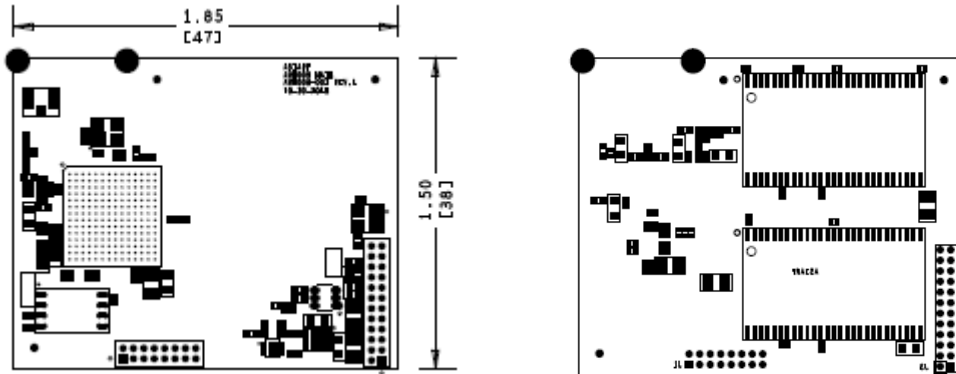


AWM003

RT5350 8MB Flash (Max is 16MB), 64MB SDRAM Professional IP Camera version
 Pins Compatible with AWM002

V1



DESCRIPTION

AWM003 is a small-size 3.8 x 4.7 cm, 802.11n AP board that achieves a data rate up to 150Mbps. Memory size is 8MB Flash, 64MB SDRAM. It is 3 times faster than the legacy 11g model but is priced less, making it more cost-effective.

The temperature is less than 60 Celsius degree with full speed running.

This product supports AP/Client modes. It is ideal for multi-purpose installation to share wireless connection.

By supporting 64/128-bits WEP, TKIP,WPA, WPA2,AES and WPS, helps to protect your data and privacy during transmission.

This module could be mounted on system board like IPTV, STB, Media Player, Femto, XDSL, Cable Modem, Industrial PC, Ethernet Switch, Printer Server, Connected TV, Smart Phone and Portable CPE For WiMAX/LTE

Also **WiFi IP camera**, **WiFi storage** function embedded.

FEATURES

- Ralink RT5350 chipset with Interface USB, GPIO, UART and GPIOs.
- Support boot from Flash
- Data Rate up to 150Mbps
- Security: 64/128-bits WEP, TKIP,WPA, WPA2,AES,WPS
- Multi-modes: AP/Client

SPECIFICATION

Hardware Features:

Standard	IEEE 802.11 b/g/n standards compliant
Wireless LAN	1T1R Mode
Antenna	IPEX Connector *1
30-pin Interface	USB*1 (Host) UART*1 GPIOs VCC/GND I2S I2C PCM
Frequency Range	2.400 ~ 2.4835GHz (subject to local regulations)
Number of Selectable Channels	802.11n 20MHz/40MHz ; 802.11b/g USA, Canada (FCC):11 channels (2.412GHz~2.462GHz) Europe (CE): 13 channels (2.412GHz~2.472GHz) Japan (TELEC): 14 channels (2.412GHz~2.4835GHz)
Data Rate	802.11n: up to 150Mbps 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
Coverage Area	Up to 6 times faster then existing 802.11 b/g products
Transmit Power(EIRP)	11n HT40 MCS7 : +13 dBm 11b CCK: +18 dBm 11g OFDM: +15 dBm
Receiver Sensitivity	-66dBm at HT40 MCS7 -73dBm at 54Mbps -86dBm at 11Mbps
Dimension	38x47 mm
Certifications	FCC/CE by request
Power consumption	Pin input: 3.3V 500mA, 1.2V 600mA(LDO) Total: 5V 550mA Above are the peak, average is like 5V 300mA, depend on the system design.

SOFTWARE FEATURE

➤ Network Features:

- ✧ Video, Storage
- ✧ DHCP Client/Relay/Server
- ✧ Dynamic DNS
- ✧ NTP Client
- ✧ DNS Cache/Proxy
- ✧ Firewall
 1. MAC/IP/Port Filter
 2. Virtual Server
 3. DMZ
 4. Content Filter

➤ WiFi:

- ✧ One Transmit and One Receive paths(1T1R)
- ✧ 20MHZ/40MHZ bandwidth.
- ✧ Support Multiple SSID
- ✧ Clock rate up to 400MHz Legacy and High Throughput Modes.
- ✧ Support WPS
- ✧ High security with build-in: WEP 64/128, TKIP, WPA, WPA2 mixed, 802.1x and 802.11i
- ✧ 802.1X Authentication with RADIUS Client
- ✧ QoS-WMM.WMM-PS

PIN DEFINITION

I

Description	Pin	Pin	Description
+3.3V	1	2	+3.3V
UART_Rx	3	4	GND
UART_Tx	5	6	Reserved
GND	7	8	WPS/Reset to Default #
LED_WLAN#	9	10	GND
LED_WPS#	11	12	USB_D+
AP/Client selection	13	14	USB_D-
1.2V	15	16	1.2V
GPIO #19	17	18	TX0+
GPIO #18	19	20	TX0-
GPIO #17	21	22	RX0+
LINK0_LED	23	24	RX0-

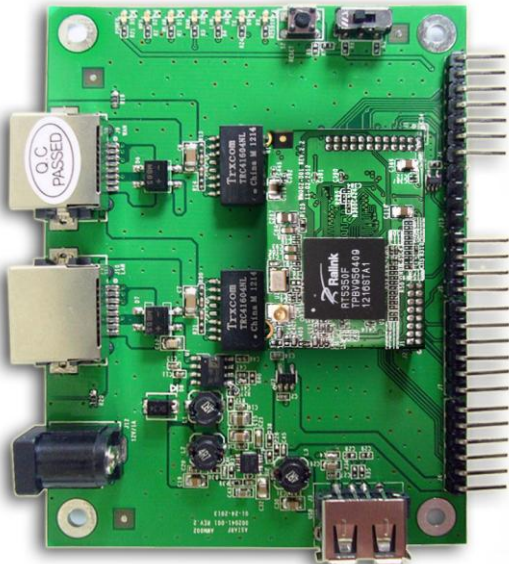
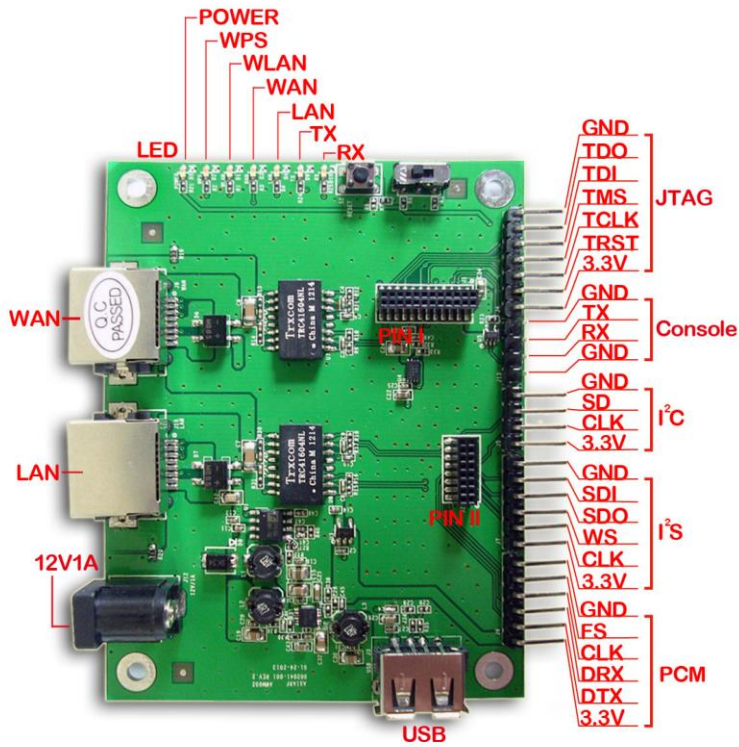
II

Description	Pin	Pin	Description
I ² SCLK	1	2	PCMFS
I ² SWS	3	4	PCMCLK
I ² SSDO	5	6	PCMDRX
I ² SSDI	7	8	PCMDTX
I ² C_SCLK	9	10	I ² C_SD
RX1+	11	12	TX1+
RX1-	13	14	TX1-
GND	15	16	GND

Size:

- Size: 38*47 mm
 Double row 1.27mm pitch on the 35mm side
- Reserved: Available for use
- Reserved is ACTIVE LOW
- LEDs and WPS/Reset to Default are active LOW
 Reset /Reset to default function is share AP/Client selection pin

Evaluated Board:



Pin Sharing Table:

			PIN1			
3.3V			1	2	3.3V	
UART_RX	GPIO #16	RX	3	4	GND	
UART_TX	GPIO #15	TX	5	6	LINK1_LED	LINK1_LED
GND			7	8	#0	RST_PBC
WLAN_LED			9	10	GND	
WPS_LED	GPIO #21	JTAG_TRST_N	11	12	USB D+	
AP/Client	GPIO #20	JTAG_TCLK	13	14	USB D-	
1.2V			15	16	1.2V	
GPIO #19	GPIO #19	JTAG_TMS	17	18	TX0+	
GPIO #18	GPIO #18	JTAG_TDI	19	20	TX0-	
GPIO #17	GPIO #17	JTAG_TDO	21	22	RX0+	
LINK0_LED			23	24	RX0-	

			PIN2				
RTS	I2S_CLK	GPIO #7	1	2	GPIO #11	PCM_FS	DTR
TXD	I2S_WS	GPIO #8	3	4	GPIO #12	PCM_CLK	DCD
CTS	I2S_SDO	GPIO #9	5	6	GPIO #13	PCM_DRX	DSR
RXD	I2S_SDI	GPIO #10	7	8	GPIO #14	PCM_DTX	RI
	I2C_CLK	GPIO #2	9	10	GPIO #1	I2C_SD	
		RX1+	11	12	TX1+		
		RX1-	13	14	TX1-		
		GND	15	16	GND		

Each column is one function, the same color is the same setting.