



**M803 Assembly
Bluetooth Antenna
2.39 – 2.5GHz**

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February 20, 2004

CONFIDENTIAL

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1 Summary

To insure the increase in cable length does not affect the performance of the M803 antenna.

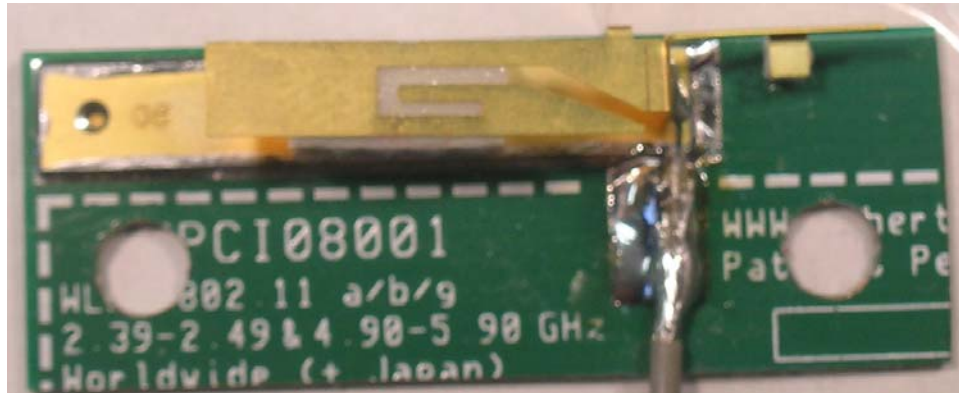


Figure 1: M803 Assembly

Return Loss at - 8dB	M803
Bandwidth (MHz)	170
Efficiency	M803 2.4 – 2.485 MHz
Overall (%)	40.49
Maximum (peak) (%)	45.35
Low Freq. (%)	34.69
High Freq. (%)	42.94

2 Definition of Radiation Pattern Plane

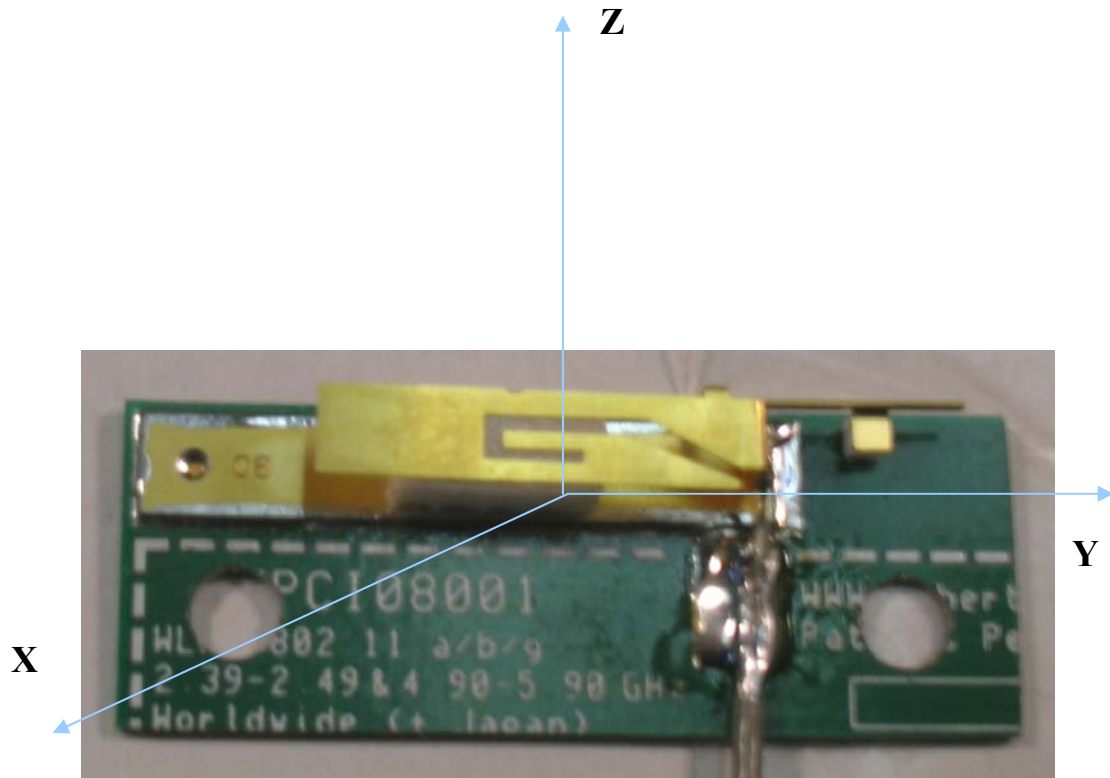


Figure 2: Reference axis.

Azimuth = XY

Elevation = XZ

3 M803 Efficiency Measurements

3.1 Efficiency WLAN Band 2.4 – 2.495GHz

Overall Eff. (Az.+El.) : 40.49 % (-3.93 dBi) between [2.4 2.495] GHz
Best Eff. (Az.+El.) : 45.35 % (-3.43 dBi) @ 2.45 GHz between [2.4 2.495] GHz
Low Edge Eff. (Az.+El.) : 34.69 % (-4.6 dBi) @ 2.4 GHz
High Edge Eff. (Az.+El.) : 42.94 % (-3.67 dBi) @ 2.495 GHz

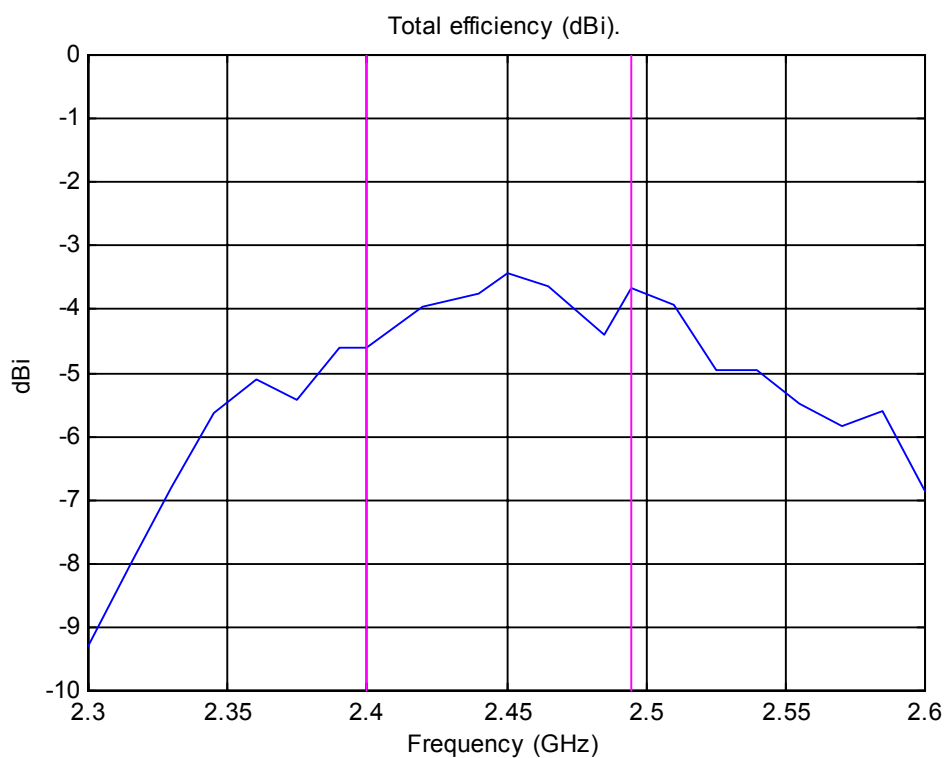


Figure 3: Efficiency (%).

3.2 M803 Radiation Patterns

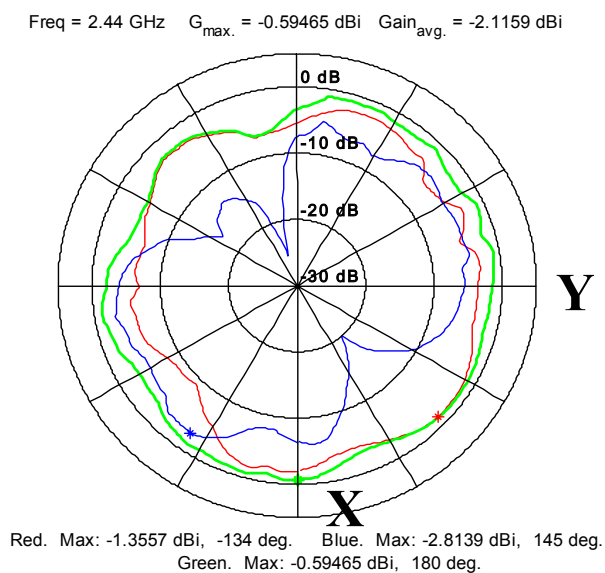


Figure 4: Azimuth

Red: Azimuth Main
Blue: Azimuth Cross
Green: Main + Cross

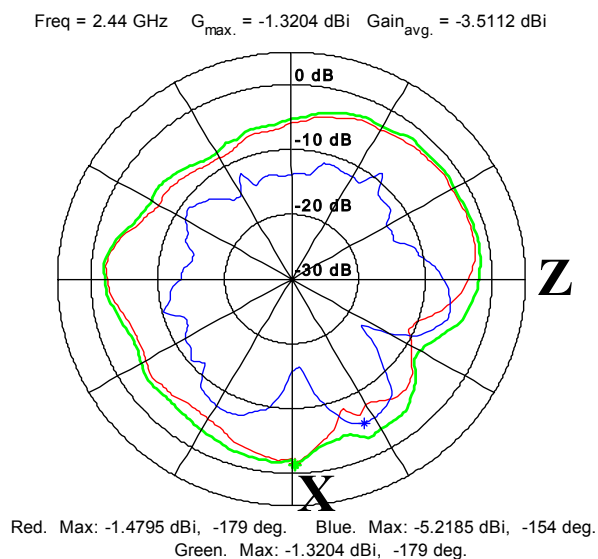


Figure 5: Elevation

3.3 Return Loss M803

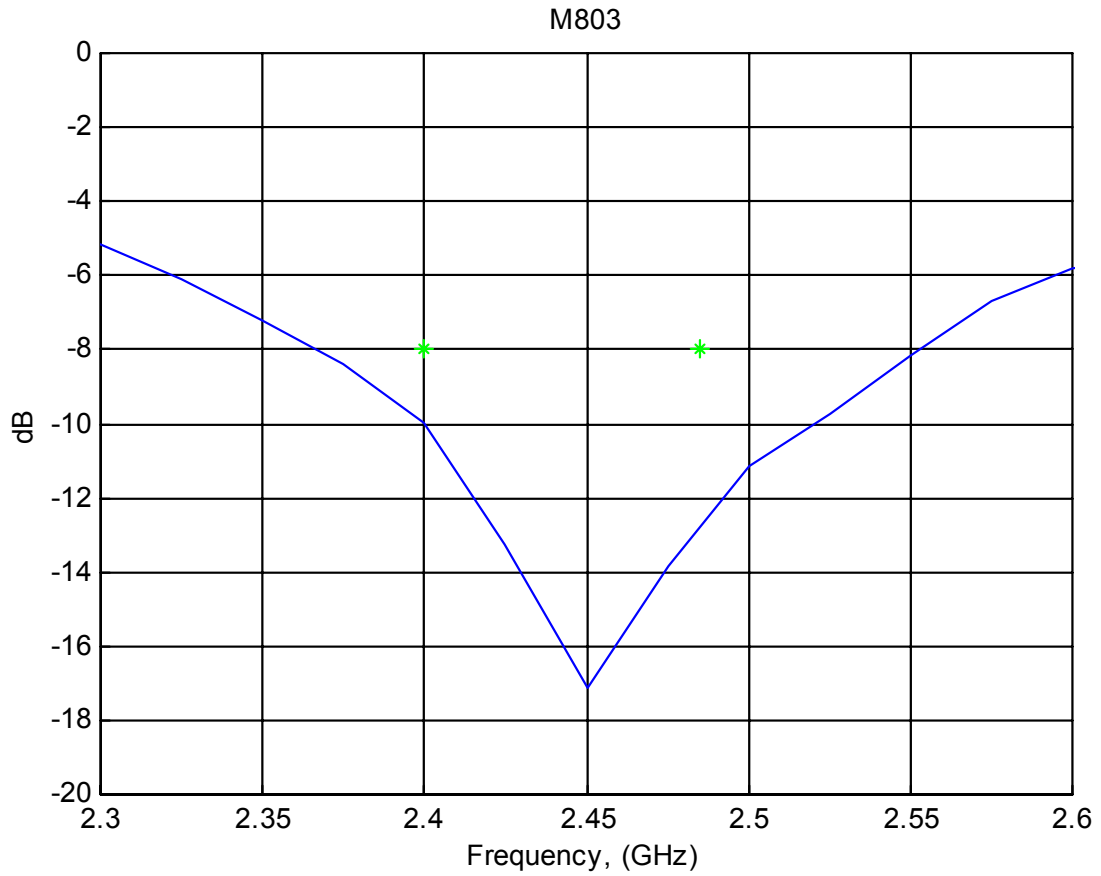


Figure 6: Return Loss