



# WP18 RedBoot/Snapgear

HARDWARE SOLUTIONS FOR OPEN-SOURCE DISTRIBUTION



- ◆ Access Point PCBA Board with 2 X miniPCI Slot
- ◆ Intel XScale IXP42x CPU
- ◆ Integrated Power Over Ethernet
- ◆ User LED, Push-Button Reset and Watch-Dog Timer feature

- Preloaded with RedBoot Loader / Snapgear Firmware
- Intel XScale IXP42X Processor Operating at 266MHz or 533MHz
- Default Configuration for PCBA with IXP422 (266MHz) CPU, 32MB SDRAM (Up to 128MB max.) / 4MB Flash (Up to 32MB max.)
- Default Configuration for PCBA with IXP425 (533MHz) CPU, 64MB SDRAM (Up to 128MB max.) / 8MB Flash (Up to 32MB max.)
- 2 X Type III Mini PCI Slot
- Integrated IEEE 802.3af Standard Compatible Power-over-Ethernet (PoE) Compatible with Complex PoE Plus

## GENERAL INFORMATION

PROCESSOR	Intel XScale IXP42x Processor Operating at 266MHz or 533MHz
MEMORY	32MB (IXP422) / 64MB (IXP425) SDRAM (Up to 128MB max.)
FLASH	4MB (IXP422) / 8MB (IXP425) FLASH (Up to 32MB max.)
PHYSICAL PORTS	2 x Type III Mini-PCI Slots 4 x 10/100 Base-TX Ethernet Ports (with Auto MDI/MDIX) 1 x 10/100 Base-TX WAN Port 1 x RS232 Serial Port
DEBUG INTERFACE	Serial / JTAG Optional JTAG Programmer** available Optional Serial Converter*** available
OPERATING TEMPERATURE	0°C to 55°C
OTHER FEATURES	User LED and Push-button Reset Watch-Dog Timer
DIMENSIONS	166.4mm x 126mm x 1.6mm

## INFORMATION ON POWER

POWER OVER ETHERNET	IEEE 802.3af Standard PoE Compatible Complex PoE Plus Compatible
DC POWER SUPPLY	5VDC
TYPICAL OPERATING POWER (@ DC=5V)	5 W (Without MiniPCI) 10 W (With 1 X Complex WLM54G MiniPCI and 1 X Complex WLM54AG MiniPCI)

\* Specifications are subjected to change without notice

\*\* JTAG Programmer available to reprogram the flash in case of loader corruption.

\*\*\* Serial Converter available to change the TTL signals on board to RS232 signals for debugging



### Redboot

Dualband Access Point WP18 can also be preinstalled with Redboot, which can provide a fast, efficient network aware boot loader – ideal for quickly debugging and installing your choice of embedded development system. Besides, a wide set of tools in the Redboot are available for downloading and executing programs, thus making it perfect for both product development (debug support) and for end product deployment (Flash and network booting).

For unattended or automated startup, boot scripts can be stored in Flash allowing for example loading of images from Flash or a TFTP server. WP18 provides a total development solution, integrating boot scripts so as to run Snapgear, a development system automatically at startup.

### Snapgear

SnapGear's embedded Linux distribution represents state-of-the-art embedded Linux technology on our WP18, IXP-based DualBand Wireless Access Point. We provide the tool chains (ARM Linux Tools) and modified Snapgear Distribution in Source Codes. The tool chains and the modified Snapgear distribution have been debugged for use in the WP18. With that debugged version, you can immediately start to use our Redboot loader with Snapgear embedded Linux distribution and add applications to WP18.

To simplify integration with your applications, we have debugged Open-Source Madwifi-ng for use in the Snapgear. Thus our WP18 in Redboot and Snapgear supports Atheros AR5212/AR5213/AR2413/AR2414/AR 5413 /AR5414. Compex miniPCIs are also available together with the boards upon request.

Source codes are available at [http://compex.com.sg/home/OEM/Redboot\\_Snapgear.htm](http://compex.com.sg/home/OEM/Redboot_Snapgear.htm)

### Ordering Options - Standard Configurations\*\*\*

ORDER CODE	CONTENTS
P-RB-WP181A-RB/SG	<ul style="list-style-type: none"> <li>WP18 IXP422 (266MHz CPU) Bare-board (Pre-loaded with RedBoot &amp; Snapgear)</li> <li>Bareboard embedded with 32MB SDRAM / 4MB Flash</li> </ul>
P-RB-WP183A-RB/SG	<ul style="list-style-type: none"> <li>WP18 IXP425 (533MHz CPU) Bare-board (Pre-loaded with RedBoot &amp; Snapgear)</li> <li>Bareboard embedded with 64MB SDRAM / 8MB Flash</li> </ul>
P-RB-WP181A DEV KIT	<ul style="list-style-type: none"> <li>WP18 IXP422 (266MHz CPU) Bare-board (Pre-loaded with RedBoot &amp; Snapgear)</li> <li>Bareboard embedded with 32MB SDRAM / 4MB Flash</li> <li>Wireless G mini-PCI (Compex WLM54G) &amp; Wireless AG mini-PCI (Compex WLM54AG)</li> <li>PoE+ Injector (Compex PoE+1A4815)</li> <li>JTAG Programmer (Cable from PC to JTAG Programmer included)</li> <li>Serial Converter (Cable from PC to Serial Converter included)</li> </ul>

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Compex Systems Pte Ltd  
135 Joo Seng Road,  
#08-01  
PM Industrial Building  
Singapore 368363

tel: (65) 6288 8220  
fax: (65) 6280-9947  
www.compex.com.sg

Compex Inc, USA.  
840 Columbia Street,  
Suite B Brea. CA 92821

tel: (714) 482 0333  
fax: (714) 482-0332  
www.cpx.com

