

Wireless Host Board WPJ72R5N29

Features

- Atheros MIPS 24K 400MHz Network Processor
- Integrated 11n 5GHz 800mW radio
- Power Input Surge Protection
- Integrated passive Power-over-Ethernet
- 2 Ethernet ports
- Supports Compex, OpenWRT firmware
- Integrated with PoE cascade arrangement[®]
- 2 x U.FL Antenna Connectors
- Generic board, suitable for OEM applications



TECHNICAL SPECIFICATIONS

HARDWARE INFORMATION		
Processor	Atheros AR7240 (400 MHz) Network Processor	
General Usage	CPE	
System Memory	32MB (max 64MB optional) DDR SDRAM	
NOR Flash	4MB (max 16MB optional)	
Integrated radio	5GHz radio(400mW)	
Power Consumption	11a Cont. Tx @6M	9W
	11na Cont. Tx@HT20 MCS0	9W
	11na Cont. Tx@HT40 MCS0	8.4W
	11a Cont. Rx	5.3W
	Standby	5W
11a Cont. Tx @6M	9W	
Antenna Connector	2 x U.FL	
Ethernet	2 X 10/100 Base-T Ethernet Port (with Auto MDI / MDIX)	
Serial Port	1 x 4pin header(TTL)	
JTAG Debug Interface	14pin header	
Push Button Reset	Yes	
Surge Arrestor	Supported	
Watch Dog Timer	Yes	
PoE	Passive PoE (range 12V-24V DC)	
DC Jack Input	Range 12V-24V DC	
Beeper	x 1 (Optional) ②	
RoHS Compliance	Yes	
Humidity	Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)	
Temperature Range	Operating: -20°C to 70°C Storage: -40°C to 90°C	
Dimension	105mm x 110mm x18 (mm)	
Weight	180g	

INTEGRATED RADIO							
TX SPECIFICATIONS							
		DataRate	TX Power(aggregate power)		Tolerance		
802.11a	6-24Mbps		29dBm		±2dB		
	36Mbps		27dBm		±2dB		
	48Mbps		25dBm		±2dB		
	54Mbps		24dBm		±2dB		
	DataRate	TX Power (aggregate power)	Tolerance		DataRate	TX Power (aggregate power)	Tolerance
5GHz 11n HT 20	MCS 0/8	29dBm	±2dB	5GHz 11n HT 40	MCS 0/8	27dBm	±2dB
	MCS 1/9	28dBm	±2dB		MCS 1/9	27dBm	±2dB
	MCS 2/10	27dBm	±2dB		MCS 2/10	27dBm	±2dB
	MCS 3/11	26dBm	±2dB		MCS 3/11	26dBm	±2dB
	MCS 4/12	26dBm	±2dB		MCS 4/12	26dBm	±2dB
	MCS 5/13	25dBm	±2dB		MCS 5/13	25dBm	±2dB
	MCS 6/14	22dBm	±2dB		MCS 6/14	22dBm	±2dB
	MCS 7/15	21dBm	±2dB		MCS 7/15	20dBm	±2dB
RX SPECIFICATIONS							
	Data Rate	Sensitivity (2 chains)	Tolerance		Data Rate	Sensitivity (2 chains)	Tolerance
802.11a	6Mbps	-96dBm	±2dB	802.11a	24Mbps	-89dBm	±2dB
	9Mbps	-96dBm	±2dB		36Mbps	-86dBm	±2dB
	12Mbps	-95dBm	±2dB		48Mbps	-82dBm	±2dB
	18Mbps	-93dBm	±2dB		54Mbps	-79dBm	±2dB
5GHz 11n HT 20	MCS0	-95dBm	±2dB	5GHz 11n HT 40	MCS0	-92dBm	±2dB
	MCS1	-93dBm	±2dB		MCS1	-90dBm	±2dB
	MCS2	-90dBm	±2dB		MCS2	-87dBm	±2dB
	MCS3	-89dBm	±2dB		MCS3	-84dBm	±2dB
	MCS4	-85dBm	±2dB		MCS4	-81dBm	±2dB
	MCS5	-81dBm	±2dB		MCS5	-77dBm	±2dB
	MCS6	-79dBm	±2dB		MCS6	-76dBm	±2dB
MCS7	-75dBm	±2dB	MCS7	-74dBm	±2dB		

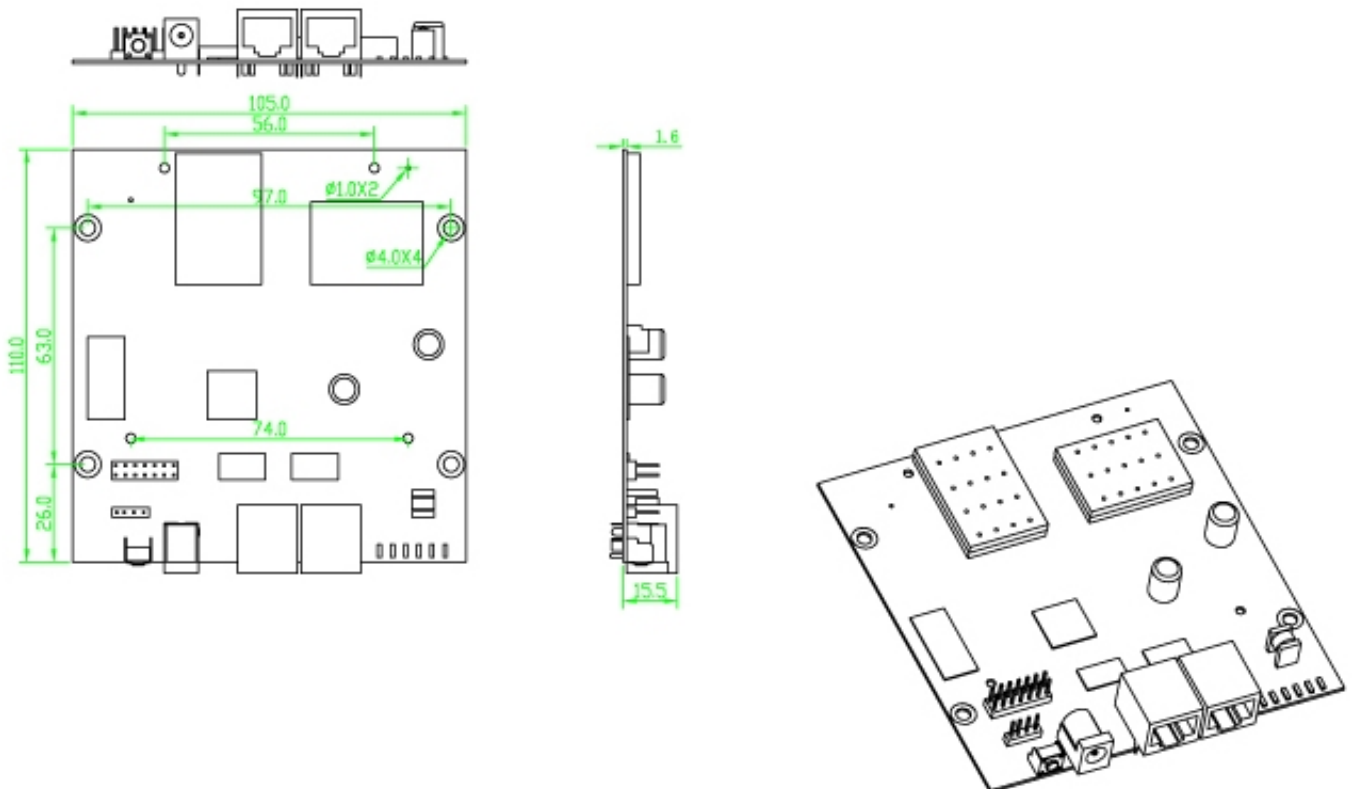
SOFTWARE INFORMATION	
Firmware Support	Compex , OpenWRT
Development Kits	JTAG Programmer ^③ , Serial Converter ^④ , POE Injector + Power Supply

Ordering Information ^⑤

Item Code	Version	Processor	NOR Flash	Memory	On Board Radio OutPut Power
WPJ72R5N29 7A04PC432	Compex	AR7240	4MB	32MB	29dBm
WPJ72R5N29 7A04PO432	OEM	AR7240	4MB	32MB	29dBm
WPJ72R5N29 7A04PW432	Openwrt	AR7240	4MB	32MB	29dBm

- ① The input power can come from an Ethernet port and it is fed to the other Ethernet port so that it can in turn drive another Passive PoE device.
- ② Depends on ordering configuration
- ③ JTAG kits allowed to write your own developed loader and firmware directly to on-board flash
- ④ Serial Converter available to change the TTL signals on board to RS232 signals for debugging
- ⑤ Configurations are subject to change without notice
Please contact Compex sales representatives for other available configurations

DIMENSIONS DRAWING



Compex Systems Pte Ltd

135 Joo Seng Road, PM Industrial Building #08-01,
Singapore 368363
Tel: (65) 6286 2086
Fax: (65) 6280-9947
Email: sales@compex.com.sg

Compex (Suzhou) Co Ltd

NO.12, ChuangTou Industrial Square,
LouFeng North, Suzhou Industrial Park,
Suzhou, Jiangsu Province, China 215122
Tel: (86)-512-62950050
Fax: (86)-512-62950026



Copyright © 2010 Compex Systems. All rights reserved. COMPEX and the COMPEX logo, are registered trademarks of COMPEX Inc. While every effort is made to ensure the information is accurate, Compex does not accept liability for any errors or mistakes that may arise. All specification is subject to change without notice. Datasheet Version: V 2.0.3 Wiky110817

For more information, visit www.compex.com.sg