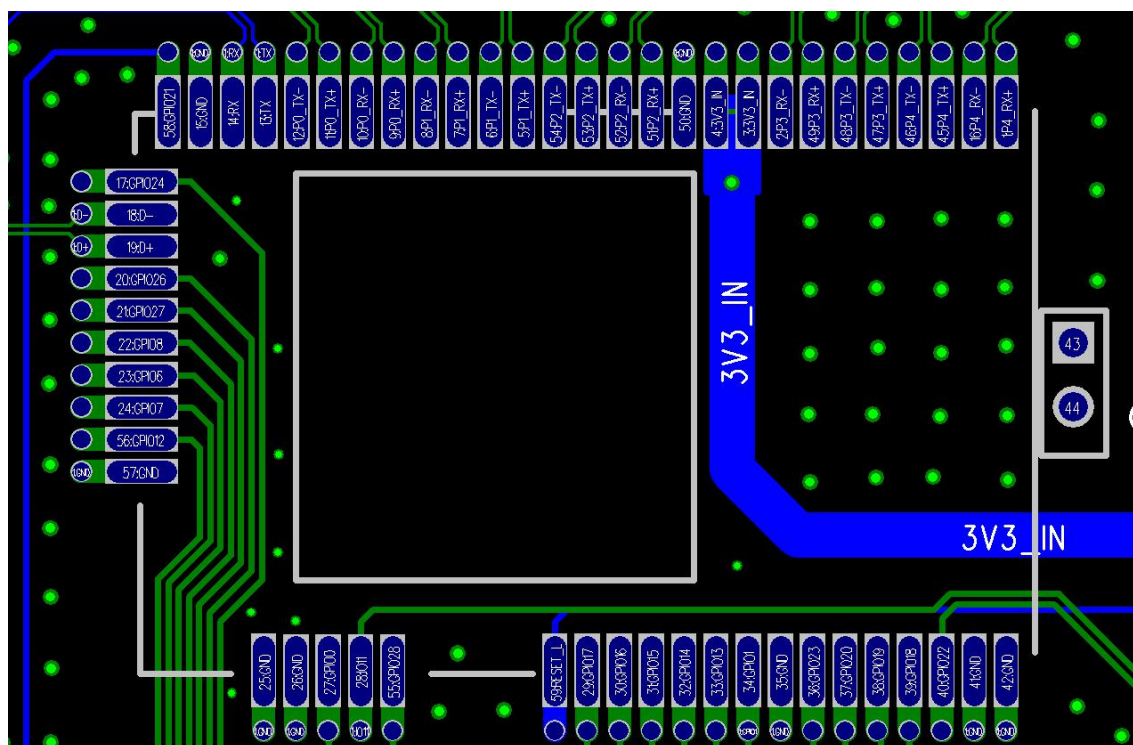
Signal Name	Pin	Type	Description
Gpio		Share Fuction	
gpio0	27	LED0	
gpio1	34	LED1	

gpio11	28	I2S_MCK、UART_RTS、JS	
gpio13	33	LED2	
gpio14	32	LED3	
gpio15	31	LED4	
gpio16	30	LED5	
gpio17	29	LED6	
gpio18	39	I2S_CK、SLIC_CLK	
gpio19	38	I2S_WS、SLIC_PS_OUT	
gpio20	37	I2S_SD、SLIC_DATA_OUT	
gpio21	58	I2S_MCK、SLIC_DATA_IN	
gpio22	40	I2S_MICIN、SLIC_DATA_IN	
gpio23	36	SPDIF_OUT	
gpio28	55		
UART			
RX	14	IA	
TX	13	OA	
Ethernet Switch			
P0_TX-	12	OA	Ethernet port 0 transmit pair
P0_TX+	11	OA	
P0_RX-	10	IA	Ethernet port 0 receive pair
P0+RX+	9	IA	
P1_RX-	8	IA	Ethernet port 1 receive pair
P1_RX+	7	IA	
P1_TX+	6	OA	Ethernet port 1 transmit pair
P1_TX-	5	OA	
P2_TX-	54	OA	Ethernet port 2 transmit pair
P2_TX+	53	OA	
P2_RX-	52	IA	Ethernet port 2 receive pair
P2_RX+	51	IA	
P3_RX-	2	IA	Ethernet port 3 receive pair
P3_RX+	49	IA	
P3_TX-	48	OA	Ethernet port 3 transmit
P3_TX+	47	OA	

			pair
P4_TX-	46	OA	Ethernet port
P4_TX+	45	OA	4 transmit pair
P4_RX-	16	IA	Ethernet port
P4_RX+	1	IA	4 receive pair

Setting the board

As usually openwrt router.

Module operating environment

Working temperature: 0　to 60　;
Storage temperature: -40　to 85　;
Humidity: 10% to 90%RH no condensation;
Storage humidity: 5% to 90%RH no condensation.