



Basic Acceptance Test (BAT)
Wireless System Test

CF-8385 Linux (rev. 2.8)

V5, version #5.0.11.p0-200

Release Date: October 27, 2005 BAT date: October 27, 2005

Unit Under Testing (UUT):CF-8385PN

MAC: 00:50:43:20:13:8B

Chipset: 8385-B1 RF: 8015-B0

Test bed: Linux Slackware 9.1 kernel 2.4.22

AP: Cisco 1231G, Cisco 1230B

Station: Buffalo WLI-CB-G54S

Supplicant: 0.3.8-MSI-8

*All Infra throughputs are conducted in the Shield Room.

Tested by:Henderson/Jackal

Reviewed by: Calvin Peng

Issues:

Test Items	Sub-case Items	Pass Criteria	Results
Installation test	Check the release note	Should be provided and included release version, bug fix, new features and known issues information	Pass
	Check the version number of the build	Version should match with the release note	Pass
	Manual install driver & f/w	insmod sdio.o insmod sd8385.o	Pass
	Disable/Enable test	Disable ethx, cmd "ifconfig" check UUT Enable ethx, cmd "ifconfig" check UUT	Pass
	Uninstall test	rmmod sd8385 rmmod sdio	Pass
Infrastructure test	Active/passive scan test (cells count)	iwlist ethx scan, 20+ cell, iwpriv ethx scantype passive, 20+ cell, pass	Pass
	Default band test (a mode)	iwconfig ethx getband to show a/b/g	Pass
	Association test (a mode) (associate with Cisco 1200 AP at channel 64 and security off)	If associate and regular ping successfully, pass	
	Association test (g mode) (associate Cisco 1200 AP at channel 11 and security off)	If associate and regular ping successfully, pass	Pass
	Association test (b mode) (associate with Cisco 1200AP at channel 11 and security off)	If associate and regular ping successfully, pass	Pass



Basic Acceptance Test (BAT) Wireless System Test

<p>Open auth. & 64bit WEP key index 1 “1234567890”</p> <p>(associate with Cisco 1200 AP with same setting at channel 10 and disable broadcast SSID)</p>	<p>If associate and ping successfully, pass</p>	<p>Pass</p>
<p>Shared auth. & 128bit WEP key index 4 “09876543210987654321098765”</p> <p>(associate with Cisco 1200 AP with same setting at channel 9 and enable broadcast SSID)</p>	<p>If associate and ping successfully, pass</p>	<p>Pass</p>
<p>Re-association test (no sec, WEP)</p> <p>(1. power cycle Cisco 1200 AP) (2. change channel on Cisco 1200)</p>	<p>After power cycle or change channel on Cisco AP, if re-associate and regular ping AP successfully, pass</p>	<p>Pass</p>
<p>Re-association test with WPA (g mode)</p> <p>(3. power cycle Cisco 1200 AP) (4. change channel on Cisco 1200 AP)</p>	<p>After power cycle or change channel on Cisco AP, if re-associate and regular ping AP successfully, pass</p>	<p>Pass</p>
<p>Throughput test (a mode)</p> <p>(run Iperf TX and RX with Cisco 1200 AP at channel 64 and security off, 30 sec)</p>	<p>If throughput of TX and RX higher than 4 Mbps, pass</p>	
<p>Throughput test (g mode)</p> <p>Iwconfig eth1 rate 54M (run Iperf TX and RX with Cisco 1200 AP at channel 8 and security off, 30 sec)</p>	<p>If throughput of TX and RX higher than 4 Mbps, pass</p>	<p>Tx : 10.4 Rx : 10.5</p>
<p>Throughput test (b mode)</p> <p>Iwconfig eth1 rate auto (run Iperf TX and RX with Cisco 1200 AP at channel 1 and security off, 30 sec)</p>	<p>If throughput of TX and RX higher than 4 Mbps, pass</p>	<p>Tx : 6.26 Rx : 6.34</p>
<p>Throughput test with WEP (a mode)</p> <p>(run Iperf TX and RX with Cisco 1200 AP at channel 64 and with WEP, 30 sec)</p>	<p>If throughput of TX and RX higher than 4 Mbps, pass</p>	
<p>Throughput test with WEP (g mode)</p> <p>Iwconfig eth1 rate 54M (run Iperf TX and RX with Cisco 1200 AP at channel 7 and with WEP, 30 sec)</p>	<p>If throughput of TX and RX higher than 4 Mbps, pass</p>	<p>Tx : 10.5 Rx : 10.6</p>
<p>Throughput test with WEP (b mode)</p> <p>Iwconfig eth1 rate auto (run Iperf TX and RX with Cisco 1200 AP at channel 2 and with WEP, 30 sec)</p>	<p>If throughput of TX and RX higher than 4 Mbps, pass</p>	<p>Tx : 6.23 Rx : 6.30</p>



Basic Acceptance Test (BAT) Wireless System Test

Throughput test with WPA (a mode) (run Iperf TX and RX with Cisco 1200 AP at channel 64 and with WPA, 30 sec)	If throughput of TX and RX higher than 4 Mbps, pass	
Throughput test with WPA (g mode) Iwconfig eth1 rate 54M (run Iperf TX and RX with Cisco 1200 AP at channel 6 and with WPA, 30 sec)	If throughput of TX and RX higher than 4 Mbps, pass	Tx : 10.5 Rx : 10.6
Throughput test with WPA (b mode) Iwconfig eth1 rate auto (run Iperf TX and RX with Cisco AP at channel 3 and with WPA, 30 sec)	If throughput of TX and RX higher than 4 Mbps, pass	Tx : 6.19 Rx : 6.25
Fragment test with WPA-PSK (g mode) UUT setup fragment 500 Byte threshold AP channel 8 Iperf from UUT to AP for 2 minutes	If the iperf complete, it is passed	Tx : 9.64
RTS and Fragmentation setting	UUT sends RTS and frag when data size is > the RTS and frag threshold	Pass
Defrag test with WPA-PSK (g mode) AP channel 7 setup Fragment 500 Byte threshold Iperf from AP to UUT for 2 minutes	If the iperf complete, it is passed	Rx : 6.48
RTS and Defragmentation setting	AP sends RTS and frag when data size is > the RTS and frag threshold	Pass
FTP loop test (associate with Cisco 1231G AP setting DTIM 7, channel 2 and security off, auto rate, ftp upload and download 20MB file)	If UUT can finish ftp upload and download 20MB file and after that implementation is still correct, pass	Tx : 9.84 Rx : 9.12
Associate with hidden SSID Set Cisco 1200 AP to Channel 5	Ping should pass and WZC site survey should display the hidden SSID after association	Pass
Fix rate test configure different rate for a mode	Verify the data is transmitted at the rate fixed by user	
Fix rate test configure different rate for g mode	Verify the data is transmitted at the rate fixed by user	Pass
Fix rate test configure different rate for b mode	Verify the data is transmitted at the rate fixed by user	Pass



Basic Acceptance Test (BAT)
Wireless System Test

	DHCP client test (dhcpcd ethx -d)	Verify UUT get the correct IP address and able to ping	Pass
	RTS setting	UUT sends RTS when data size is > the RTS threshold	Pass
	Fragmentation setting	Verify fragmentation happens when data size is > the frag threshold	Pass
	RTS and Fragmentation setting	UUT sends RTS and frag when data size is > the RTS and frag threshold	Pass
	Defragmentation test	AP to setup defrag 500 Byte, UUT default, ping 1500 byte AP to UUT then review sniffer for defrag pattern	Pass
	RTS and Defragmentation setting	AP sends RTS and frag when data size is > the RTS and frag threshold	Pass
Infra Overnight traffic test (optional)	Associate to Cisco1200 AP in channel 4 (no security); Run bi-directional Iperf for 12 hrs.	After 12 hours, if Iperf sessions still going, pass	N/T
Ad-Hoc test	Creator test (a mode) (create Ad-Hoc network at channel 56, security off and SSID = "12345678901234567890123456789012" and let 3 rd party client card join this network)	Check sniffer. If Beacon sent out correctly and 3 rd party client station can join and regular ping successfully, pass	
	Creator test (g mode) (create Ad-Hoc network at channel 11, security off and SSID = "12345678901234567890123456789012" and let 3 rd party client card join this network)	Check sniffer. If Beacon sent out correctly and 3 rd party client station can join and regular ping successfully, pass	Pass
	Creator test (b mode) (create Ad-Hoc network at channel 11, security off and SSID = "12345678901234567890123456789012" and let 3 rd party client card join this network)	Check sniffer. If Beacon sent out correctly and 3 rd party client station can join and regular ping successfully, pass	Pass
	Joiner test (a mode) (3 rd party client card create Ad-Hoc network at channel 56 security off and UUT join)	Check sniffer. If UUT can join and regular ping successfully, pass	



Basic Acceptance Test (BAT) Wireless System Test

	Joiner test (g mode) (3 rd party client card create Ad-Hoc network at channel 10 security off and UUT join)	Check sniffer. If UUT can join and regular ping successfully, pass	Pass
	Joiner test (b mode) (3 rd party client card create Ad-Hoc network at channel 10 security off and UUT join)	Check sniffer. If UUT can join and regular ping successfully, pass	Pass
	Re-join test (g) (walk away until UUT station cannot ping 3 rd party client and then come back)	If re-join and regular ping successfully, pass	Pass
	Throughput test (a mode) (run Iperf TX and RX with 3 rd party client card, channel 56 and security off)	If throughput of TX and RX higher than 15 Mbps, pass	
	Throughput test (g mode) (run Iperf TX and RX with 3 rd party client card, channel 11 and security off)	If throughput of TX and RX higher than 4 Mbps, pass	Tx : 9.871 Rx : 9.448
	Throughput test (b mode) (run Iperf TX and RX with 3 rd party client card, channel 10 and security off)	If throughput of TX and RX higher than 4 Mbps, pass	Tx : 5.017 Rx : 5.783
Ad-hoc overnight traffic test (optional)	Join third party card (no security); Run bi-directional Iperf for 12 hrs.	After 12 hours, if Iperf sessions still going, pass	N/T
Infra Power Save Test	Idle test (associate with Cisco 1231G AP setting DTIM 7, channel 4 and security off)	If sniffer shows implementation is correct, pass	Pass
	Throughput test (g mode) (run Iperf Tx and Rx on channel 3 and security off)	If throughput of Tx and Rx higher than 4 Mbps, pass	Pass
	FTP loop test (associate with Cisco 1231G AP setting DTIM 7, channel 2 and security off) ftp upload and download 20MB file	If UUT can finish ftp upload and download 20MB file and after that implementation is still correct, pass	Tx : 9.93 Rx : 9.4
Power save overnight traffic test (optional)	Associate to Cisco1200 AP in channel 1 (no security); Run bi-directional Iperf for 12 hrs.	After 12 hours, if Iperf sessions still going, pass	N/T
Feature Tests	11d Testing: passive scan before asso, passive scan before join IBSS Validate country element in beacon		Pass
	Host Sleep		Pass
	PS + Host Sleep		Pass



Basic Acceptance Test (BAT)
Wireless System Test

	WPA2, Infra Tx/Rx, PS Tx/Rx	9.39 / 8.11	Pass
	WMM Infra Tx/Rx, PS Tx/Rx		WMM Tx : 10.4 Rx : 10.2 PS on Tx : 10.4 Rx : 10.2
	BackGround Scan		Pass
	UAPSD		Pass
	Subscribers Event Total number of Tx failed		Pass
	Number of probes		Pass
	Local Listen Interval		Pass