SPECIFICATION FOR APPROVAL

CUSTOMER NAME : QUANTA

DESCRIPTION: RF CABLE ASS'Y

CUSTOMER P/N.:

HON HAI P/N. : WDAN-Q1ZW1001

DATE: 4/3'03 REV : A

PLEASE RETURN TO US ONE COPY OF "SPECIFICATION FOR APPROVAL" WITH YOUR CONFIRMATIVE SIGNATURES.

SIGNATURES			

FOXCONN®

Hon Hai Precision Industry Co., Ltd.

FOXCONN COMPUTER CONNECTOR (KUN SHAN) CO.,LTD.
No 999 BEIMEN ROAD YUSHAN TOWN
KUNSHAN CITY, JIANGSU PROVINCE
CHINA
TEL: (0520)7790998
FAX: (0520)7790998-2837
UNIFORM INVOICE NUMBER: 04541302

鴻海精密工業股份有限公司

HON HAI PRECISION INC.CO.,LTD.

SPECIFICATION FOR APPROVAL

DESCRIPTION: RF CABLE ASS'Y

CUSTOMER P/N:

HON HAI P/N: WDAN-Q1ZW1001

REV NO: X1

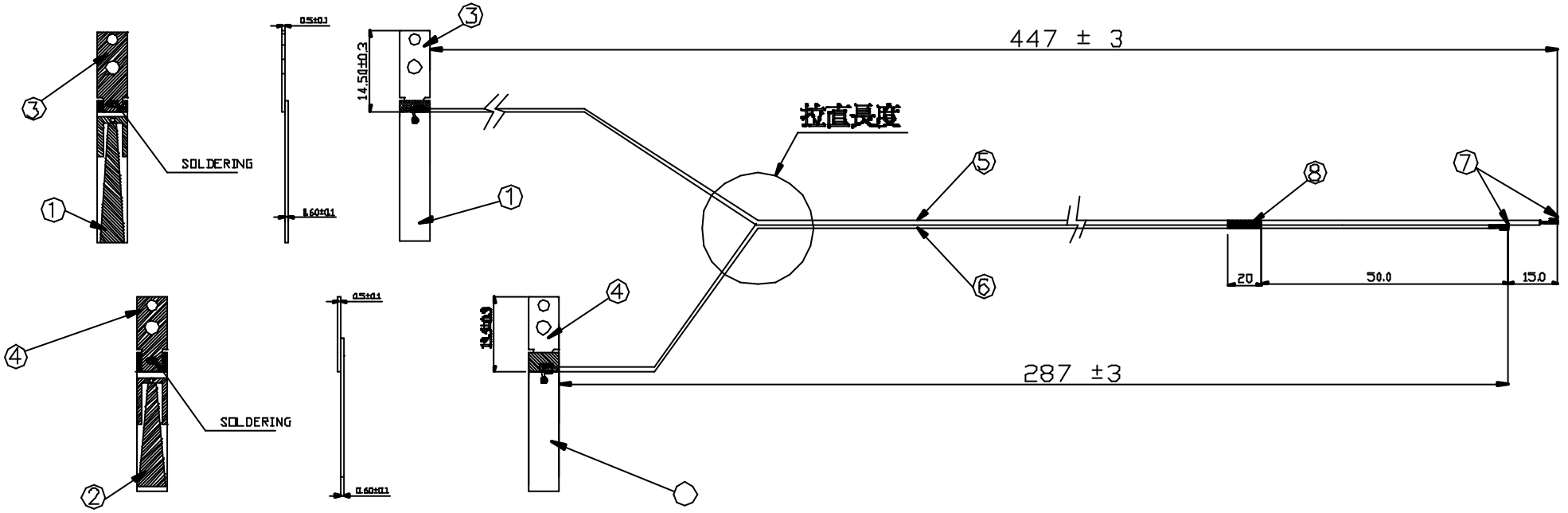
ATTACHMENT: 1. CABLE ASS'Y CUSTOMER DRAWING
2. BILL OF MATERIAL FOR P/N: WDAN-Q1ZW1001

REV.NO.	DATE	CHANGES.	DWG. NO.
X1	4/3'03		605-0100-512

R&D		
APPROVED	CHECKED	PREPARED
C.C Wang 4/3'03	S.T ZHANG 4/3'03	X.F Lin 4/3'03

NOTES:
1. ALL DIMENSIONS SHALL BE INTERPRETED PER ANSI Y14.5M-1982.
2. DIMENSIONS MARKED ▼ SHALL BE CHECKED.
3. HARMFUL MATERIAL CONTROL PLEASE FOLLOW DOC.NO."EPI12".

REV.	ECN. NO.	APPD.
A		



ITEM	DESCRIPTION	FOXCONN P/N	VENDOR P/N	Q'TY
⑧	H.S TUBE (F4-2, 20 MM)	090-0003-033	FOXCONN:090-0003-033	1 PCS
⑦	RF CONNECTOR	SGX0001-00	FOXCONN : SGX0001-00	2 PCS
⑥	32 AWG O.D 1.13 COAXIAL CABLE (GRAY)	703-3208-211	FOXCONN : 703-3208-211	A/R
⑤	32 AWG O.D 1.13 COAXIAL CABLE (BLACK)	703-3200-211	FOXCONN : 703-3200-211	A/R
④	Left Antenna Ground Metal	052-0001-585	FOXCONN:052-0001-585	1 PCS
③	Right Antenna Ground Metal	052-0002-585	FOXCONN:052-0002-585	1 PCS
②	ANTENNA PCB(LEFT)	01-01012008-00	FOXCONN:01-01012008-00	1 PCS
①	ANTENNA PCB(RIGHT)	01-01012009-00	FOXCONN:01-01012009-00	1 PCS

X. ± 1.0	X°±	UNITS mm	NAME(INTENDED USE) QUANTA ZW1 R & L Ass'y
.X ± 0.3	.X°±	MAT'L	FOXCONN HON HAI PRECISION IND. CO.,LTD. TAIPEI, TAIWAN, R.O.C.
.XX ±	.XX°±		PART NO.(INTENDED USE) WDAN-Q1ZW1001
.XXX±	.XXX°±	FINISH	TITLE: ANTENNA CABLE ASS'Y
			APPD: C.C. Wang 03/25/03
		Q'TY	CHK: S.D.Zhang 03/25/03
			DR: X.F. LI 03/25/03

DWG NO.: 605-0100-512

SCALE	SHEET	REV.
N/A	1/1	A

BILL OF MATERIAL

HON HAI PRECISION INDUSTRY CO., LTD

FOXCONN COMPUTER CONNECTOR (KUN SHAN) CO., LTD.
NO. 999 BEIMEN ROAD YUSHAN TOWN
KUNSHAN CITY, JIANGSU PROVINCE
CHINA

HON HAI P/N: WDAN-Q1ZW1001

CUSTOMER P/N:

DESCRIPTION: RF CABLE ASS'Y

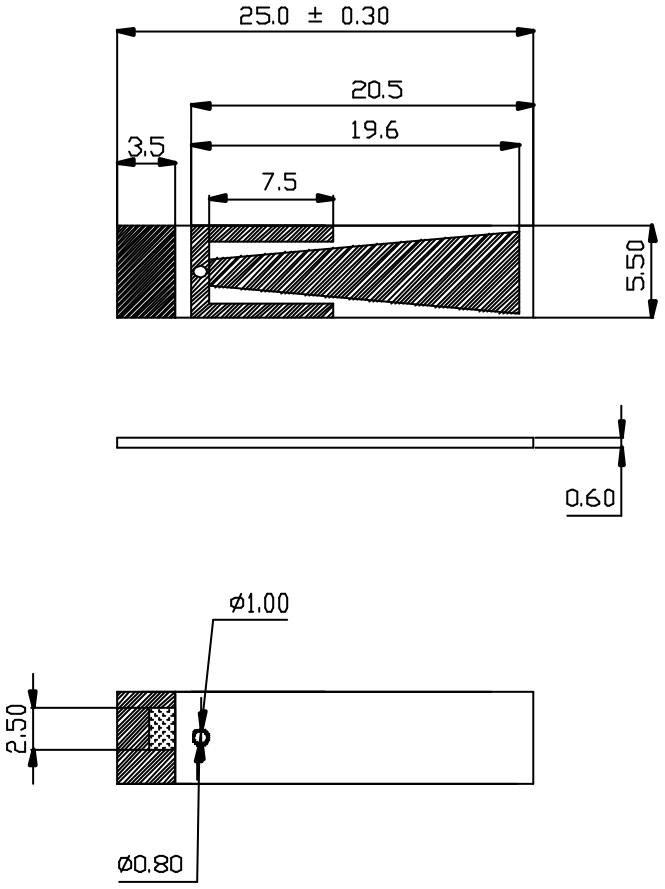
P/N	DESCRIPTION	VENDER	UNIT	REMARK
01-01012008-00	PCB	華新	1	
01-01012009-00	PCB	華新	1	
052-0001-585	Sheet Metal	FOXCONN	1	
052-0002-585	Sheet Metal	FOXCONN	1	
703-3208-211	32 AWG OD=1.13mm	FOXCONN	A/R	
703-3200-211	33 AWG OD=1.13mm	FOXCONN	A/R	
SGX0001-00	RF CONN	FOXCONN	2	
090-0003-033	H.S Tube	蘇州發源	A/R	

APR.:C.C Wang 4/3'03 CHK:S.T ZHANG 4/3'03 PREPARED: X.F Lin 4/3'03

REV.	ECN. NO.	APPD.
A		

NOTES:

1. ALL DIMENSIONS SHALL BE INTERPRETED PER ANSI Y14.5M-1982.
2. DIMENSIONS MARKED ▼ SHALL BE CHECKED.
3. HARMFUL MATERIAL CONTROL PLEASE FOLLOW DOC.NO."EPI12".



X. ± 0.5	X" ± 0.1"	UNITS mm	NAME(INTENDED USE) ZV1 Antenna
.X ± 0.1	.X" ± 0.05"	MAT'L	PART NO.(INTENDED USE) 01-01012008-00
.XX ± 0.01	.XX" ± 0.01"	FINISH	APPD: C.C. Wang 03/12/03
.XXX ± 0.002	.XXX" ± 0.005"	Q'TY	CHK'D: S.D.Zhang 03/12/03
			DR: X.F. Li 03/12/03

FOXCONN
HON HAI PRECISION IND. CO.,LTD.
TAIPEI, TAIWAN, R.O.C.

TITLE: Left ANTENNA PCB

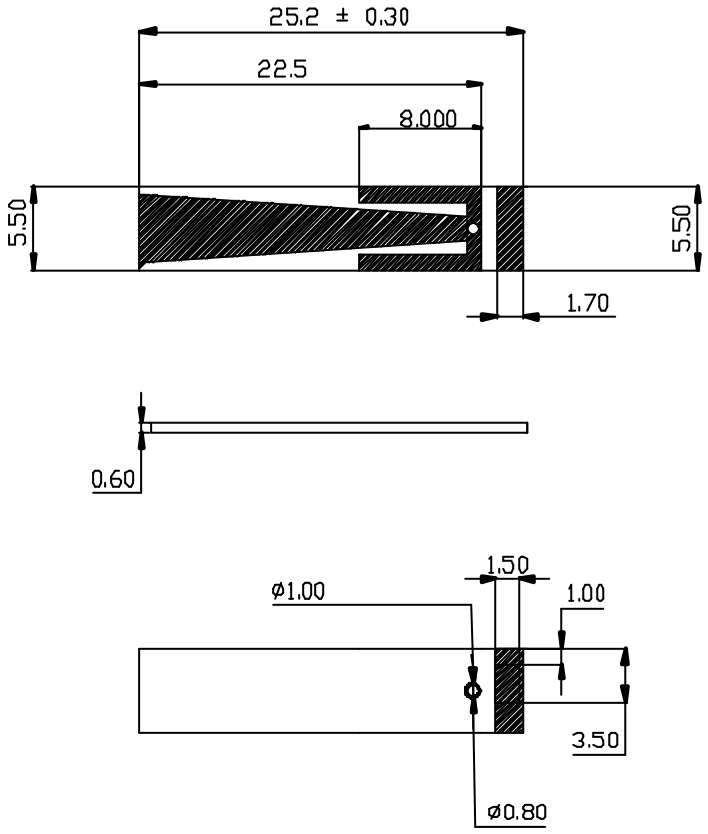
DWG NO.: 01-01012008-00

SCALE	SHEET	REV.
1:1	1/1	A

REV.	ECN. NO.	APPD.
A		

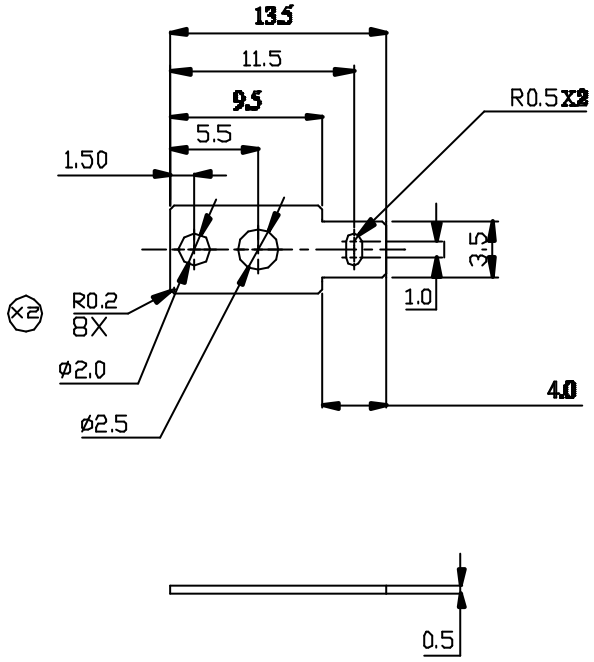
NOTES:

1. ALL DIMENSIONS SHALL BE INTERPRETED PER ANSI Y14.5M-1982.
2. DIMENSIONS MARKED ▼ SHALL BE CHECKED.
3. HARMFUL MATERIAL CONTROL PLEASE FOLLOW DOC.NO."EPI12".

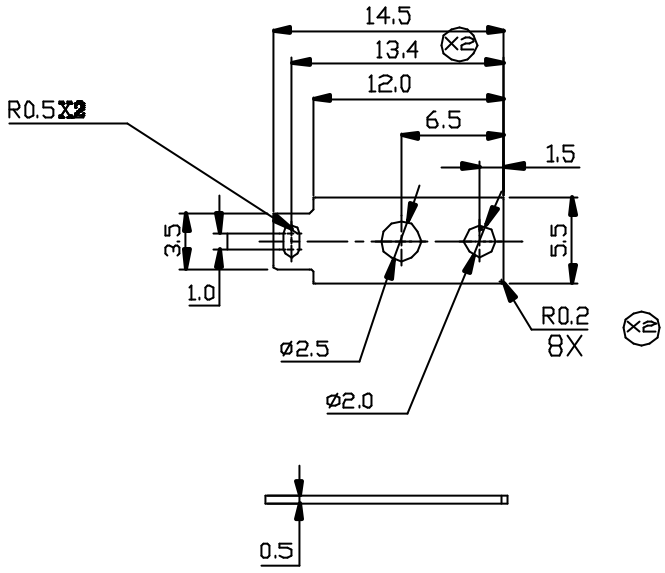


X. ±		NAME(INTENDED USE) ZV1 Antenna	FOXCONN HON HAI PRECISION IND. CO.,LTD. TAIPEI, TAIWAN, R.O.C.
.X ±		PART NO.(INTENDED USE) 01-01012009-00	TITLE: Right ANTENNA PCB
.XX ±		APPD: C.C. Wang 03/12/03	DWG NO.: 01-01012009-00
.XXX ±		CHKD: S.D.Zhang 03/12/03	SCALE: N/A SHEET: 1/1 REV: A
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF HON HAI PRECISION IND. CO., LTD. AND SHALL NOT BE REPRODUCED COPIED OR USED IN ANY MANNER WITHOUT THE PRIOR WRITTEN CONSENT OF HON HAI PRECISION IND. CO., LTD.		DR: X.F. LI 03/12/03	

REV.	ECN. NO.	APPD.
X2		



I
ZW1 LEFT



II
ZW1 RIGHT

NOTE:
1. ALL DIMENSIONS SHALL BE INTERPRETED PER ANSI Y14.5M-1982.
2. ANTENNA BRACKET MATERIAL:
   C5191R-H WITH PLATE TIN 100-200u"
   THICKNESS : 0.5±0.05mm.m.
3. FINISHED: STAMPING DIRECTION BURR MAX. 0.02mm.
4. UNREMARKED INNER RADIUS r=0.2 , OUTER RADIUS R=0.2
5. CRITICAL DIMENSION: SHOULD CHECK WITH
   PROCESS ENGINEER AND Q.C..
6. HARMFUL MATERAL CONTROL PLEASE FOLLOW DOC. NO."EPI12"

P/N	TYPE	REMARK
052-0002-585	ZW1 RIGHT	FOR WDAN-Q1ZW1001
052-0001-585	ZW1 LEFT	FOR WDAN-Q1ZW1001

X. ±	X°. ±
.X ± 0.10	.X° ±
.XX ±	.XX' ±
.XXX ±	.XXX"±

UNITS MM
MAT'L A
FINISH A3
Q'TY

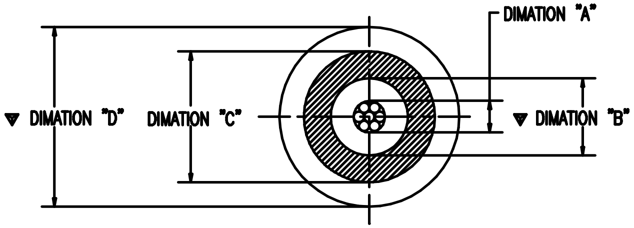
NAME(INTENDED USE): NT1 ANTENNA
PART NO.(INTENDED USE): WDAN-Q1ZW1001
APPD: C.C. Wang 03/25/03
CHKD: S.D.Zhang 03/25/03
DR: X.F. LI 03/25/03

FOXCONN
HON HAI PRECISION IND. CO.,LTD.
TAIPEI, TAIWAN, R.O.C.

TITLE: ANTENNA BRACKET
DWG NO.: 052-0000-585

SCALE	SHEET	REV.
1:1	1/1	X2

AWG	DC RESISTANCE (ohms/km)	COMPOSITION (STRANDS/MM)	DIM "A" (REF.)	DIM "B"	DIM "C" (REF.)	DIM "D"	PATER NO.
30	MAX. 320	7/0.10	0.305	0.826±0.025	1.358	1.816±0.038	703-30NN-211
32	MAX. 584	7/0.08	0.24	0.68 $^{+0.04}_{-0.02}$	0.93	1.13 $^{+0.08}_{-0.05}$	703-32NN-211
36	MAX. 1217	7/0.05	0.15	0.4±0.05	0.65	0.8±0.05	703-36NN-211



REV.	ECN. NO.	APPD.
A	IC016491	Allen Cheng 12/21'01
B	IC023064	Allen Cheng 4/23'02
C	IC024343	Allen Cheng 6/9'02
D	IC029148	Allen Cheng 10/24'02
E	BC0350986	Allen Cheng 01/07/03

ELECTRICAL

IMPEDANCE	50±5	ohms
CAPACITANCE	30.5	NOM. pF/ft

FREQUENCY (GHZ)	0.5	1	2	3	4	5	6	PATER NO.
ATTENUATION (dB/10ft)/NOM.	3.1	4.6	6.8	8.6	10.5	12	13.5	703-30NN-211
ATTENUATION (dB/10ft)/NOM.	3.8	5.5	8.2	10.3	12	13.6	15.2	703-32NN-211
ATTENUATION (dB/10ft)/NOM.	6.1	8.4	12.5	15.8	18	20	22.3	703-36NN-211

MECHANICAL

ELONGATION:	MIN 200%
ELON. RETEN.:	MIN 75% 232°C/168H
TENSILE STRENGTH:	MIN 2500PSI
T.E. RETENTION:	MIN 75%
HEAT SHOCK:	232°C NO CRACK
COLD BEND:	-20°C NO CRACK
DEFORMATION:	232°C 50%
FLAME TEST:	VW-1

RATINGS

TEMPERATURE:	200°C/105°C
VOLTAGE:	30V
UL STYLE:	1894/1943

NOTES

1.MATERIAL

CONDUCTOR:SILVER PLATED STRANDED COPPER
PRIMARY INSULATION:FEP
SHIELD:SILVER PLATED BRAID
JACKET:FEP

2.PRIMARY INSULATION CONCENTRICITY=85% MIN.

3.BRAIDING COVERAGE TO BE 95% MIN.

4.NN: JACKET COLOR CODE

00--BLACK 01--BROWN 02--RED 03--ORANGE 04--YELLOW
05--GREEN 06--BLUE 07--PURPLE 08--GRAY 09--WHITE
10--CLEAR 99--NATURAL

5.DIMENSIONS WITH ▽ ARE TO BE INSPECTED

6.SPARK TEST AT 0.5 KVAC

7.DIELECTRIC STRENGTH: 0.5 KVAC/MIN.

8.JACKET CONCENTRICITY=80% MIN.

10.PART NO.:703-AANN-211
AA---CONDUCTION AWG
FOR EXAMPLE:

703-3010-211
30 AWG
CLEAR COLOR
SILVER PLATED STRANDED COPPER
FEP FOR TEFLON

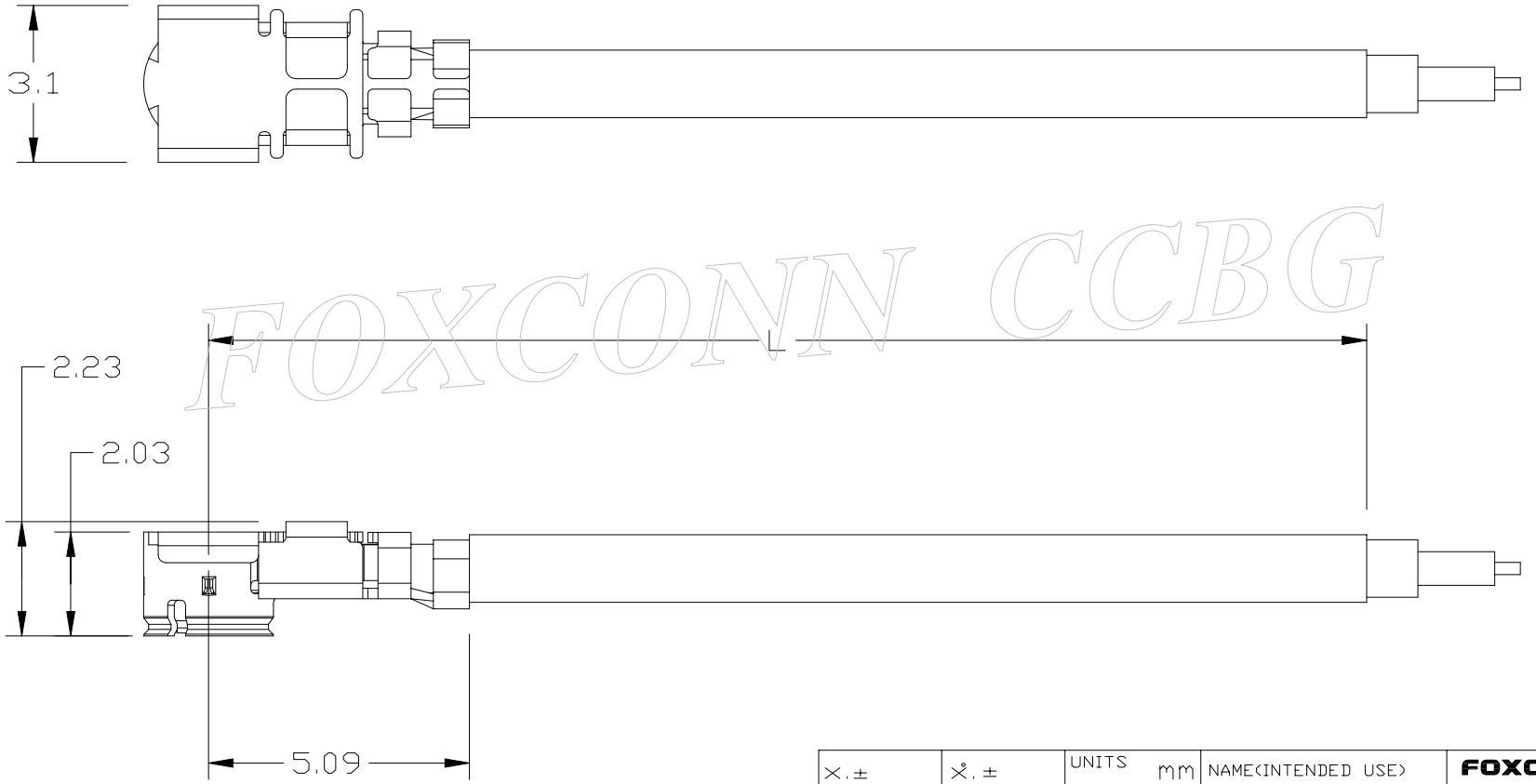
備注：
本產品.制程之原物料/零件必須符合EPI12環境管理物質規定
Harmful material control please follow Doc. No. "EPI12"

X.±	X.°±	UNITS MM	NAME(INTENDED USE) COAXIAL CABLE	FOXCONN HON HAI PRECISION IND. CO.,LTD. TAIPEI, TAIWAN, R.O.C.
.X±	.X°±	MAT'L SEE BOM	PART NO.(INTENDED USE) 703-AANN-211	TITLE: RF CABLE
.XX±	.XX°±	FINISH	APPD: Allen Cheng 1/7/03	DWG NO.: 703-0000-211
.XXX±	.XXX°±	Q'TY	CHKD: William yao1/7/03	SCALE NONE
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF HON HAI PRECISION IND. CO., LTD. AND SHALL NOT BE REPRODUCED, COPIED OR USED IN ANY MANNER WITHOUT THE PRIOR WRITTEN CONSENT OF HON HAI PRECISION IND. CO., LTD.			DR: Yehe Zhang10/24'02	SHEET 1/1 REV. E

REV.	ECN. NO.	APPD.
X6		D. KO

GENERAL SPECIFICATION:
1. CONTACT RESISTANCE: 20 MILIOHMS MAX.
2. INSULATION RESISTANCE: 500 MEGOHMS MIN.
3. WITHSTAND VOLTAGE: 200 Vac
4. V.S.W.R.: 1.2 OR LESS AT DC TO 3 GHz
5. OPERATION TEMPERATURE: -40°C TO 90 °C
6. The TOTAL HEIGHT OF RF CABLE ASSEMBLY WITH THE MATING HEADER IS 2.64mm .

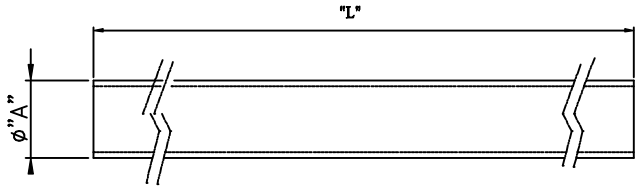
RF CABLE ASSEMBLY MATERIAL:
1. CONTACT: COPPER ALLOY, GOLD PLATING
2. HOUSING: THERMOPLASTIC, UL 94V-0 RATED
3. METAL SHELL: COPPER ALLOY, SILVER PLATING
4. CABEL: DIAMETER 1.32mm ULTRA-FINE TEFLON COAXIAL CABLE
5. PART NO. MATRIX: SGX0001-00



X.±	X°.±	UNITS mm	NAME(INTENDED USE)	FOXCONN HON HAI PRECISION IND. CO.,LTD. TAIPEI, TAIWAN, R.O.C.
.X± 0.1	.X°±	MAT'L SEE NOTES	PART NO.(INTENDED USE) SGX0001-00	TITLE: RF CABLE ASSEMBLY
.XX± 0.1	.XX°±	FINISH	APPD:	DWG NO.: EP00-082-01
.XXX±	.XXX°±	Q'TY	CHKD: D. KO	SCALE 10:1 / SHEET 1/2 / REV. X6
			DR: D. KO 10/10/00	

1.HEAT SHRINKABLE TUBING MUST BE UL-224 125℃. 300V VW-1
FUJIKJRA FUE-5 OR HON HAI APPROVED EQUIVALENT
2.MATERIAL: POLYOLEFINS, COLOR-BLACK
3.MARKING:FUJKURA-A CSA HSXPO TUBING 125℃
OFT F-TUBE FUE-5 VW-1-F-()(直徑在5mm以下,直接在()
內標示直徑規格)
4.SHRINKING PROPERTIES:
(1) RADIAL SHRINKAGE:50%MIN.
(2) LONGITUOINAL SHRINKAGE:15%MAX.
(3) MINIMUN SHRINK TEMPERATURE:90 C.
5. Harmful material control please follow Doc. No. "EPI12" Ⓖ

REV.	ECN. NO.	APPD.
A	REL	CHU 7/9/88
B	81148	CHU 5/29/92
C	CC94164	CANNY4/21/94
D	CC94723	CANNY 4/19/00
E	IC0212523	KennY Chao 11/23/02
F	IC0215301	Wang 12/23/02
G	BC0350591	CHAO 1/4'2003



Part NO.	DIM. "A" NOMINAL (mm)	MINIMUM INSIDE DIAMETER "A" As Supplied MM	Wall Thickness,	MAXIMUM INSIDE DIAMETER "A" As RECOVERED MM	MINIMUM WALL THICKNESS	
090-0018-033	15.0	15.7±0.4	0.3	7.5	0.35	REEL Ⓕ
090-0017-033	14.0	14.7±0.4	0.3	7.0	0.35	REEL Ⓕ
090-0016-033	13.0	13.7±0.4	0.3	6.5	0.35	REEL Ⓕ
090-0015-033	12.0	12.5±0.4	0.2	6.0	0.28	REEL Ⓕ
090-0014-033	11.0	11.5±0.4	0.2	5.5	0.28	REEL Ⓕ
090-0013-033	10.0	10.5±0.4	0.15	5.0	0.28	REEL
090-0012-033	9.0	9.5±0.4	0.15	4.5	0.28	REEL
090-0011-033	8.0	8.5±0.4	0.15	4.0	0.28	REEL
090-0010-033	7.0	7.8±0.4	0.15	3.5	0.28	REEL
090-0009-033	6.0	6.5±0.4	0.15	3.0	0.28	REEL
090-0008-033	5.0	5.4±0.3	0.15	2.5	0.26	REEL
090-0007-033	4.0	4.4±0.3	0.15	2.0	0.26	REEL
090-0006-033	3.5	3.9±0.3	0.15	1.75	0.26	REEL
090-0005-033	3.0	3.4±0.3	0.15	1.5	0.26	REEL
090-0004-033	2.5	2.9±0.2	0.15	1.25	0.26	REEL
090-0003-033	2.0	2.4±0.2	0.10	1.0	0.26	REEL
090-0002-033	1.5	1.9±0.2	0.10	0.75	0.21	REEL
090-0001-033	1.0	1.4±0.2	0.10	0.5	0.21	REEL

X.±	X°±
.X± 0.15	.X°±
.XX± 0.10	.XX°±
.XXX±	.XXX°±

UNITS mm
MAT'L
FINISH
Q'TY

NAME(INTENDED USE)
PART NO.(INTENDED USE)
APPD: Kenny Chao 1/4'03
CHKD: Hai Wang 1/4'03
DR: Robin Zheng 1/4'03

FOXCONN
HON HAI PRECISION IND. CO.,LTD.
TAIPEI, TAIWAN, R.O.C.

TITLE: H.S.TUBING ULTRA THIN WAU
DWG NO.: 090-0000-033

SCALE	SHEET	REV.
NONE	1/1	G

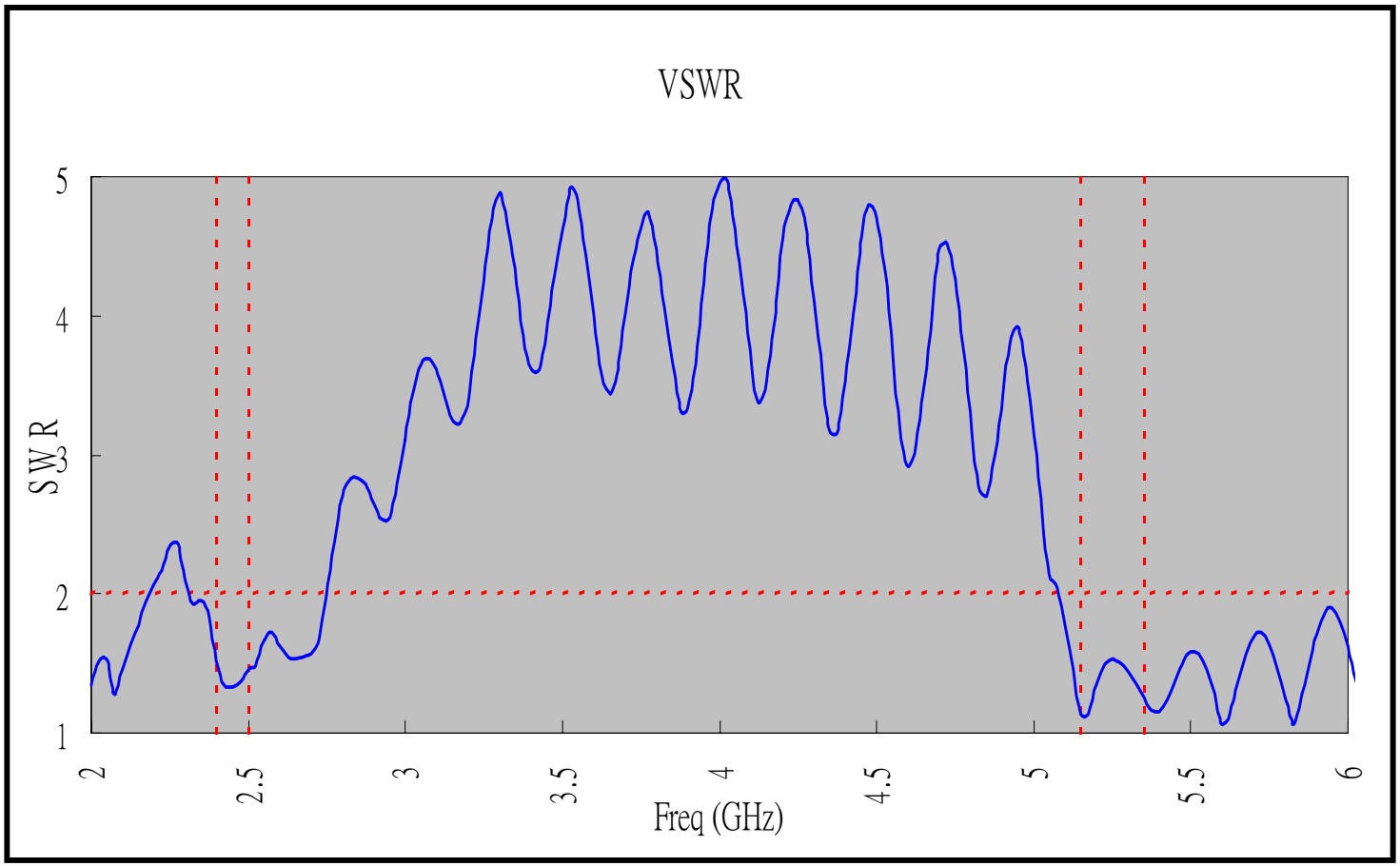
FOXCONN NWInG

Antenna Engineering Test Report

QUANTA ZW1 WLAN Antenna
C Test Report


LW+

VSWR of Right Antenna with 14 “ panel



2.4 GHz = 1.520

2.45GHz = 1.329

2.5 GHz = 1.451

5.15GHz = 1.135

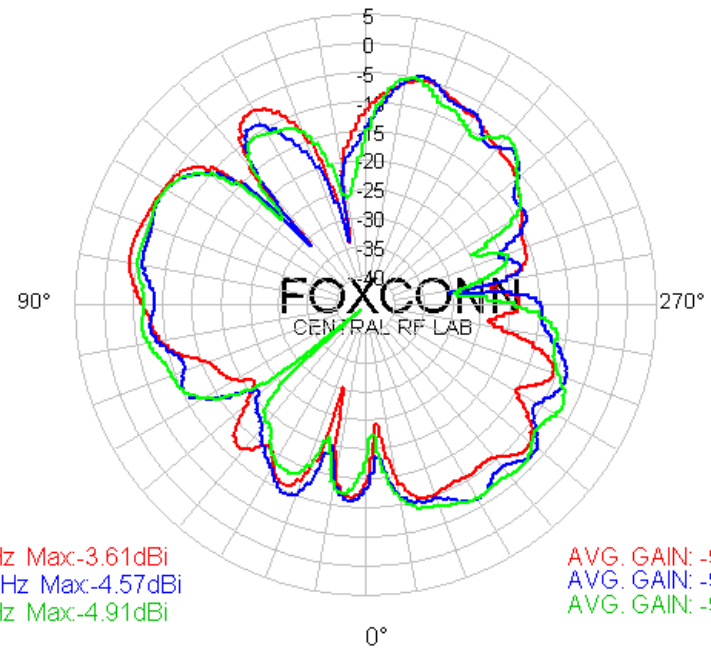
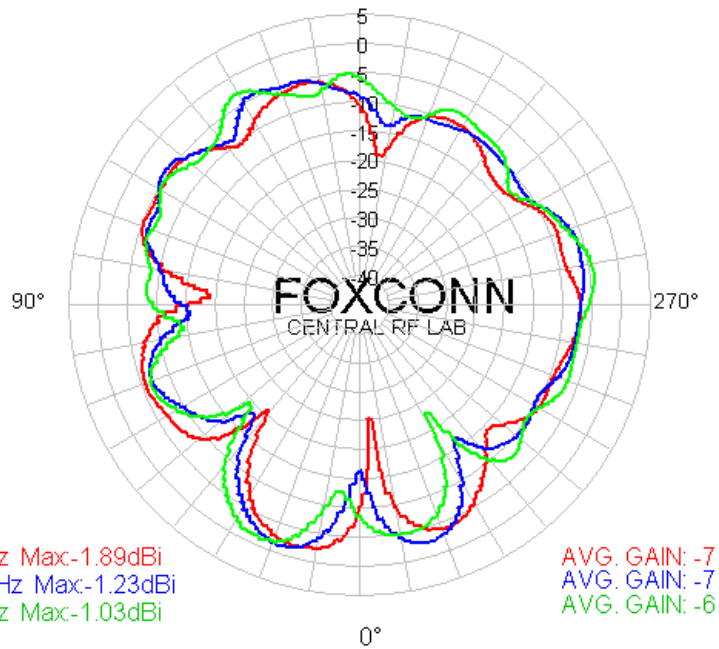
5.25GHz = 1.530

5.35GHz = 1.259

Cable length = 447 mm

X-Y Plane Radiation Pattern of Right Antenna

In 2.4 GHz~2.5 GHz

HORIZONTAL POLARIZATION	VERTICAL POLARIZATION
	

2.4 GHz Max:-3.61dBi
2.45 GHz Max:-4.57dBi
2.5 GHz Max:-4.91dBi

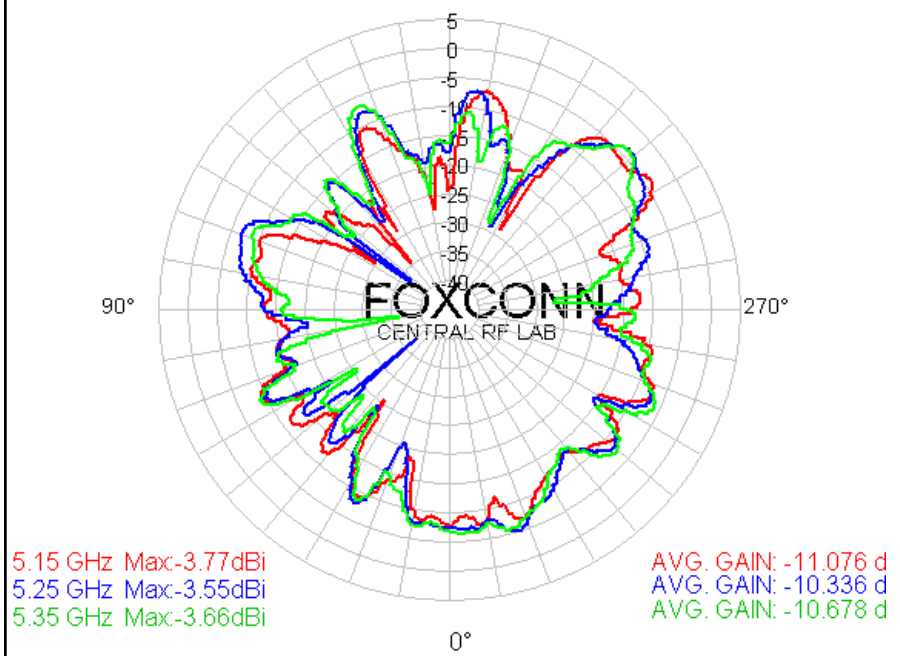
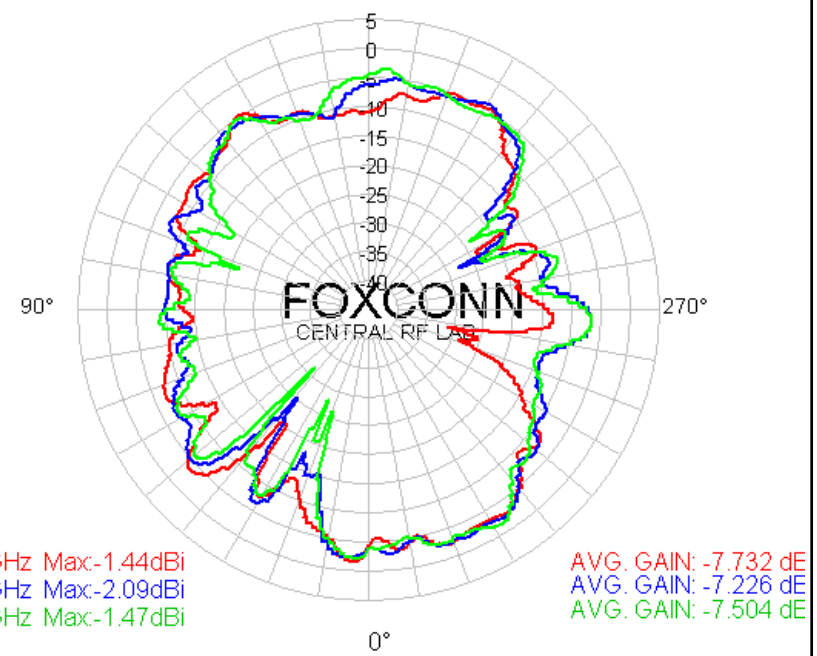
AVG. GAIN: -9.744 dE
AVG. GAIN: -9.772 dE
AVG. GAIN: -9.576 dE

2.4 GHz Max:-1.89dBi
2.45 GHz Max:-1.23dBi
2.5 GHz Max:-1.03dBi

AVG. GAIN: -7.634 dE
AVG. GAIN: -7.239 dE
AVG. GAIN: -6.996 dE

X-Y Plane Radiation Pattern of Right Antenna

In 5.15 GHz~5.35 GHz

HORIZONTAL POLARIZATION	VERTICAL POLARIZATION
	

X-Y Plane Gain of Right Antenna 14 “ panel

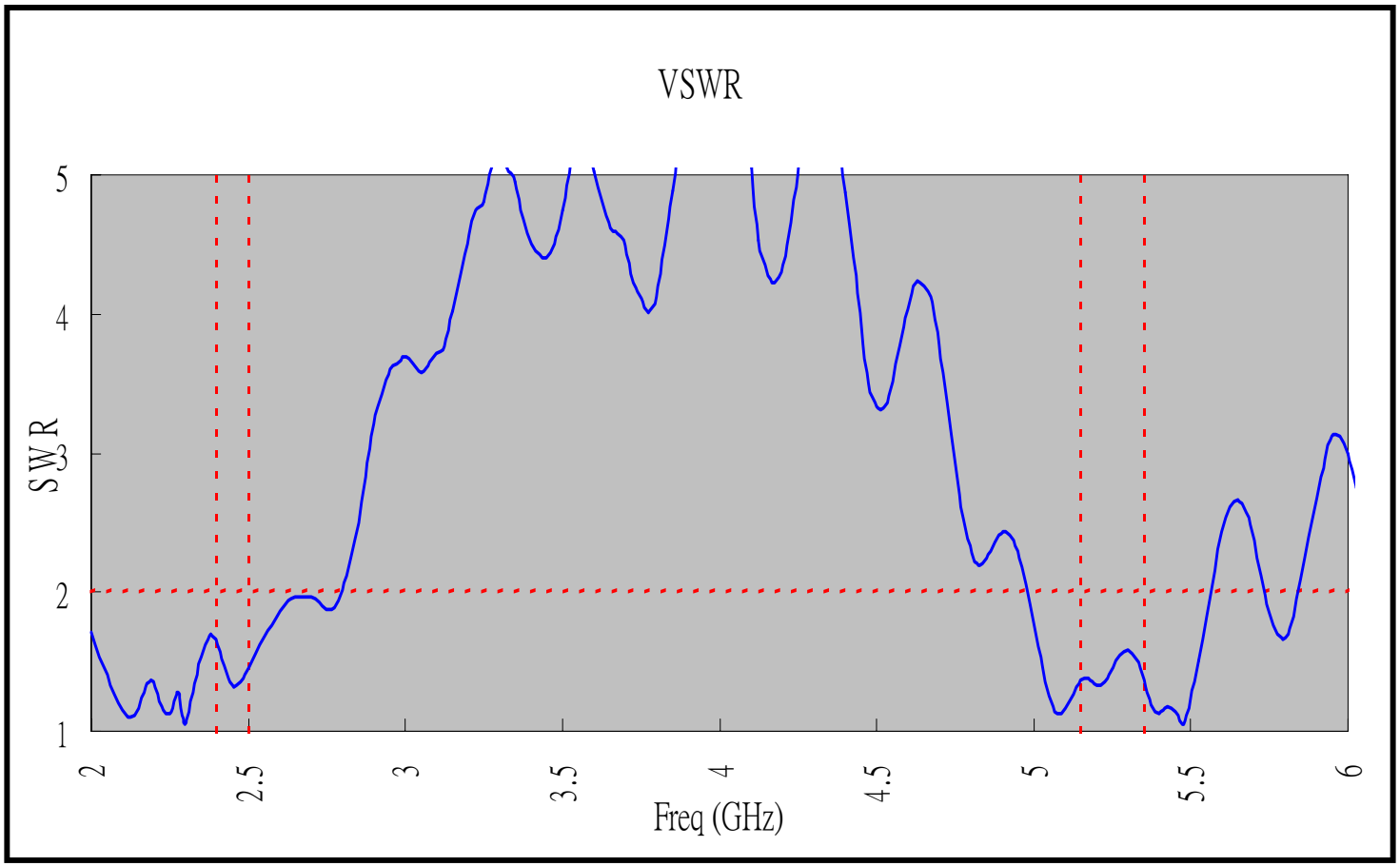
Average Gain

Freq(GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-9.74	-9.77	-9.58	-11.08	-10.34	-10.77
XY-V(dBi)	-7.63	-7.24	-7.00	-7.73	-7.23	-7.50
Average Gain	-5.55	-5.31	-5.09	-6.08	-5.50	-5.83

Peak Gain

Freq(GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-3.61	-4.57	-4.91	-3.77	-3.55	-3.66
XY-V(dBi)	-1.89	-1.23	-1.03	-1.44	-2.09	-1.47

VSWR of Left Antenna with 14 “ panel



2.4 GHz = 1.666

2.45GHz = 1.336

2.5 GHz = 1.457

5.15 GHz = 1.373

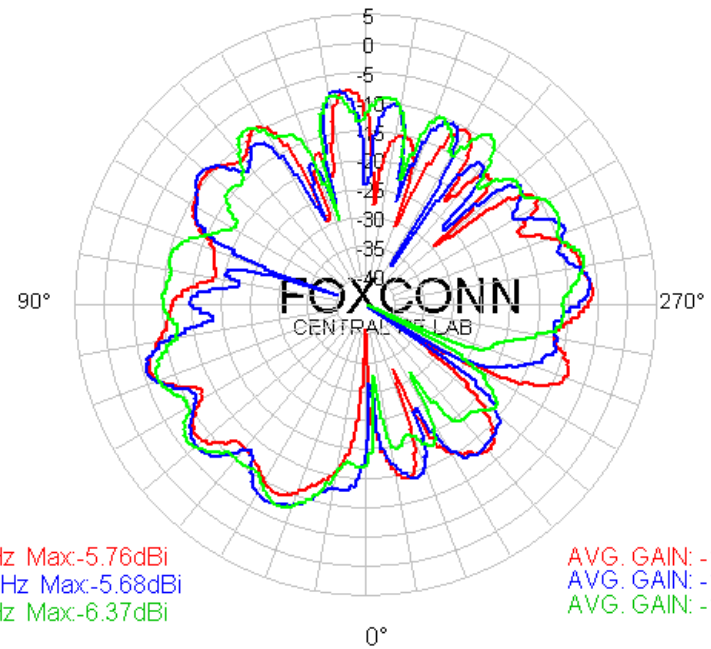
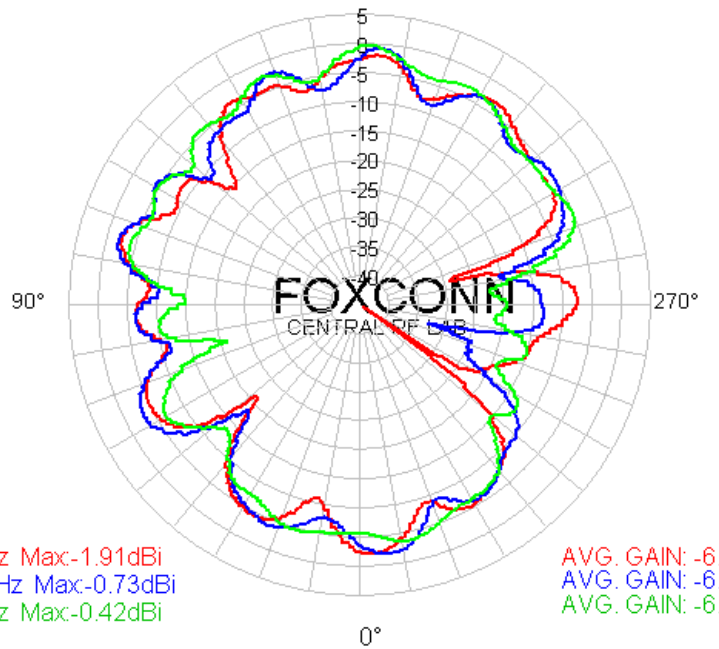
5.25 GHz = 1.452

5.35 GHz = 1.366

Cable length = 287 mm

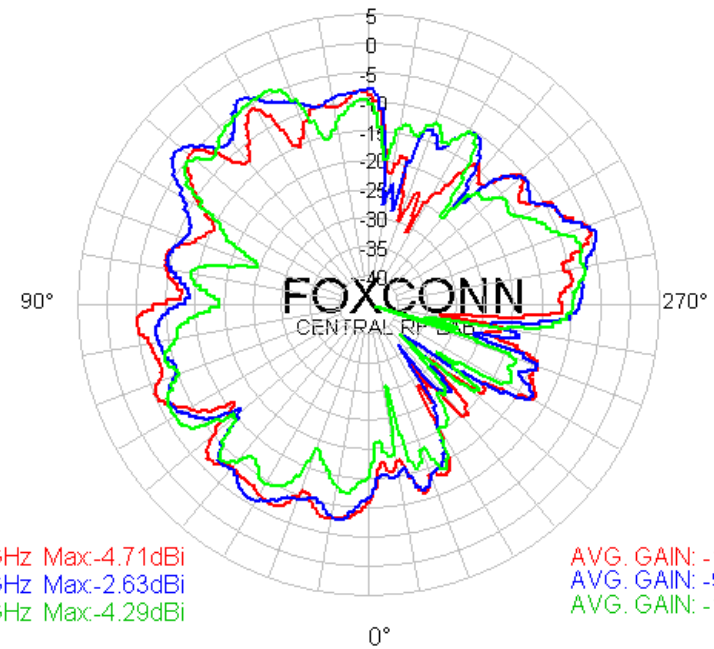
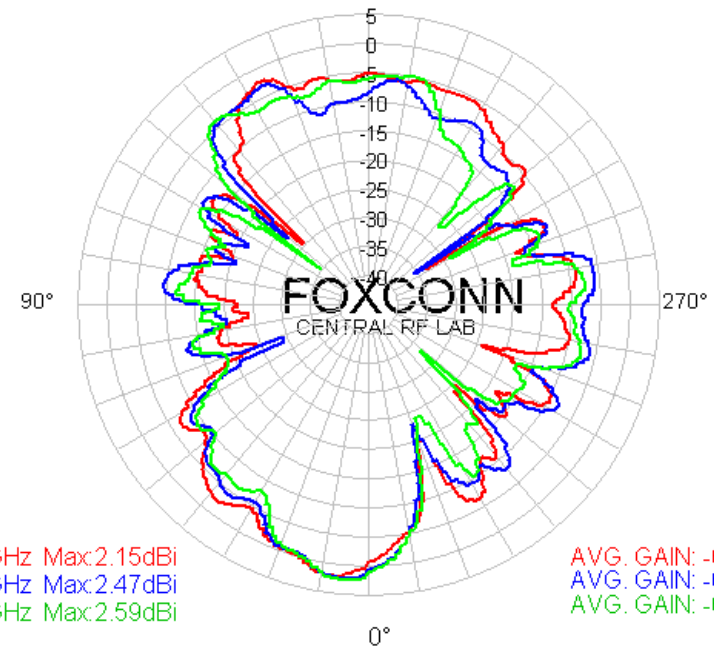
X-Y Plane Radiation Pattern of Left Antenna

In 2.4GHz~2.5GHz

HORIZONTAL POLARIZATION	VERTICAL POLARIZATION
	

X-Y Plane Radiation Pattern of Left Antenna

In 5.15GHz~5.35GHz

HORIZONTAL POLARIZATION	VERTICAL POLARIZATION
	

X-Y Plane Gain of Left Antenna 14 “ panel

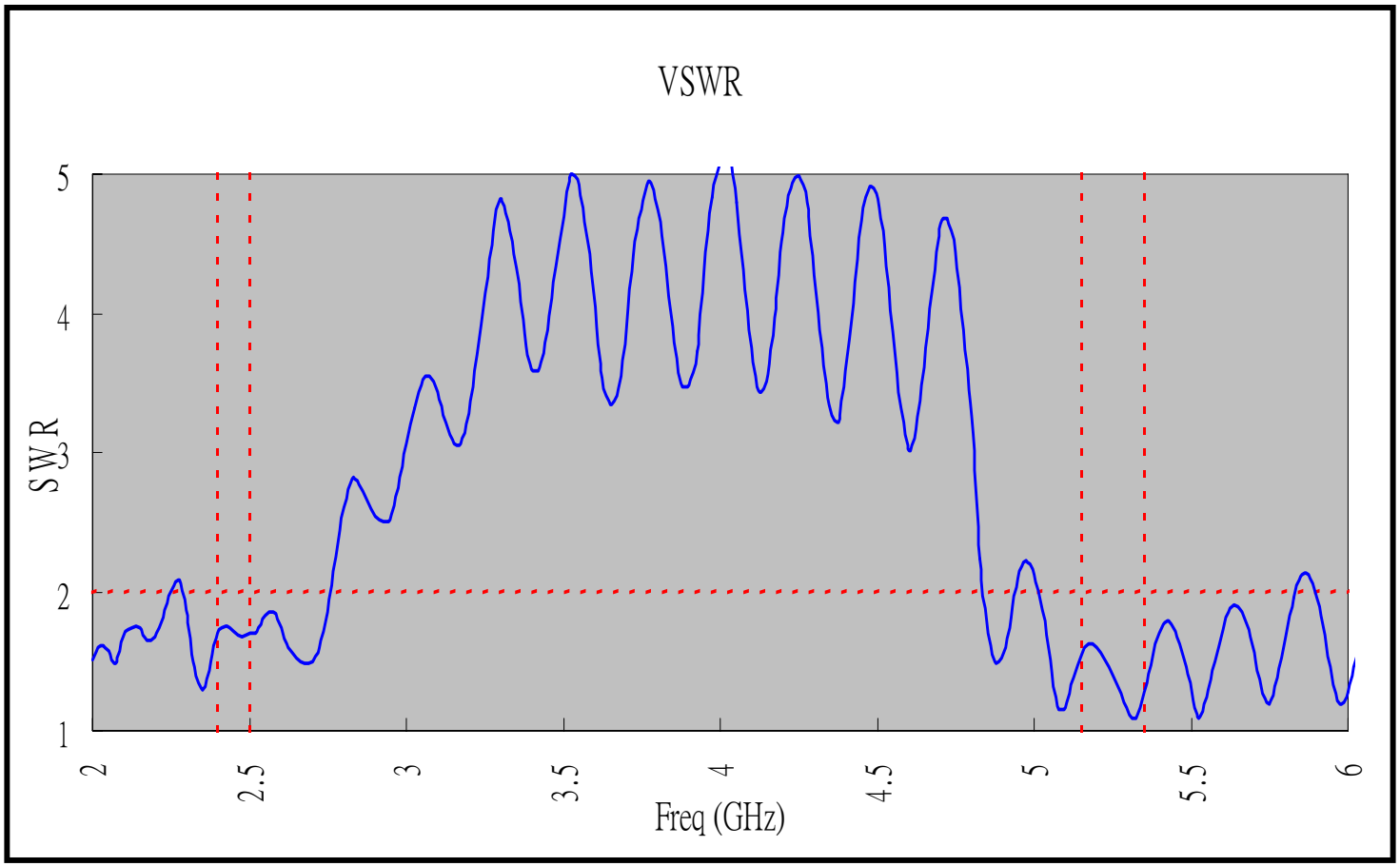
Average Gain

Freq(GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-11.69	-11.62	-11.40	-10.20	-9.36	-11.10
XY-V(dBi)	-6.47	-6.06	-6.10	-6.41	-6.55	-6.90
Average Gain	-5.33	-5.00	-4.97	-4.89	-4.72	-5.50

Peak Gain

Freq(GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-5.76	-5.68	-6.37	-4.71	-2.63	-4.29
XY-V(dBi)	-1.91	-0.73	-0.42	2.15	2.47	2.59

VSWR of Right Antenna with 15 “ panel



2.4 GHz = 1.701

2.45GHz = 1.709

2.5 GHz = 1.697

5.15 GHz = 1.547

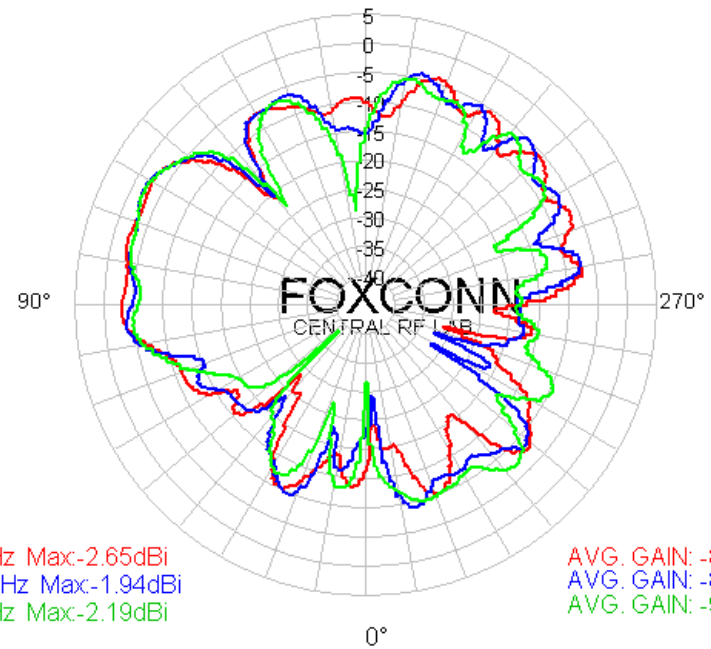
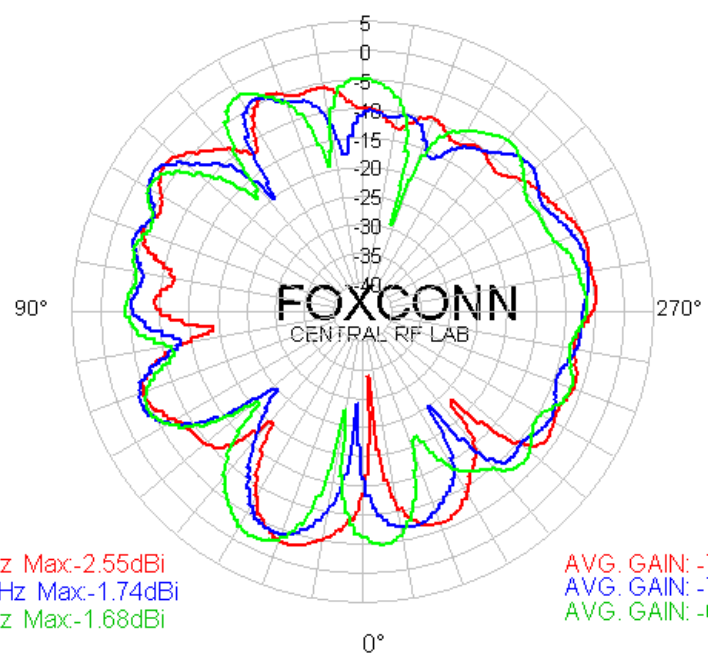
5.25 GHz = 1.390

5.35 GHz = 1.279

Cable length = 447 mm

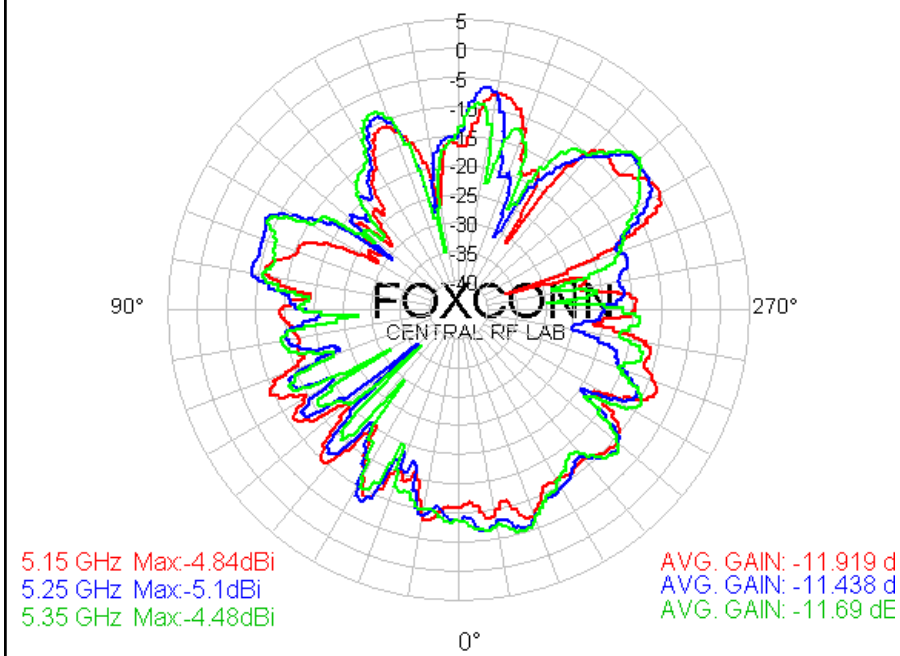
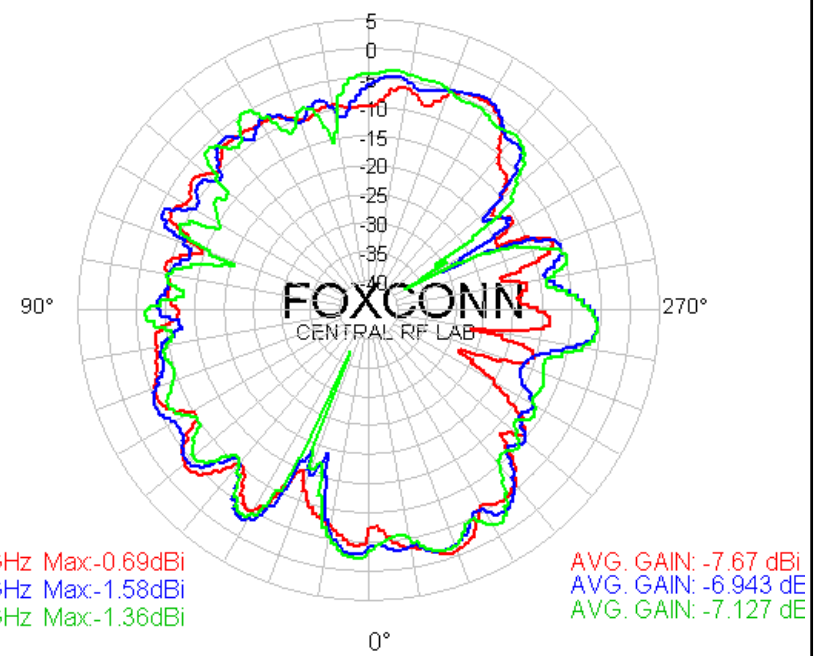
X-Y Plane Radiation Pattern of Right Antenna

In 2.4 GHz~2.5 GHz

HORIZONTAL POLARIZATION	VERTICAL POLARIZATION
	

X-Y Plane Radiation Pattern of Right Antenna

In 5.15 GHz~5.35 GHz

HORIZONTAL POLARIZATION	VERTICAL POLARIZATION
	

X-Y Plane Gain of Right Antenna 15 “ panel

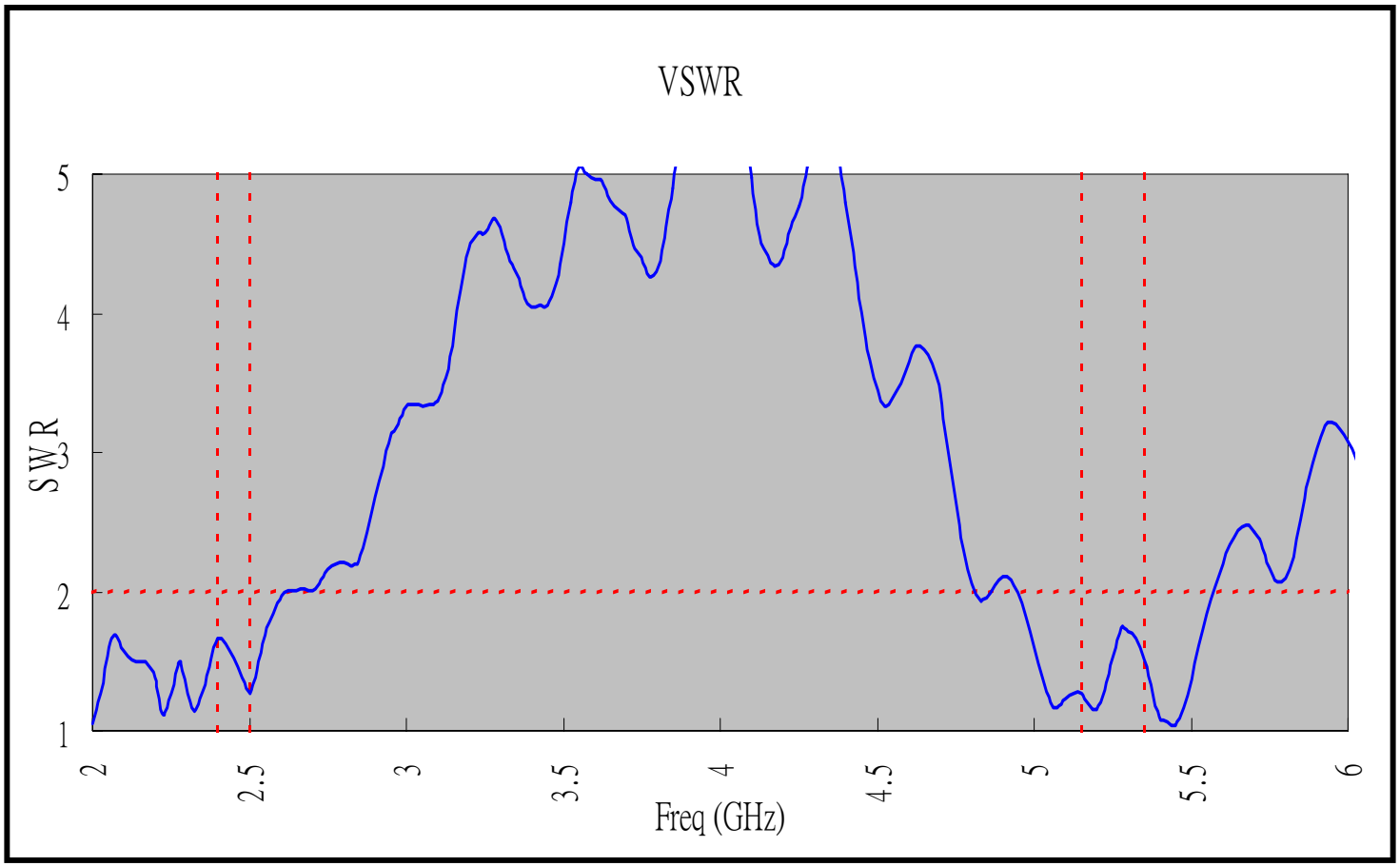
Average Gain

Freq(GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-8.50	-8.50	-9.04	-11.92	-11.44	-11.69
XY-V(dBi)	-7.33	-7.59	-6.93	-7.67	-6.94	-7.13
Average Gain	-4.86	-5.01	-4.85	-6.28	-5.62	-5.83

Peak Gain

Freq(GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-2.65	-1.94	-2.19	-4.84	-5.00	-4.48
XY-V(dBi)	-2.55	-1.74	-1.68	-0.69	-1.58	-1.36

VSWR of Left Antenna with 15 “ panel



2.4 GHz = 1.656

2.45GHz = 1.518

2.5 GHz = 1.271

5.15 GHz = 1.261

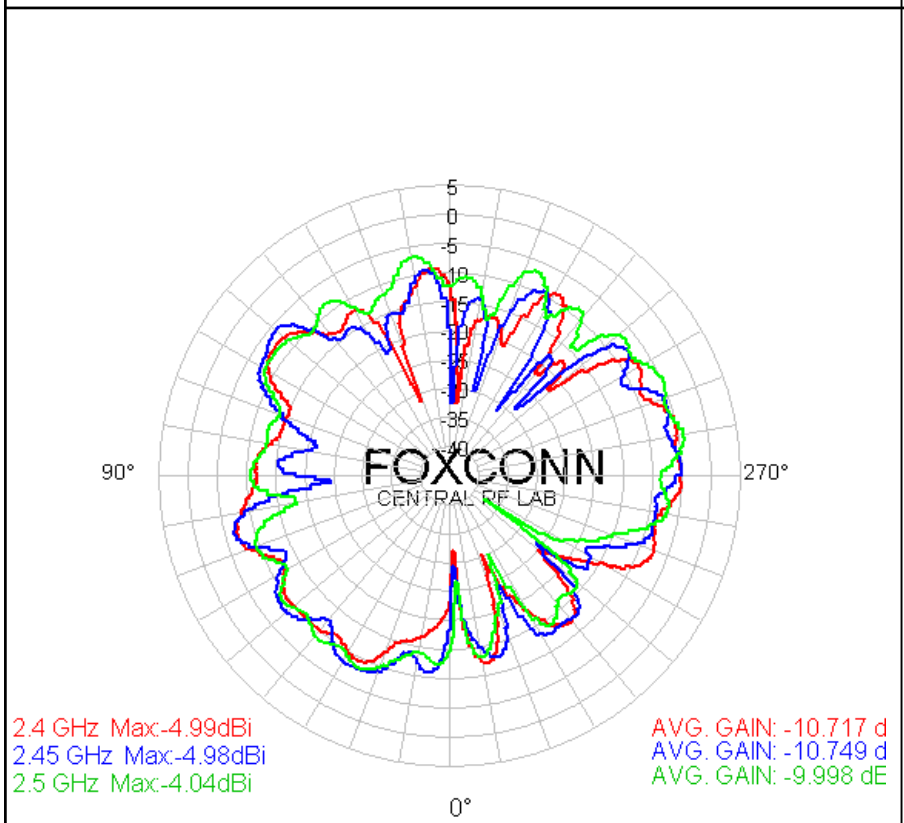
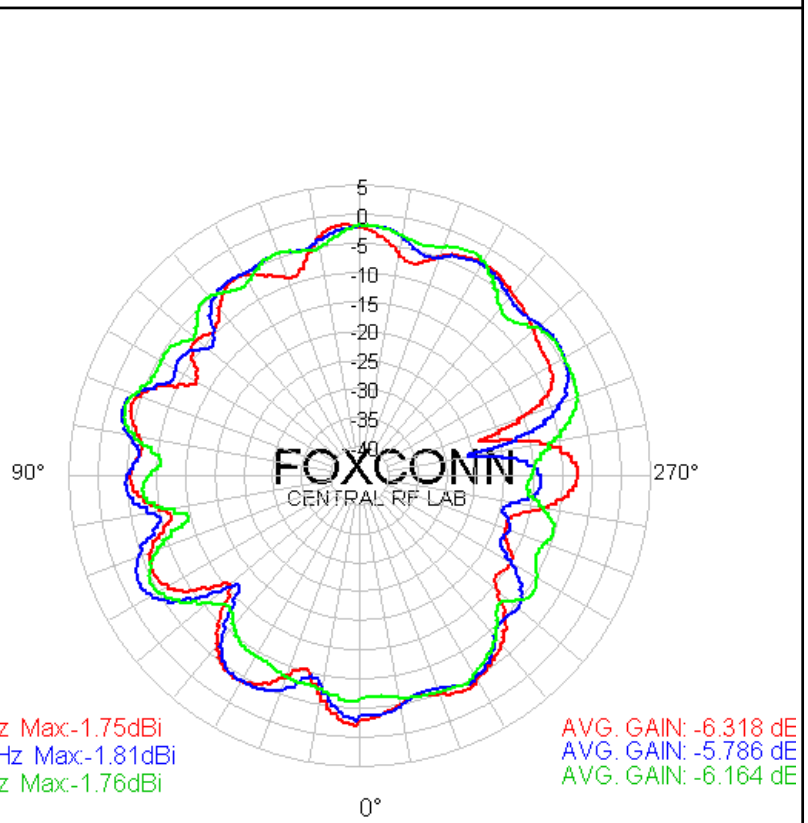
5.25 GHz = 1.535

5.35 GHz = 1.504

Cable length = 287 mm

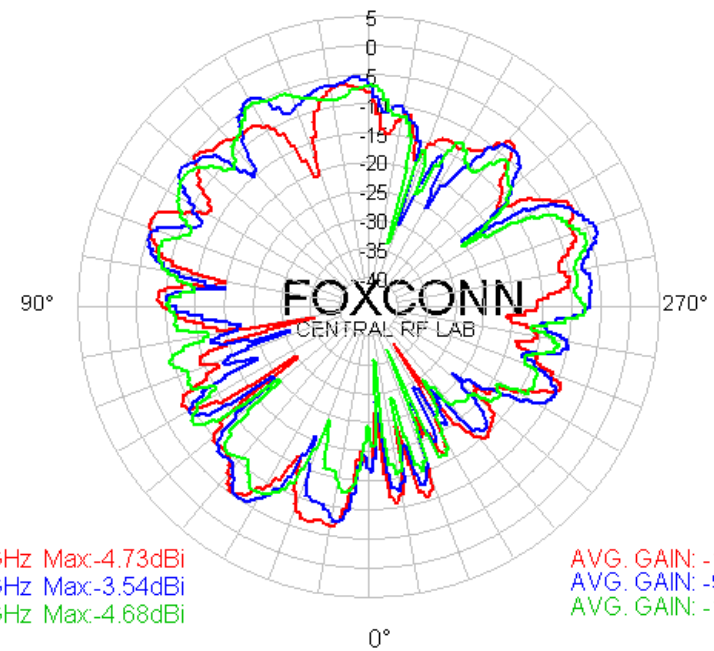
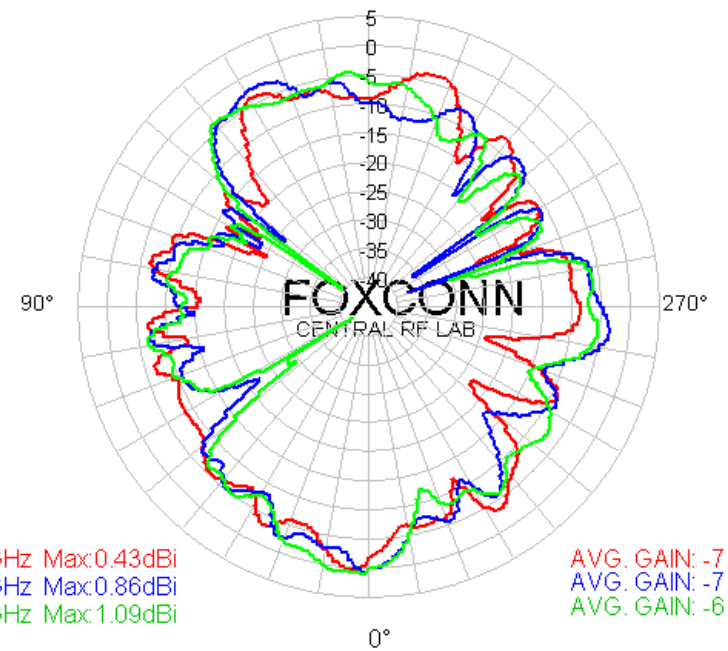
X-Y Plane Radiation Pattern of Left Antenna

In 2.4GHz~2.5GHz

HORIZONTAL POLARIZATION	VERTICAL POLARIZATION
	

X-Y Plane Radiation Pattern of Left Antenna

In 5.15GHz~5.35GHz

HORIZONTAL POLARIZATION	VERTICAL POLARIZATION
	

X-Y Plane Gain of Left Antenna 15 “ panel

Average Gain

Freq(GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-10.72	-10.75	-10.00	-10.51	-9.67	-10.64
XY-V(dBi)	-6.32	-5.79	-6.16	-7.40	-7.10	-6.81
Average Gain	-4.97	-4.58	-4.66	-5.67	-5.18	-5.31

Peak Gain

Freq(GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-4.99	-4.98	-4.04	-4.73	-3.54	-4.68
XY-V(dBi)	-1.75	-1.81	-1.76	0.43	0.86	1.09

Antenna Gain Comparison Of ZW1 Antenna with 14”panel

Left Antenna fixed on hinge testing on 03/26						
Freq (GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-11.69	-11.62	-11.40	-10.20	-9.36	-11.10
XY-V(dBi)	-6.47	-6.06	-6.10	-6.41	-6.55	-6.90
Average Gain	-5.33	-5.00	-4.97	-4.89	-4.72	-5.50

Left Antenna fixed on hinge testing on 03/21						
Freq (GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-9.88	-8.77	-9.36	-13.36	-13.05	-12.58
XY-V(dBi)	-5.16	-4.26	-4.77	-6.51	-7.16	-6.99
Average Gain	-3.90	-2.94	-3.47	-5.69	-6.17	-5.93

Right Antenna fixed on base testing on 03/26						
Freq (GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-9.74	-9.77	-9.58	-11.08	-10.34	-10.77
XY-V(dBi)	-7.63	-7.24	-7.00	-7.73	-7.23	-7.50
Average Gain	-5.55	-5.31	-5.09	-6.08	-5.50	-5.82

Right Antenna fixed on hinge testing on 03/21						
Freq (GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-9.00	-9.30	-8.79	-12.49	-11.93	-12.50
XY-V(dBi)	-7.52	-7.03	-6.17	-8.19	-8.09	-8.30
Average Gain	-5.19	-5.01	-4.27	-6.81	-6.59	-6.90

Antenna Gain Comparison Of ZW1 Antenna with 15”panel

Left Antenna fixed on hinge testing on 03/26

Freq (GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-10.72	-10.75	-10.00	-10.51	-9.67	-10.64
XY-V(dBi)	-6.32	-5.79	-6.16	-7.40	-7.10	-6.81
Average Gain	-4.97	-4.58	-4.66	-5.67	-5.18	-5.31

Left Antenna fixed on hinge testing on 03/21

Freq (GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-9.28	-8.88	-9.10	-13.14	-13.48	-12.99
XY-V(dBi)	-6.37	-5.97	-6.18	-6.40	-6.60	-7.57
Average Gain	-4.58	-4.18	-4.39	-5.57	-5.79	-6.47

Right Antenna fixed on base testing on 03/26

Freq (GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-8.50	-8.50	-9.04	-11.92	-11.44	-11.69
XY-V(dBi)	-7.33	-7.59	-6.93	-7.67	-6.94	-7.13
Average Gain	-4.87	-5.01	-4.85	-6.28	-5.62	-5.83

Right Antenna fixed on hinge testing on 03/21

Freq (GHz)	2.4	2.45	2.5	5.15	5.25	5.35
XY-H(dBi)	-8.60	-8.58	-8.86	-12.94	-12.59	-13.52
XY-V(dBi)	-8.33	-7.74	-6.97	-8.01	-8.28	-7.43
Average Gain	-5.45	-5.13	-4.80	-6.80	-6.91	-6.47