

Antenna Regulatory Information

• Product type	• WLAN antenna
• Model number	• DELL Parker (WT0541-22-000)
• Revision	• A01
• Manufacturer Part No. : Main / Aux / MIMO	• WT0541-22-002 (for MIMO) • WT0541-22-003 (for Main and Aux)
• Dell Part No. : Main / Aux / MIMO	•

Amphenol

Shanghai Amphenol Airwave Communication Electronics Co., LTD
No.689 Shennan Road, Minhang 201108, Shang-hai, China

1. Specifications

Antenna Specifications

Antenna Type (Material, Technology)	Flex, Inverted-F Antenna (IFA)
Antenna Model Number	DELL Parker
Operating Frequency Range(s)	2.4GHz ~ 2.5GHz and 4.9GHz ~ 5.9GHz
Peak Gain (802.11b/g / 2.4GHz Band) (dBi)	0.8 dBi
Peak Gain (802.11a / 5GHz Band) (dBi)	2.52 dBi
Radio Connector Type	IPEX 20278-111R-13 or equivalent connector
Mid-Line Connector Type (If Applicable)	N/A

Remark: Peak Gains include all system losses (connector, cable, etc)

Cable Specifications

Cable Parameters	MIMO			Aux			Main		
	LCD Side	Base Side	Total	LCD Side	Base Side	Total	LCD Side	Base Side	Total
Length (mm)	N/A	N/A	492	N/A	N/A	460	N/A	N/A	537
Loss (Including Connectors) (dB, 2.4GHz / 5GHz)			1.3/2.1			1.2/ 1.9			1.2 / 1.9
Description (Color, Diameter, Manufacturer)	Color: Gray OD: 1.13 mm Vendor: GBE			Color: Black OD: 1.13 mm Vendor: GBE			Color: White OD: 1.13 mm Vendor: GBE		

2. Antenna Assembly



Main/ Aux WLAN

MIMO

3. Antenna Assembly Installed in The Notebook



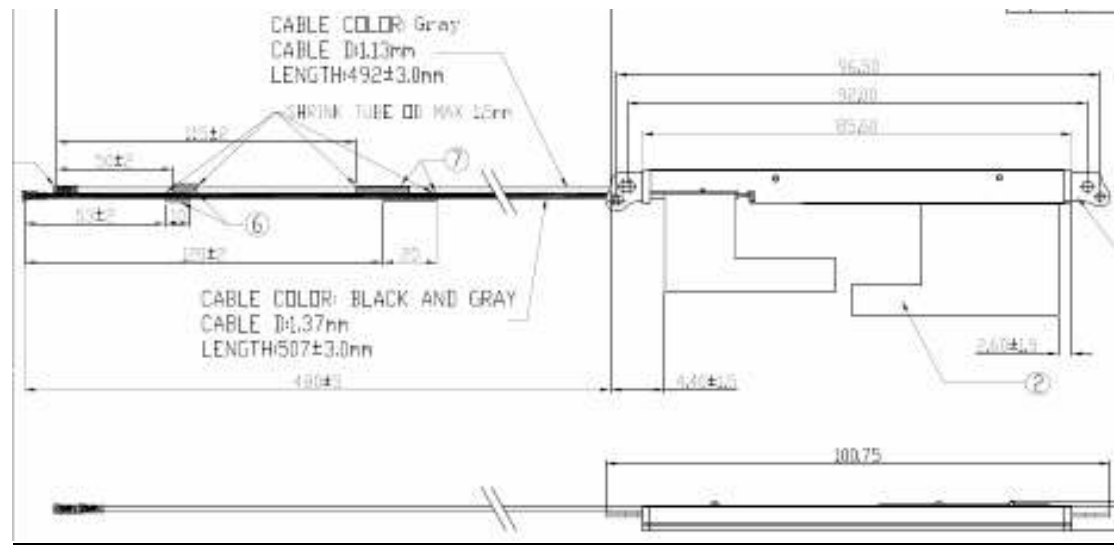
MIMO

Aux WLAN

Main WLAN

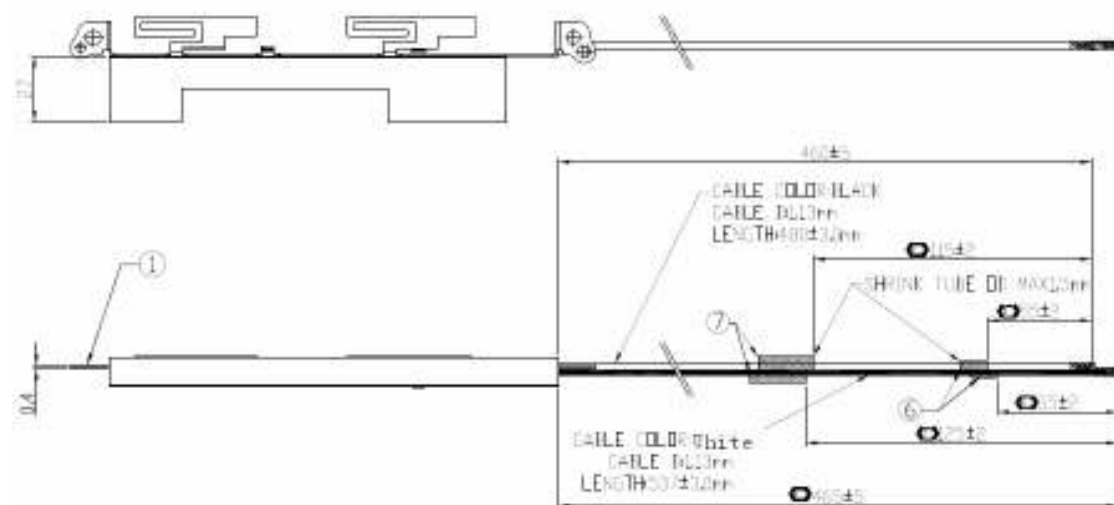
4. Mechanical Drawing of Antennas

(1) MIMO WLAN cable – Upper Left Antenna



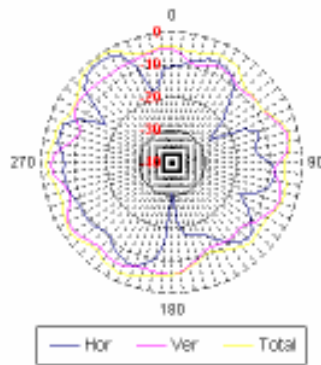
(2) Auxiliary WLAN cable – Upper Right Antenna

(3) MAIN WLAN cable –Upper Right Antenna

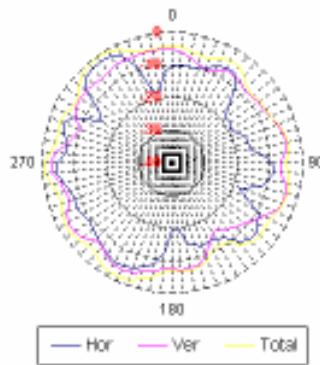


5. Gain Patterns

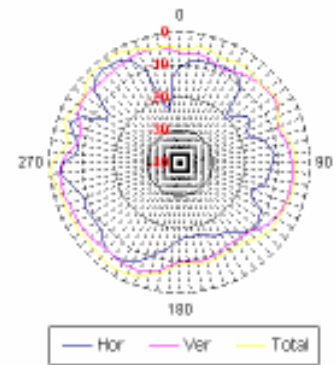
- MIMO Antenna



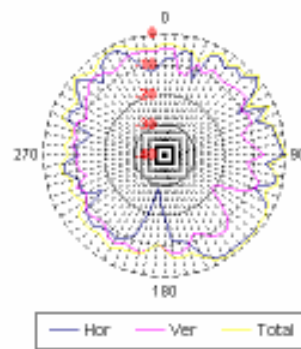
Centre Frequency	2412 MHz
Horizontal peak gain (dBi)	-1.79
Vertical peak gain (dBi)	-2.86
Hori + Vert peak gain (dBi)	-0.58
Hori + Vert ave gain (dBi)	-4.20



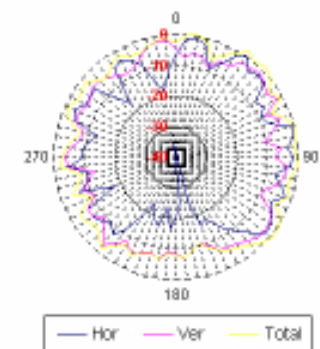
Centre Frequency	2437 MHz
Horizontal peak gain (dBi)	-2.00
Vertical peak gain (dBi)	-2.94
Hori + Vert peak gain (dBi)	-0.53
Hori + Vert ave gain (dBi)	-3.94



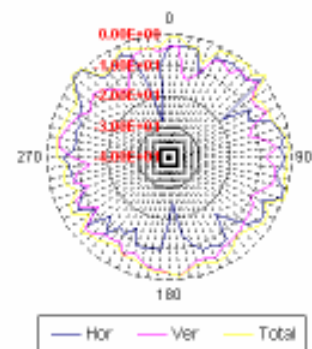
Centre Frequency	2462 MHz
Horizontal peak gain (dBi)	-2.94
Vertical peak gain (dBi)	-2.78
Hori + Vert peak gain (dBi)	-0.07
Hori + Vert ave gain (dBi)	-3.92



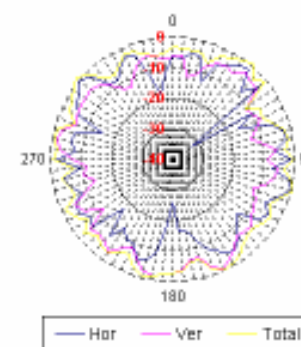
Centre Frequency	4900 MHz
Horizontal peak gain (dBi)	-0.13
Vertical peak gain (dBi)	-5.00
Hori + Vert peak gain (dBi)	0.62
Hori + Vert ave gain (dBi)	-3.44



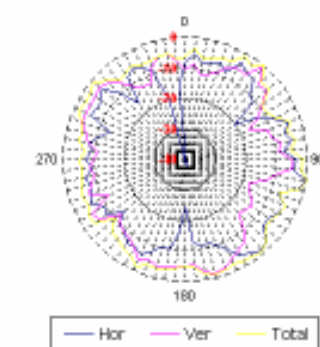
Centre Frequency	5150 MHz
Horizontal peak gain (dBi)	0.27
Vertical peak gain (dBi)	-1.09
Hori + Vert peak gain (dBi)	2.12
Hori + Vert ave gain (dBi)	-2.50



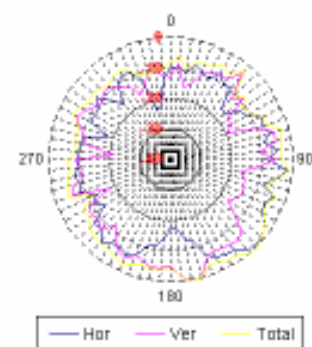
Centre Frequency	5350 MHz
Horizontal peak gain (dBi)	1.22
Vertical peak gain (dBi)	-1.07
Hori + Vert peak gain (dBi)	1.74
Hori + Vert ave gain (dBi)	-2.72



Centre Frequency	5470 MHz
Horizontal peak gain (dBi)	0.20
Vertical peak gain (dBi)	-0.86
Hori + Vert peak gain (dBi)	1.39
Hori + Vert ave gain (dBi)	-2.65

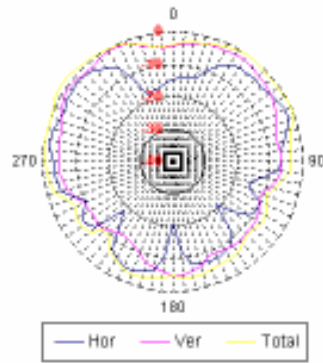


Centre Frequency	5725 MHz
Horizontal peak gain (dBi)	0.35
Vertical peak gain (dBi)	-0.86
Hori + Vert peak gain (dBi)	0.72
Hori + Vert ave gain (dBi)	-3.61

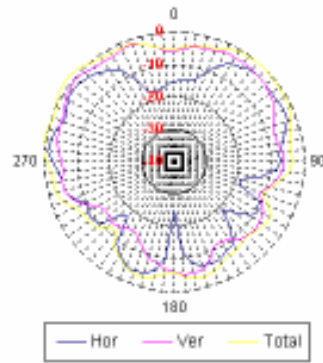


Centre Frequency	5875 MHz
Horizontal peak gain (dBi)	-0.43
Vertical peak gain (dBi)	0.68
Hori + Vert peak gain (dBi)	0.83
Hori + Vert ave gain (dBi)	-4.49

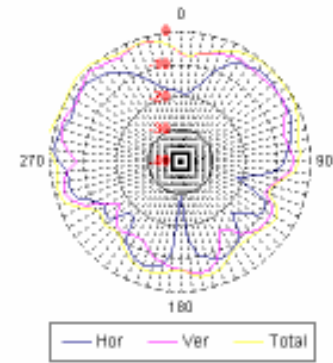
- Aux Antenna



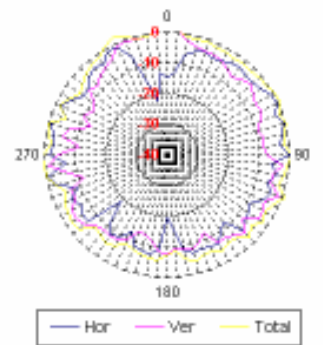
Centre Frequency	2412 MHz
Horizontal peak gain (dBi)	-1.57
Vertical peak gain (dBi)	-0.66
Hori + Vert peak gain (dBi)	1.58
Hori + Vert ave gain (dBi)	-2.32



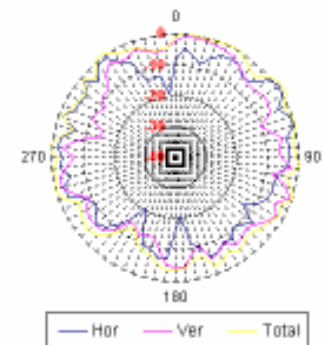
Centre Frequency	2437 MHz
Horizontal peak gain (dBi)	-1.22
Vertical peak gain (dBi)	-0.43
Hori + Vert peak gain (dBi)	1.81
Hori + Vert ave gain (dBi)	-2.65



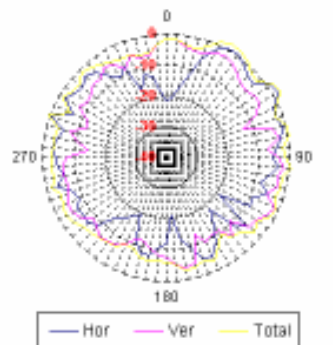
Centre Frequency	2462 MHz
Horizontal peak gain (dBi)	-0.79
Vertical peak gain (dBi)	-0.63
Hori + Vert peak gain (dBi)	1.33
Hori + Vert ave gain (dBi)	-2.82



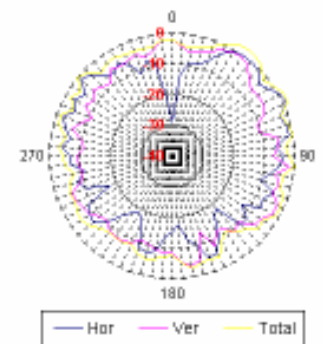
Centre Frequency	4900 MHz
Horizontal peak gain (dBi)	-0.12
Vertical peak gain (dBi)	1.63
Hori + Vert peak gain (dBi)	2.13
Hori + Vert ave gain (dBi)	-1.77



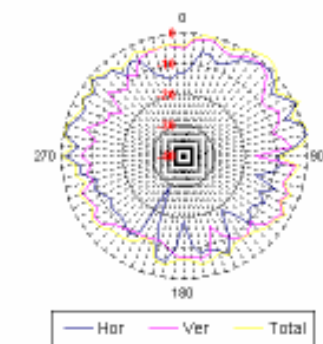
Centre Frequency	5150 MHz
Horizontal peak gain (dBi)	0.66
Vertical peak gain (dBi)	-0.77
Hori + Vert peak gain (dBi)	1.63
Hori + Vert ave gain (dBi)	-2.09



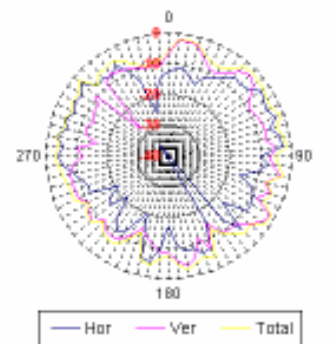
Centre Frequency	5350 MHz
Horizontal peak gain (dBi)	1.72
Vertical peak gain (dBi)	-1.43
Hori + Vert peak gain (dBi)	2.49
Hori + Vert ave gain (dBi)	-2.39



Centre Frequency	5470 MHz
Horizontal peak gain (dBi)	1.02
Vertical peak gain (dBi)	-0.73
Hori + Vert peak gain (dBi)	2.58
Hori + Vert ave gain (dBi)	-2.56

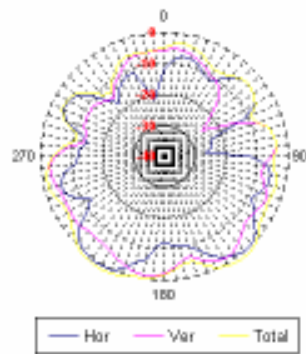


Centre Frequency	5725 MHz
Horizontal peak gain (dBi)	0.78
Vertical peak gain (dBi)	-0.69
Hori + Vert peak gain (dBi)	2.20
Hori + Vert ave gain (dBi)	-2.69

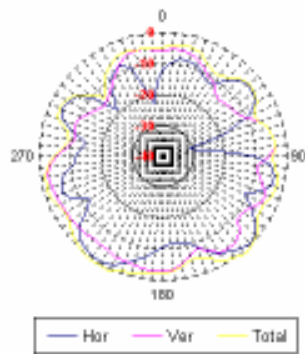


Centre Frequency	5875 MHz
Horizontal peak gain (dBi)	-2.51
Vertical peak gain (dBi)	-1.76
Hori + Vert peak gain (dBi)	-0.98
Hori + Vert ave gain (dBi)	-4.44

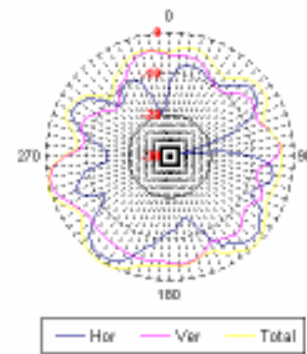
- Main Antenna



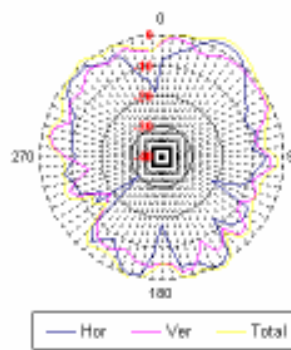
Centre Frequency	2412 MHz
Horizontal peak gain (dBi)	0.80
Vertical peak gain (dBi)	-1.17
Hori + Vert peak gain (dBi)	1.88
Hori + Vert ave gain (dBi)	-2.66



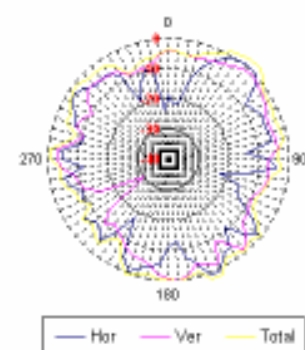
Centre Frequency	2437 MHz
Horizontal peak gain (dBi)	-0.17
Vertical peak gain (dBi)	-2.60
Hori + Vert peak gain (dBi)	1.10
Hori + Vert ave gain (dBi)	-3.01



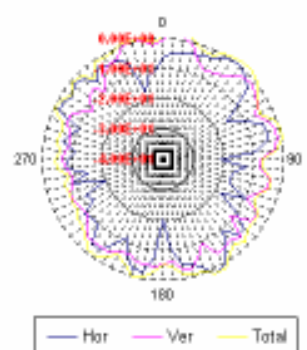
Centre Frequency	2462 MHz
Horizontal peak gain (dBi)	-0.74
Vertical peak gain (dBi)	-0.62
Hori + Vert peak gain (dBi)	0.65
Hori + Vert ave gain (dBi)	-2.95



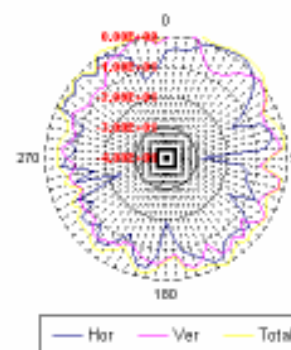
Centre Frequency	4900 MHz
Horizontal peak gain (dBi)	2.52
Vertical peak gain (dBi)	-0.68
Hori + Vert peak gain (dBi)	3.92
Hori + Vert ave gain (dBi)	-1.36



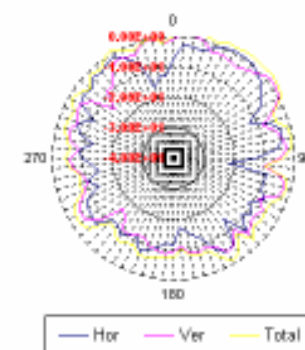
Centre Frequency	5150 MHz
Horizontal peak gain (dBi)	0.78
Vertical peak gain (dBi)	0.34
Hori + Vert peak gain (dBi)	3.12
Hori + Vert ave gain (dBi)	-2.03



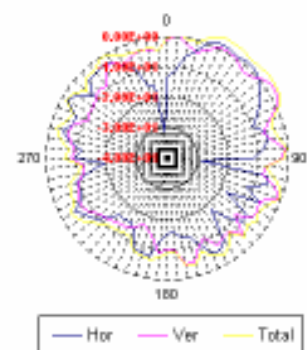
Centre Frequency	5350 MHz
Horizontal peak gain (dBi)	1.48
Vertical peak gain (dBi)	1.66
Hori + Vert peak gain (dBi)	2.56
Hori + Vert ave gain (dBi)	-1.49



Centre Frequency	5470 MHz
Horizontal peak gain (dBi)	1.52
Vertical peak gain (dBi)	2.05
Hori + Vert peak gain (dBi)	3.07
Hori + Vert ave gain (dBi)	-1.24



Centre Frequency	5725 MHz
Horizontal peak gain (dBi)	1.00
Vertical peak gain (dBi)	1.75
Hori + Vert peak gain (dBi)	3.11
Hori + Vert ave gain (dBi)	-1.77



Centre Frequency	5875 MHz
Horizontal peak gain (dBi)	1.60
Vertical peak gain (dBi)	2.11
Hori + Vert peak gain (dBi)	3.98
Hori + Vert ave gain (dBi)	-1.92