

Description :	Triple-band Antenna(Main+Aux)	
Inventec Crop. P/N:	6036A0004601	6036A0004701
Wistron NeWeb P/N:	81.CA813.001	81.CA813.002

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Provided by Wistron NeWeb Corp.	Reviewed by Wistron NeWeb Corp.
David Tau	Eric Fang

Antenna Information

I. Antenna Assembly Specifications

Antenna assembly overview: Peak Gain.

Designator	Manufacture	Antenna type	Cable Assembly Info.	Peak Gain W/ Cable loss (dBi)
(P/N: 6036A0004601) Main antenna	WNC	PIFA	(P/N:WN-S-1.13B-36 0MM(2-4-1)) 50 ohm Coaxial. length: 360mm diameter: 1.13mm Connector: IPEX 20278-111R-08	2400-2500MHz -0.65 dBi (peak)
				5150-5350MHz 3.79 dBi (peak)
				5470-5825MHz 1.90 dBi (peak)
(P/N: 6036A0004701) Auxiliary antenna	WNC	PIFA	(P/N: WN-S-1.13W-475MM(2-4-1)) 50 ohm Coaxial. length: 475mm diameter: 1.13mm Connector: IPEX 20278-111R-08	2400-2500MHz 0.35 dBi (peak)
				5150-5350MHz 2.69 dBi (peak)
				5470-5825MHz 2.91 dBi (peak)

Antenna overview: Peak Gain not including cable loss.

Antenna Designator	Manufacture	Antenna type	Peak Gain w/o Cable Loss (dBi)
(P/N: 6036A0004601) Main antenna	WNC	PIFA	2400-2500MHz 0.75dBi (peak)
			5150-5350MHz 5.89dBi (peak)
			5470-5825MHz 4.07dBi (peak)
(P/N: 6036A0004701) Auxiliary antenna	WNC	PIFA	2400-2500MHz 2.11dBi (peak)
			5150-5350MHz 5.33dBi (peak)
			5470-5825MHz 5.62dBi (peak)

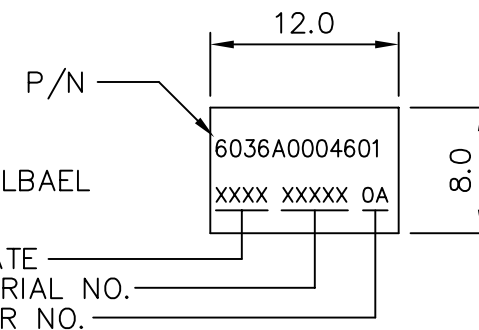
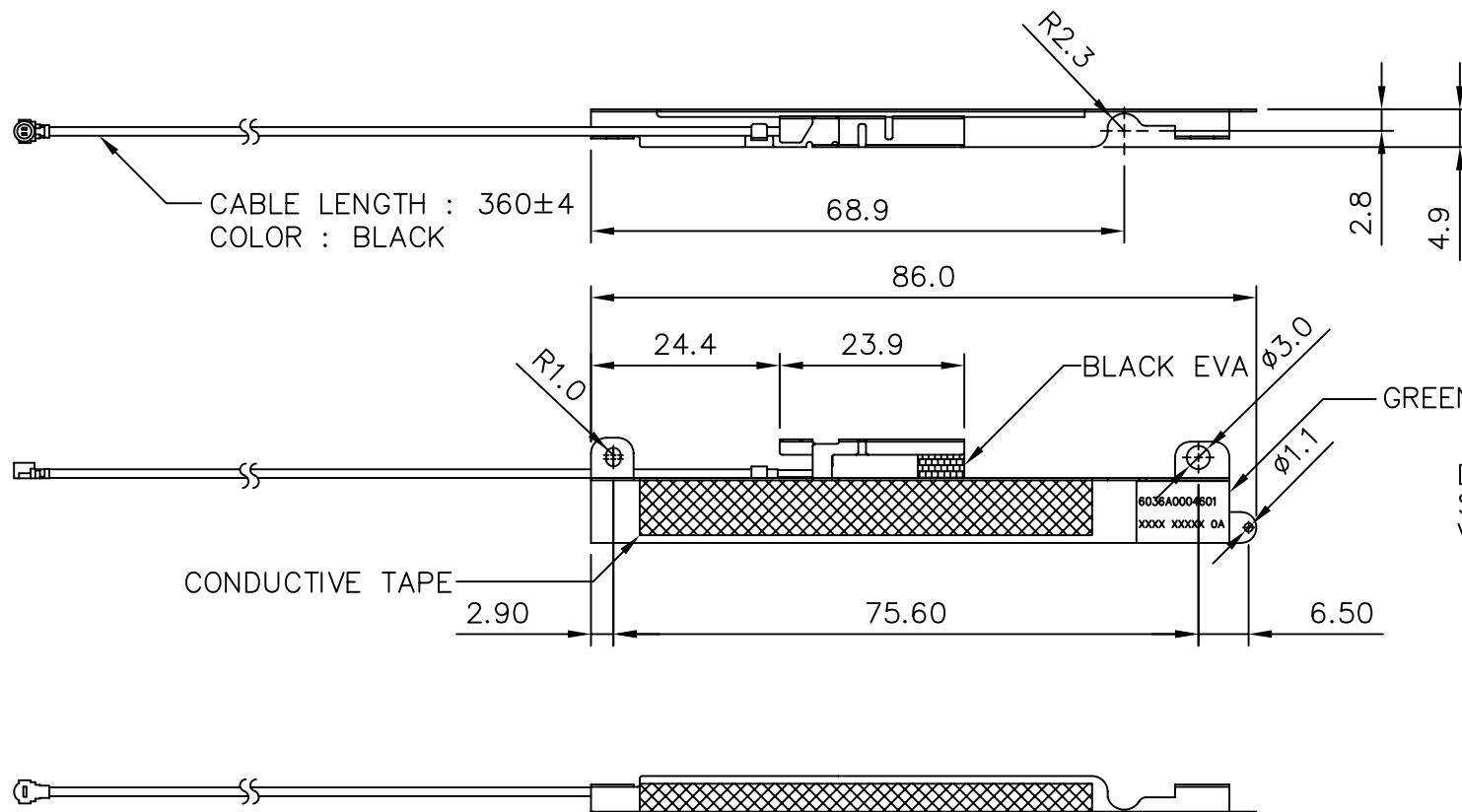
Cable assembly overview: Cable loss (including connector).

Designator	Manufacture	Cable type and length	VSWR	Cable Loss (dB)
(P/N:WN-S-1.13B-3 60MM(2-4-1)) For use with the Main antenna	IPEX	(P/N:WN-S-1.13B-3 60MM(2-4-1)) 50 ohm Coaxial. length: 360mm diameter: 1.13mm Connector: IPEX 20278-111R-08	2400-2500MHz 1.49 max	2400-2500MHz 1.40 dB (peak)
			5150-5350MHz 2.17 max	5150-5350MHz 2.10 dB (peak)
			5470-5825MHz 2.07 max	5470-5825MHz 2.17 dB (peak)
(P/N: WN-S-1.13W-475M M(2-4-1)) For use with the Auxiliary antenna	IPEX	(P/N: WN-S-1.13W-475M M(2-4-1)) 50 ohm Coaxial. length: 475mm diameter: 1.13mm Connector: IPEX 20278-111R-08	2400-2500MHz 1.48 max	2400-2500MHz 1.76dB (peak)
			5150-5350MHz 1.66 max	5150-5350MHz 2.64 dB (peak)
			5470-5825MHz 2.05 max	5470-5825MHz 2.71 dB (peak)

Drawing of antennae as follow.

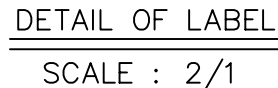
PART NUMBER BLOCK	
PART NUMBER	REV

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



		UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN mm AND TOLERANCES ARE:				wistron 啟碁科技股份有限公司 <i>Wistron NeWeb Corp.</i> No. 10-1, Li-hsin Road I, Science-based Industrial Park, Hsinchu 300, Taiwan, R.O.C. Tel: 886-3-6667799 Fax: 886-3-6667711		
		INTEGRAL DIMENSIONS ± 0.2 1 PLACE DECIMAL ± 0.1 2 PLACE DECIMALS ± 0.05		ANGULAR DIMENSIONS ± 1° HOLES UNDER Ø5.00 ± 0.05				
		MATERIAL: NA				DWG TITLE 81.CA813.001		
		FINISH: NA						
	CA8-I	THIRD ANGLE PROJECTION	DRAWN			SIZE	DWG NO.	REV
NEXT ASSY	USED ON		ENGR			A4		0A
APPLICATION			APVD				SCALE	1/1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



		UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN mm AND TOLERANCES ARE: INTEGRAL DIMENSIONS ± 0.2 1 PLACE DECIMAL ± 0.1 ANGULAR DIMENSIONS ± 1° 2 PLACE DECIMALS ± 0.05 HOLES UNDER Ø5.00 ± 0.05				wistron 啟碁科技股份有限公司 <i>Wistron NeWeb Corp.</i> No. 10-1, Li-hsin Road I, Science-based Industrial Park, Hsinchu 300, Taiwan, R.O.C. Tel: 886-3-6667799 Fax: 886-3-6667711			
		MATERIAL: NA				DWG TITLE 81.CA813.002			
		FINISH: NA							
		THIRD ANGLE PROJECTION	DRAWN			SIZE	DWG NO.		REV
NEXT ASSY			ENGR			A4			0A
USED ON			APVD			SCALE 1/1		SHEET 1 OF 1	
APPLICATION									

Radiation characteristic of antennae Loaded (In Host System)

I. Peak Gain and Average Gain

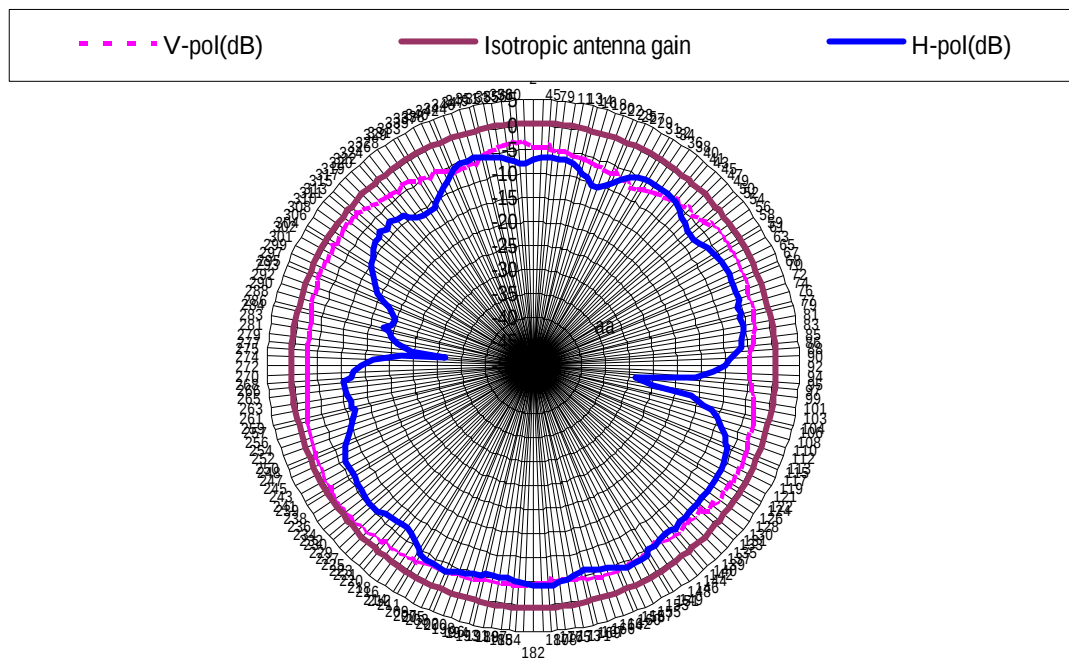
Antenna Gain		2G4 ISM (2.400 GHz - 2.4835 GHz)			U-NII (5.150 GHz - 5.350 GHz)			HyperLAN (5.470 GHz - 5.825 GHz)		
		2.40 GHz	2.45 GHz	2.50GHz	5.15 GHz	5.25 GHz	5.35 GHz	5.47 GHz	5.6475 GHz	5.825 GHz
MAIN	Peak dBi	-1.40	-0.65	-0.77	3.30	3.59	3.79	1.07	1.82	1.90
	Avg dBi	-3.69	-2.95	-2.78	-0.78	-0.23	-0.44	-1.66	-0.86	-1.55
AUX	Peak dBi	-0.77	0.35	0.20	2.62	2.69	2.25	2.32	2.33	2.91
	Avg dBi	-3.49	-2.65	-2.33	-1.04	-0.90	-1.36	-1.48	-0.92	-0.76

* Average Gain = $10\log\{\text{Average} [\text{SQRT}(V_{\text{power}}^2 + H_{\text{power}}^2)]\}$ - Isotropic Gain

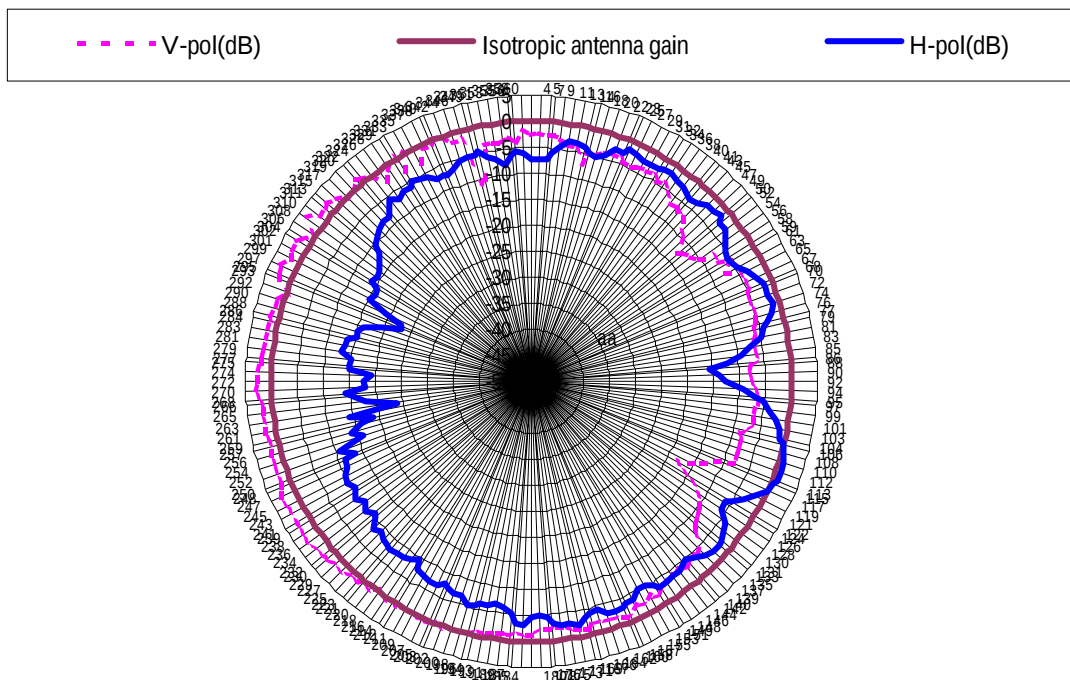
**Peak Gain = $10\log\{\text{Max} [\text{SQRT}(V_{\text{power}}^2 + H_{\text{power}}^2)]\}$ - Isotropic Gain
Average[] mean is sum all direction(200 point) and divide by 200
Max[] mean is chose maximum one on all direction(200 point)

II Radiation Pattern

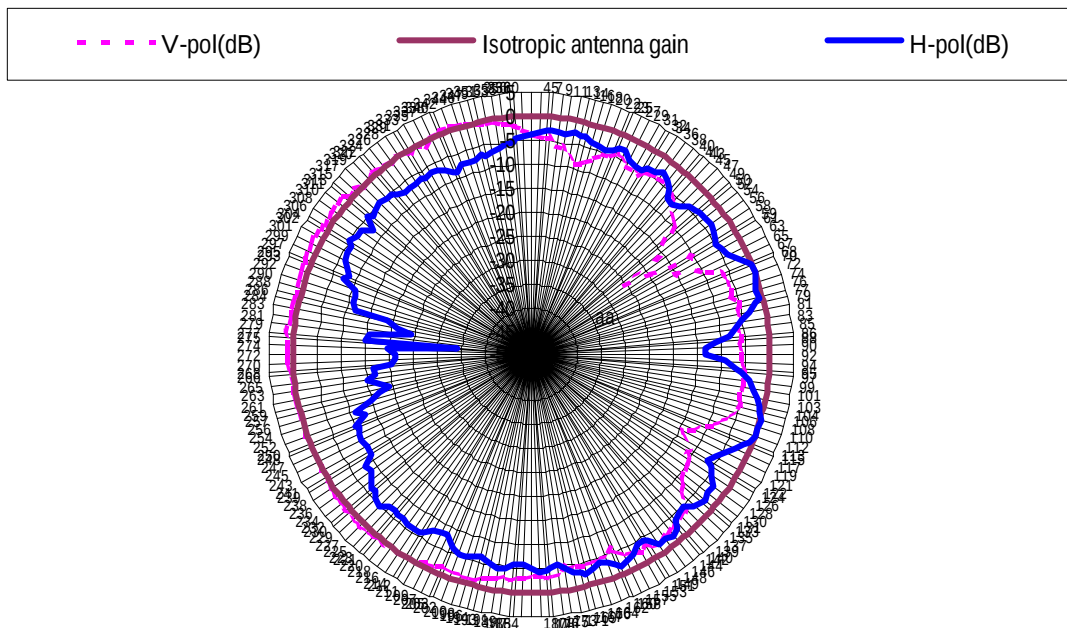
Main antenna -@2.45GHz



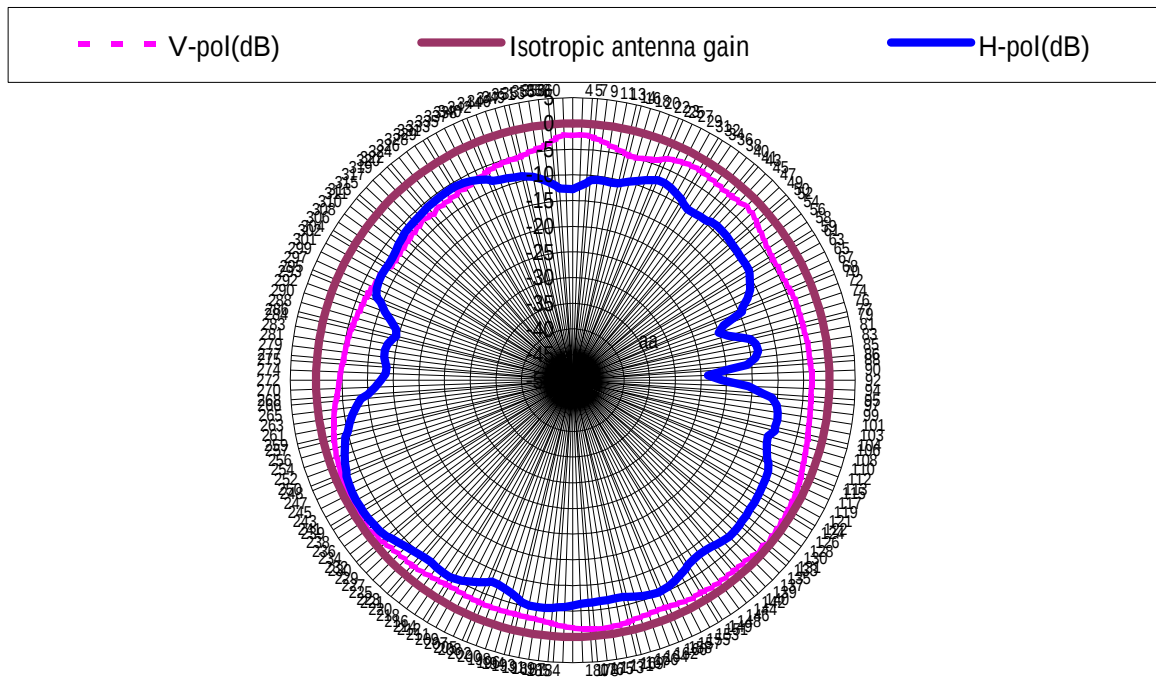
Main antenna -@5.25GHz



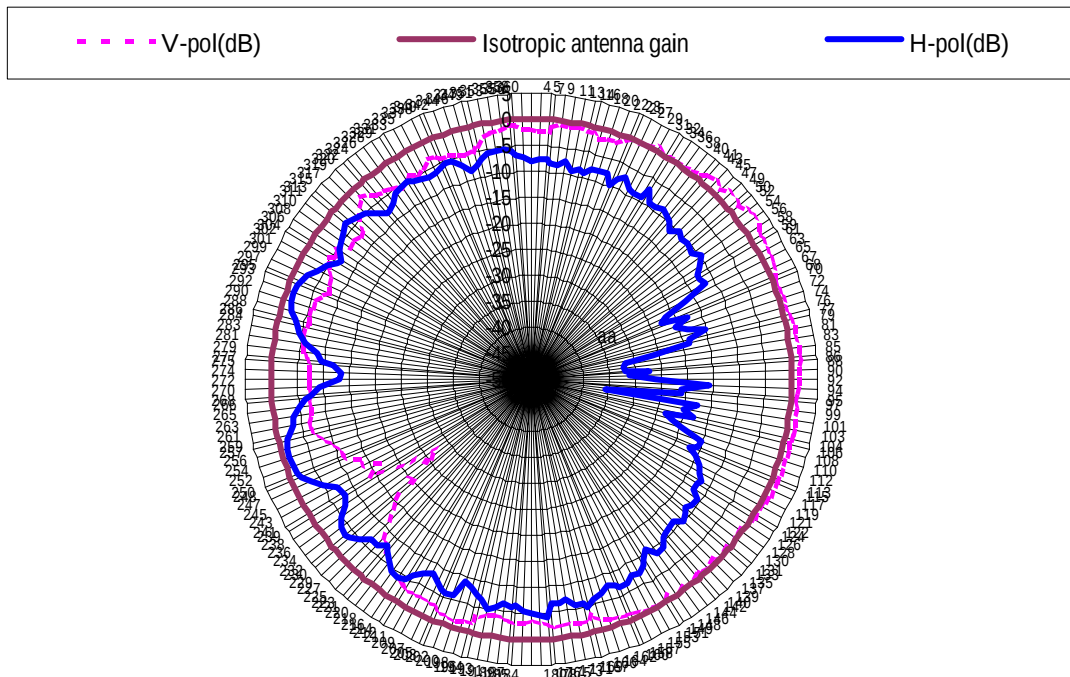
Main antenna -@5.6475GHz



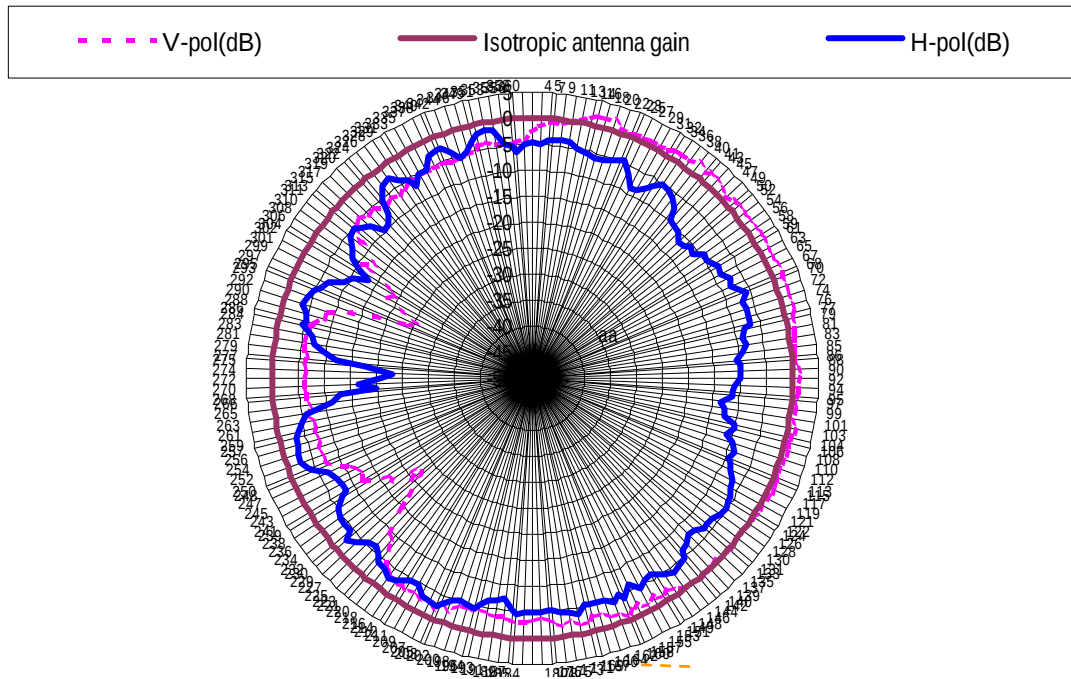
AUX. Antenna -@2.45GHz



AUX. Antenna -@5.25GHz



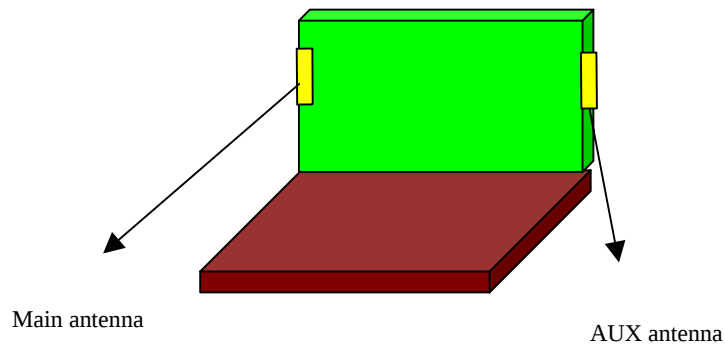
AUX. Antenna -@5.6475GHz



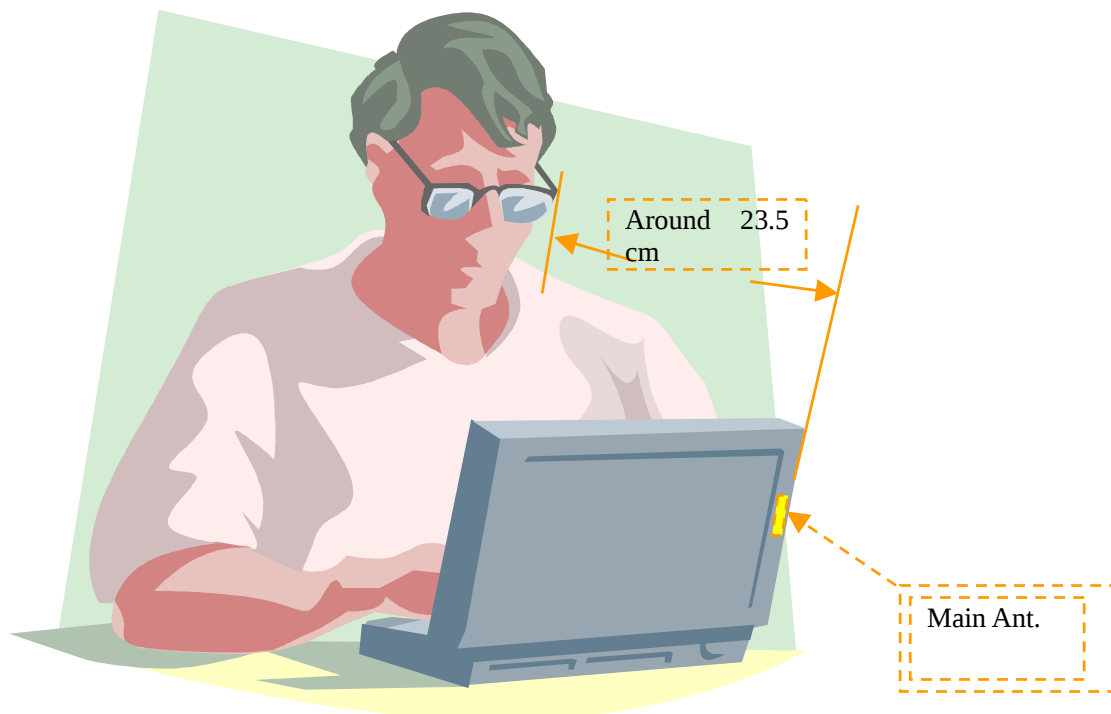
Host PC Information

Host model:Sapphire

Drawing of antenna placement.



Drawing showing the distance between the transmit (main) antenna and the user (excluding hands, wrist, feet, and ankle)



Photographs of the antenna location

