

Specification No. CAF94505	Description Internal Multi-Band PCB Antenna		
Customer General (Standard Product)	Date 28 th Oct 2003	Rev A	Reference

**Specification for Centurion
Internal Multi-Band PCB Antenna
Centurion P/N: CAF94505**



Specification is subject to change without notice

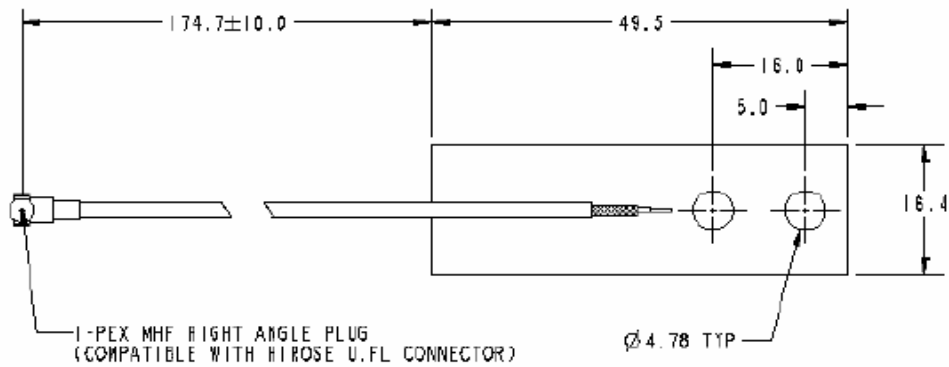
Rev.	Issue Date	Changes	Initiator	Approval	Approval
A	28 th Oct 2003	Initial	CS Por	CS Por	EL Kua

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Print for CAF94505



CENTURION PART NO.	FREQUENCY RANGE
CAF94505	2.4-2.5 GHz 4.9-5.825 GHz

LET	REVISIONS	DATE	CK	APP	SCALE: 1.500	TOL. UNLESS NOTED				
D1	FIRST ISSUE	04/03	~	RL	DR:RL	CI:	± 0.30	± 0.30	± 0.30	± 30°
D2	UPDATE	06/03	~	RL	CENTURION WIRELESS TECHNOLOGIES, INC.					
D3	UPDATE	07/03	~	RL	INTERNAL PCB WLAN ANTENNA, U.FL					
D4	UPDATE	08/03	~	RL	MATERIAL: N/A					
					DATE:	DWG. NO. :	PG.	REV		
					4/28/03	CAF94505	1/3	D4		
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DIMENSIONS ARE IN MILLIMETERS
THIS DRAWING WAS GENERATED
VIA PRO/ENGINEER

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Specification No. CAF94505	Description Internal Multi-Band PCB Antenna		
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Electrical performance

General Information			
Customer:	Standard Product		
Date:	10-24-03		
Location:	Westminster		
Frequency Band, MHz (Dual Band)	Multiband WLAN		
Antenna Type:			
Input Connection:	U.FL connector		
Prepared by: MZ	File:	PROT 4905-02 Internal WLAN Remeasure.txt	
Comments:			

Electrical Performance Summary: VSWR (:1.0)				
Specification	Data			
Measurement Configuration	Freq. (GHz)	VSWR		
	2400	1.6		
	2450	1.2		
	2500	1.2		
	4900	1.2		
	4997.5	1.1		
	5095	1.3		
	5192.5	1.5		
	5290	1.5		
	5387.5	1.5		
	5485	1.3		
-	5582.5	1.1		
-	5680	1.5		
-	5777.5	1.7		
-	5875	1.8		

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Specification No. CAF94505	Description Internal Multi-Band PCB Antenna		
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Electrical Performance Summary: Average Gain (dBi)				
Specification:	Unspecified			
Measurement Configuration	Data			
	Freq. (MHz)	Azimuth	Elevation Phi=0	Elevation Phi=90
	2400	-0.1	-3.4	-2.4
	2450	1.1	-3.4	-2.5
	2500	2.3	-3.7	-2.5
	4900	1.3	-2.4	-3.1
	4997.5	1.1	-2.4	-3.2
	5095	0.7	-2.8	-3.5
	5192.5	1.3	-2.3	-3.1
	5290	1.8	-1.9	-2.7
-	5387.5	1.9	-1.4	-2.3
-	5485	1.9	-1.3	-2.3
-	5582.5	1.3	-2	-2.9
-	5680	1	-2.2	-3.2
-	5777.5	0.7	-2.5	-3.5
-	5875	0.8	-2.5	-3.7

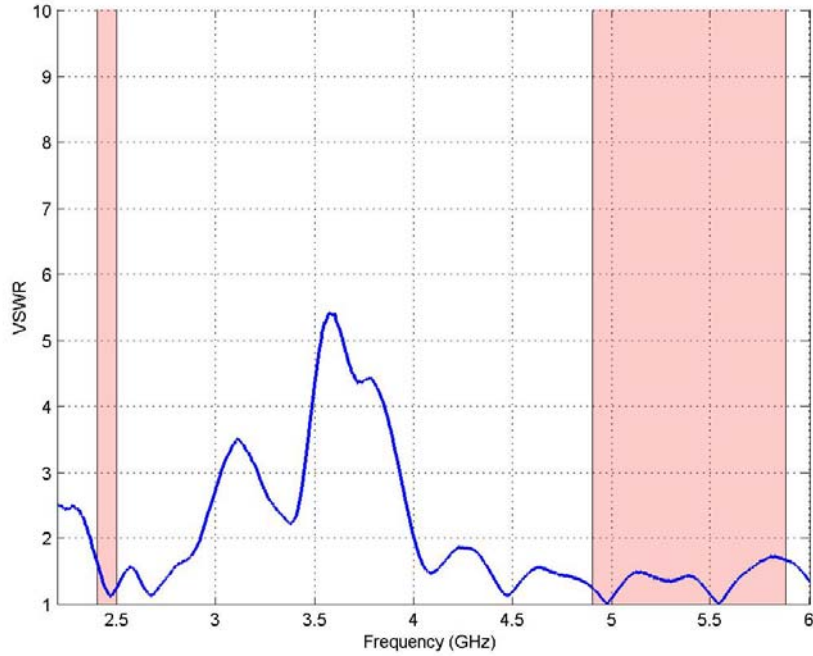
Electrical Performance Summary: Peak Gain (dBi)				
Specification				
Measurement Configuration	Data			
	Freq. (MHz)	Azimuth	Elevation Phi=0	Elevation Phi=90
	2400	2.6	-0.5	0.6
	2450	3.8	-0.4	0.3
	2500	3.9	-0.1	0.3
	4900	4.7	2.1	1.4
	4997.5	4.6	2.2	1.2
	5095	4.2	2	0.8
	5192.5	4.7	2.4	1.1
	5290	5.1	3.1	1.7
	5387.5	5.3	3.6	2
	5485	5.5	3.6	2.3
	5582.5	4.9	3.1	1.5
	5680	4.7	2.8	1.5
	5777.5	4.4	2.3	1.1
	5875	4.5	2	1.2

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VSWR Performance

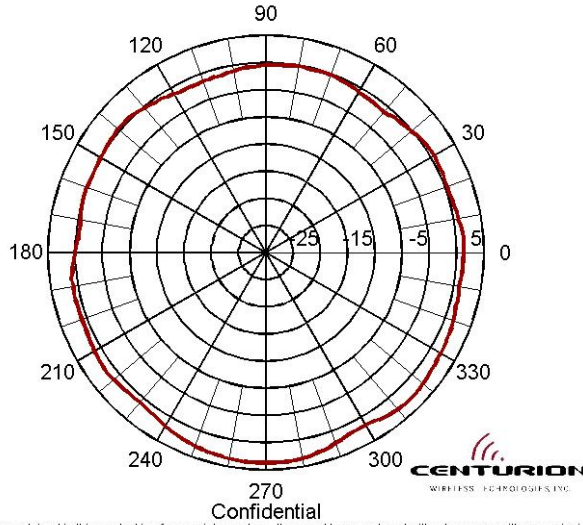


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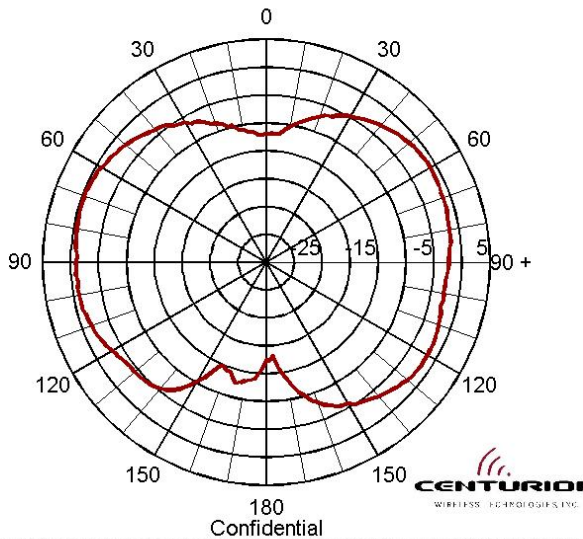
Azimuth Cut, 2450 MHz



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— Max. Gain = 3.8 dBi; Avg. Gain = 1.1 dBi; P to P Ripple = 5.3

Elevation Cut, Phi=0, 2450 MHz



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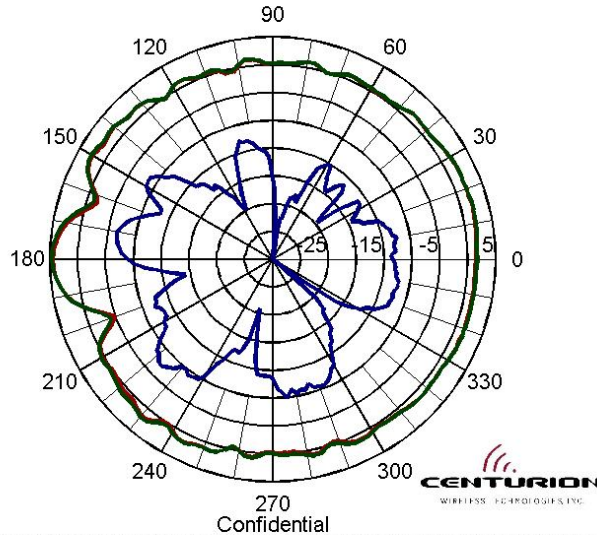
— Max. Gain = -0.4 dBi; Avg. Gain = -3.7 dBi

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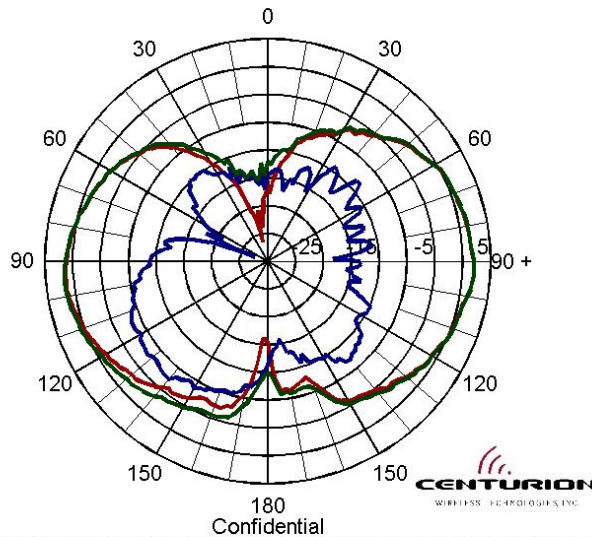
CAF94505 Internal WLAN
Azimuth Cut, 4900 MHz



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— Theta Pol Max. Gain = 4.5 dBi; Avg. Gain = 1.1 dBi; P to P Ripple = 9.3
— Phi Pol Max. Gain = -6.6 dBi; Avg. Gain = -12.9 dBi; P to P Ripple = 28.4
— Total Power Max. Gain = 4.7 dBi; Avg. Gain = 1.3 dBi; P to P Ripple = 8.8

CAF94505 Internal WLAN
Elevation Cut, Phi=0, 4900 MHz



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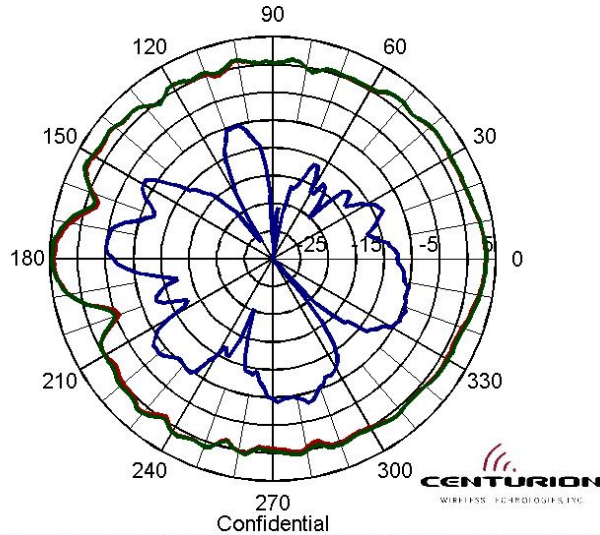
— Theta Pol Max. Gain = 2.0 dBi; Avg. Gain = -2.8 dBi
— Phi Pol Max. Gain = -7.4 dBi; Avg. Gain = -13.7 dBi
— Total Power Max. Gain = 2.1 dBi; Avg. Gain = -2.4 dBi

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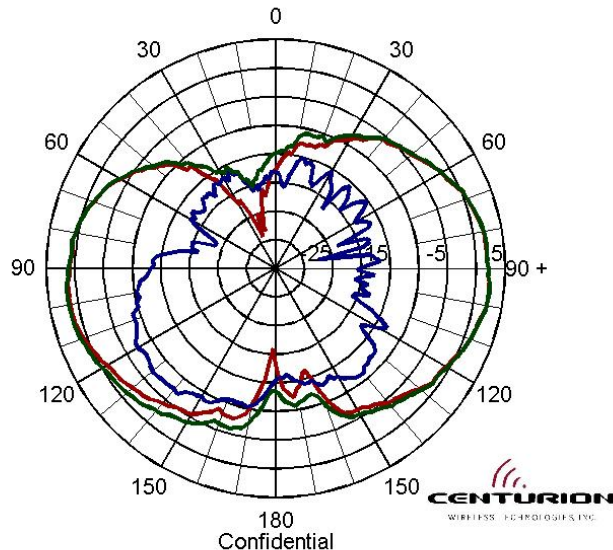
CAF94505 Internal WLAN
Azimuth Cut, 5192.5 MHz



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— Theta Pol Max. Gain = 4.3 dBi; Avg. Gain = 1.1 dBi; P to P Ripple = 10.0
— Phi Pol Max. Gain = -5.0 dBi; Avg. Gain = -12.0 dBi; P to P Ripple = 30.0
— Total Power Max. Gain = 4.7 dBi; Avg. Gain = 1.3 dBi; P to P Ripple = 9.6

CAF94505 Internal WLAN
Elevation Cut, Phi=0, 5192.5 MHz



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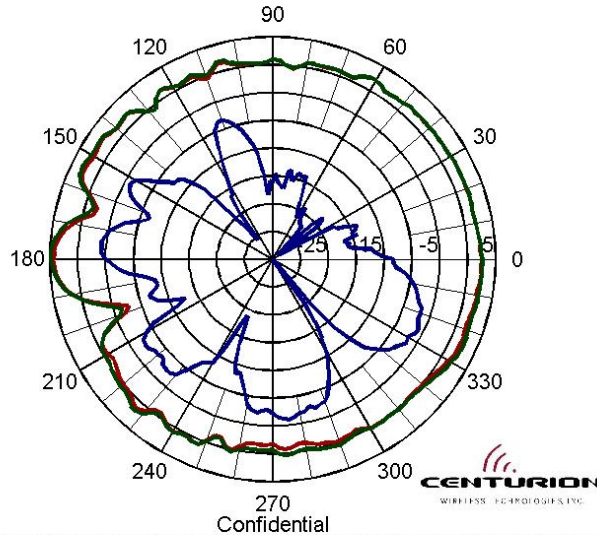
— Theta Pol Max. Gain = 2.4 dBi; Avg. Gain = -2.7 dBi
— Phi Pol Max. Gain = -7.0 dBi; Avg. Gain = -13.2 dBi
— Total Power Max. Gain = 2.4 dBi; Avg. Gain = -2.3 dBi

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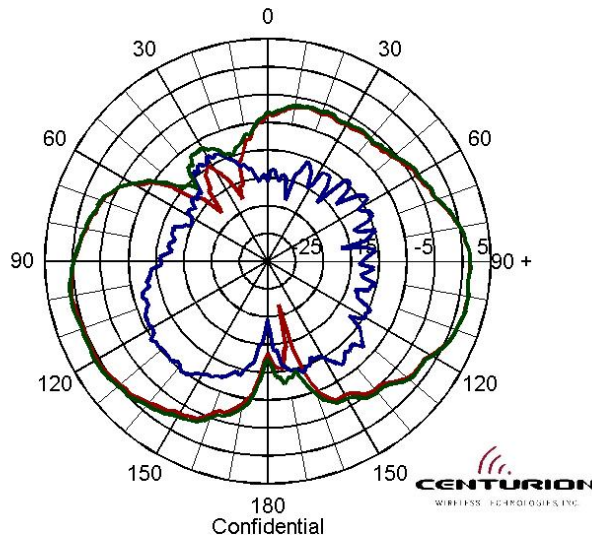
CAF94505 Internal WLAN
Azimuth Cut, 5582.5 MHz



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— Theta Pol Max. Gain = 4.4 dBi; Avg. Gain = 1.0 dBi; P to P Ripple = 12.2
— Phi Pol Max. Gain = -4.0 dBi; Avg. Gain = -10.5 dBi; P to P Ripple = 31.0
— Total Power Max. Gain = 4.9 dBi; Avg. Gain = 1.3 dBi; P to P Ripple = 11.3

CAF94505 Internal WLAN
Elevation Cut, Phi=90, 5582.5 MHz



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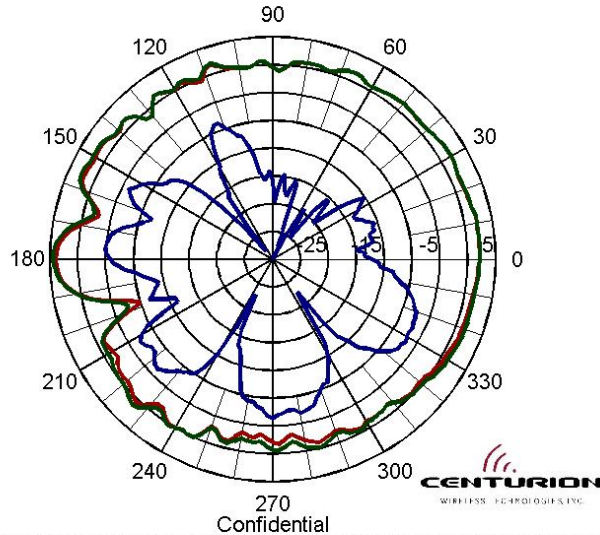
— Theta Pol Max. Gain = 1.5 dBi; Avg. Gain = -3.2 dBi
— Phi Pol Max. Gain = -9.6 dBi; Avg. Gain = -14.7 dBi
— Total Power Max. Gain = 1.5 dBi; Avg. Gain = -2.9 dBi

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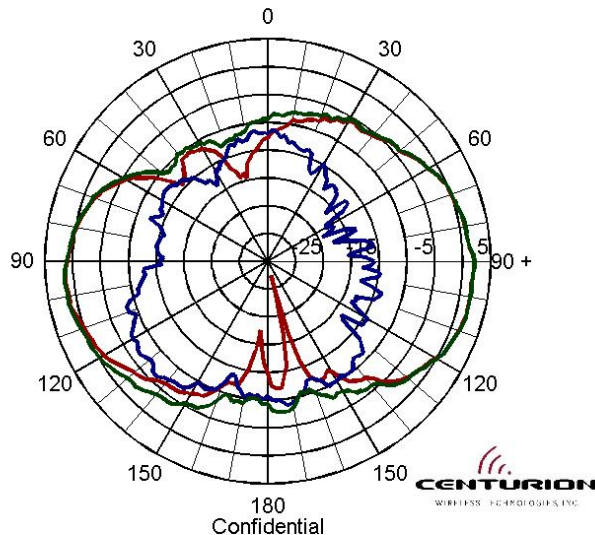
CAF94505 Internal WLAN
Azimuth Cut, 5875 MHz



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- Theta Pol Max. Gain = 4.0 dBi; Avg. Gain = 0.5 dBi; P to P Ripple = 14.1
- Phi Pol Max. Gain = -4.9 dBi; Avg. Gain = -10.8 dBi; P to P Ripple = 30.1
- Total Power Max. Gain = 4.5 dBi; Avg. Gain = 0.8 dBi; P to P Ripple = 12.3

CAF94505 Internal WLAN
Elevation Cut, Phi=0, 5875 MHz



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- Theta Pol Max. Gain = 2.0 dBi; Avg. Gain = -3.0 dBi
- Phi Pol Max. Gain = -6.3 dBi; Avg. Gain = -12.1 dBi
- Total Power Max. Gain = 2.0 dBi; Avg. Gain = -2.5 dBi

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