

TO QUANTA COMPUTER CORPORATION
SPECIFICATION FOR APPROVAL

CUSTOMER DWG. NO./PART NO : TBD REV.: N/A

DESCRIPTION: RF CABLE ASS'Y

FOXCONN PROD NO: WDAN-Q1KT5002 REV.. AX1

ATTACHMENTS:

- | | |
|---------------------------------------|---------------------|
| 1. RF CABLE ASSEMBLY DRAWING | <u>315-0900-098</u> |
| 2. DESIGN REVIEW FOR MATERIAL LIST... | <u>ML-098</u> |
| 3. PART DRAWING | <u>SGX0001-00</u> |
| | <u>703-3000-290</u> |
| | <u>014-0000-153</u> |
| | <u>040-0000-389</u> |

PLEASE RETURN TO US ONE COPY OF COVER PAGE OF THE
"SPECIFICATION FOR APPROVAL " WITH YOUR APPROVED SIGNATURES.

APPROVED SIGNATURES		



Hon Hai Precision Industry Co., Ltd.

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TAIWAN, R.O.C
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TLX: 32349 FOXCONNHH
UNIFORM INVOICE NUMBER: 04541302

Approved by: Sheng Checked by: _____ Prepared by: Paul Zhou

FILE NO.: SFA-098 REVISION NO.: AX1 DATE: Mar 5, 2002

DESIGN REVIEW FOR MATERIAL LIST

QUANTA P/N . TBD

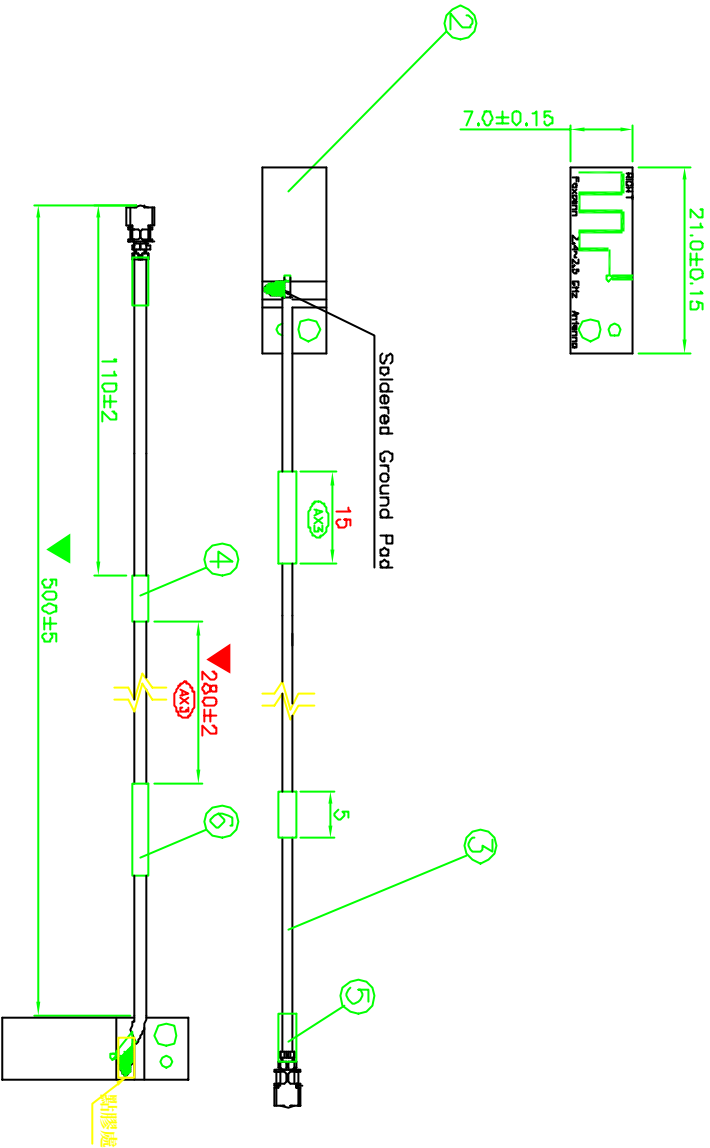
DESCRIPTION . RF CABLE ASS'Y

NO : ML-098

PAGE . 1/1

ITEM	DESCRIPTION	SUPPLIER/AGENCY						QUANTA PART NUMBER	QUANTITY	REMARK
		SUPPLIER	SUPPLIER PART NO.	FOXCONN PART NO.	AVL	UL SUBMIT	CSA SUBMIT			
1	COAXIAL CABLE	HITACHI	OR HCM-40309/1	014-3031-153		N/A	N/A		A/R	
		ACTUONE	703-3000-290	703-3000-290		N/A	N/A		A/R	
2	RF CONN.	FOXCONN	SGX0001-00	SGX0001-00		N/A	N/A		1 PC	
3	PCB (RIGHT)	FOXCONN	040-0002-893	040-0002-893		N/A	N/A		1 PC	

REV	ECN. NO.	CAUSE	APPD.
AX1	IC021338	NEW ISSUE	J.C. YEN
AX2	IC024311	CHANGE H.S.TAPE TO ACETATE TAPE	C.C. WANG
AX3		ADD ACETATE TAPE FOR FIXED PRESSION	Sheng Tai



NOTES:

1. ALL DIMENSIONS SHALL BE INTERPRETED PER ANSI Y14.5M-1982.
2. DIMENSIONS MARKED ▼ SHALL BE CHECKED.

ITEM	DESCRIPTION	UNITS	mm	NAME(INTENDED USE)	QUANTA KT1	Right Antenna	Part NO.(INTENDED USE)	TITLE:	FOXCONN	HON HAI PRECISION IND. CO.,LTD.	TAIPEI, TAIWAN, R.O.C.
③	ACETATE TAPE 15mm										
⑤	H.S. TUBE(WHITE)										
②	ACETATE TAPE(BLACK)										
④	30AWG SOLID COAXIAL CABLE										
①	ANTENNA PCB										
①	RF CONNECTOR										
①	SGX0001-00										
①	FOXCONN P/N										
①	VENDOR P/N										
①	QTY										

X ± 1	X ±	UNITS	mm	NAME(INTENDED USE)	QUANTA KT1	Right Antenna	Part NO.(INTENDED USE)	TITLE:	FOXCONN	HON HAI PRECISION IND. CO.,LTD.	TAIPEI, TAIWAN, R.O.C.
X ± Q1	X ±	MATL									
XX ± Q.05	XX ±										
.XXX ±	.XXX ±	FINISH									
APPRD:	C.C. WANG										
CHKD:											
DR:	Paul Zhou										
DWG NO.:	315-0900-098										
SCALE	SHEET	REV.									
N/A	1/1	AX3									

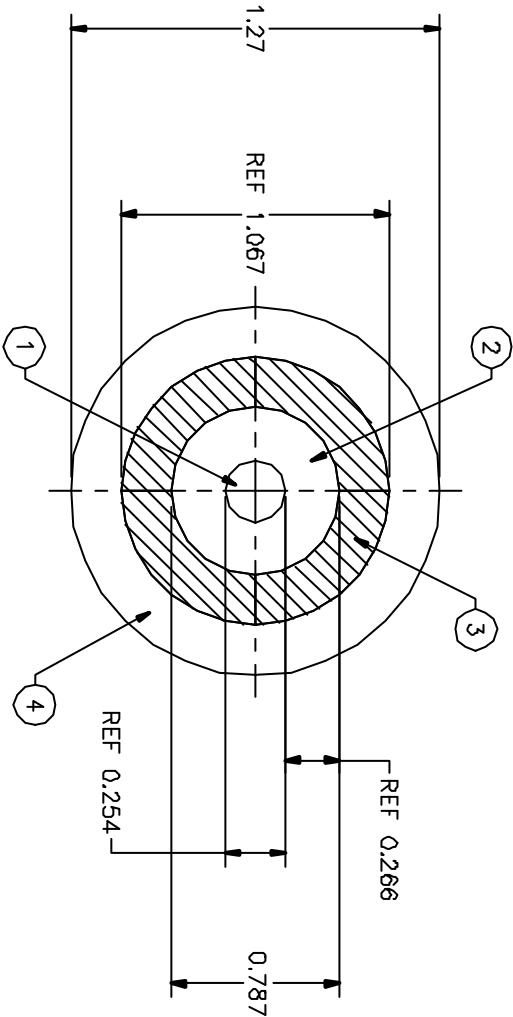
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REV	ECN No.	APPL.	DATE
A	MC-01-0847	VINCENT	3/28/01
B	MC-01-0847	ALLEN	4/13/01
C	MC-01-1942		

ELECTRICAL		
IMPEDANCE	50	ohms
CAPACITANCE	30.5	pf/ft
CONDUCTOR	RESISTANCE	860 ohms/KM

FREQUENCY (MHz)	ATTENUATION (dB/10ft)
500	3
1000	5
2000	8
3000	10

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



NOTES

- 1.PRIMARY INSULATION CONCENTRICITY = 85% MIN
2. 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
- 3 BRAIDING COVERAGE TO BE 95 % MIN.
- 4.DIELECTRIC STRENGTH:1.25KVAC/min
- 5 JACKET CONCENTRICITY = 80% MIN

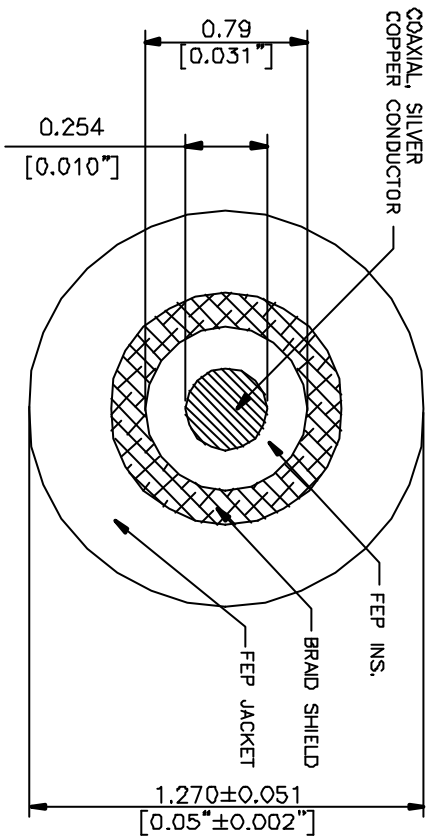
ITEM	QTY	PART No	DESCRIPTION
4	A/R	902-***1-*24	JACKET INSULATION, FEP #
3	A/R	904-44**--616	BENDS/ 44 AWG TINNED PLATED BRAIDING
2	A/R	902-***1-*24	PRIMARY INSULATION, FEP #
1	A/R	904-30**--851	30 AWG, SOLID SILVER PLATED COPPER CLAD STEEL

BILL OF MATERIALS			
UNITS	mm	FOXCCONN	HON HAI PRESSION IND CO.,LTD
MATERIAL		COAXIAL CABLE	PART No (ENTERED USE)
SEE BOM		703-30NN-290	TITLE: RF CABLE
FINISH			30 AWG, CONSTRUCTION
SEE NOTES		DESIGN .	DWG No. 703-3000-290
CHECKED		DRAWER	SCALE SHEET REV.
DATE			NONE 1/1 C

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REV.	ECN.	NO	APPD
D	MC00176B	Lot	8/12/06

- NOTES:
1. CAPACTANCE: 30.5 pF/FT.
 2. CONDUCTOR RESISTANCE: 264 OHMS/M' AT 20°C.
 3. CONDUCTOR: 30 AWG,SOLID SP COPPERWELD 0.010" NOM. OD.
 4. INSULATION: 30AWG, FEP, 0.031" OD., 0.0107" AVG WALL
 5. BRAID SHIELD: 30AWG, 6 ENDS 44 AWG TINNED COPPER,95% MIN. COVERAGE.
 6. JACKET: 30AWG, FEP,0.050"±0.002" OD., 0.004" AVG WALL.
 7. TEMPERATURE RATING: -70°C~+200°C.
 8. NO MARKING.



014-3031-153		HITACHI HCM-40309/1		30AWG		BLACK	
FOXCONN P/N		VENDOR & P/N		AWG		JACKET COLOR	
X.±	X.±	UNITS [mm]		NAME(INTENDED USE) FOXCONN HON HAI PRECISION IND. CO.,LTD. TAIPEI, TAIWAN, R.O.C.			
.X±	.X±	MAT'L					
.XX± 0.05	.XX±	FINISH					
.XXX±	.XXX±						
THESE DIMENSIONS AND SPECIFICATIONS ARE TO BE USED FOR THE DESIGN OF THE PRODUCT AND SHALL NOT BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE PRIOR WRITTEN CONSENT OF HON HAI PRECISION IND. CO., LTD.		QTY		TITLE COAXIAL CABLE DWG NO: 014-0000-153			
		CHKD: Sheng Tai					
		DR: Duke Du 1/17/2001					
				SCALE SHEET REV.		N/A 1/1 D	

THESE DIMENSIONS AND SPECIFICATIONS ARE THE PROPERTY OF NON TAI PRECISION IND CO., LTD AND SHALL NOT BE REPRODUCED OR USED IN ANY MANNER WITHOUT PERMISSION FROM NON TAI PRECISION IND CO., LTD

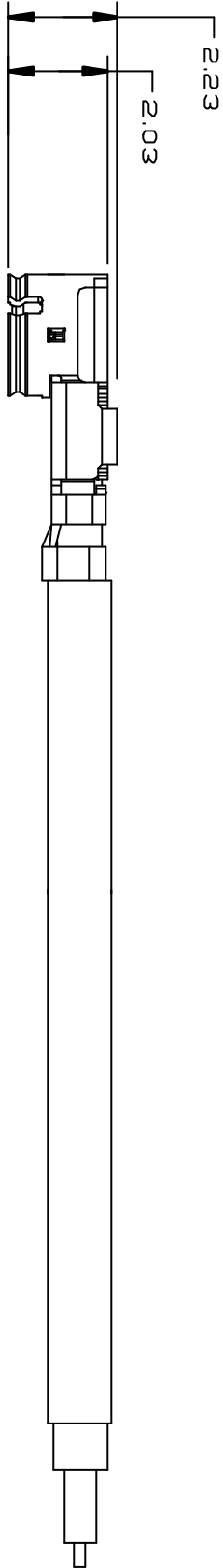
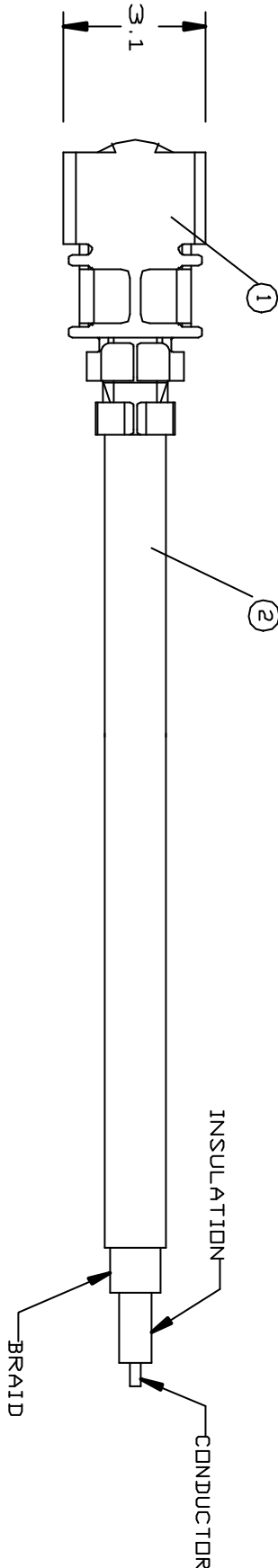
SCALE 10.000

GENERAL SPECIFICATION:

1. CONTACT RESISTANCE: 20 MILIOHMS MAX.
2. INSULATION RESISTANCE: 500 MEGOHMS MIN.
3. WITHSTAND VOLTAGE 200 V_{AC}
4. CONNECTOR V.S.W.R.: 1.3 OR LESS AT DC TO 3 GHz
5. OPERATION TEMPERATURE: -40°C TO 90°C

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. CABLE: 30AWG&32AWG SOLID COAXIAL CABLE.
5. PART NO. MATRIX: SGX0001-00



2	WIRE	703-3000-291	30AWG SLD COAXIAL CABLE	A/R
1	RF CONN.	SGX0001-00	FOXCONN: EP01-025-001	1 PCS
ITEM	PART NAME	PART NO.	EQUIVALENT VENDOR & PART NO.	Q'TY

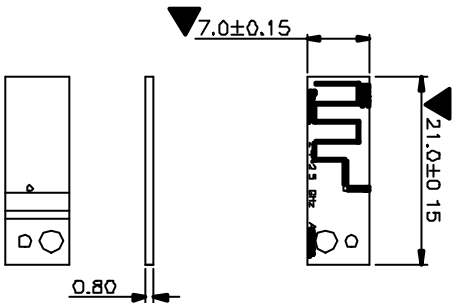
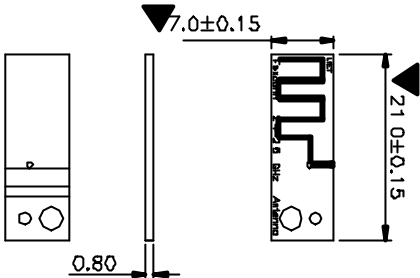
X.±	X.±	UNITS	NAME/INTENDED USE	FOXCONN
X ± 0.1	X ±	MAT'L	SGX0001-00	HON HAI PRECISION IND. CO., LTD. TAIPEI, TAIWAN, R.O.C.
X ± 0.1	X ±	SEE NOTES	PART NO./INTENDED USE	TITLE: RF CABLE ASSEMBLY
XXX ±	XXX ±	FINISH	SGX0001-00	
THESE DIMENSIONS AND SPECIFICATIONS ARE FOR INFORMATION ONLY. THE PARTS SHALL BE MANUFACTURED TO THE DIMENSIONS AND SPECIFICATIONS OF THE DRAWING. THE PARTS SHALL NOT BE REWORKED OR REFINISHED. THE PARTS SHALL NOT BE USED FOR ANY OTHER PURPOSE.		APPD: D. KD	DWG NO: EP01-025-001	
		CHKD:		
		DR: D. KD	12/2/00	
		Q'TY		
		DR: D. KD	12/2/00	
		CHKD:		
		DR: D. KD	12/2/00	

REV.	ECN. NO.	APPD.
X2		D. KD

SCALE SHEET REV. 10:1 1/1 X2

NOTES:

- 1. ALL DIMENSIONS SHALL BE INTERPRETED PER ANSI Y14.5M-1982.
- 2. DIMENSIONS MARKED ▼ SHALL BE CHECKED.
- 3. PCB'S MATERIAL : FR-4, THICKNESS 0.8MM.



REV.	EQN. NO.	APPD.
X1		

X.±		X.±	UNITS	mm	NAME(INTENDED USE)		TITLE:	
x±	±0.2	x±	MATL		FOR QUANTA KTS		HON HAI PRECISION IND. CO.,LTD	
.xx±	±0.1	.xx±	FINISH	3	PART NO.(INTENDED USE)		PCB ANTENNA	
.xxx±		.xxx±			APPD: Sheng Tai 3/5/06		DWG NO.: 040-0000-893	
				QTY	CHKD: DR/Paul Zhou 3/5/02		SCALE SHEET REV.	
							N/A 1/1 X1	

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NOTES:

▲ UL MARKING.

2. RATING : UL 224, 125°C, 600V, VW-1
CSA, 125°C, 600V, OFT

3. DIELECTRIC STRENGTH : 500 V/MIL

4. VOLUME RESISTIVITY : 10^{14} OHM-CM.

5. TENSILE STRENGTH : 10.3 MPa (1500 psi) MIN..

6. PART NO. MATRIX: 080- A B CC - 620

A: EQUIVALENT VENDER & PRODUCT

A=0: SUMITUBE F2-*

A=1: FAVORTRON FVC-2-*

A=2: SUMITUBE F32-*

A=3: CHANGBAO 102-*

A=4: SUMITUBE F4-*

A=5: HB T*ø

B: COLOR

B=0: BLACK.

B=1: WHITE.

B=2: RED.

B=3: BLUE.

B=4: GREEN.

B=5: YELLOW.

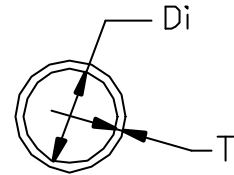
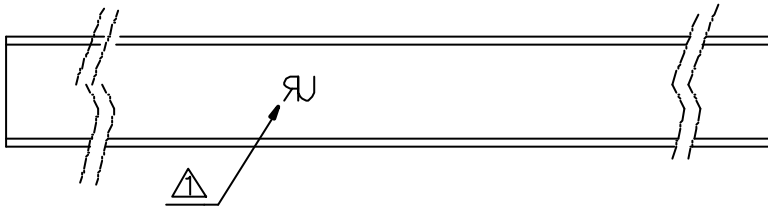
B=6: ORANGE.

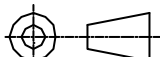
B=7: PURPLE.

B=8: GRAY

CC: INSIDE DIMENSION ID.

REV.	ECN.	NO.	APPD.
A	HC95121	JEFF C.	1/20/95
B	HC96190	C. CHEN	2/7/96
C	HC96670	C. CHEN	5/7/96
D	HC961695	CHARLES	
E	HC971231	C. CHEN	6/18/97
F	MC991918	LAI	5/31/99
G	MC993360	LAI	10/16/99
H	MCD01163	LAI	4/11/2000
K			



X.±	X°.±	UNITS mm	NAME(INTENDED USE)	FOXCONN HON HAI PRECISION IND. CO.,LTD. TAIPEI, TAIWAN, R.O.C.			
.X± 0.2	.X°±	MAT'L	PART NO.(INTENDED USE)	TITLE: HEAT SHRINKABLE TUBE			
.XX± 0.15	.XX°±						
.XXX±	.XXX°±	FINISH	APPD: H.C.ZHENG 6/15'2001	DWG NO.: 080-0000-620			
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			DR: H.C.ZHENG 6/15'2001		N/A	1/2	K

[illegible]

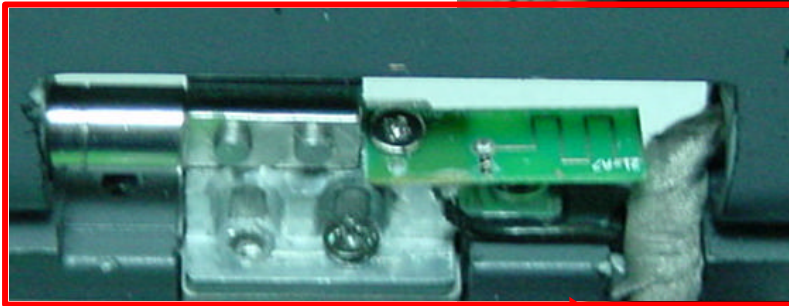
Quanta KT1,5 Antenna

Test Report

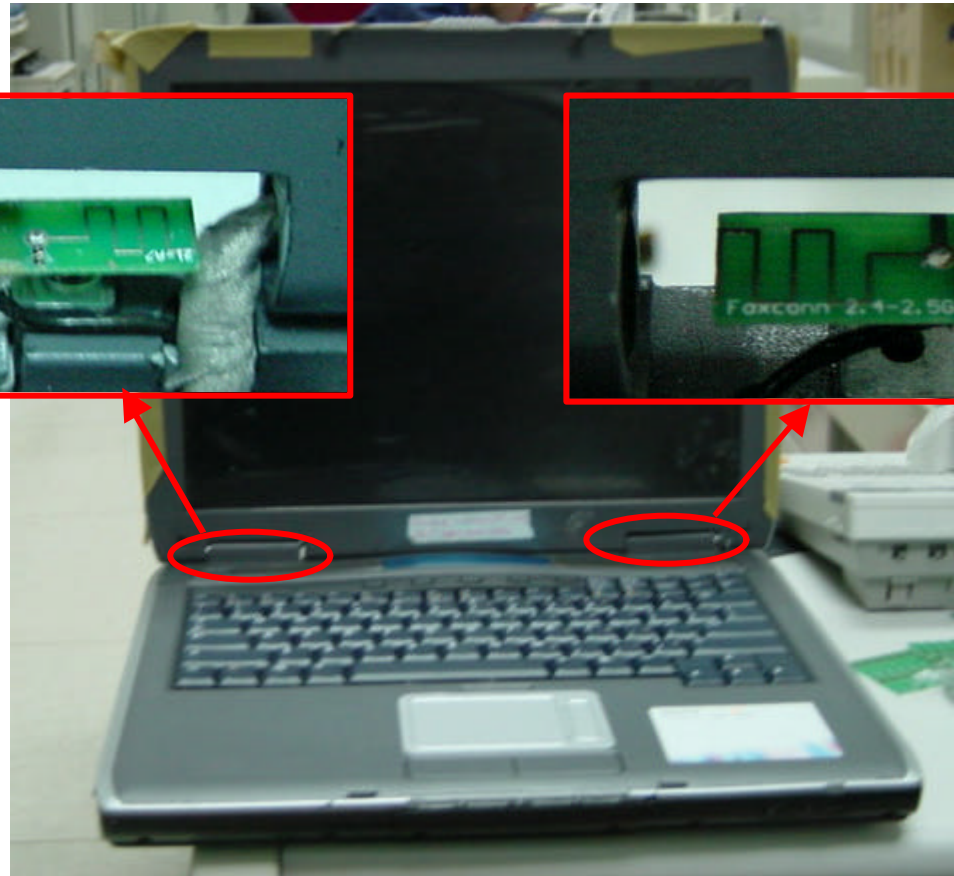
Sheng Tai

Antenna Location

Left Antenna

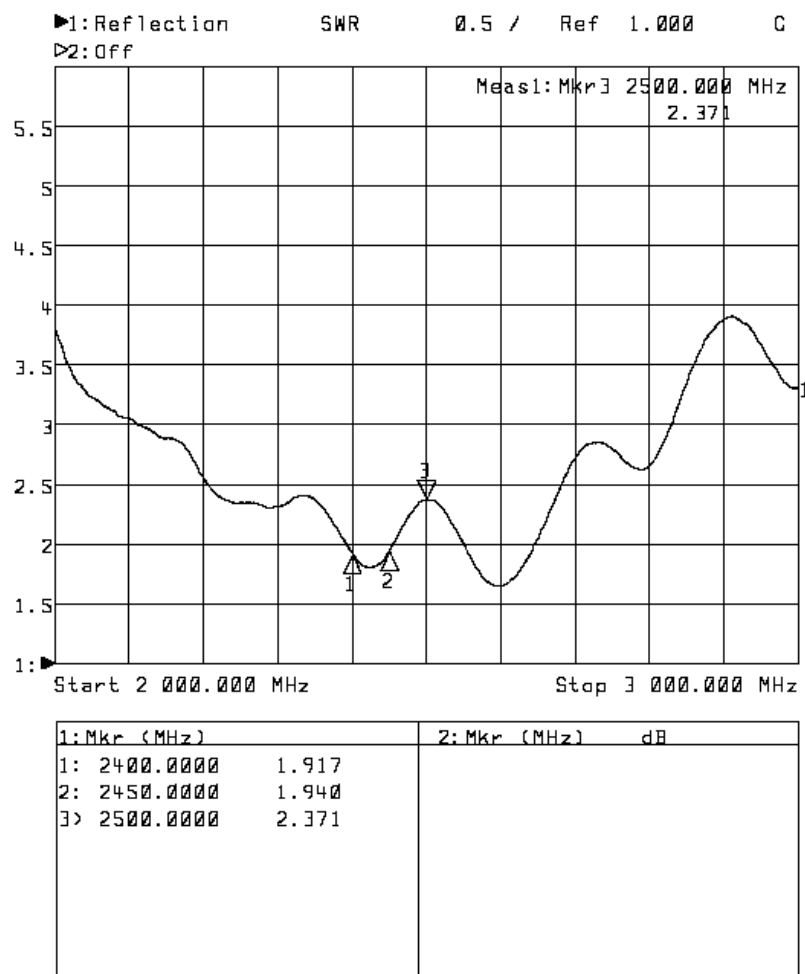


Right Antenna

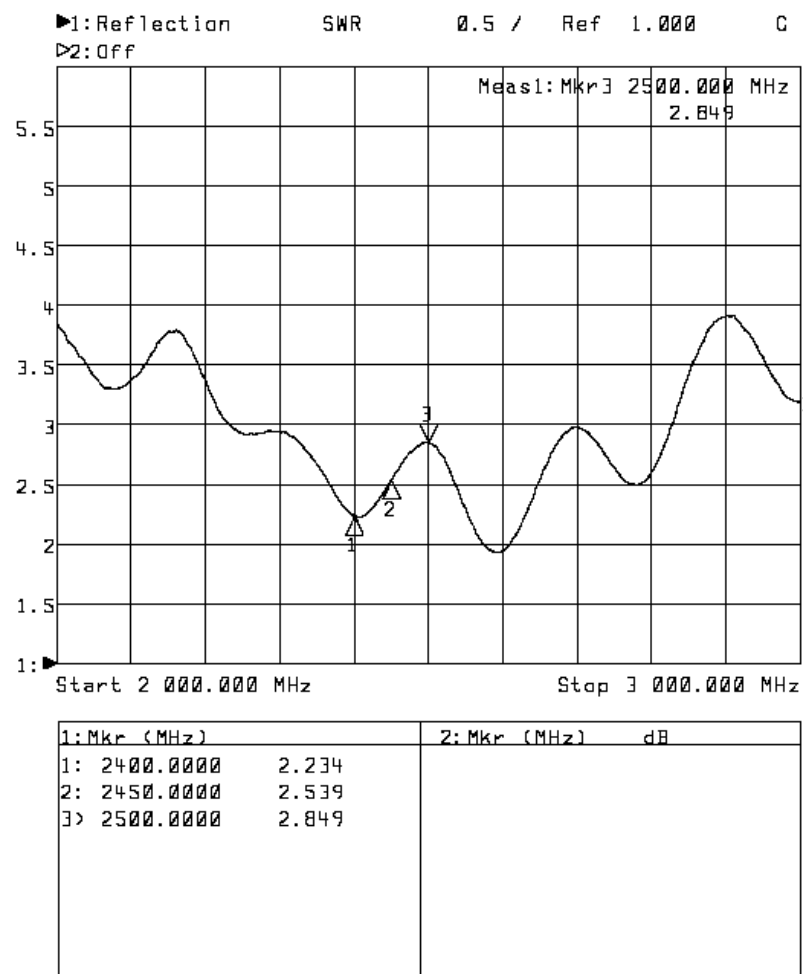


VSWR For Right 14" LCD

1. LCD Open

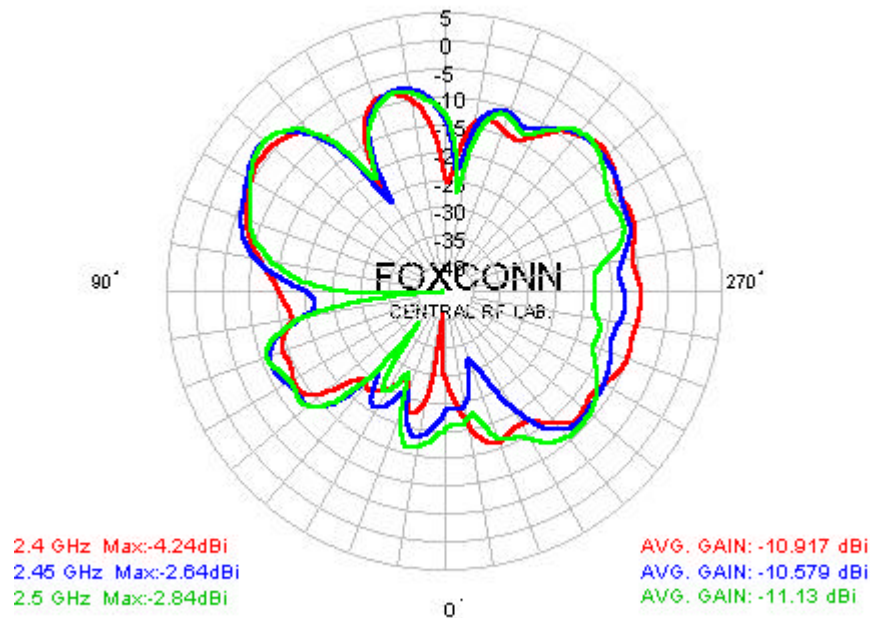


2. LCD Close

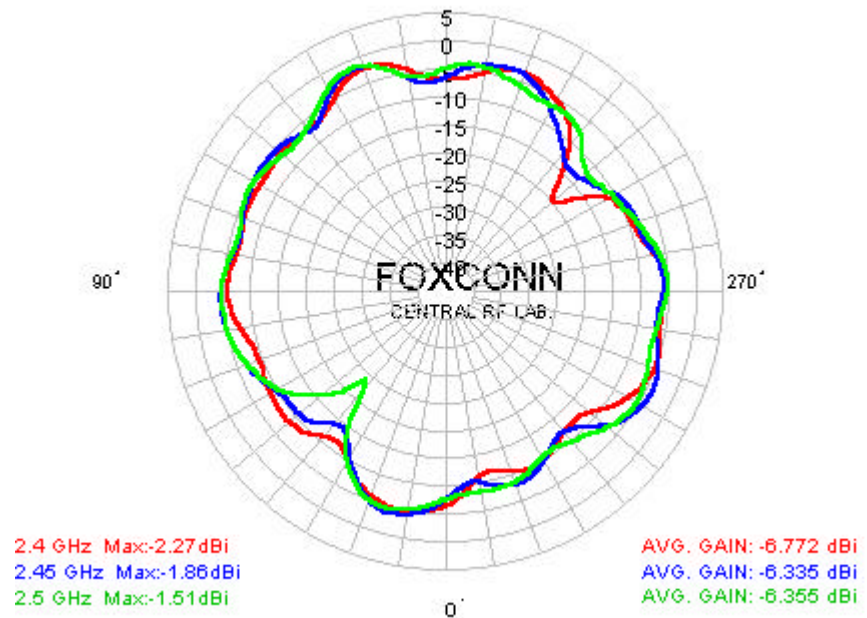


XY Plane Radiation Pattern For Right 14" LCD (Open)

HORIZONTAL POLARIZATION



VERTICAL POLARIZATION



Average Gain For Right 14" LCD Antenna (Open)

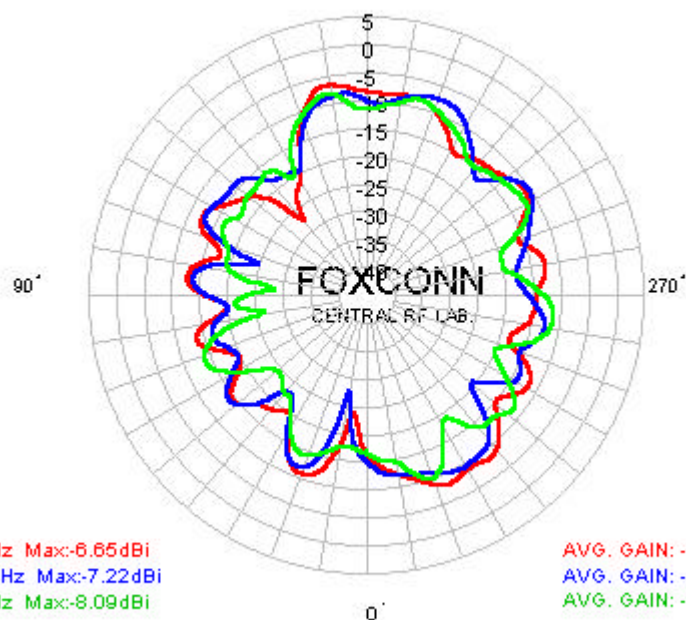
(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-10.91	-10.57	-11.13
XY--V	-6.77	-6.33	-6.35
Total Average Gain	-5.35	-4.94	-5.10

PEAK GAIN

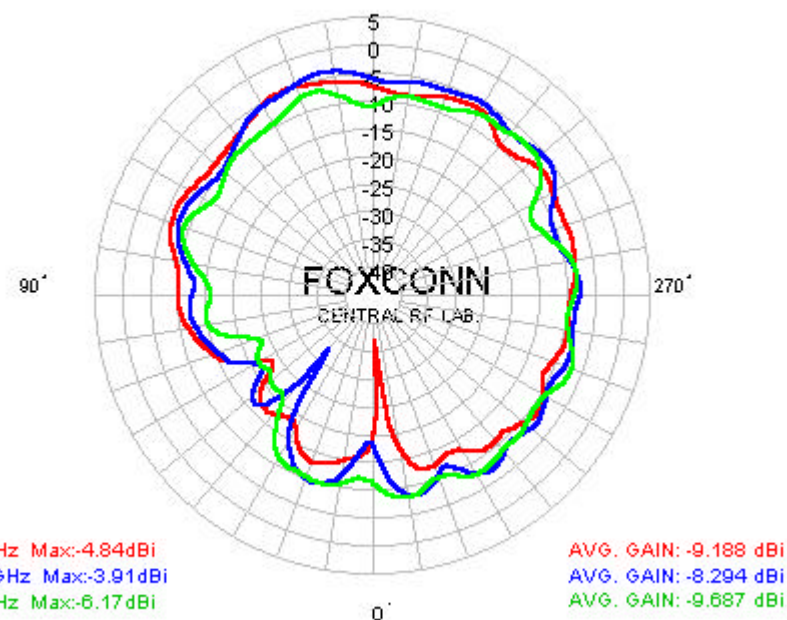
(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-4.24	-2.64	-2.84
XY--V	-2.27	-1.86	-1.51

XY Plane Radiation Pattern For Right 14" LCD (Close)

HORIZONTAL POLARIZATION



VERTICAL POLARIZATION



Average Gain For Right 14" LCD Antenna (Close)

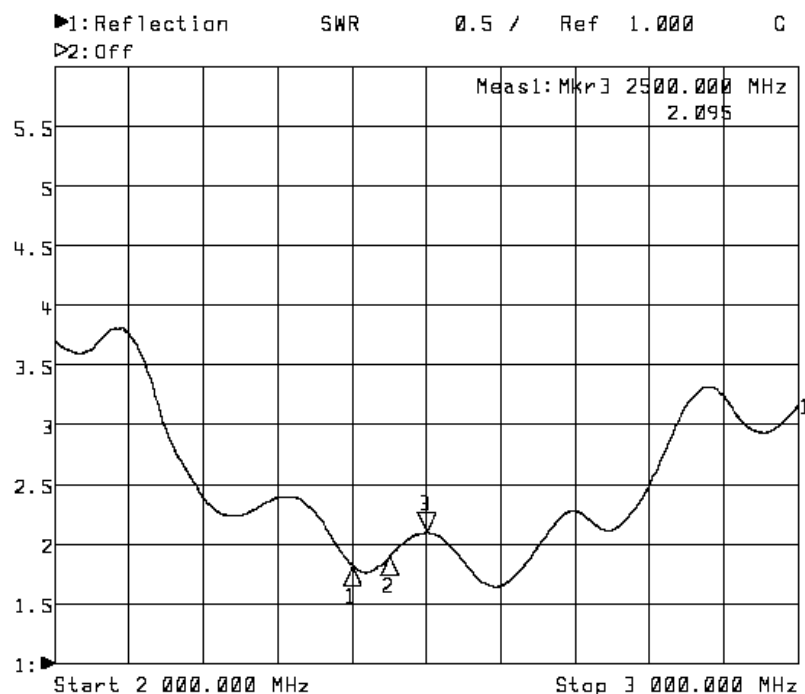
(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-12.35	-12.82	-13.86
XY--V	-9.18	-8.29	-9.68
Total Average Gain	-7.47	-6.98	-8.28

PEAK GAIN

(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-6.65	-7.22	-8.09
XY--V	-4.84	-3.91	-6.17

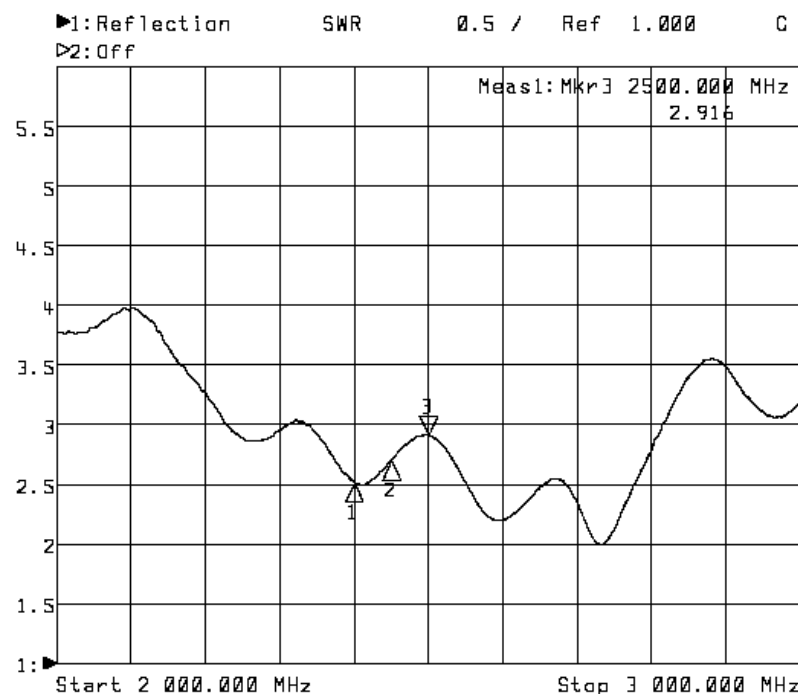
VSWR For Right 15" LCD

1. LCD Open



1: Mkr (MHz)	2: Mkr (MHz)	dB
1: 2400.0000	1.816	
2: 2450.0000	1.894	
3: 2500.0000	2.095	

2. LCD Close

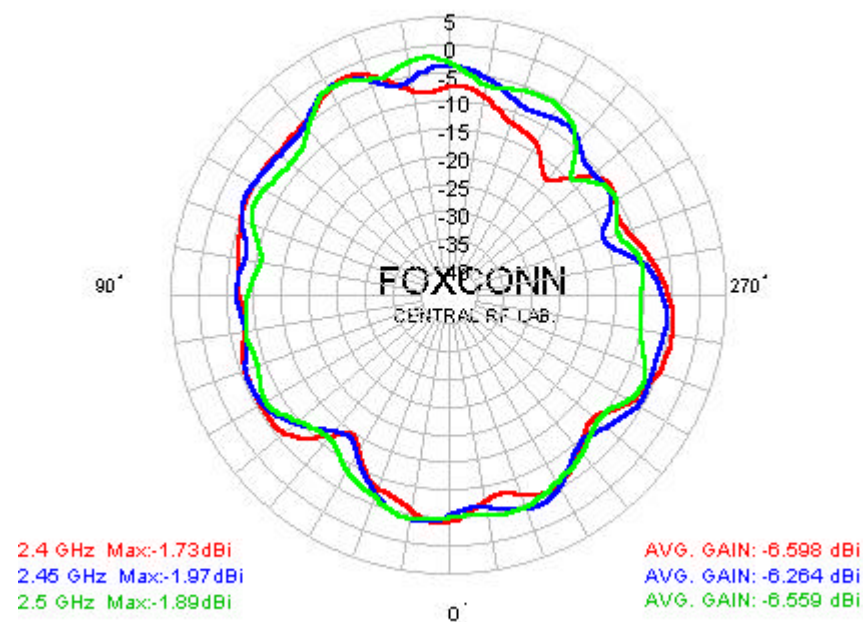
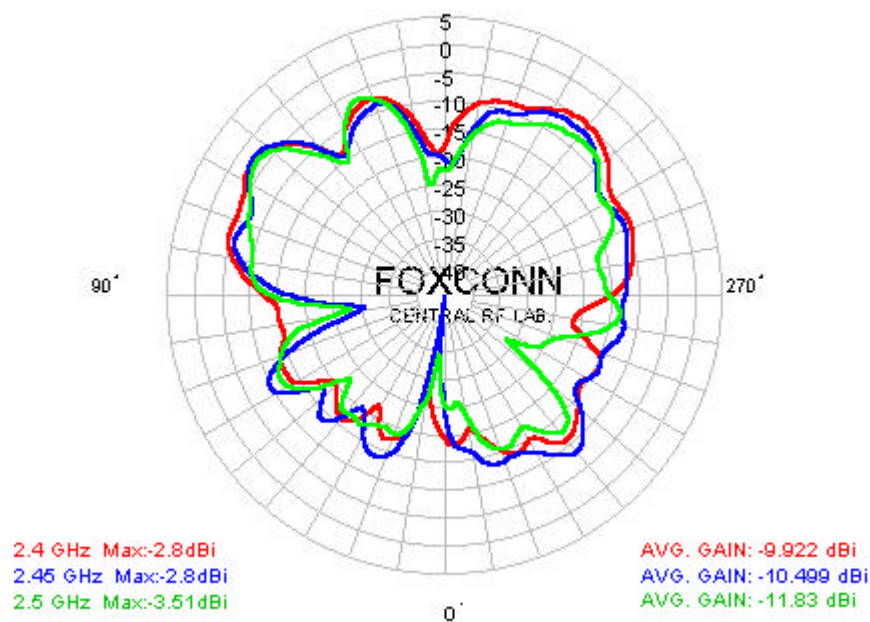


1: Mkr (MHz)	2: Mkr (MHz)	dB
1: 2400.0000	2.510	
2: 2450.0000	2.705	
3: 2500.0000	2.916	

XY Plane Radiation Pattern For Right 15" LCD (Open)

HORIZONTAL POLARIZATION

VERTICAL POLARIZATION



Average Gain For Right 15" LCD Antenna (Open)

(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-9.92	-10.49	-11.83
XY--V	-6.59	-6.26	-5.55
Total Average Gain	-4.93	-4.87	-4.63

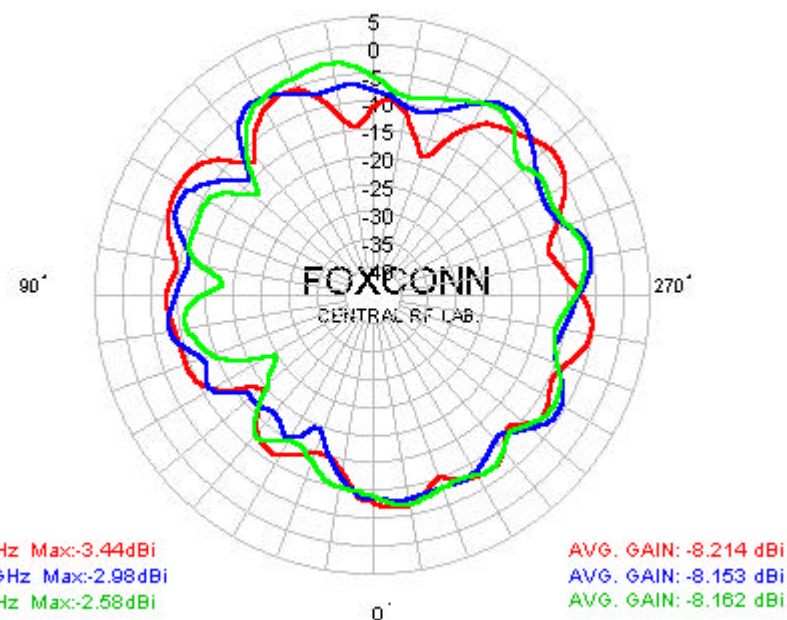
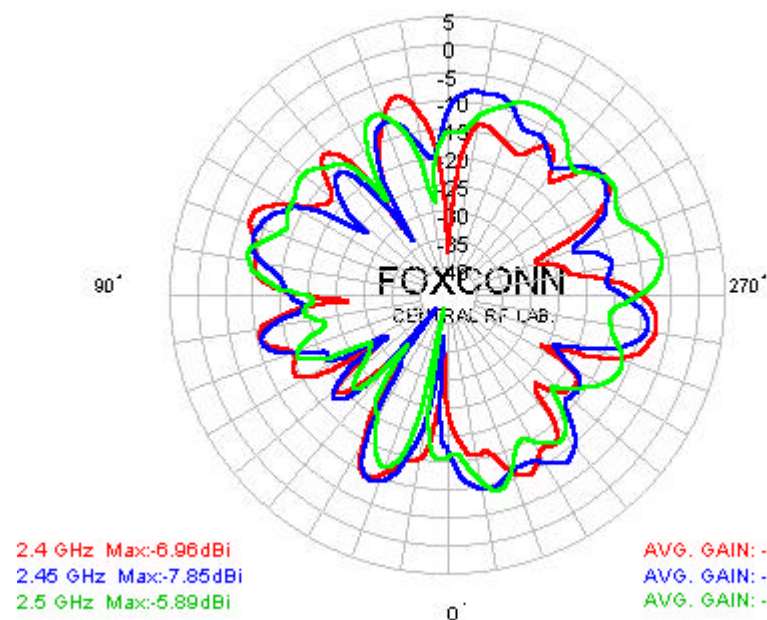
PEAK GAIN

(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-2.80	-2.80	-3.51
XY--V	-1.73	-1.97	-1.89

XY Plane Radiation Pattern For Right 15" LCD (Close)

HORIZONTAL POLARIZATION

VERTICAL POLARIZATION



Average Gain For Right 15" LCD Antenna (Close)

(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-12.99	-12.68	-12.15
XY--V	-8.21	-8.15	-8.16
Total Average Gain	-6.96	-6.84	-6.70

PEAK GAIN

(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-6.96	-7.85	-5.89
XY--V	-3.44	-2.98	-2.58

Summary Of Total Average Gain

14" LCD Open (Left)					15" LCD Open (Left)			
(dBi)	2400 MHz	2450 MHz	2500 MHz		(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-10.51	-9.77	-9.98		XY-H	-11.26	-11.55	-12.90
XY--V	-6.70	-6.16	-6.21		XY--V	-6.05	-5.93	-6.03
Total Average Gain	-5.19	-4.59	-4.69		Total Average Gain	-4.91	-4.88	-5.22
14" LCD Close (Left)					15" LCD Close (Left)			
(dBi)	2400 MHz	2450 MHz	2500 MHz		(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-8.34	-8.17	-8.10		XY-H	-8.35	-7.80	-7.23
XY--V	-13.21	-11.87	-11.13		XY--V	-11.55	-10.86	-10.15
Total Average Gain	-7.11	-6.63	-6.35		Total Average Gain	-6.65	-6.06	-5.44
14" LCD Open (Right)					15" LCD Open (Right)			
(dBi)	2400 MHz	2450 MHz	2500 MHz		(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-10.91	-10.57	-11.13		XY-H	-9.92	-10.49	-11.83
XY--V	-6.77	-6.33	-6.35		XY--V	-6.59	-6.26	-5.55
Total Average Gain	-5.35	-4.94	-5.10		Total Average Gain	-4.93	-4.87	-4.63
14" LCD Close (Right)					15" LCD Close (Right)			
(dBi)	2400 MHz	2450 MHz	2500 MHz		(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-12.35	-12.82	-13.86		XY-H	-12.99	-12.68	-12.15
XY--V	-9.18	-8.29	-9.68		XY--V	-8.21	-8.15	-8.16
Total Average Gain	-7.47	-6.98	-8.28		Total Average Gain	-6.96	-6.84	-6.70

Summary Of Peak Gain

14" LCD Open (Left)					15" LCD Open (Left)			
(dBi)	2400 MHz	2450 MHz	2500 MHz		(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-4.57	-4.20	-4.99		XY-H	-4.86	-4.94	-4.74
XY--V	-1.23	-0.95	-6.00		XY--V	-2.10	-1.57	-0.65
14" LCD Close (Left)					15" LCD Close (Left)			
(dBi)	2400 MHz	2450 MHz	2500 MHz		(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-2.17	-3.32	-3.49		XY-H	-4.25	-2.96	-2.60
XY--V	-7.90	-6.54	-6.48		XY--V	-4.27	-3.93	-6.22
14" LCD Open (Right)					15" LCD Open (Right)			
(dBi)	2400 MHz	2450 MHz	2500 MHz		(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-4.24	-2.64	-2.84		XY-H	-2.80	-2.80	-3.51
XY--V	-2.27	-1.86	-1.51		XY--V	-1.73	-1.97	-1.89
14" LCD Close (Right)					15" LCD Close (Right)			
(dBi)	2400 MHz	2450 MHz	2500 MHz		(dBi)	2400 MHz	2450 MHz	2500 MHz
XY-H	-6.65	-7.22	-8.09		XY-H	-6.96	-7.85	-5.89
XY--V	-4.84	-3.91	-6.17		XY--V	-3.44	-2.98	-2.58