

McLaren WiFi Antenna Specification

PREPARED DATE : Oct 13th, 2010

CUSTOMER NAME : CISCO

PROJECT NAME : McLaren WiFi

PRODUCT NUMBER:

SAA : CI2102-11-000-R (7" inch cable)

Cisco: 07-1118-01 (7" inch cable)

SAA : CI2595-11-000-R (11" inch cable)

Cisco: 07-1124-01 (11" inch cable)

SAA DOCUMENT NUMBER: CI2102-11-000-R-APP-B

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Revision History

Revision	Date	Designer	Remarks
A.	2010/05/13	Bill Chen	First Release
B	2010/10/12	Bill Chen	Change cable length and add 11" cable product

1 Antenna Electrical Specification

	Parameter	Minimum Acceptable	Design Goal	Maximum Acceptable	Notes
1	Dual Band Operating Frequency Ranges		2400~2484MHz		2.4 GHz Band
			5150~5850MHz		5 GHz Band
2	Average Gain	0 dBi (2.4 GHz)	2 dBi (2.4 GHz)	4 dBi (2.4 GHz)	Including cable loss
		0 dBi (5 GHz)	5 dBi (5 GHz)	6 dBi (5 GHz)	
3	Nominal Impedance		50ohm		Cable and Antenna
4	Maximum VSWR Across operating frequency range		<2:1	2.5:1	Cable and Antenna
	Return Loss		<-9.5dB	-7.5dB	
5	Efficiency	45% (2.4GHz)	60%		
		45% (5GHz)	60%		

Center Frequencies

2.4GHz Band

2412	bandedge
2417	
2422	
2427	
2432	
2437	
2442	
2447	
2452	
2457	
2462	bandedge

5GHz Band

5180	bandedge	36
5200		40
5220		44
5240		48
5260		52

5280		56
5300		60
5320	bandedge	64
5500	bandedge	100
5520		104
5540		108
5560		112
5580		116
5600		120
5620		124
5640		128
5660		132
5680		136
5700	Bandedge	140
5745		149
5765		153
5785		157
5805		161
5825	bandedge	165

2 Antenna Mechanical Specification

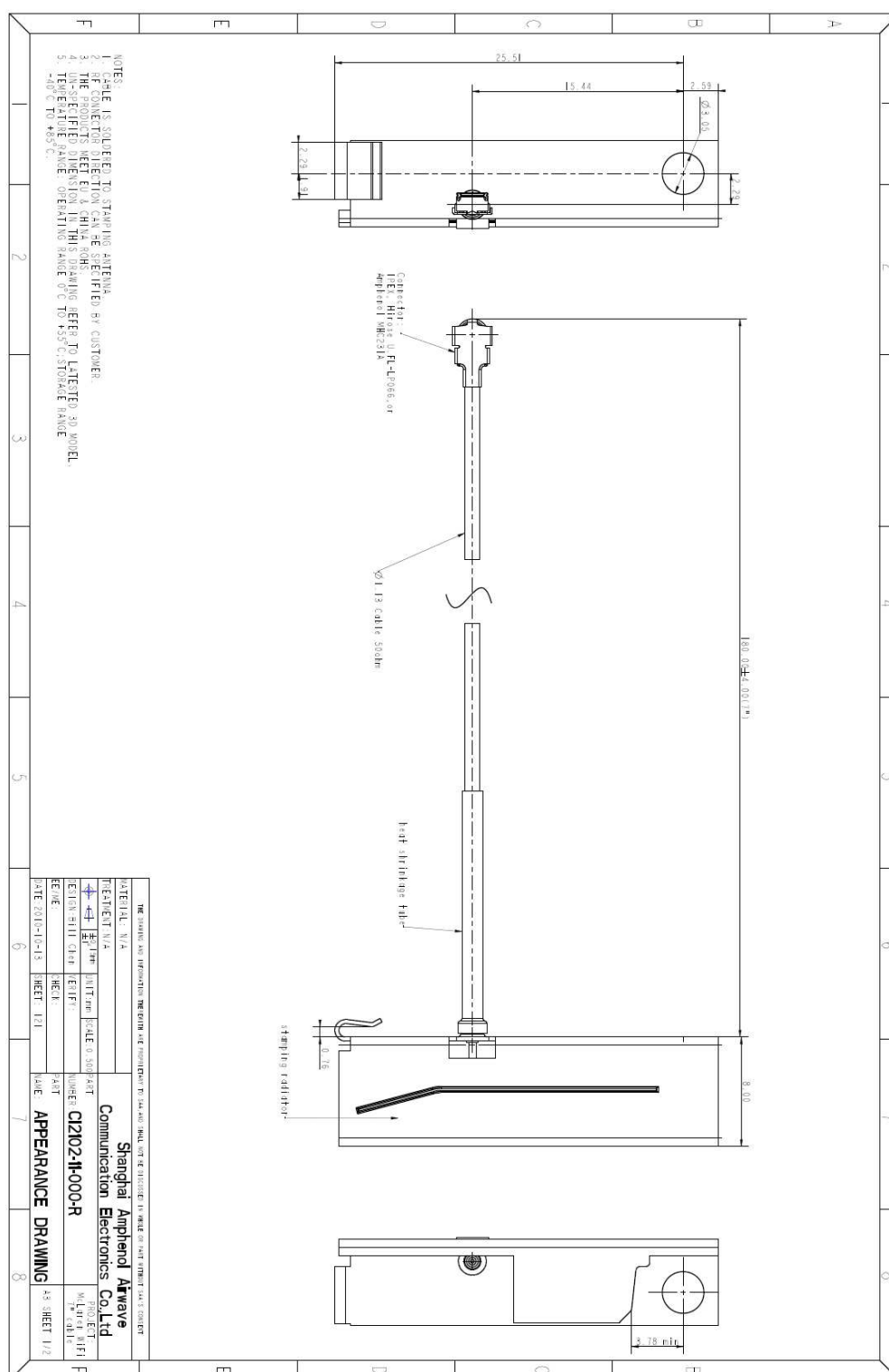
	Parameter	Minimum Acceptable	Design Goal	Maximum Acceptable	Notes
1	Antenna Type		PIFA 802.11 a/b/g/n Dual-band 2.4/5GHz Omnidirectional		
2	Antenna element dimensions		See appearance drawing		Coax feed soldered to the radiating element to allow pass-through-chassis mount
3	Mounting		Clip-on mounted with locking feature screw hole		Mounted to sheetmetal thickness of 0.036" (0.9mm)
4	Polarization		Vertical and Horizontal		
5	Cable Type		1.13mm, 50ohm or equivalent		
	Cable Length		See appearance drawing		
	Cable Color		black		
6	Connector Type		U.FL - type Female Plug		IPEX, Hirose, or Amphenol equivalent Connector is crimped to the far-end of the antenna cable.

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7	Cable grounding	Grounding when cable leaves chassis	Coax ground to chassis	Grounding close to antenna and exit point	Minimize exposure of cable sheath external to the chassis
8	Temperature Range (°C), Operating		0 ~ 55		
9	Temperature Range (°C), Storage		-40 ~ 85		

3 Mechanical Appearance Drawing

The mechanical drawing covers the physical appearance of the antenna as well as cable length and connector type.



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