

Antenna Regulatory Information

• Product type	• WLAN antenna
• Model number	• DELL Travis (HAL00)
• Revision	• A01
• Manufacturer Part No. : Main / Aux	• S03011-L-1-FPCB • S03011-R-FPCB
• Dell Part No. : Main / Aux	• DC330007L0L/DC330007M0L

Amphenol

Shanghai Amphenol Airwave Communication Electronics Co., LTD
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Shanghai, China (201615)

1. Specifications

Antenna Specifications

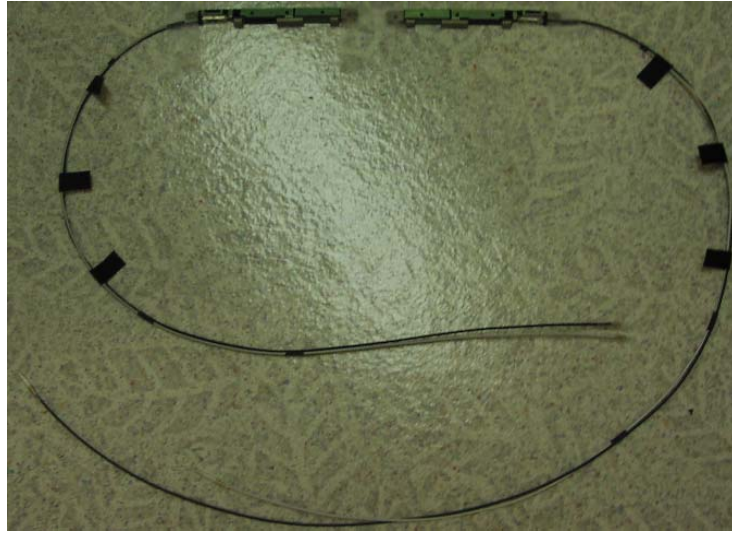
Antenna Type (Material, Technology)	Flex, Inverted-F Antenna (IFA)
Antenna Model Number	DELL Travis (HAL00)
Operating Frequency Range(s)	2.4GHz ~ 2.5GHz and 4.9GHz ~ 5.9GHz
Peak Gain (802.11b/g / 2.4GHz Band) (dBi)	-0.26 dBi
Peak Gain (802.11a / 5GHz Band) (dBi)	2.66 dBi
Radio Connector Type	IPEX 20308-111R-32/ 20363-111R-37 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	Main			Aux		
	LCD Side	Base Side	Total	LCD Side	Base Side	Total
Length (mm)	N/A	N/A	493	N/A	N/A	543
Loss (Including Connectors) (dB, 2.4GHz / 5GHz)			1.27/ 2.10			1.39 / 2.23
Description (Color, Diameter, Manufacturer)	Color: White OD: 1.32~1.37 mm Vendor: GBE or equivalent			Color: Black OD: 1.32~1.37 mm Vendor: GBE or equivalent		

2. Antenna Assembly



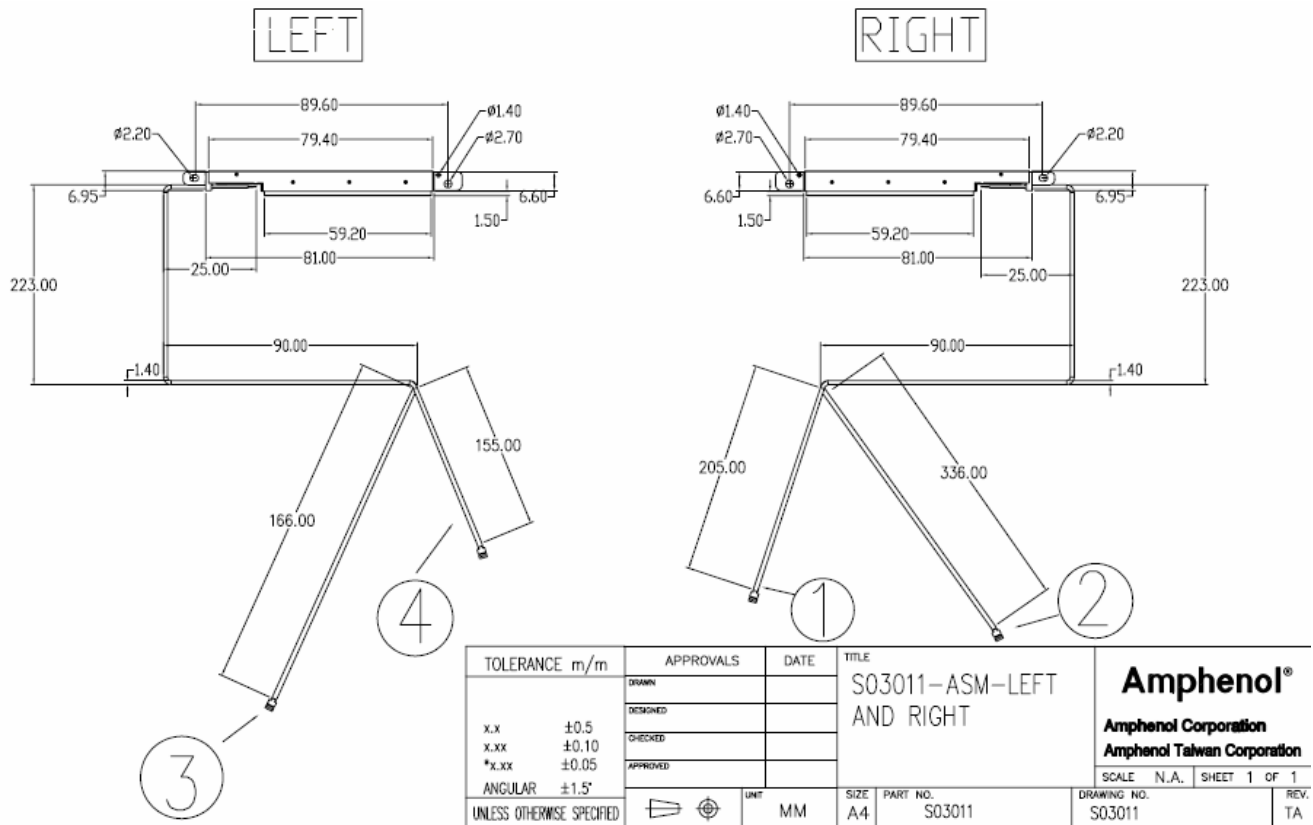
3. Antenna Assembly Installed in The Notebook

Aux Antenna

Main Antenna



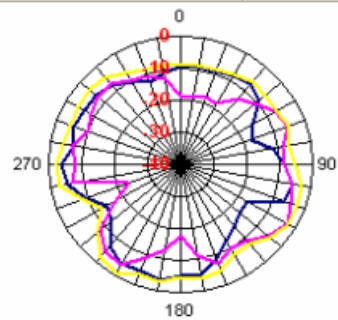
4. Mechanical Drawing of Antennas



Note: (1) is the Main WLAN cable
(4) is the Auxiliary WLAN cable

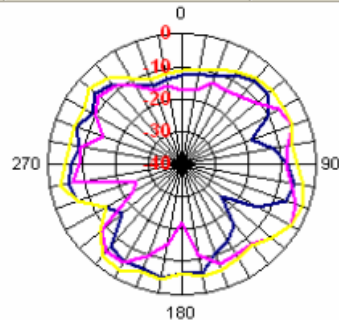
5. Gain Patterns

- Main Antenna



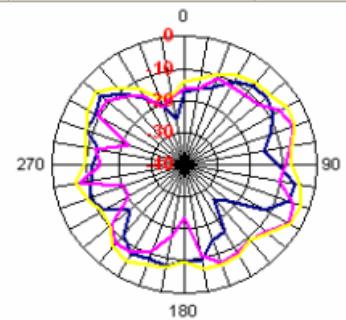
— Vertical — Horizontal — Total

Centre Frequency	2412 MHz
Horizontal peak gain (dBi)	-2.64
Vertical peak gain (dBi)	-3.34
Hori + Vert peak gain (dBi)	-1.06
Hori + Vert ave gain (dBi)	-5.07



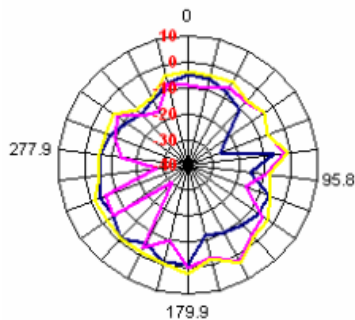
— Vertical — Horizontal — Total

Centre Frequency	2437 MHz
Horizontal peak gain (dBi)	-2.46
Vertical peak gain (dBi)	-4.75
Hori + Vert peak gain (dBi)	-2.12
Hori + Vert ave gain (dBi)	-5.76



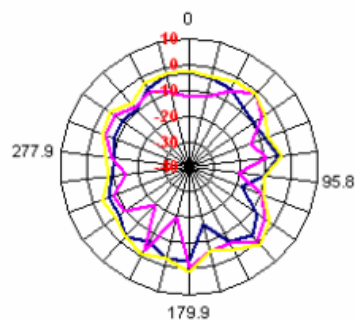
— Vertical — Horizontal — Total

Centre Frequency	2462 MHz
Horizontal peak gain (dBi)	-3.83
Vertical peak gain (dBi)	-6.25
Hori + Vert peak gain (dBi)	-2.53
Hori + Vert ave gain (dBi)	-7.38



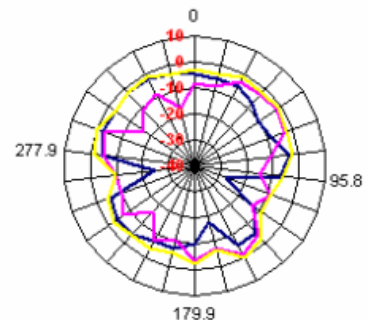
— Vertical — Horizontal — Total

Centre Frequency	4900 MHz
Horizontal peak gain (dBi)	2.36
Vertical peak gain (dBi)	-1.16
Hori + Vert peak gain (dBi)	2.59
Hori + Vert ave gain (dBi)	-2.98



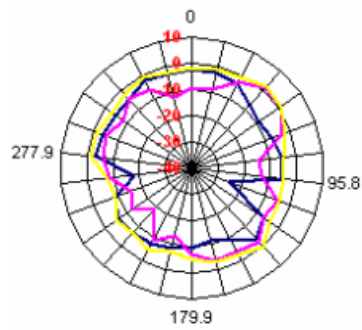
— Vertical — Horizontal — Total

Centre Frequency	5150 MHz
Horizontal peak gain (dBi)	-0.87
Vertical peak gain (dBi)	-3.05
Hori + Vert peak gain (dBi)	1.11
Hori + Vert ave gain (dBi)	-3.38



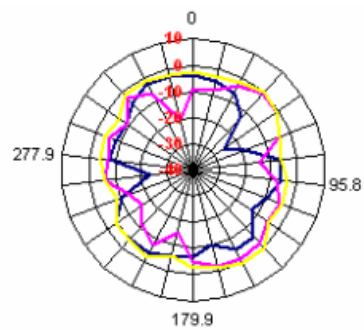
— Vertical — Horizontal — Total

Centre Frequency	5350 MHz
Horizontal peak gain (dBi)	-1.26
Vertical peak gain (dBi)	-2.24
Hori + Vert peak gain (dBi)	0.25
Hori + Vert ave gain (dBi)	-3.01



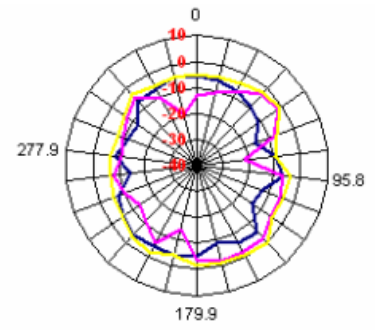
Vertical Horizontal Total

Centre Frequency	5470 MHz
Horizontal peak gain (dBi)	1.03
Vertical peak gain (dBi)	-2.18
Hori + Vert peak gain (dBi)	1.51
Hori + Vert ave gain (dBi)	-2.47



Vertical Horizontal Total

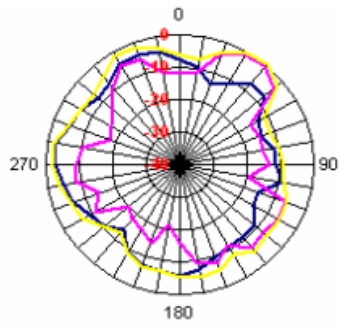
Centre Frequency	5725 MHz
Horizontal peak gain (dBi)	-0.80
Vertical peak gain (dBi)	-3.15
Hori + Vert peak gain (dBi)	-0.15
Hori + Vert ave gain (dBi)	-3.16



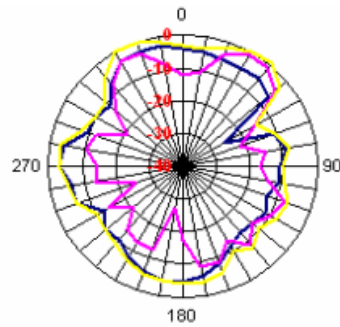
Vertical Horizontal Total

Centre Frequency	5875 MHz
Horizontal peak gain (dBi)	-2.20
Vertical peak gain (dBi)	-4.14
Hori + Vert peak gain (dBi)	-0.54
Hori + Vert ave gain (dBi)	-4.21

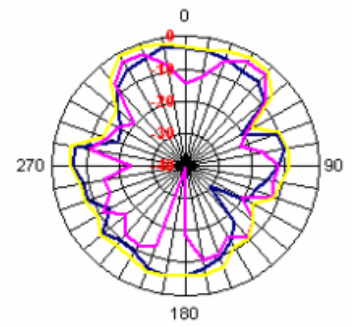
- Aux Antenna



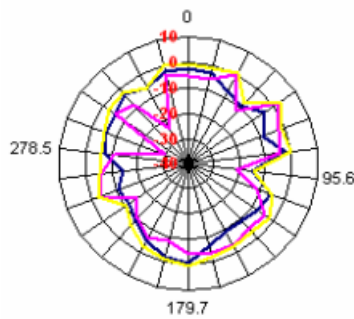
Centre Frequency	
2412 MHz	
Horizontal peak gain (dBi)	-0.26
Vertical peak gain (dBi)	-2.55
Hori + Vert peak gain (dBi)	0.54
Hori + Vert ave gain (dBi)	-4.77



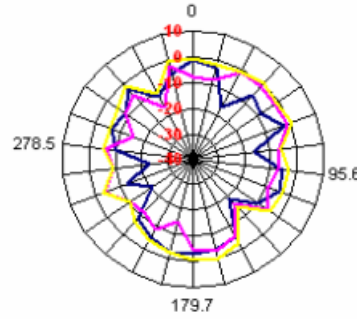
Centre Frequency	
2437 MHz	
Horizontal peak gain (dBi)	-0.72
Vertical peak gain (dBi)	-2.93
Hori + Vert peak gain (dBi)	0.74
Hori + Vert ave gain (dBi)	-4.48



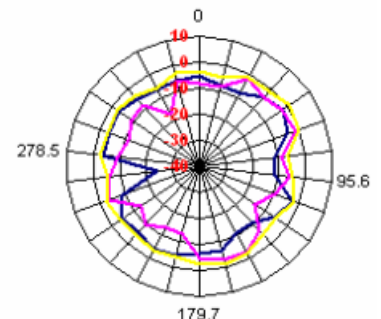
Centre Frequency	
2462 MHz	
Horizontal peak gain (dBi)	-2.82
Vertical peak gain (dBi)	-3.03
Hori + Vert peak gain (dBi)	-0.90
Hori + Vert ave gain (dBi)	-5.66



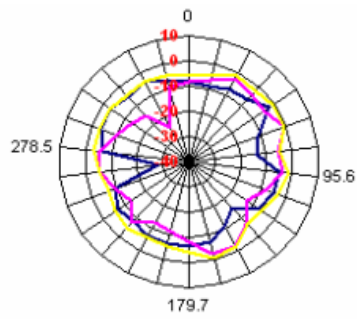
Centre Frequency	
4900 MHz	
Horizontal peak gain (dBi)	1.66
Vertical peak gain (dBi)	-0.77
Hori + Vert peak gain (dBi)	2.61
Hori + Vert ave gain (dBi)	-2.31



Centre Frequency	
5150 MHz	
Horizontal peak gain (dBi)	-1.20
Vertical peak gain (dBi)	-1.30
Hori + Vert peak gain (dBi)	0.54
Hori + Vert ave gain (dBi)	-2.76

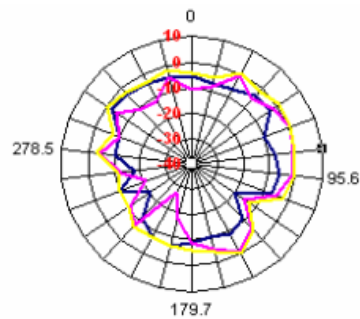


Centre Frequency	
5350 MHz	
Horizontal peak gain (dBi)	-1.78
Vertical peak gain (dBi)	-1.54
Hori + Vert peak gain (dBi)	1.16
Hori + Vert ave gain (dBi)	-2.98



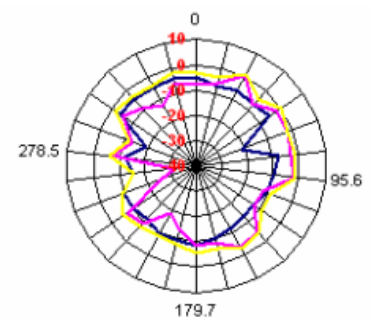
— Vertical — Horizontal — Total

Centre Frequency	5470 MHz
Horizontal peak gain (dBi)	-1.42
Vertical peak gain (dBi)	-2.61
Hori + Vert peak gain (dBi)	-0.63
Hori + Vert ave gain (dBi)	-3.76



— Vertical — Horizontal — Total

Centre Frequency	5725 MHz
Horizontal peak gain (dBi)	0.05
Vertical peak gain (dBi)	-2.78
Hori + Vert peak gain (dBi)	0.41
Hori + Vert ave gain (dBi)	-3.39



— Vertical — Horizontal — Total

Centre Frequency	5875 MHz
Horizontal peak gain (dBi)	0.05
Vertical peak gain (dBi)	-4.32
Hori + Vert peak gain (dBi)	0.92
Hori + Vert ave gain (dBi)	-4.27