



BRIEF SPECIFICATIONS

802.11 b/g/n Wireless Half Mini Card

Q802XKN3

Ver. 1A

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Approved by :

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802.11 Wireless LAN

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Device Overall Description

The Q802XKN3 is designed to provide wireless LAN function on a small form factor with PCI Express interface. The wireless LAN function is based on Ralink RT3090 MAC/BBP/Transceiver and high gain power amplifier, fully comply with current draft IEEE 802.11n and IEEE 802.11 b/g standards.

Features

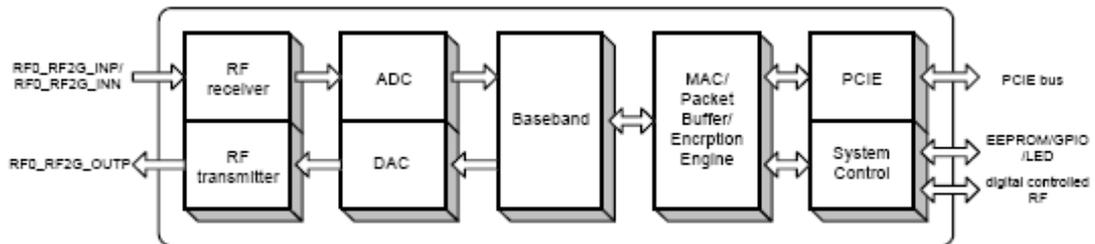
- Ralink RT3090 MAC/BBP/Transceiver
- 1T1R Modes
- 11b: 1,2,5.5,11Mbps
- 11g: 6,9,12,18,24,36,48,54Mbps
- 11n: Legacy, Mixed and Green Field Modes , Support
20/40MHz Bandwidth MCS0-7 (150Mbps PHY Rate Support)
- Reverse Direction Grant Data Flow
- Frame aggregation
- Block Ack
- Hardware WEP, TKIP, AES Engines
- Cisco CCX Support
- PCI Express 1.1

Operating Conditions

Voltage Range	3.3V +-0.3V
Operating Temperature Range	0°C - 65°C
Storage Temperature Range	-20°C - 85°C
Relative Humidity during Operating	Max. 95% (Non-Condensing)
Relative Humidity during Storage	Max. 95% (Non-Condensing)

802.11 Wireless LAN Block Diagram

RT3090: Ralink, Wireless LAN Integrated Medium Access Controller with Baseband Processor, and 2.4GHz Transceiver



Channel Assignment

Channel	Frequency	FCC (US)	IC (CA)	ETSI (EU)	Japan (JP)
1	2412MHz	X	X	X	X
2	2417MHz	X	X	X	X
3	2422MHz	X	X	X	X
4	2427MHz	X	X	X	X
5	2432MHz	X	X	X	X
6	2437MHz	X	X	X	X
7	2442MHz	X	X	X	X
8	2447MHz	X	X	X	X
9	2452MHz	X	X	X	X
10	2457MHz	X	X	X	X
11	2462MHz	X	X	X	X
12	2467MHz			X	X
13	2472MHz			X	X
14	2484MHz				X

KEY:
 US = United States, CA = Canada, EU = European Countries (except France and Spain)
 JP = Japan
 Many countries and region are currently revising the channel assignment.
 X = Supported

Mechanical Drawing

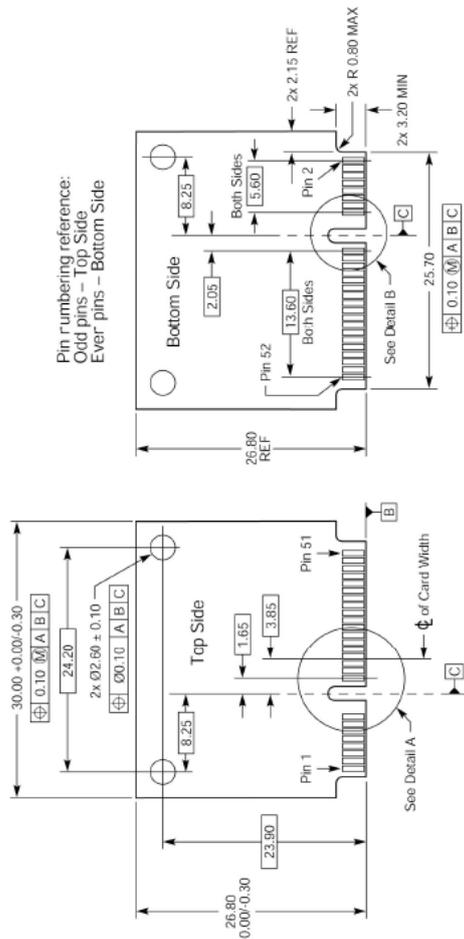


Figure 2-4: Half-Mini Card Top and Bottom

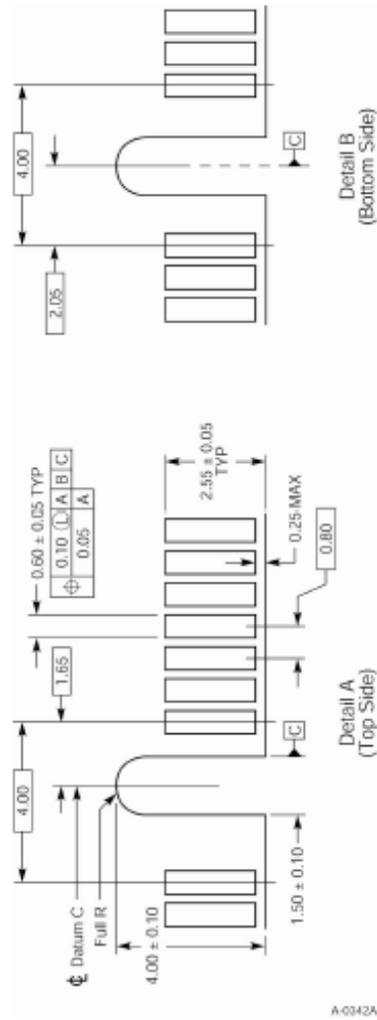
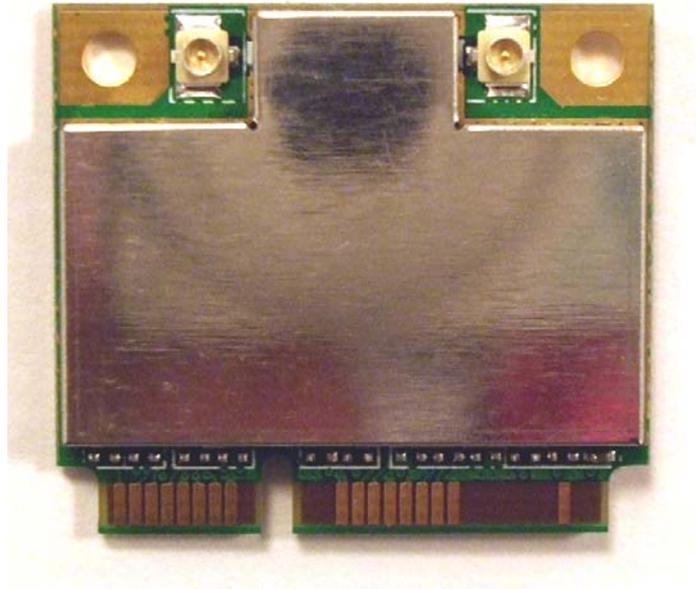
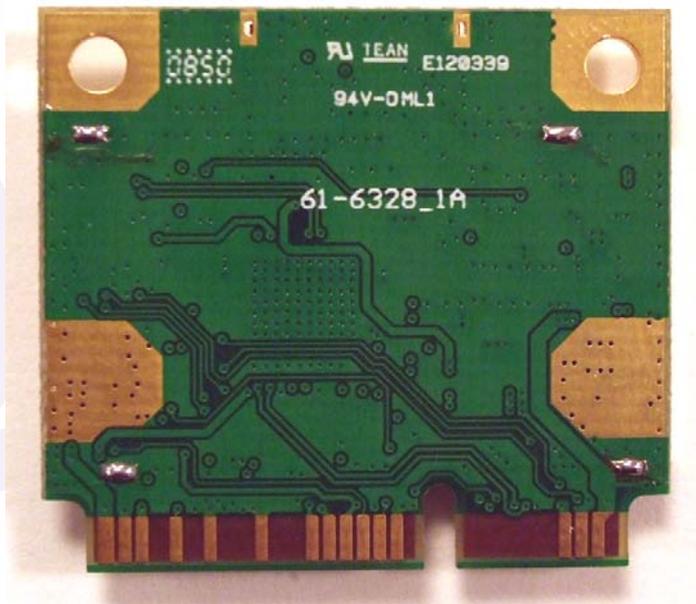


Figure 2-5: Card Top and Bottom Details A and B

Mechanical Photograph



The Obverse Side



The Reverse Side

Pin Definition

Pin #	Name	Pin #	Name
51	Reserved*	52	+3.3V
49	Reserved*	50	GND
47	Reserved*	48	+1.5V
45	Reserved*	46	LED_WPAN#
43	Reserved*	44	LED_WLAN#
41	Reserved*	42	LED_WWAN#
39	Reserved*	40	GND
37	Reserved*	38	USB_D+
35	GND	36	USB_D-
33	PETp0	34	GND
31	PETn0	32	SMB_DATA
29	GND	30	SMB_CLK
27	GND	28	+1.5V
25	PERp0	26	GND
23	PERn0	24	+3.3Vaux
21	GND	22	PERST#
19	Reserved*** (UIM_C4)	20	W_DISABLE#
17	Reserved*** (UIM_C8)	18	GND

Mechanical Key

15	GND	16	UIM_VPP
13	REFCLK+	14	UIM_RESET
11	REFCLK-	12	UIM_CLK
9	GND	10	UIM_DATA
7	CLKREQ#	8	UIM_PWR
5	Reserved**	6	1.5V
3	Reserved**	4	GND
1	WAKE#	2	3.3V

LED Status:

LED status	WLAN card activity
LED on	Associated, and authenticated but not transmitting or receiving
LED Slow Blink	Scanning for AP
LED Intermittent Blink	Activity proportional to transmitting/receiving speed
LED off	Radio off