



802.11 b/g wifi PCIe full-size mini card, HB65/AR2427

Model: DRXA-82



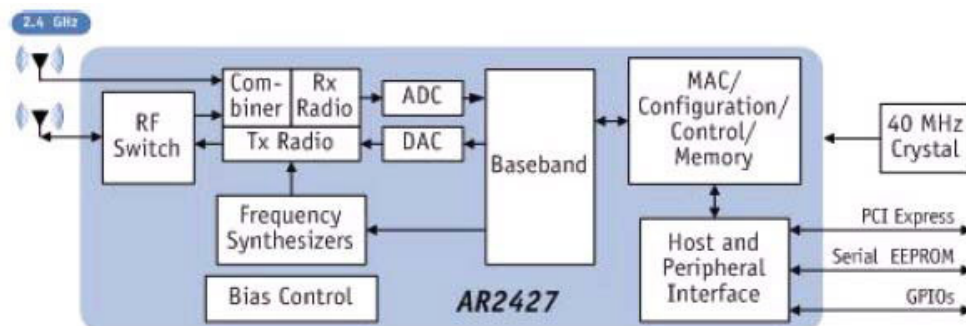
DRXA-82 is a 802.11 b/g in PCIe full-size form factor using AR2427 single-chip solution offers significant enhancements over the previous generation AR5005G - Atheros' most popular-selling chip family to date. Supporting Atheros JumpStart for Wireless™ secure configuration tool, DRXA-82 is ideal for enabling netbook PC and other application specific devices (ASD) with low-cost, wireless connectivity in full-size mini card interface.

Windows and Linux 2.6 driver support enables manufacturers to provide products that enjoy improved wifi performance and time to market through trouble-free WiFi integration.

Key Features:

- Full-size mini card form factor is ideal for embedding into ultra-compact devices or embedding additional mini cards with complimentary technologies at comparable price points.
- Windows 2000/XP/Vista driver and comprehensive client utility supports provide immediate 11b/g wifi and management capability.
- Supported by MADWiFi providing Linux kernel drivers for industrial, academic, or personal projects at highest flexibility and lowest cost.
- Supports 802.11g/11b auto fallback data rate and seamless roaming between 802.11b, and 802.11g multiple AP wifi networks.
- Future support of 802.11d (Regulatory Domain), 802.11e (Quality of Service, WMM), and 802.11i by software upgrade.
- Supports WEP/WPA/WPA2, IEEE802.1x (EAP-TLS, EAP-PEAP, LEAP), and LEAP/CCX3.0 providing advanced level of LAN security.
- Dual Hirose U.FL antenna connectors enable transmit and receive diversity for flexible RF design.
- RoHS compliance meets environment-friendly requirement.

Hardware Block Diagram



Specifications:																																																				
Main Chipset	Atheros® AR2427																																																			
Tx/Rx	1T1R																																																			
Standard Conformance	802.11b, 802.11g																																																			
Frequency Range	<ul style="list-style-type: none"> ▪ USA: 2.412 ~ 2.462GHz ▪ Europe: 2.412 ~ 2.472GHz ▪ Japan: 2.412 ~ 2.472GHz ▪ China: 2.412 ~ 2.472GHz 																																																			
Interface	PCI Express ® mini-card rev. 1.1																																																			
Channel Spacing	5MHz																																																			
Operation Voltage	3.3V ± 5%																																																			
Operating Channels	<ul style="list-style-type: none"> ▪ USA/Canada: 11 (1~11) ▪ Major Europe Countries: 13 (1~13) ▪ France: 4 (10~13) ▪ Japan: 14 on 802.11b (1~13 or 14th), 13 on 802.11g (1~13) ▪ China: 13 (1~13) 																																																			
Data Rate	<ul style="list-style-type: none"> ▪ 802.11b: 1, 2, 5.5 and 11Mbps ▪ 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 																																																			
Power Consumption	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Current(mA)</th> </tr> </thead> <tbody> <tr> <td>11g cont. Tx @ 11M @17dBm</td> <td>480</td> </tr> <tr> <td>11g cont. Tx @ 54M @16dBm</td> <td>460</td> </tr> <tr> <td>11g mode FTP Tx</td> <td>330</td> </tr> <tr> <td>11g mode FTP Rx</td> <td>240</td> </tr> <tr> <td>Standby</td> <td>120</td> </tr> </tbody> </table>		Current(mA)	11g cont. Tx @ 11M @17dBm	480	11g cont. Tx @ 54M @16dBm	460	11g mode FTP Tx	330	11g mode FTP Rx	240	Standby	120																																							
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Transmit Power Settings	Tolerance ± 2dB <ul style="list-style-type: none"> ▪ 802.11b: +17dBm ▪ 802.11g: +17dBm @ 6,9,12,18,24,36,48Mbps ▪ 802.11g: +16dBm @ 54Mbps 																																																			
Receiver Sensitivity	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Data Rate</th> <th>2412MHz</th> <th>2442MHz</th> <th>2472MHz</th> </tr> </thead> <tbody> <tr> <td rowspan="3">802.11b</td> <td>DBPSK(1M)</td> <td>-94dB</td> <td>-95dB</td> <td>-95dB</td> </tr> <tr> <td>DQPSK(5.5M)</td> <td>-93dB</td> <td>-93dB</td> <td>-93dB</td> </tr> <tr> <td>CCK(11M)</td> <td>-91dB</td> <td>-91dB</td> <td>-91dB</td> </tr> <tr> <td rowspan="8">802.11g</td> <td>BPSK(6M)</td> <td>-94dB</td> <td>-94dB</td> <td>-94dB</td> </tr> <tr> <td>BPSK(9M)</td> <td>-93dB</td> <td>-93dB</td> <td>-93dB</td> </tr> <tr> <td>QPSK(12M)</td> <td>-91dB</td> <td>-91dB</td> <td>-91dB</td> </tr> <tr> <td>QPSK(18M)</td> <td>-89dB</td> <td>-89dB</td> <td>-89dB</td> </tr> <tr> <td>16-QAM(24M)</td> <td>-86dB</td> <td>-86dB</td> <td>-86dB</td> </tr> <tr> <td>16-QAM(36M)</td> <td>-82dB</td> <td>-82dB</td> <td>-82dB</td> </tr> <tr> <td>64-QAM(48M)</td> <td>-78dB</td> <td>-78dB</td> <td>-78dB</td> </tr> <tr> <td>64-QAM(54M)</td> <td>-77dB</td> <td>-77dB</td> <td>-77dB</td> </tr> </tbody> </table>		Data Rate	2412MHz	2442MHz	2472MHz	802.11b	DBPSK(1M)	-94dB	-95dB	-95dB	DQPSK(5.5M)	-93dB	-93dB	-93dB	CCK(11M)	-91dB	-91dB	-91dB	802.11g	BPSK(6M)	-94dB	-94dB	-94dB	BPSK(9M)	-93dB	-93dB	-93dB	QPSK(12M)	-91dB	-91dB	-91dB	QPSK(18M)	-89dB	-89dB	-89dB	16-QAM(24M)	-86dB	-86dB	-86dB	16-QAM(36M)	-82dB	-82dB	-82dB	64-QAM(48M)	-78dB	-78dB	-78dB	64-QAM(54M)	-77dB	-77dB	-77dB
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MAC Protocol	CSMA/CA with ACK architecture 32-bit MAC																																																			
Modulation Technique	<ul style="list-style-type: none"> ▪ DSSS with CCK, DQPSK, DBPSK ▪ OFDM with BPSK, QPSK, 16QAM, 64QAM 																																																			
Security	<ul style="list-style-type: none"> ▪ 64-bit, 128-bit and 152-bit WEP encryption ▪ 802.1x authentication ▪ AES-CCM & TKIP 																																																			
Operation Systems Supported	Windows 2000/XP/Vista and Linux																																																			
Dimension	50.8(± 0.15mm) x 29.85 mm (± 0.15mm) x 1.0 mm (± 0.10mm)																																																			
Operation Temperature Range	0°C ~ +60°C																																																			

Specifications:	
Storage Temperature Range	-20°C ~ +80°C
Operating Humidity	15% ~ 95%, non-condensing
Storage Humidity	max. 95%, non-condensing
Environment-Friendly Compliance	RoHS
Antenna	two Hirose U.FL ultra-miniature coaxial antenna connectors

Ordering Information:	
DRXA-82	802.11 b/g wifi PCIe full-size mini card, HB65/AR2427



Unex Technology Corp.
- Durable Bridge to Wireless

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