Data Sheet

CUSTOMER: PEGATRON

MODEL NAME: H00J WWAN L Antenna

ACON P/N: AMP8P-700140

ADVANCED-CONNECTEK INC.

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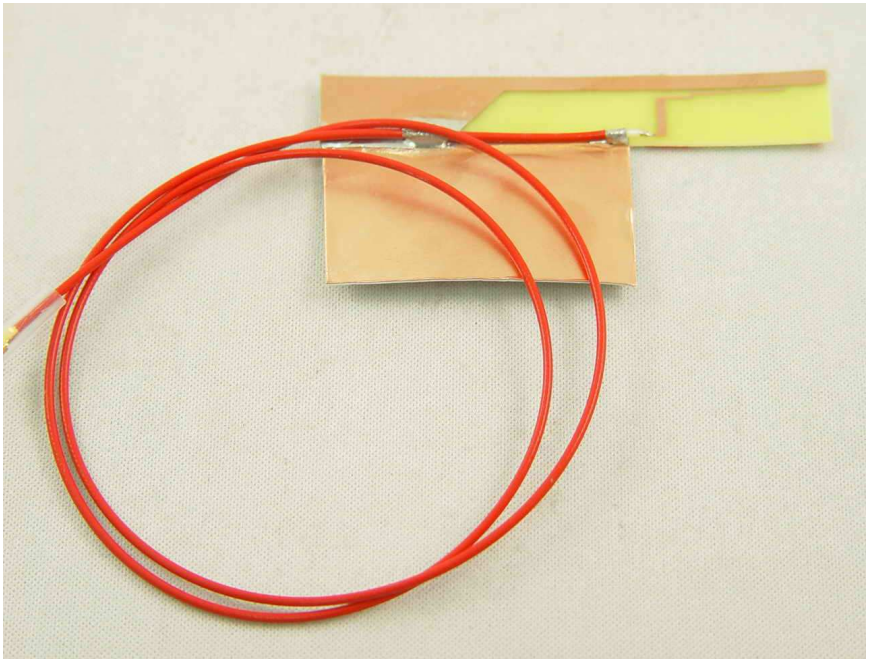
1. Description

1.1 Specifications

Antennas Type	PIFA Antenna for WWAN IEEE802.20application	
Connector Type	I-PEX Connector for 1.37 cable	
Cable Type	OD 1.37 RF Cable	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Frequency	WWAN IEEE802.20	869~896MHz
	WWAN IEEE802.20	1930~2170MHz
VSWR	WWAN IEEE802.20	3.0Max
Peak gain(dBi)	WWAN IEEE802.20	-1.18
	WWAN IEEE802.20	0.59
Cable length	WWAN(AMP8P-700140)	Aux:537 mm, Red

1.2 Antenna Picture



WWAN P/N: AMP8P-700140

2. Electrical Specification

2.1 Test Equipment

A. VSWR and input impedance: Agilent 8720/8753 Network Analyzer

B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

A. WWAN IEEE 802.20: 869～896MHz ,1930～2170MHz

2.2.2 VSWR

Step 1: The antenna is arranged on the customer provided test fixture.

Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 1).

Figure.1

2.2.3 Radiation pattern and Gain

A. The 3D chamber provides less than -40dB reflectivity from 800MHz to 6GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 2).

B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 3).

C. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure.4 and 5).

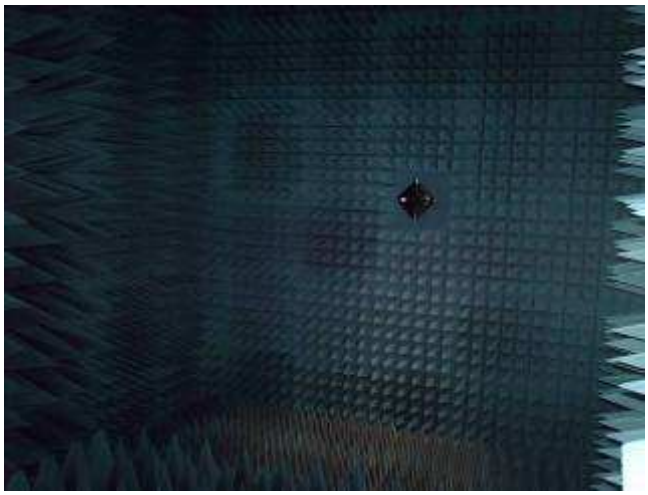


Figure. 2

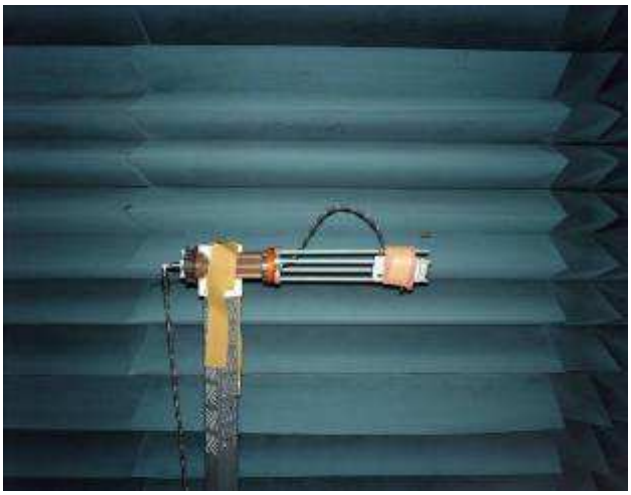


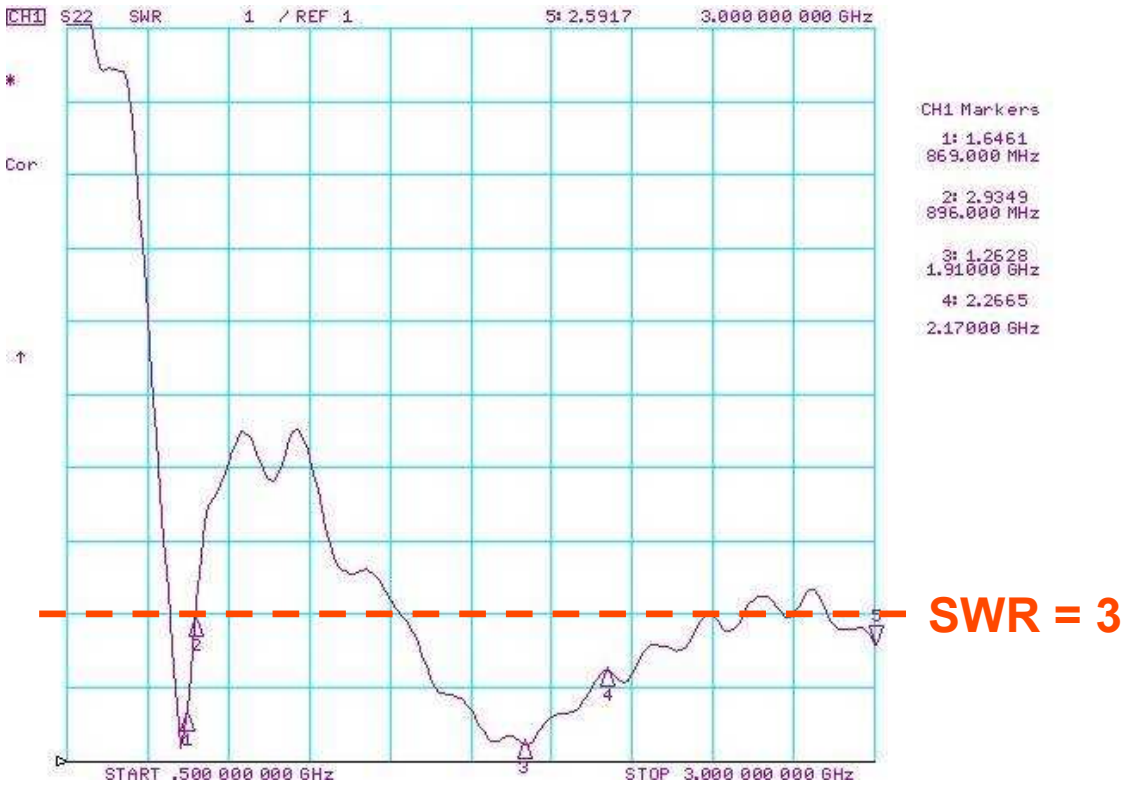
Figure. 3

Figure. 4

Figure. 5

3. Performance Data

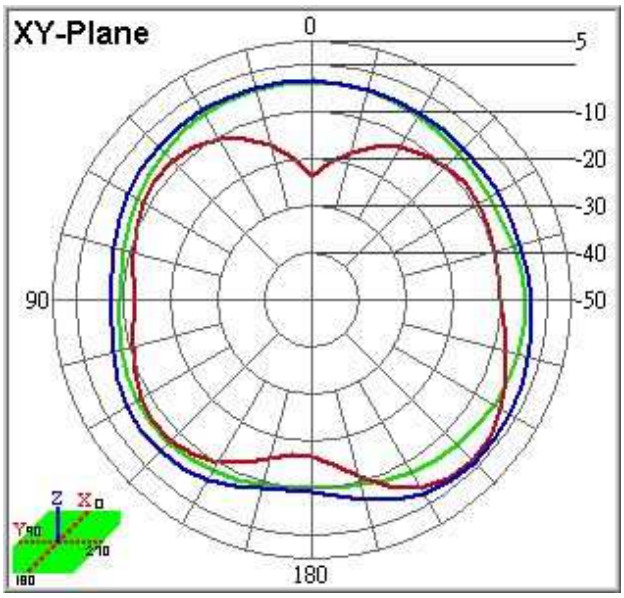
3.1 VSWR



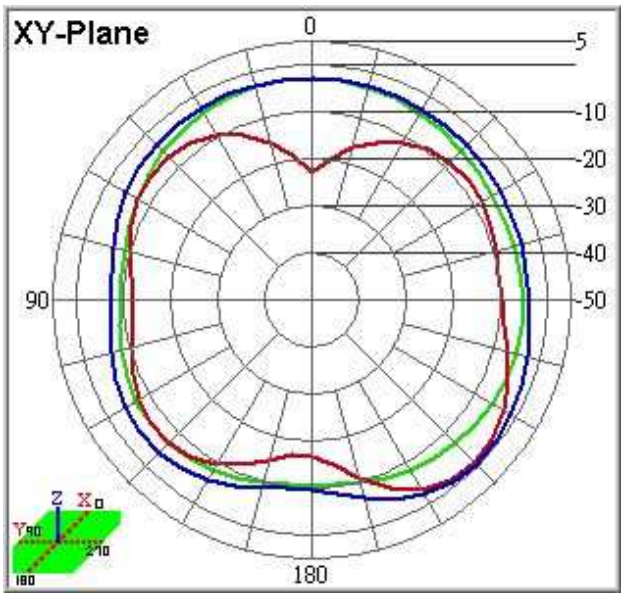
WWAN P/N: AMP8P-700140

3.2 Radiation pattern & Gain(WWAN- L Antenna XY Plane)

3.2.1 2D WWAN -L- Antenna

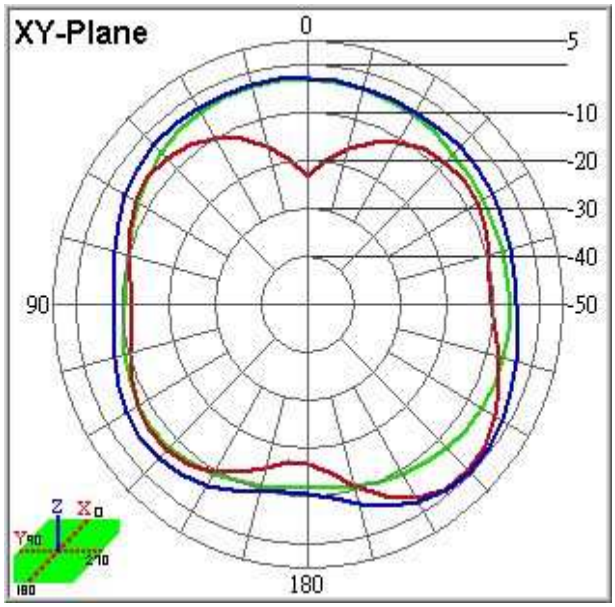


0.869 GHz



0.880 GHz

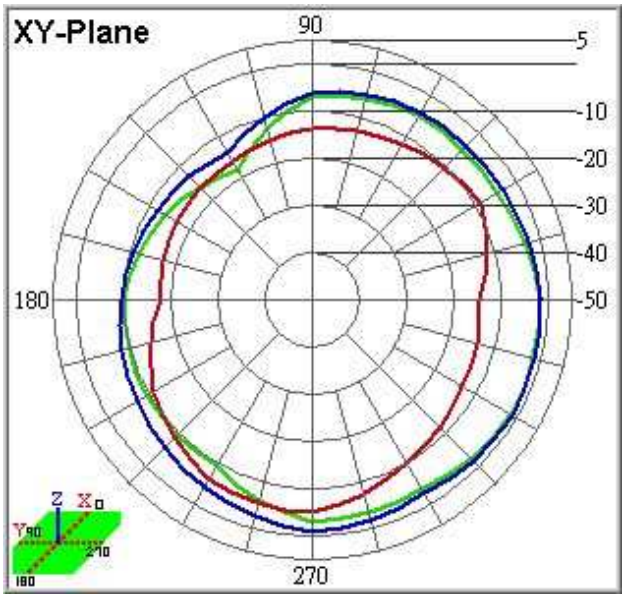
---------Horizontal
---------Vertical
---------H+V



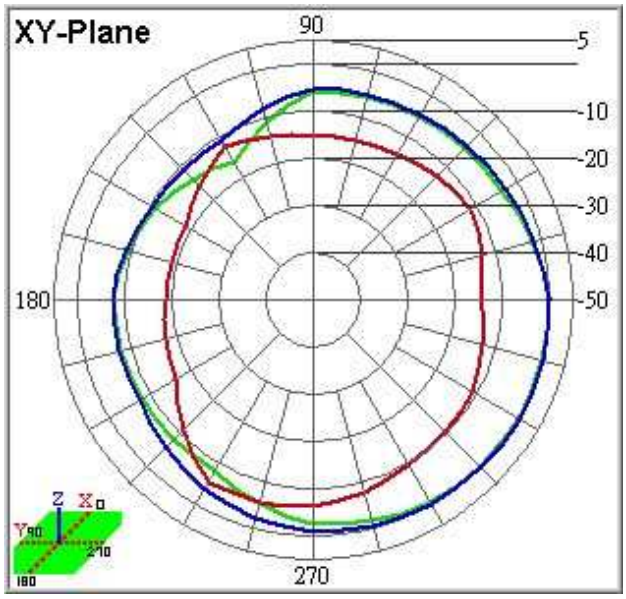
0.896 GHz

---------Horizontal
---------Vertical
---------H+V

WWAN L Antenna 0.869GHz~0.896GHz

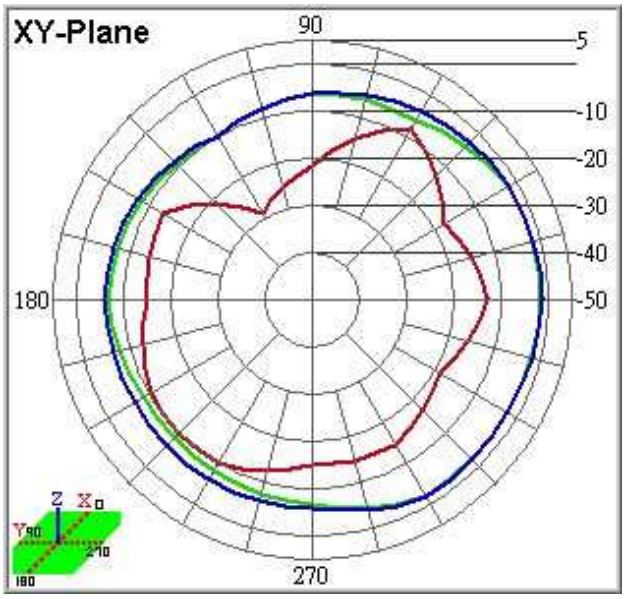


1.930GHz

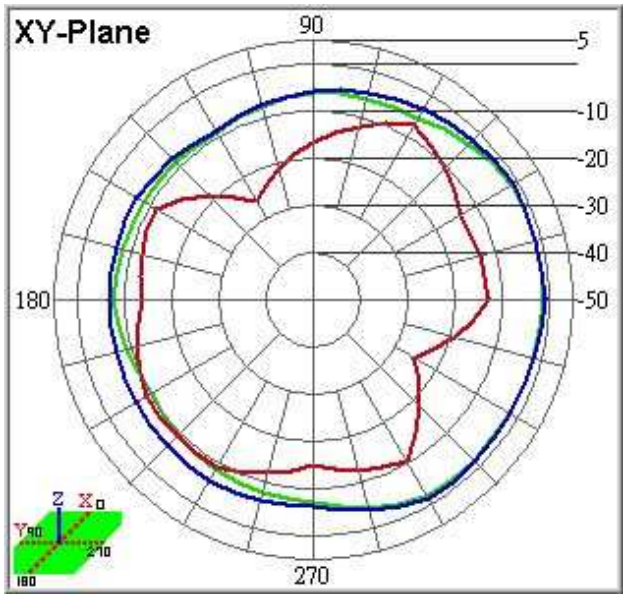


1.990GHz

---------Horizontal
---------Vertical
---------H+V



2.140GHz

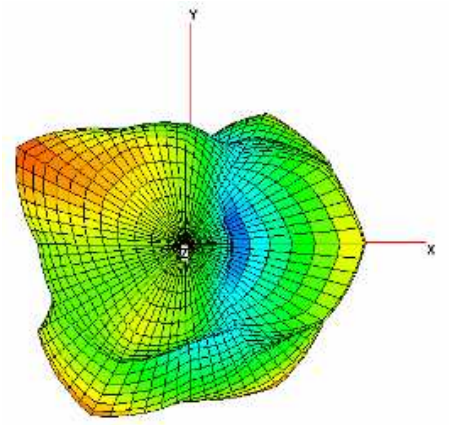


2.170GHz

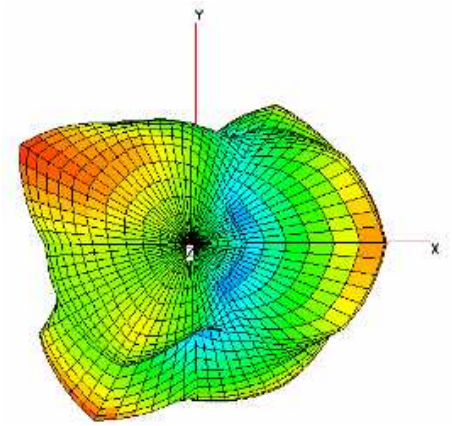
---------Horizontal
---------Vertical
---------H+V

WWAN -L Antenna 1.930GHz~2.170GHz

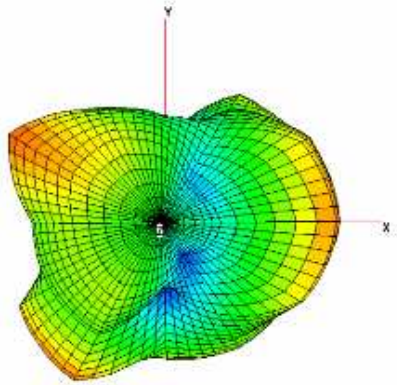
3.2.2 3D WWAN -L- Antenna



0.869 GHz

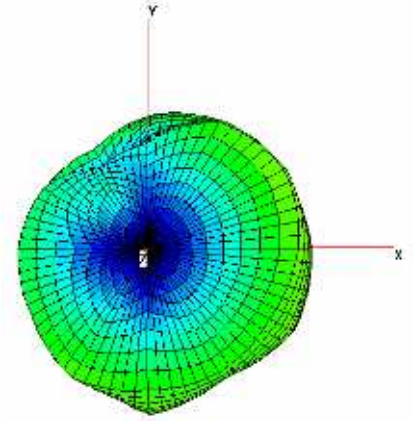


0.880GHz

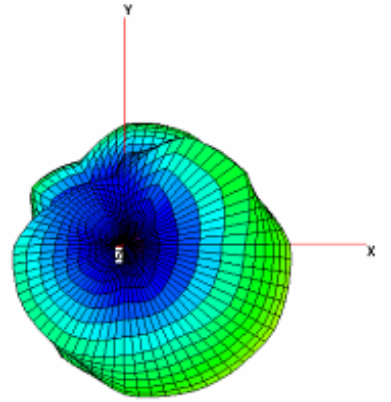


0.896 GHz

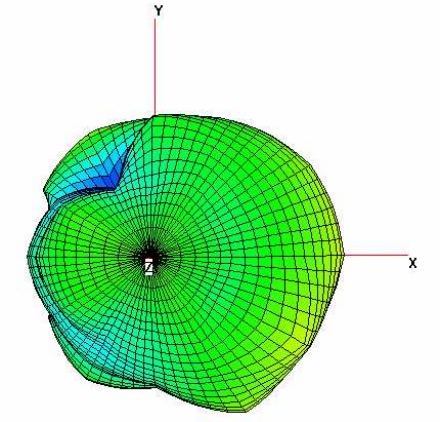
WWAN -L Antenna 0.869GHz~0.896GHz



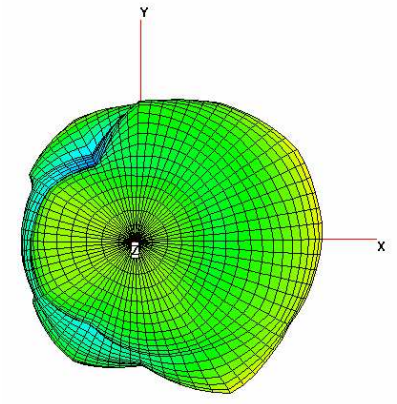
1.930GHz



1.990GHz



2.140GHz



2.170GHz

WWAN -L Antenna 1.930GHz~2.170GHz

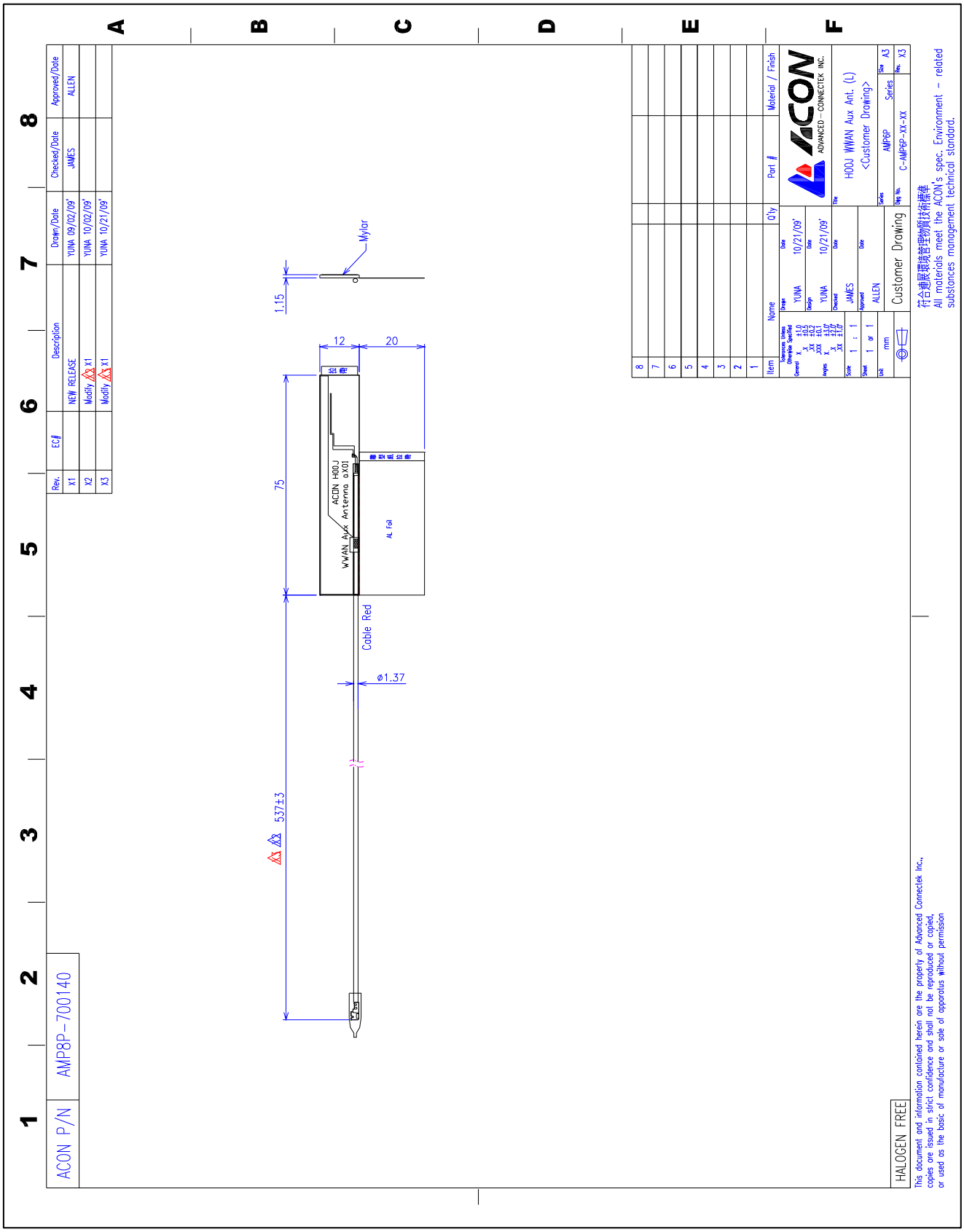
3.4 Gain

Antenna Gain Table:

WWAN -L Antenna						
Frequency	MAX Value (dBi)			Average (dBi)		
	H-pol	V-pol	Total	H-pol	V-pol	Total
869(MHz)	-3.55	-3.74	-1.47	-6.13	-8.58	-4.18
880(MHz)	-2.80	-3.09	-1.18	-5.94	-7.90	-3.80
896(MHz)	-2.77	-3.12	-1.49	-6.43	-7.82	-4.06
1930(MHz)	-1.30	-4.93	-0.86	-5.25	-10.27	-4.06
1990(MHz)	0.29	-5.43	0.59	-3.76	-10.81	-2.98
2140(MHz)	-1.51	-7.92	-1.20	-4.80	-13.10	-4.20
2170(MHz)	-1.32	-7.10	-1.04	-4.60	-11.75	-3.84

4.Mechanical Specification

4.1 Assembly Drawing(WWAN -L Ant.)



Revision

Revision	Date	Change Notification	Notes
Rev.0	2009-10-26	--	--