

Hardware Group LTD.

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All prices are subject to change

WiFi to Serial (UART) module**Description**

The WiFi to Serial module is an embedded WiFi / Ethernet to Serial module that would allow you to connect your existing serial microcontroller project to the Internet. The module has a web configuration page, that will allow you to change various module settings like UART baud rate, WIFI AP SSID , IP addresses DHCP etc. The module is based on the OpenWRT firmware and it uses a modified version of the Serial2Net application that is designed to run on OpenWRT Distribution.

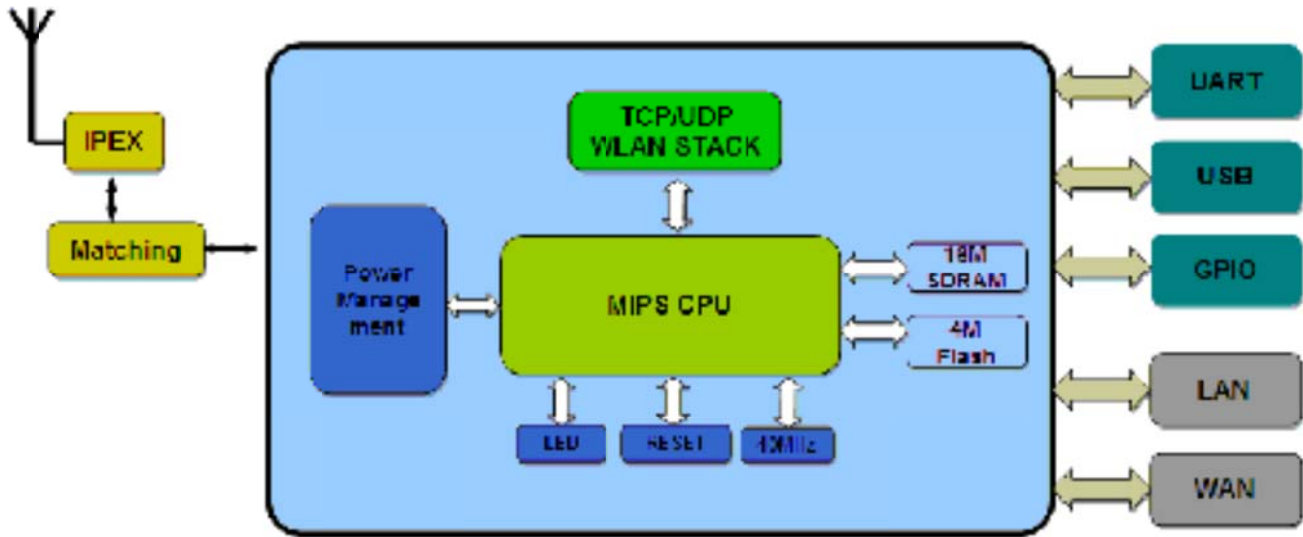
Applications

- WiFi Led Control
- WiFi Power Switch
- Home and Commercial building automation
- OBDIIWiFi Diagnose
- RFID Data Transfer
- Toys and gaming peripherals
- Industrial systems
- Telemetry
- Remote Control

Pricing

Order Code	Description	Qty 1- 10	Qty. 10 - 100	>100
1344	WiFi to Serial module	\$19.90	\$18.90	\$15.90

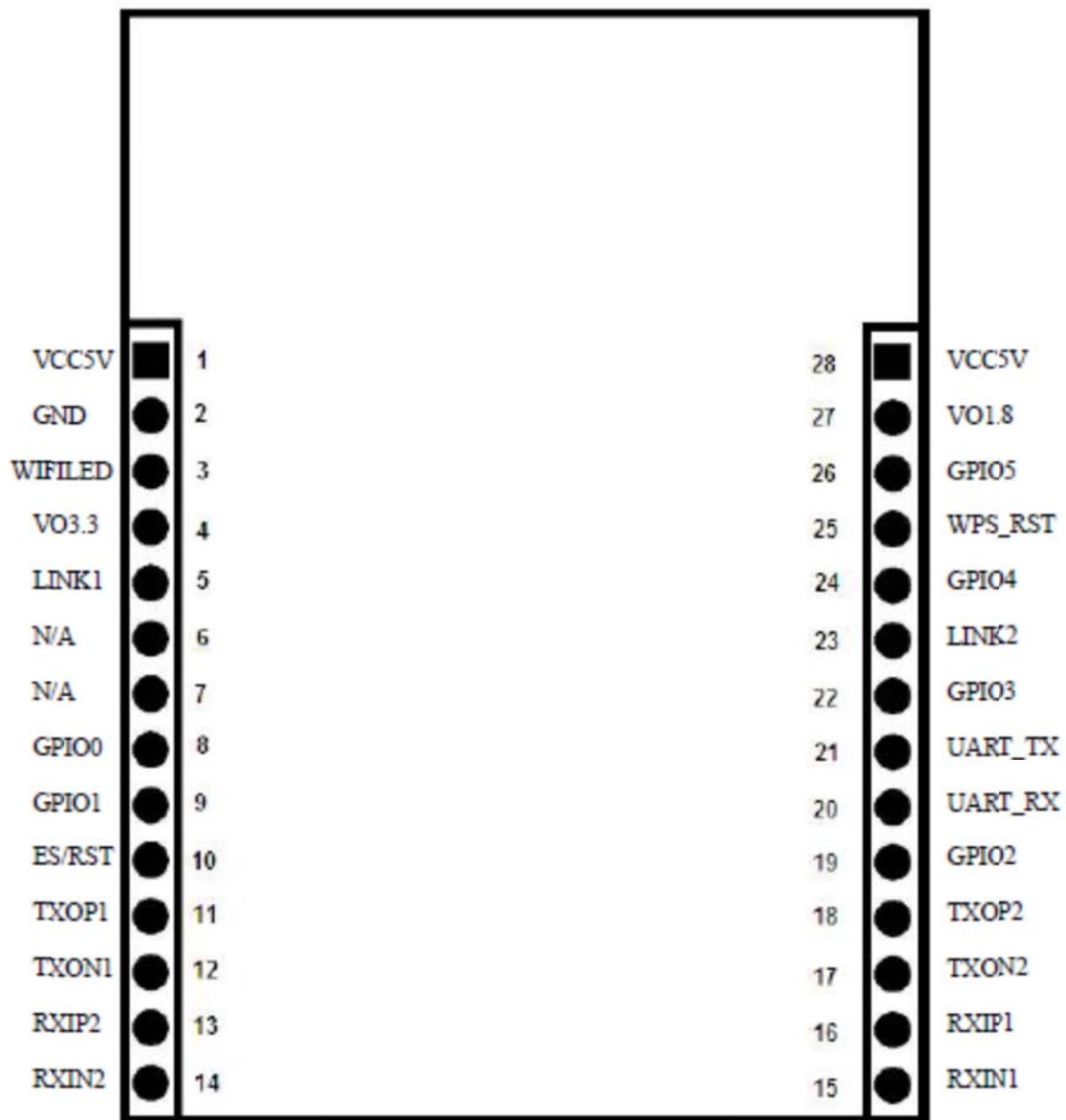
Block Diagram



1. Specifications (VDD = 5V @ 25 Celsius):

Typical DC Characteristics		Notes
Only wifi current	140mA	Wifi to serial, AP mode or Client mode
One rj45 current	120mA	Serial to RJ45.
Two rj45 current	135mA	One is Wan another is LAN
WiFi and two rj45	160mA	Default Mode/Factory Mode
Centre frequency accuracy	+/-25ppm	Additional +/-15ppm allowance
Typical RF Characteristics		Notes
Receive sensitivity	-70dBm	Use Iqview to adjust
Maximum Transmit power	18dBm/15dBm/13.5dBm	802.11b/g/n
RF Port impedance – IpeX connector	50 ohm	2.4 - 2.5GHz
VSWR (max)	2:01	2.4 - 2.5GHz
Centre frequency accuracy	+/-25ppm	Additional +/-15ppm allowance
Peripherals		Notes
UART	2pins	1200-500kbps
RJ45(WAN)	4pins	Support pppoe
RJ45(LAN)	4pins	Support dhcp
3.3V Out	1pins	Support atmost 300mA/3.3V
1.8V Out	1pins	Support atmost 300mA/1.8V

2. Pinout Configuration:



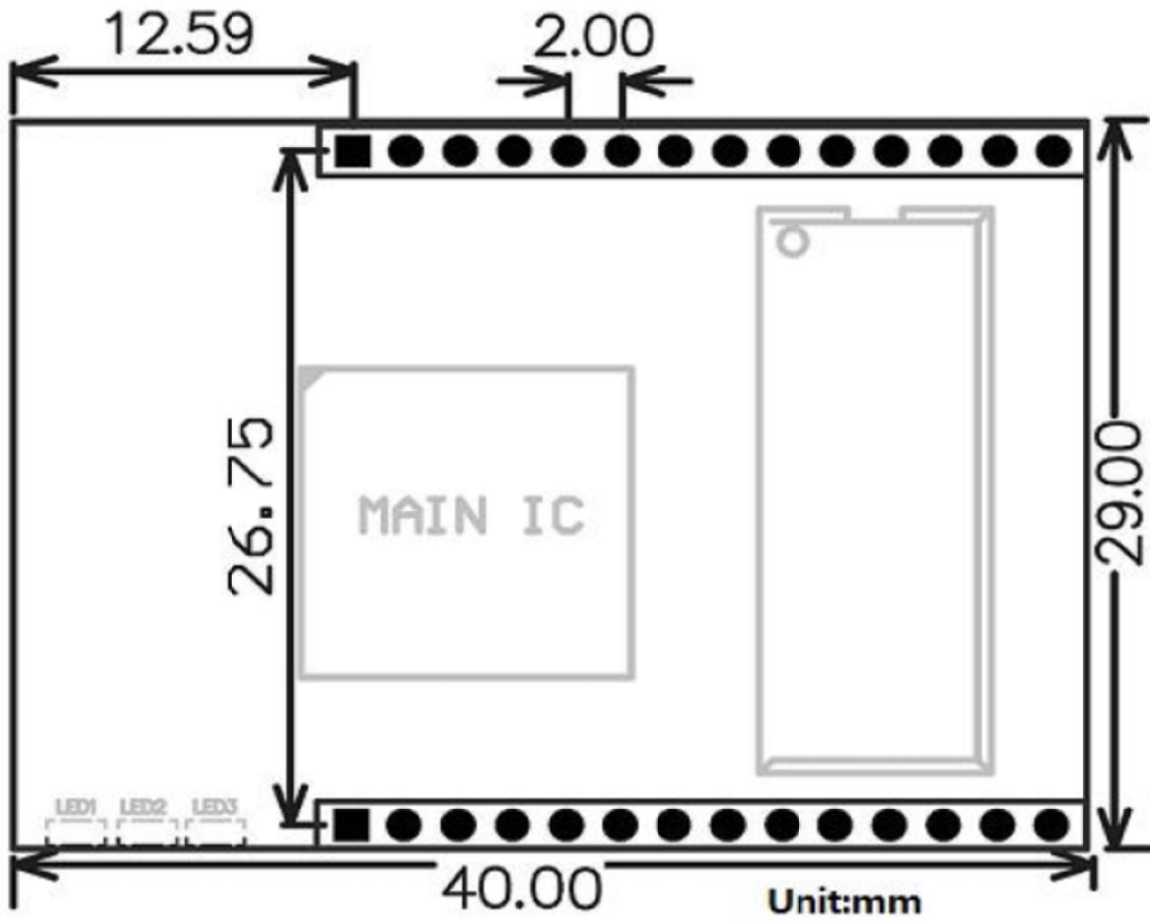
3. Pin Assignment

Pin No	Signal Type	Description
1	VCC5V	Supply Voltage, 5V+/-10%
2	GND	Analogue Ground
3	WIFILED	WLAN Activity LED
4	VO3.3	3.3V Output (Suuport Atmost 300mA)
5	LINK1	10/100 PHY Port #1 activity LED
6	N/A	Reserved
7	N/A	Reserved
8	GPIO0	General GPIO Reserved
9	GPIO1	General GPIO Reserved
10	ES/RST	Exit transparent transmission mode
11	TXOP1	10/100 PHY Port #1 TXP
12	TXON1	10/100 PHY Port #1 TXN
13	RXIP2	10/100 PHY Port #2 TXP
14	RXIN2	10/100 PHY Port #2 TXN
15	RXIN1	10/100 PHY Port #1 RXN
16	RXIP1	10/100 PHY Port #1 RXP
17	TXON2	10/100 PHY Port #2 OXN
18	TXOP2	10/100 PHY Port #2 OXP
19	GPIO2	General GPIO Reserved
20	UART_RX	UART RXD.
21	UART_TX	UART TXD.
22	GPIO3	General GPIO Reserved
23	LINK2	10/100 PHY Port #2 activity LED
24	GPIO4	General GPIO Reserved
25	WPS/RST	WiFi Protected Setup
26	GPIO5	General GPIO Reserved
27	VO1.8	1.8V Output (Suuport Atmost 300mA)
28	VCC5V	Supply Voltage, 5V+/-10%

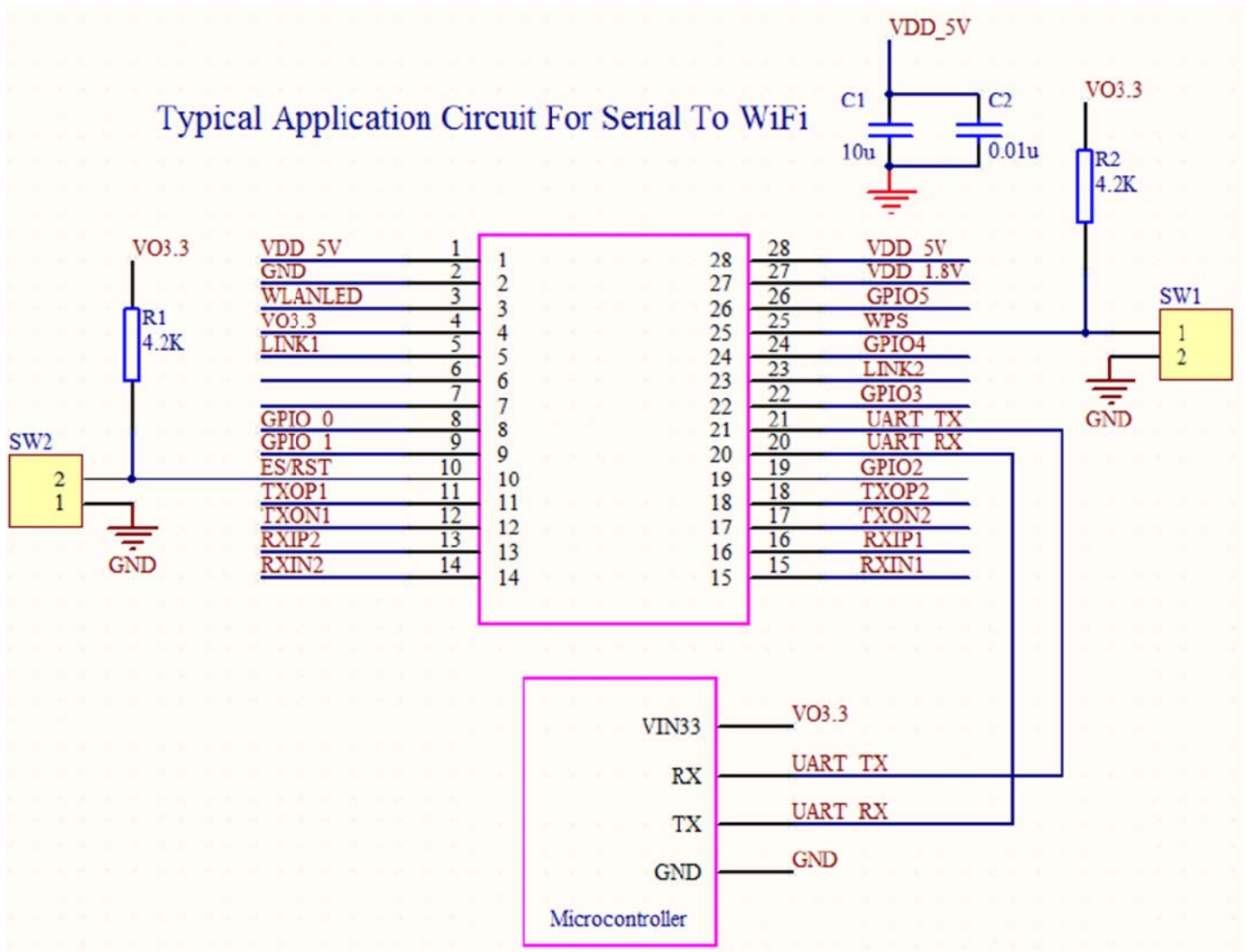
4. Electrical Characteristics

Parameter	Min	Max
Module supply voltage VCC	3.9V	5.5V
Module Voltage Output VO3.3	3.1V	3.5
Module Voltage Output VO1.8	1.65V	1.9
GPIO Voltage	3.1V	3.5V
Storage temperature	-40°C	95°C

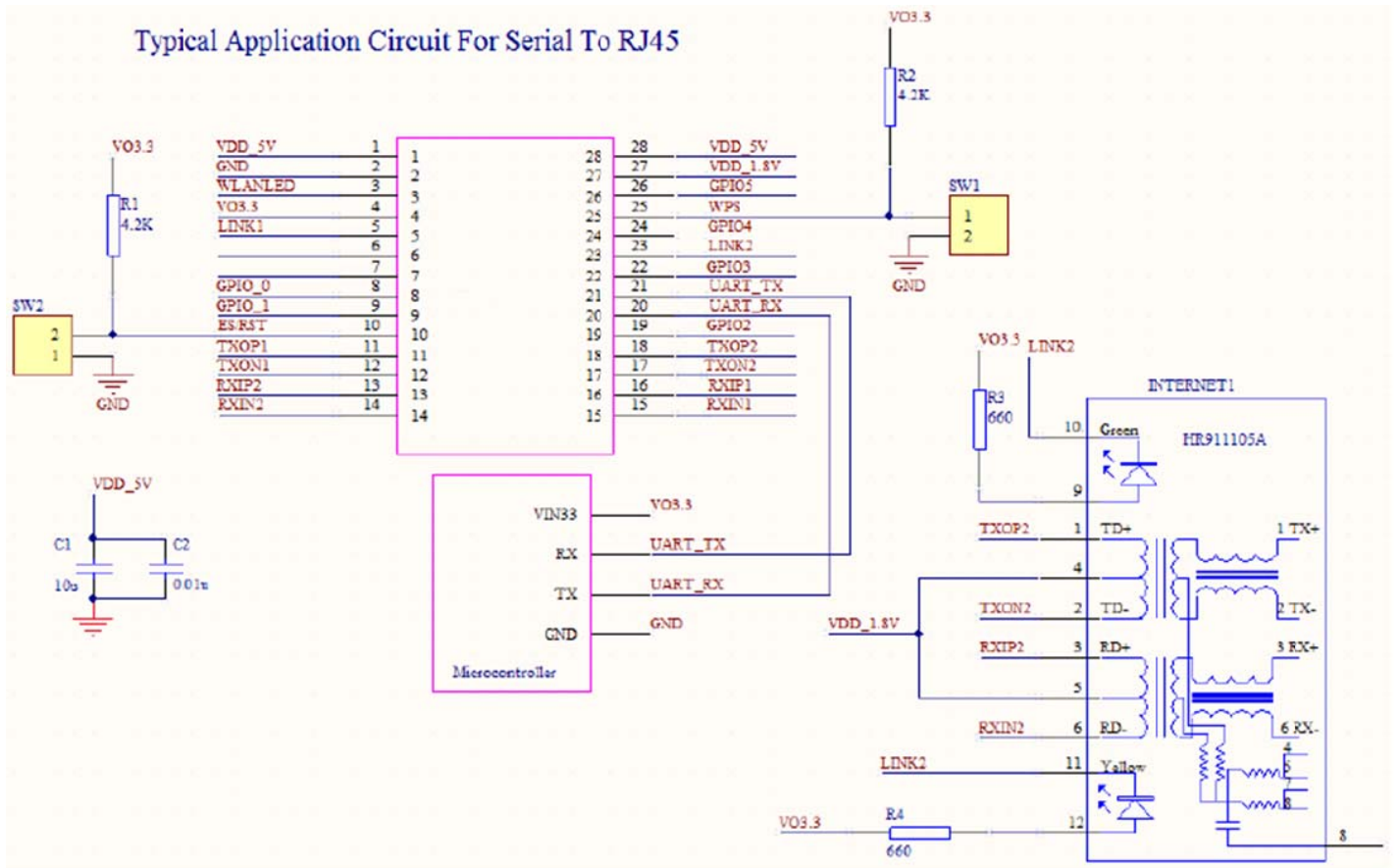
5. Outline Drawing



6. Typical Application Circuit (Serial to WiFi)



7. Typical Application Circuit (Serial to Ethernet)



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