APPROVAL SHEET

Dipoie ANTENNA
5.15~5.85 GHz Working Frequency
Halogens Free Product
P/N: RFDPA141510IM5B701

Customer：_____

Customer ‘s Part No.：_____

Approval No.：_____

Issue Date：_____

*Contents in this sheet are subject to change without prior notice.

Version	Date	Description	Author
V01	2019 Dec.	New Release	PIPI

Antenna Specification

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	5.15~5.85 GHz
Gain (Peak)	1.75 dBi
Return Loss	-10dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω
Operation Temperature	-20° C~+65° C

*Note 1. Central Frequency should be defined after customers' application approval.

MATERIAL TABLE

Items	Description
Antenna Cover	ABS；Black
Antenna Base	PC+PBT；Black
Connector	IPEX；Ni/Gold
Coaxial Cable	(ø1.37) ；Blue
Up Brass Tube	Brass
Down Brass Tube	Brass
Heat Shrink Tube	Black
Rivet	POM；Black
Tube	PE；Transparent
Plug	Silicon Rubber ；Black
Sponge	Black

ORDERING RULE

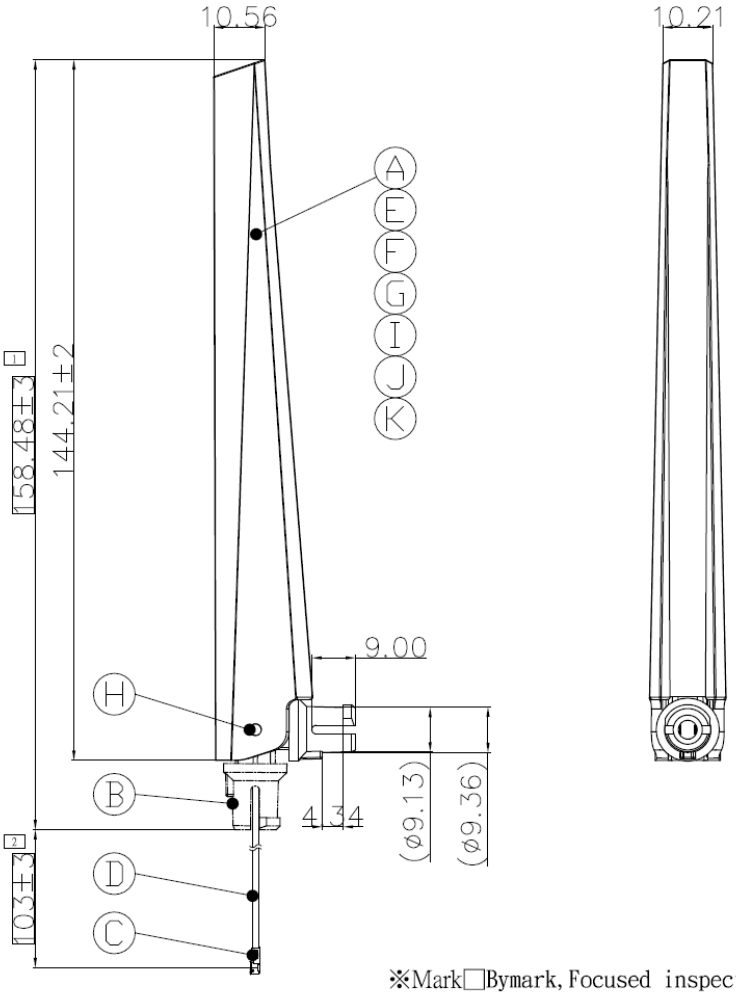
RF	DPA	1415	10	I	M	5	B	7	01
Type Code	**Product Code**	**Dimension (Unit: mm)**	**Cable Length (unit: cm)**	**Connector Brand**	**Type of Connector**	**Application**	**Project status**	**Wire Diameter**	**Project**
RF Device	DPA:	Per 2 digits of length, width e.g.: 2513 Length 255mm, Width 13.00mm	2 digits for cable length e.g.: 13 Cable Length:130mm	A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U:MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5 GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T:LTE band W: WCDMA band	B: MP T:During Test X: Pile Run	0:None 1:∅0.81 3:∅1.13 6:RG316 7:∅1.37 8:RG178	01~99 series number

DIMENSIONS

ELECTRICAL

Frequency : 5.15~5.85 GHz

NO	DESCRIPTION	DESCRIPTION；MAT'L；Color	QTY	REMARK
A	Antenna Cover	ABS；Black	1	
B	Antenna Base	PC+PBT；Black	1	
C	Connector	IPEX；Ni/Gold	1	20670-001R-37
D	Cable	(Ø1.37)；Blue	1	
E	Up Brass Tube	Brass	1	
F	Down Brass Tube	Brass	1	
G	Heat Shrink Tube	Black	1	
H	Rivet	POM；Black	2	
I	Tube	PE；Transparent	1	
J	Plug	Silicon Rubber；Black	1	
K	Sponge	Black	1	



※Mark□Bymark, Focused inspection dimensions

※標記□記號者，為重點檢驗尺寸

LTR	DESCRIPTION	DATE	REQ. BY

PSA 華新科技股份有限公司 WALSIN TECHNOLOGY CORPORATION

設計DR. PIPI 2019.12.16

核准APPD. Marco

容許公差 TOLERANCE

6以下.....±0.2
6以上~30.....±0.5
30以上~120.....±0.8
120以上~315.....±1.2
315以上~1000.....±2.0
1000以上~2000.....±3.0

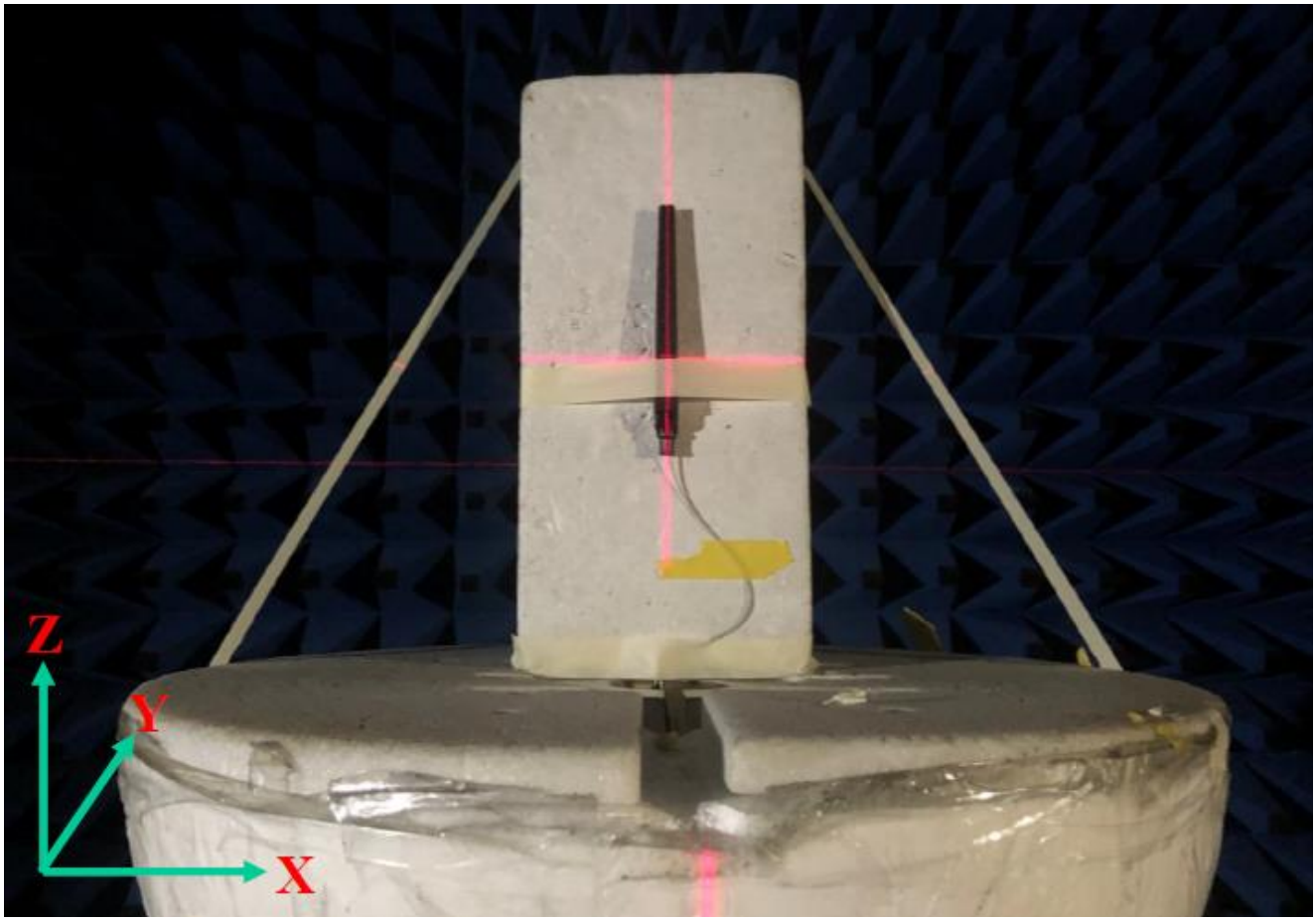
品名 ARTICLE: RFDPA141510IM5B701

版本 REV.: A

單位 UNIT: mm | 比例 SCALE: **** | 張數 SHEET: 1

Test Report

Experimental Setup



ELECTRICAL CHARACTERISTICS

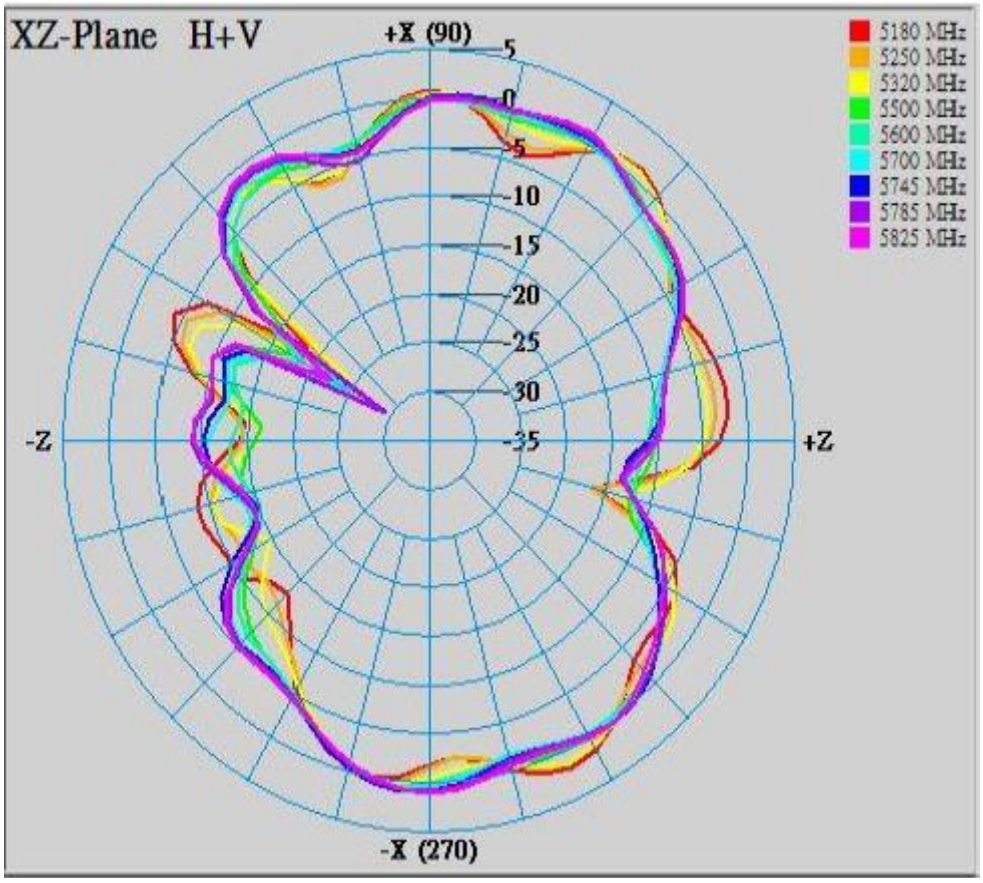
Return Loss

RADIATION PATTERN

5150~5850 MHz

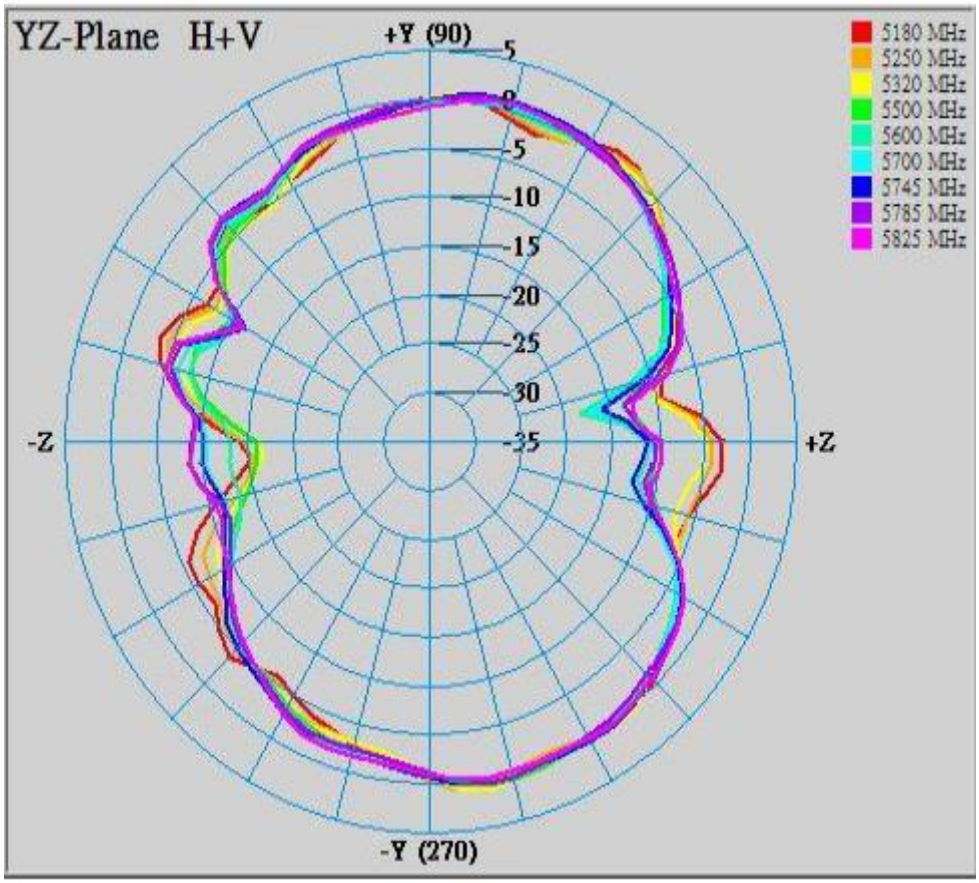
Phi=0.00deg

Gain . dB



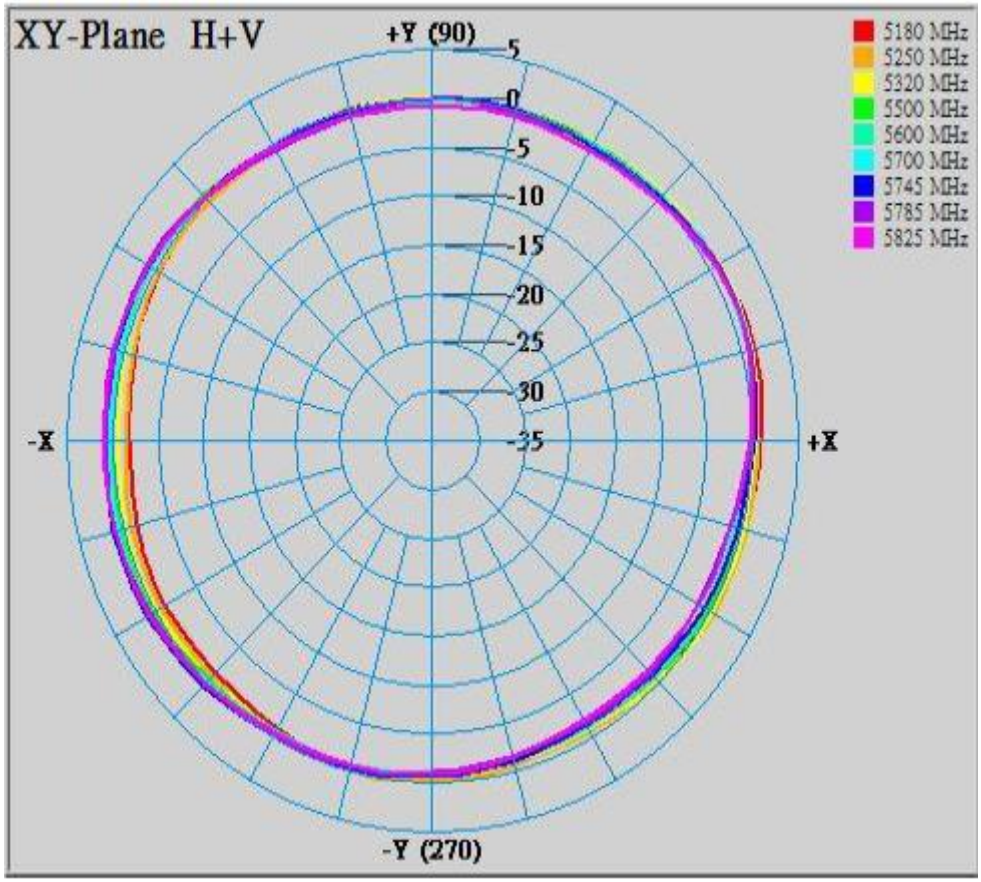
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5180	1.75	-3.00	1.21	-2.67	1.44	-0.26
5250	1.46	-3.15	0.88	-2.86	1.13	-0.21
5320	1.31	-3.07	1.11	-2.88	1.27	-0.03
5500	0.62	-3.37	0.83	-3.09	0.97	-0.07
5600	0.56	-3.47	0.57	-3.21	0.89	-0.13
5700	0.62	-3.32	0.53	-3.00	1.18	-0.09
5745	1.02	-2.99	1.01	-2.70	1.13	0.07
5785	0.81	-3.05	0.68	-2.89	1.14	-0.15
5825	0.99	-2.95	0.63	-2.82	1.10	-0.24

APPROVAL SHEET

Dipoie ANTENNA
5.15~5.85 GHz Working Frequency
Halogens Free Product
P/N: RFDPA141511IM5B701

Customer：_____

Customer ‘s Part No.：_____

Approval No.：_____

Issue Date：_____

*Contents in this sheet are subject to change without prior notice.

Version	Date	Description	Author
V01	2019 Dec.	New Release	PIPI

Antenna Specification

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	5.15~5.85 GHz
Gain (Peak)	1.93 dBi
Return Loss	-10dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω
Operation Temperature	-20° C~+65° C

*Note 1. Central Frequency should be defined after customers' application approval.

MATERIAL TABLE

Items	Description
Antenna Cover	ABS；Black
Antenna Base	PC+PBT；Black
Connector	IPEX；Ni/Gold
Coaxial Cable	(ø1.37) ；White
Up Brass Tube	Brass
Down Brass Tube	Brass
Heat Shrink Tube	Black
Rivet	POM；Black
Tube	PE；Transparent
Plug	Silicon Rubber ；Black
Sponge	Black

ORDERING RULE

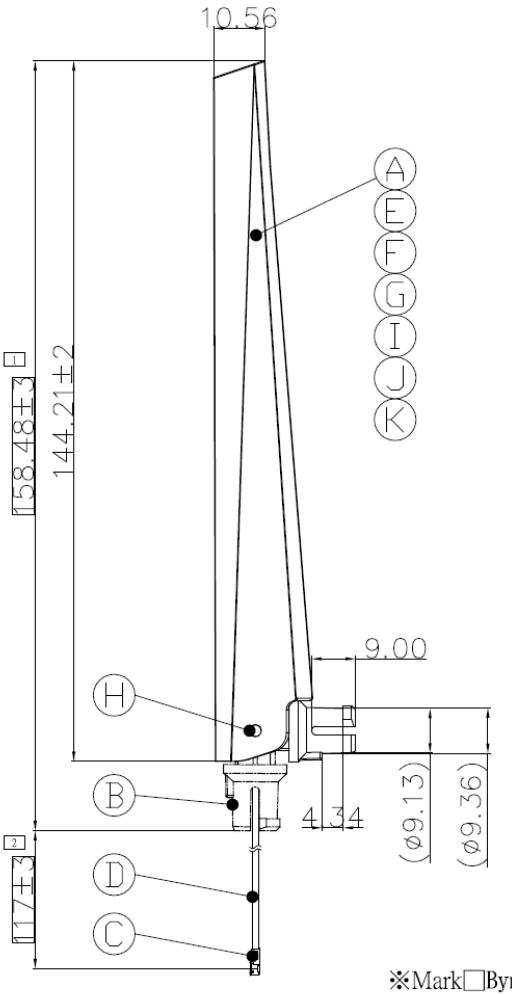
RF	DPA	1415	11	I	M	5	B	7	01
Type Code	Product Code	Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
RF Device	DPA:	Per 2 digits of length, width e.g.: 2513 Length 255mm, Width 13.00mm	2 digits for cable length e.g.: 13 Cable Length:130mm	A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U:MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5 GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T:LTE band W: WCDMA band	B: MP T:During Test X: Pile Run	0:None 1:∅0.81 3:∅1.13 6:RG316 7:∅1.37 8:RG178	01~99 series number

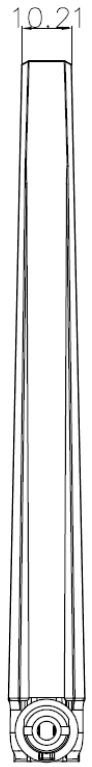
DIMENSIONS

ELECTRICAL

Frequency : 5.15~5.85 GHz

NO	DESCRIPTION	DESCRIPTION；MAT'L；Color	QTY	REMARK
A	Antenna Cover	ABS；Black	1	
B	Antenna Base	PC+PBT；Black	1	
C	Connector	IPEX；Ni/Gold	1	20670-001R-37
D	Cable	(Ø1.37)；White	1	
E	Up Brass Tube	Brass	1	
F	Down Brass Tube	Brass	1	
G	Heat Shrink Tube	Black	1	
H	Rivet	POM；Black	2	
I	Tube	PE；Transparent	1	
J	Plug	Silicon Rubber；Black	1	
K	Sponge	Black	1	





※Mark□Bymark, Focused inspection dimensions

※標記□記號者，為重點檢驗尺寸

LTR	DESCRIPTION	DATE	REQ. BY

PSA 華新科技股份有限公司 WALSIN TECHNOLOGY CORPORATION

設計DR. PIPI 2019.12.16

核准APPD. Marco

容許公差 TOLERANCE

6以下.....±0.2
6以上~30.....±0.5
30以上~120.....±0.8
120以上~315.....±1.2
315以上~1000.....±2.0
1000以上~2000.....±3.0

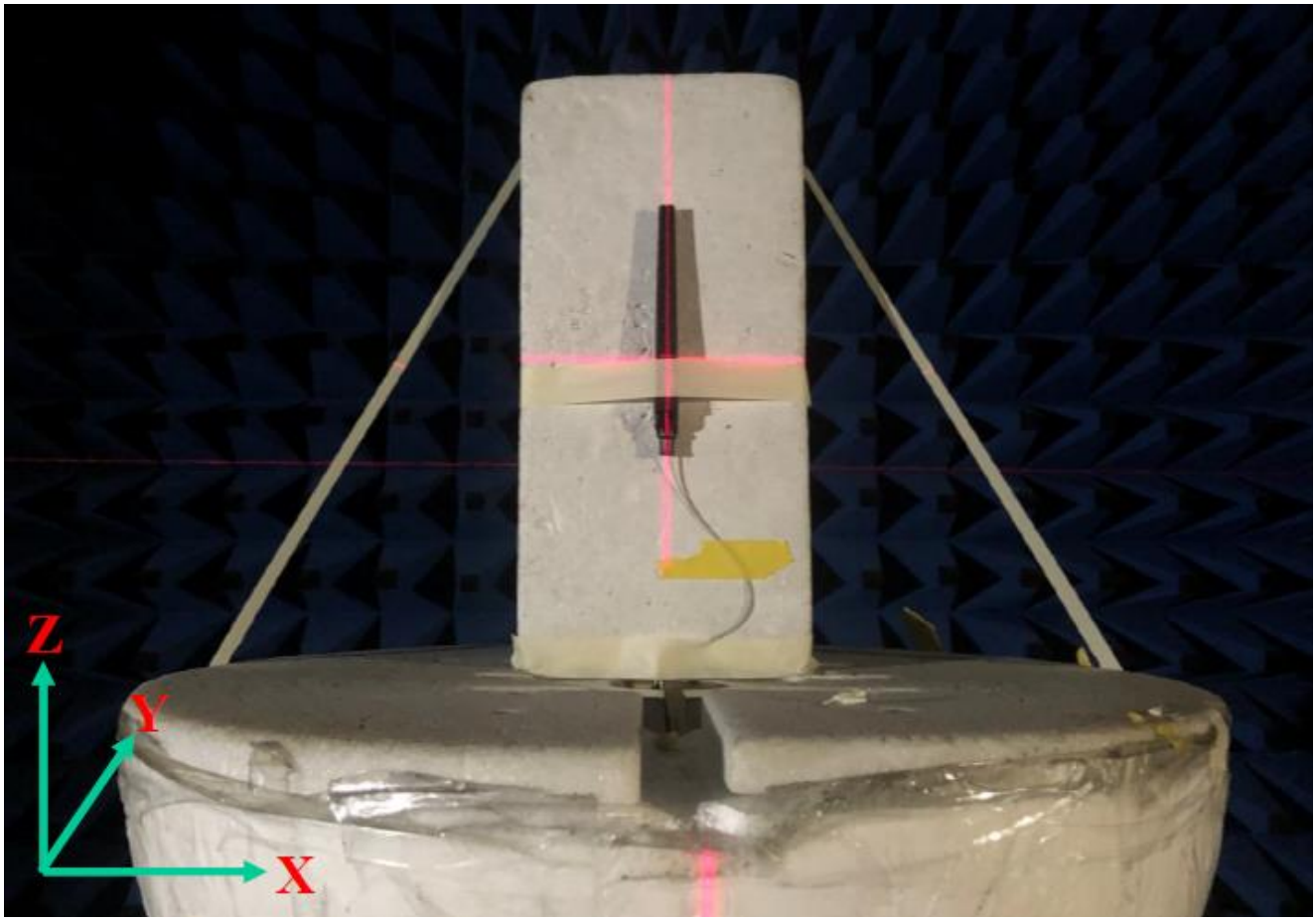
品名 ARTICLE: RFDPA141511IM5B701

版本 REV. A

單位 UNIT mm | 比例 SCALE **** | 張數 SHEET 1

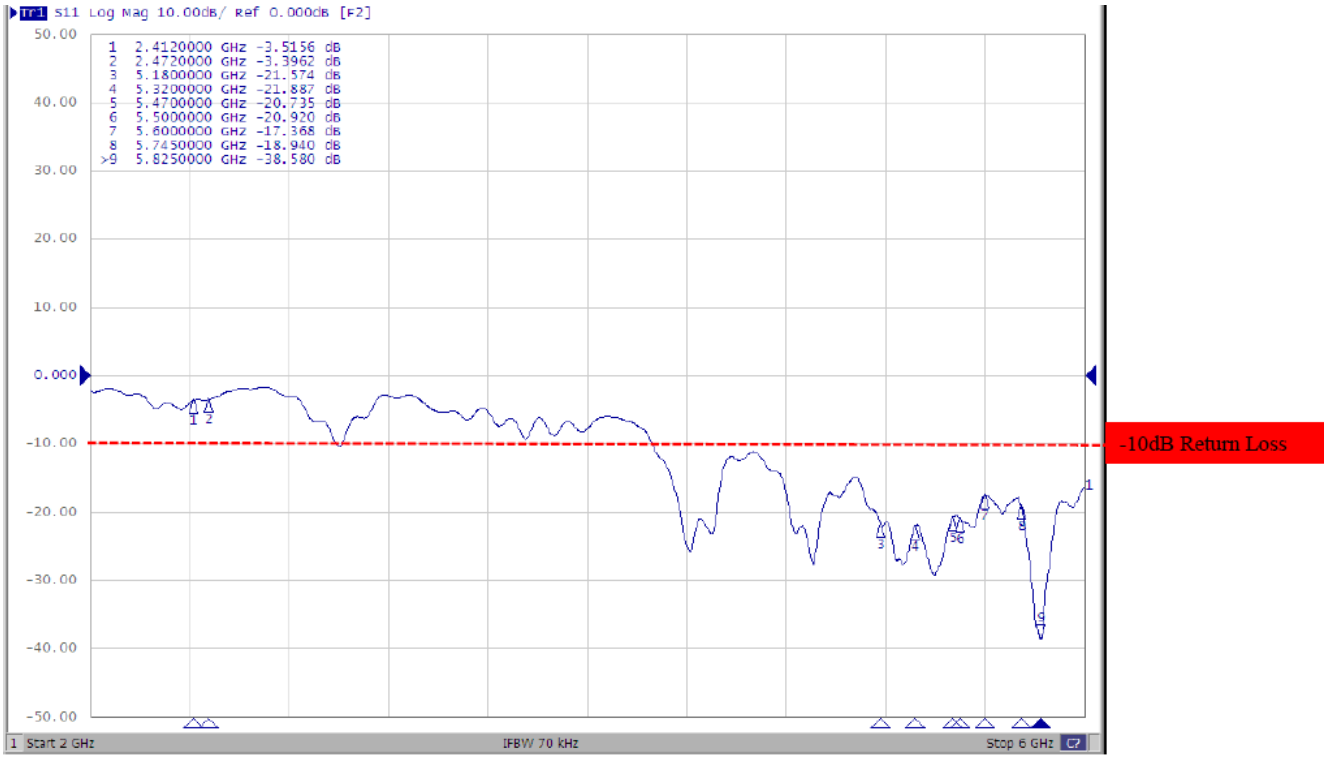
Test Report

Experimental Setup



ELECTRICAL CHARACTERISTICS

Return Loss

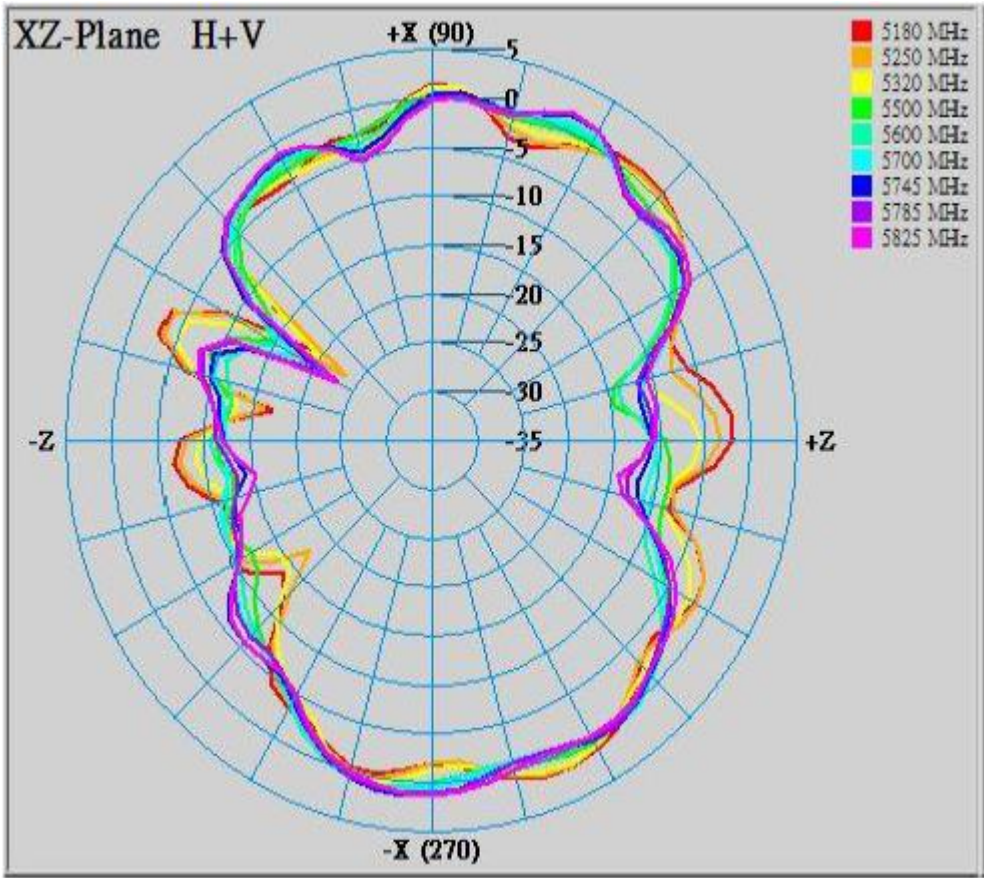


RADIATION PATTERN

5150~5850 MHz

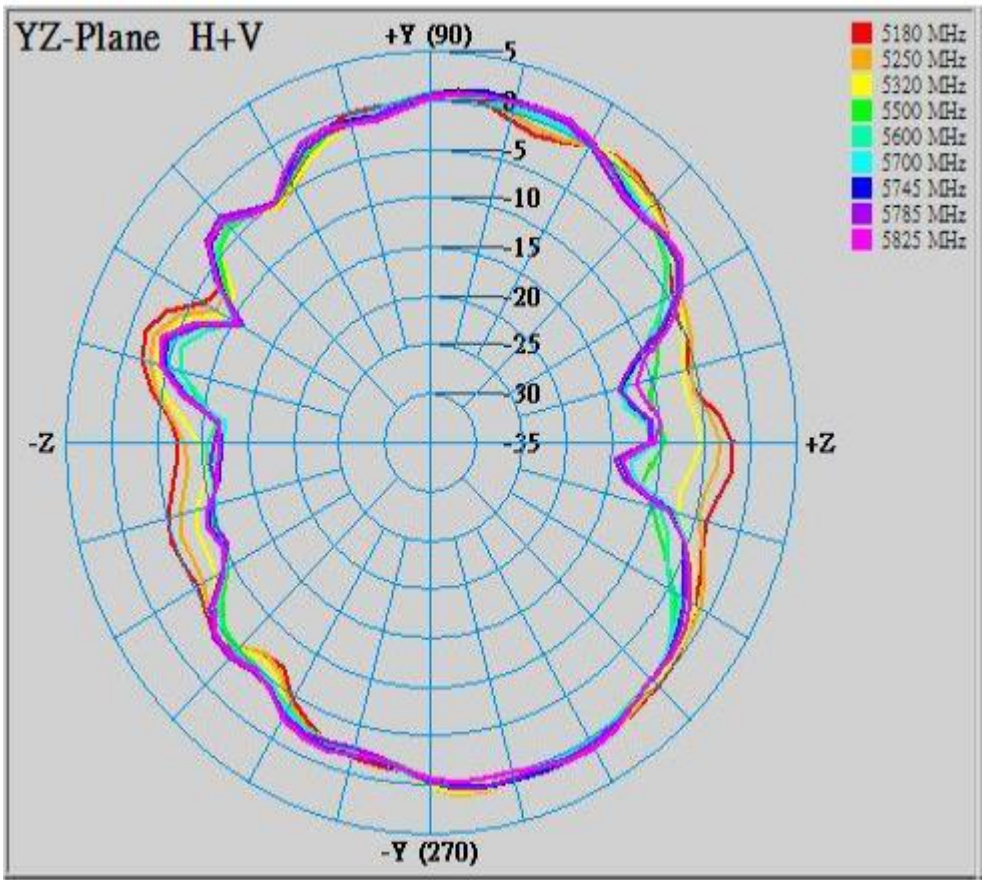
Phi=0.00deg

Gain . dB



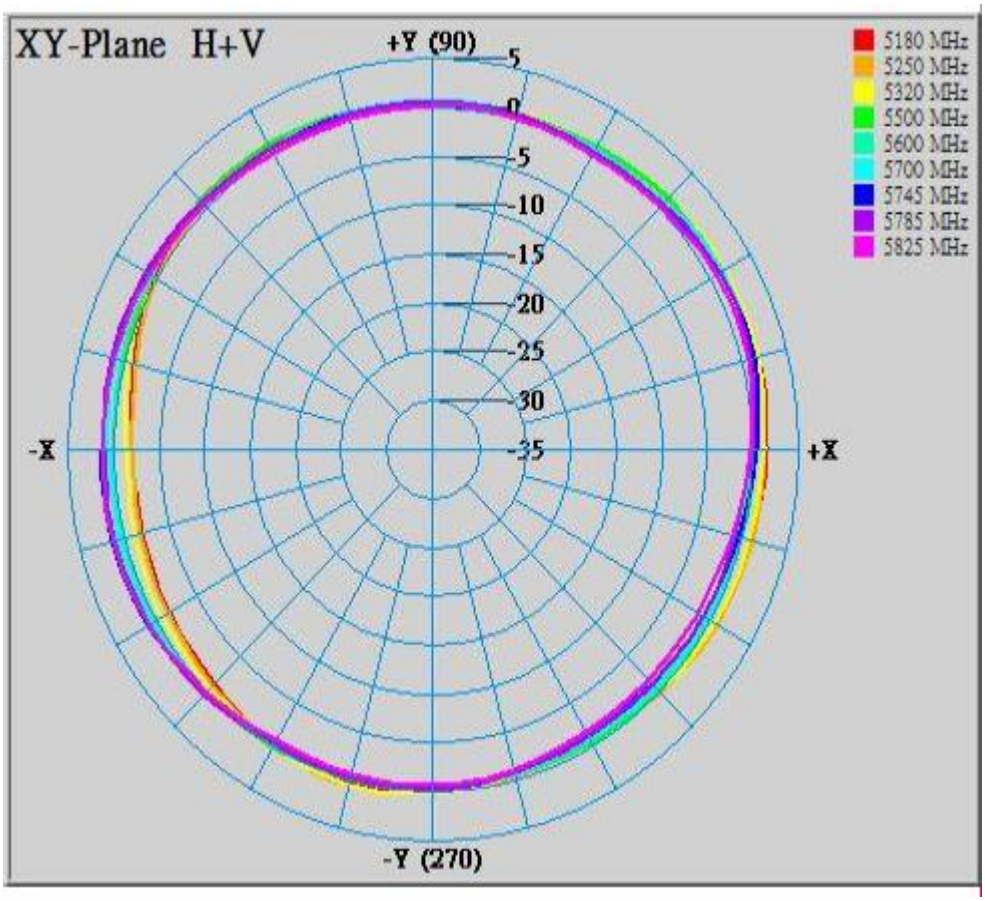
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5180	1.67	-2.54	1.01	-1.99	1.82	0.21
5250	1.57	-2.72	1.16	-2.15	1.78	0.17
5320	1.39	-2.93	1.31	-2.34	1.93	0.39
5500	0.63	-3.14	0.60	-2.95	1.40	0.30
5600	0.74	-3.19	0.89	-2.87	1.26	0.22
5700	1.06	-3.00	1.16	-2.63	1.58	0.32
5745	1.65	-2.77	1.32	-2.46	1.41	0.34
5785	1.81	-2.91	0.99	-2.63	1.41	0.30
5825	1.92	-2.81	1.31	-2.52	1.29	0.01

APPROVAL SHEET

Dipoie ANTENNA
2.4~2.5 / 5.15~5.85 GHz Working Frequency
Halogens Free Product
P/N: RFDPA141514IMLB701

Customer：
Customer ‘s Part No.：
Approval No.：
Issue Date：

*Contents in this sheet are subject to change without prior notice.

Version	Date	Description	Author
V01	2019 Dec.	New Release	PIPI

Antenna Specification

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4~2.5 / 5.15~5.85 GHz
Gain (Peak)	2.4~2.5 GHz @ 1.70 dBi 5.15~5.85 GHz @ 1.75 dBi
Return Loss	-10dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω
Operation Temperature	-20° C~+65° C

*Note 1. Central Frequency should be defined after customers' application approval.

MATERIAL TABLE

Items	Description
Antenna Cover	ABS；Black
Antenna Base	PC+PBT；Black
Connector	IPEX；Ni/Gold
Coaxial Cable	(ø1.37) ；Black
Up Brass Tube	Brass
Down Brass Tube	Brass
Heat Shrink Tube	Black
Rivet	POM；Black
Tube	PE；Transparent
Plug	Silicon Rubber ；Black
Sponge	Black

ORDERING RULE

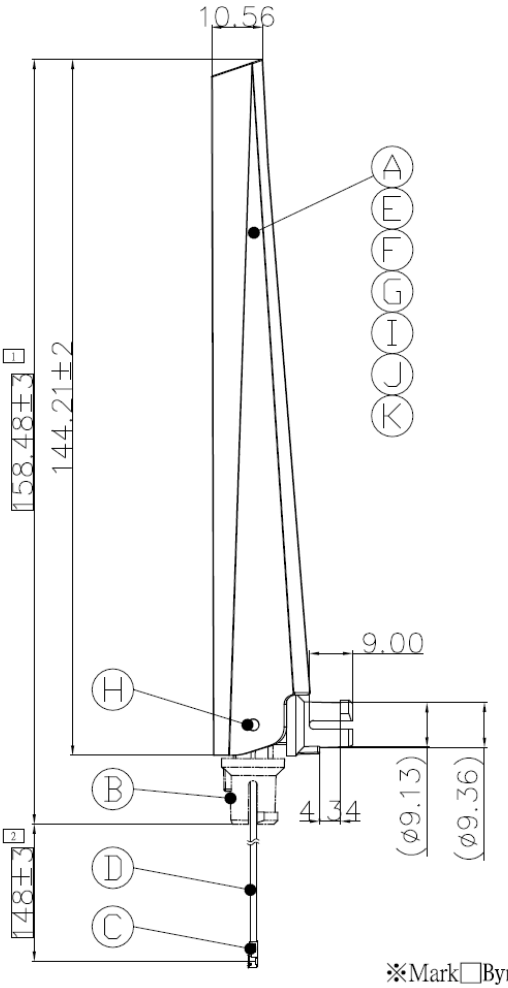
RF	DPA	1415	14	I	M	L	B	7	01
Type Code	Product Code	Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
RF Device	DPA:	Per 2 digits of length, width e.g.: 2513 Length 255mm, Width 13.00mm	2 digits for cable length e.g.: 13 Cable Length:130mm	A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U:MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5 GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T:LTE band W: WCDMA band	B: MP T:During Test X: Pile Run	0:None 1:∅0.81 3:∅1.13 6:RG316 7:∅1.37 8:RG178	01~99 series number

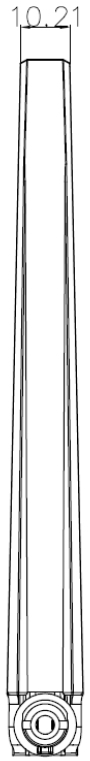
DIMENSIONS

ELECTRICAL

Frequency : 2.4~2.5/
5.15~5.85 GHz

NO	DESCRIPTION	DESCRIPTION；MAT'L；Color	QTY	REMARK
A	Antenna Cover	ABS；Black	1	
B	Antenna Base	PC+PBT；Black	1	
C	Connector	IPEX；Ni/Gold	1	20670-001R-37
D	Cable	(Ø1.37)；Black	1	
E	Up Brass Tube	Brass	1	
F	Down Brass Tube	Brass	1	
G	Heat Shrink Tube	Black	1	
H	Rivet	POM；Black	2	
I	Tube	PE；Transparent	1	
J	Plug	Silicon Rubber；Black	1	
K	Sponge	Black	1	





※Mark□Bymark, Focused inspection dimensions

※標記□記號者，為重點檢驗尺寸

LTR	DESCRIPTION	DATE	REQ. BY

設計DR. PIPI 2019.12.16

核准APPD. Marco

容許公差 TOLERANCE
6以下.....±0.2
6以上~30.....±0.5
30以上~120.....±0.8
120以上~315.....±1.2
315以上~1000.....±2.0
1000以上~2000.....±3.0

品名 ARTICLE: RFDPA141514IMLB701

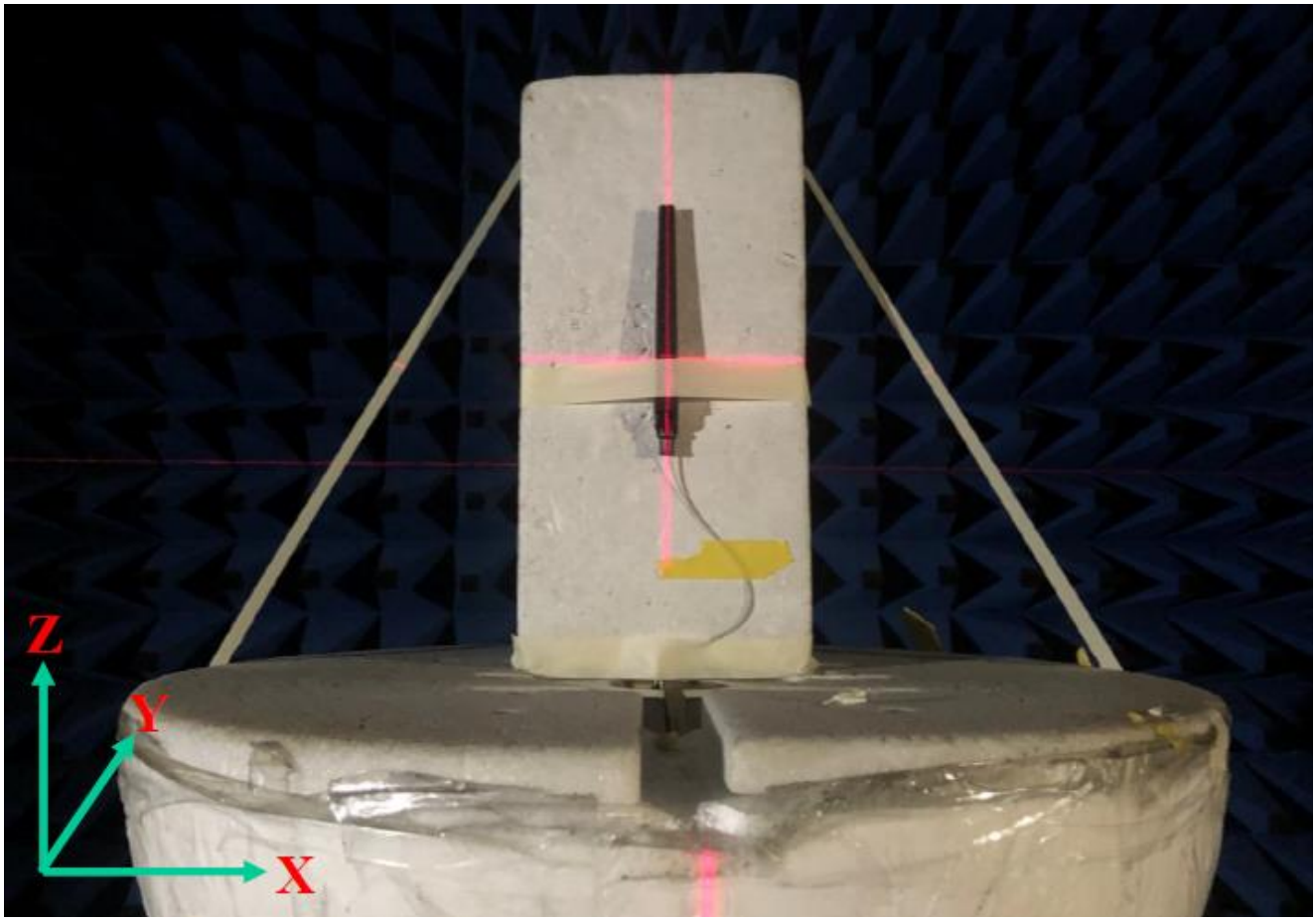
版本 REV. A

單位 UNIT: mm | 比例 SCALE: **** | 張數 SHEET: 7

PSA 華新科技股份有限公司 WALSIN TECHNOLOGY CORPORATION

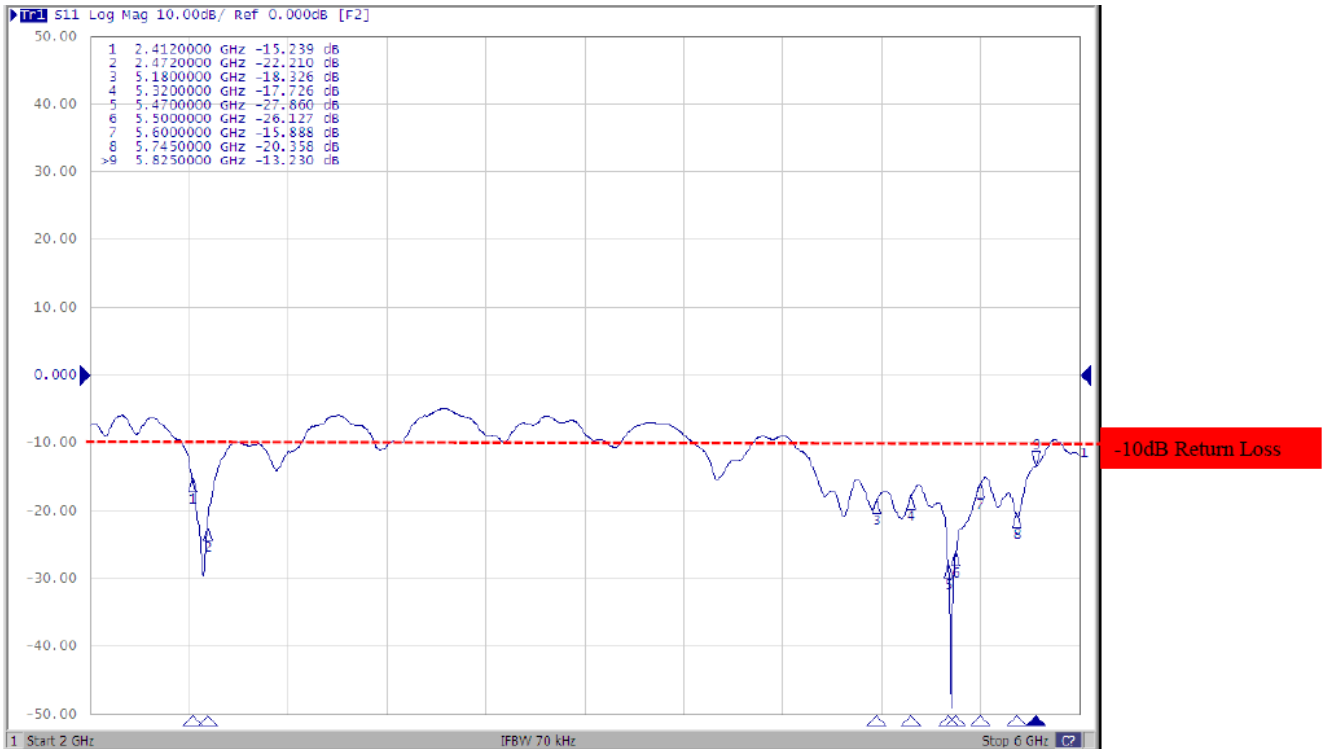
Test Report

Experimental Setup



ELECTRICAL CHARACTERISTICS

Return Loss

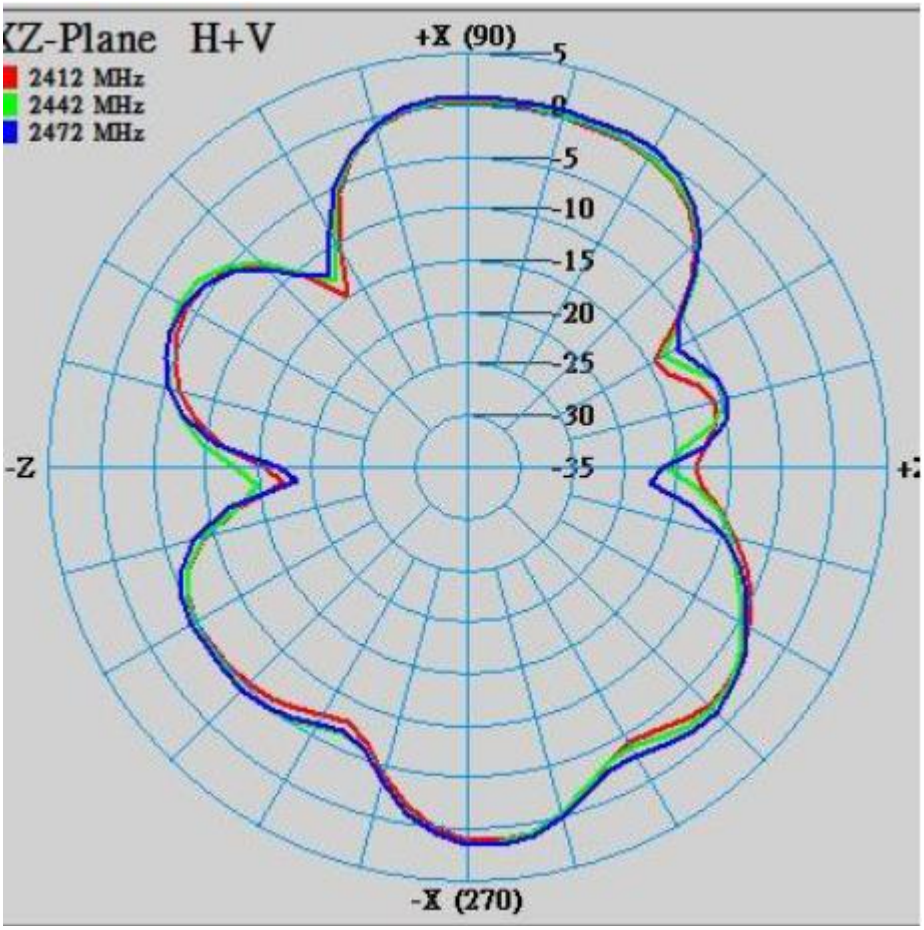


RADIATION PATTERN

2400~2500 MHz

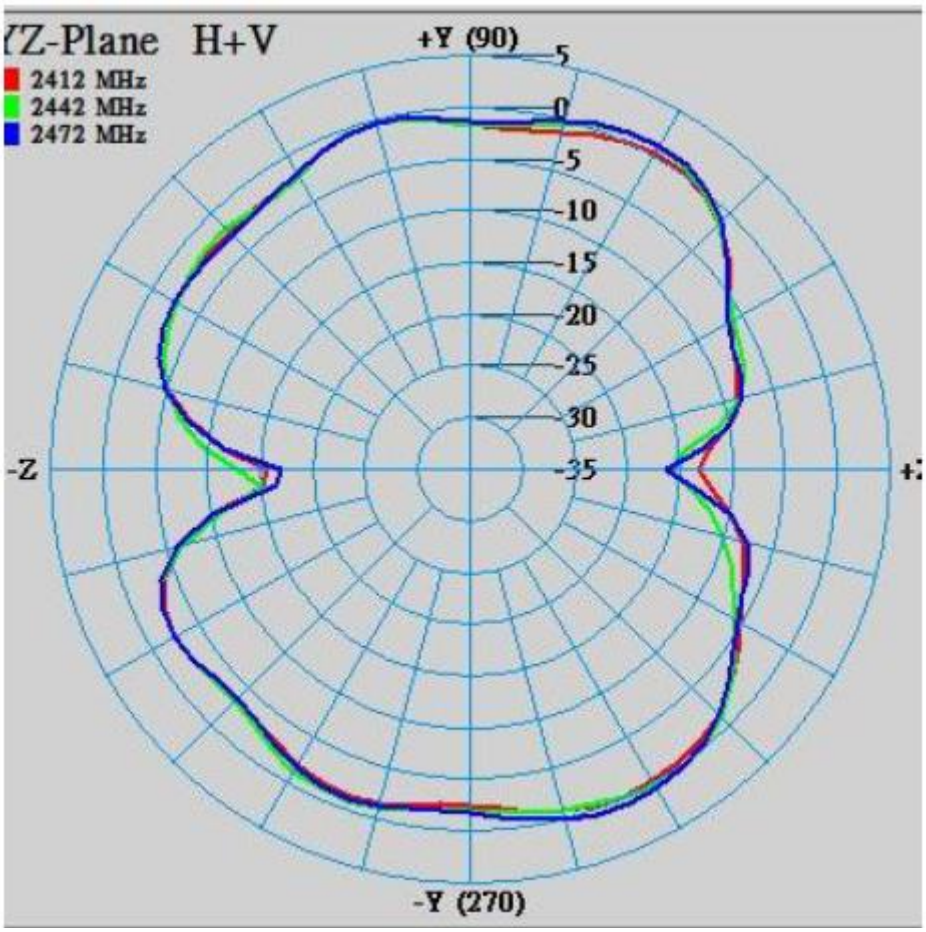
Phi=0.00deg

Gain . dB



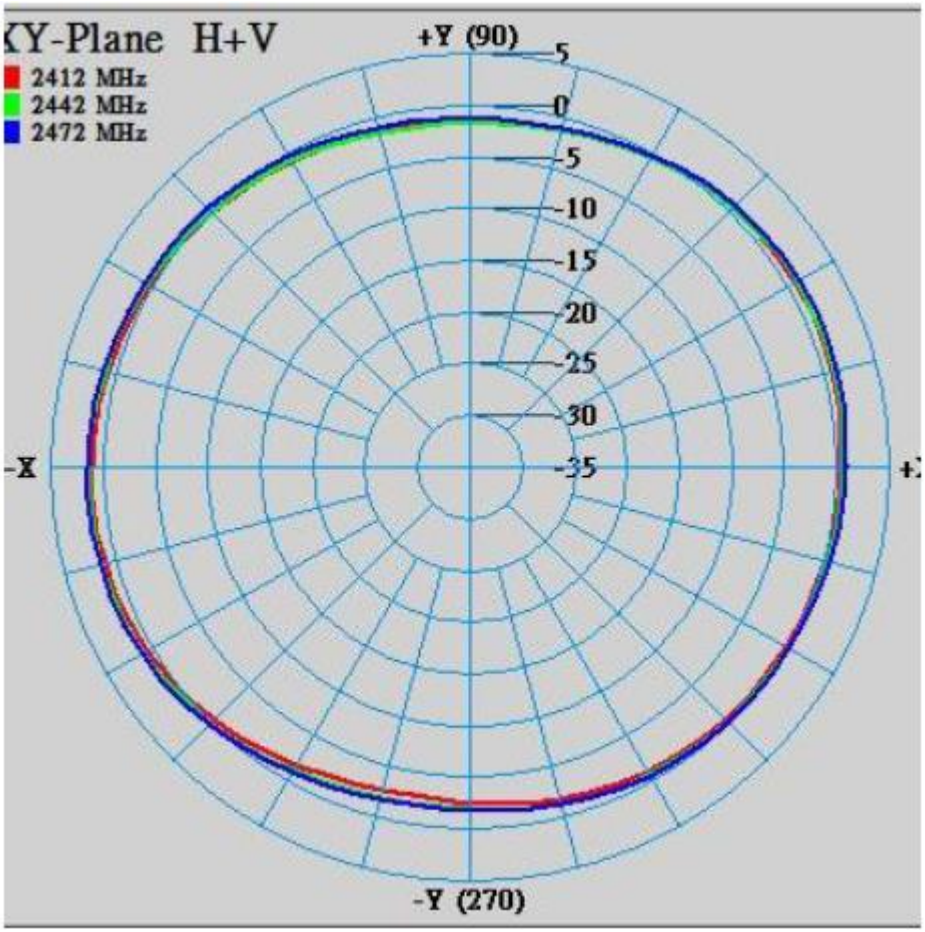
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB

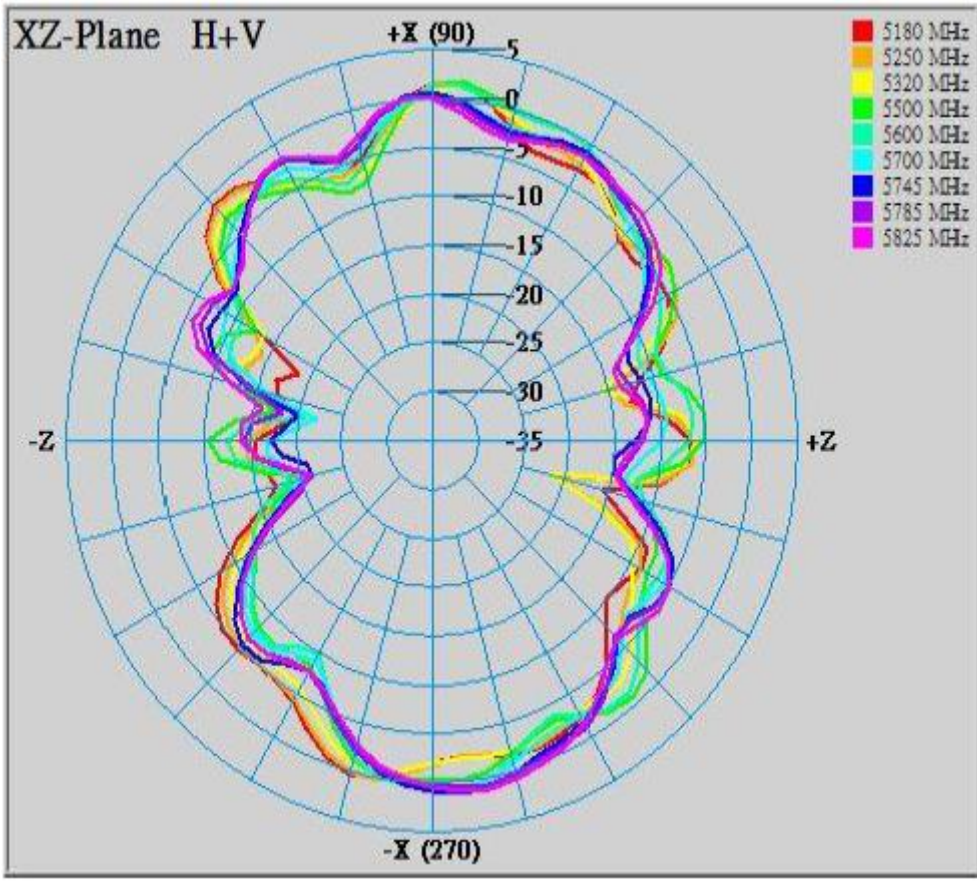


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2412	1.28	-3.70	0.37	-2.76	1.08	-0.32
2442	1.54	-3.42	0.96	-2.56	1.45	-0.07
2472	1.70	-3.15	1.15	-2.44	1.55	0.17

5150~5850 MHz

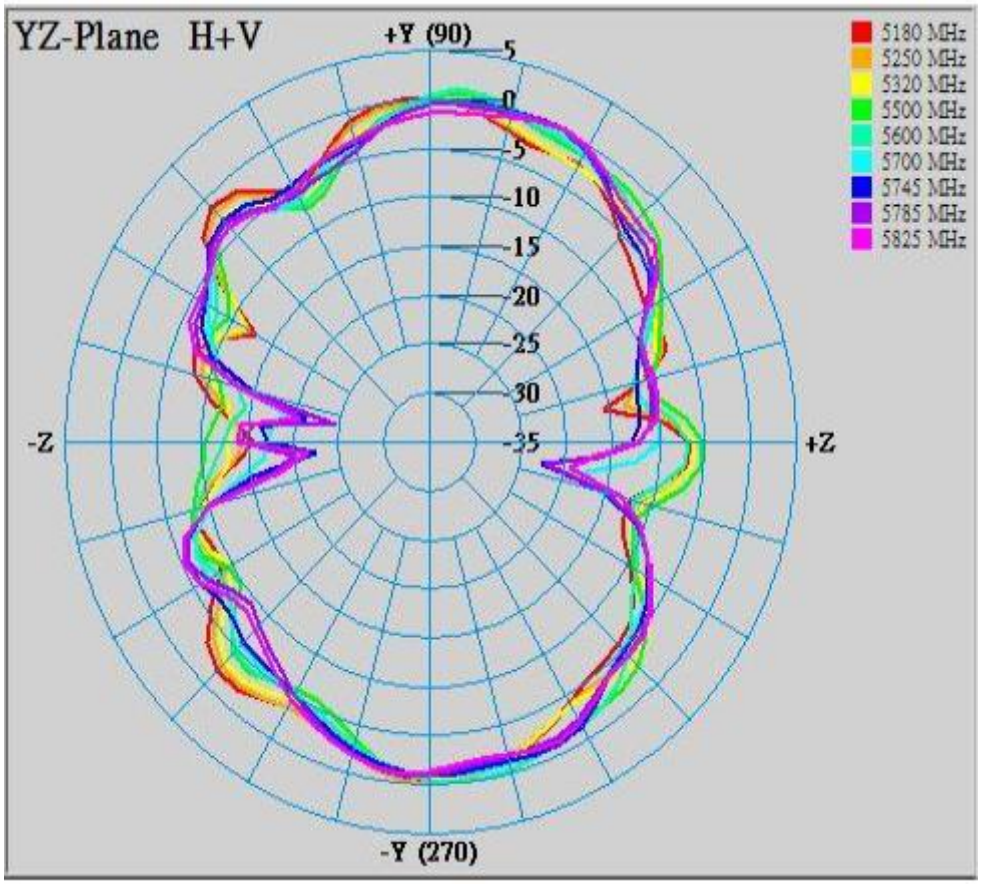
Phi=0.00deg

Gain . dB



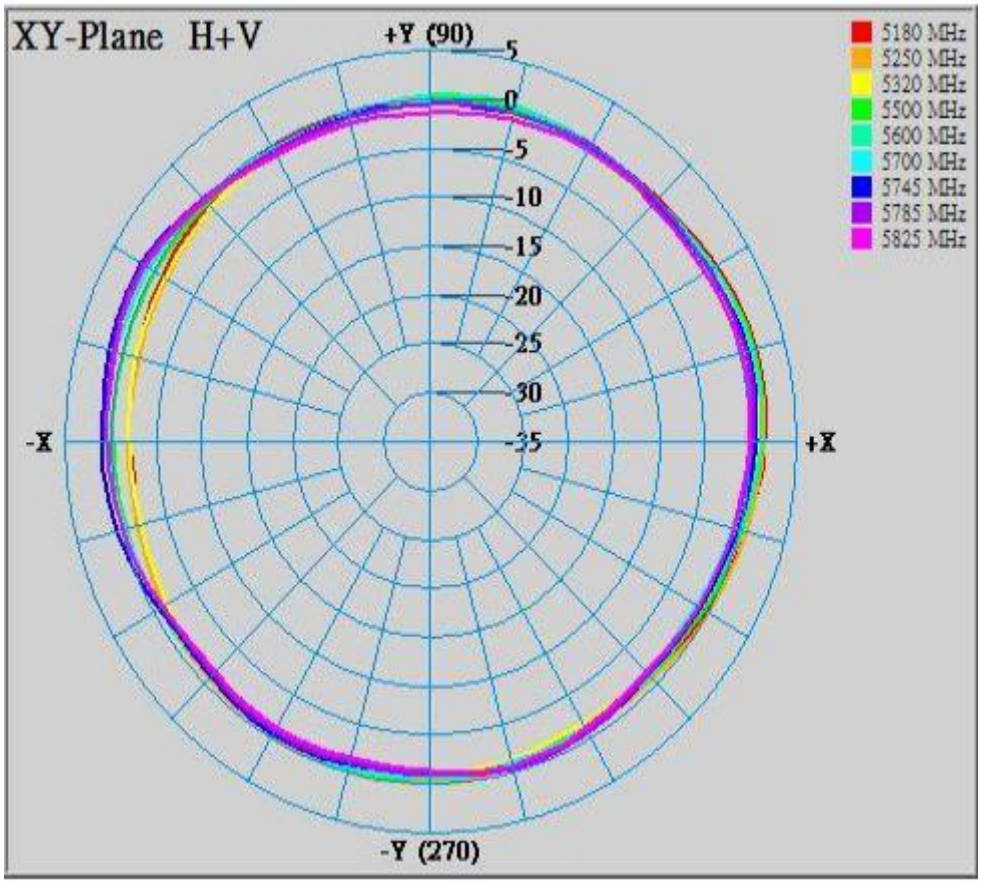
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5180	1.75	-4.23	-0.03	-4.12	1.75	-0.32
5250	1.75	-4.20	-0.09	-4.03	1.68	-0.42
5320	1.41	-4.48	-0.14	-4.34	1.27	-0.79
5500	1.78	-3.92	0.78	-3.79	1.61	-0.23
5600	1.37	-3.97	1.12	-3.89	1.45	-0.07
5700	0.61	-4.51	0.23	-4.34	0.95	-0.45
5745	1.27	-4.04	0.27	-4.13	1.67	-0.12
5785	0.67	-4.22	0.12	-4.31	1.39	-0.29
5825	1.05	-4.12	0.13	-4.24	1.11	-0.64

APPROVAL SHEET

Dipoie ANTENNA
2.4~2.5 / 5.15~5.85 GHz Working Frequency
Halogens Free Product
P/N: RFDPA141516IMLB701

Customer：
Customer ‘s Part No.：
Approval No.：
Issue Date：

*Contents in this sheet are subject to change without prior notice.

Version	Date	Description	Author
V01	2019 Dec.	New Release	PIPI

Antenna Specification

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4~2.5 / 5.15~5.85 GHz
Gain (Peak)	2.4~2.5 GHz @ 1.61 dBi 5.15~5.85 GHz @ 1.89 dBi
Return Loss	-10dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω
Operation Temperature	-20° C~+65° C

*Note 1. Central Frequency should be defined after customers' application approval.

MATERIAL TABLE

Items	Description
Antenna Cover	ABS；Black
Antenna Base	PC+PBT；Black
Connector	IPEX；Ni/Gold
Coaxial Cable	(ø1.37) ；Gray
Up Brass Tube	Brass
Down Brass Tube	Brass
Heat Shrink Tube	Black
Rivet	POM；Black
Tube	PE；Transparent
Plug	Silicon Rubber ；Black
Sponge	Black

ORDERING RULE

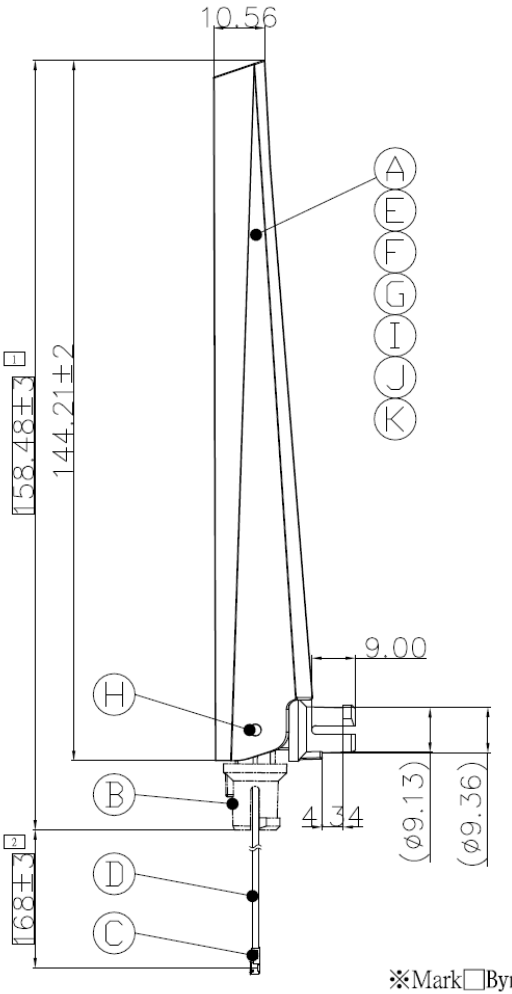
RF	DPA	1415	16	I	M	L	B	7	01
Type Code	Product Code	Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
RF Device	DPA:	Per 2 digits of length, width e.g.: 2513 Length 255mm, Width 13.00mm	2 digits for cable length e.g.: 13 Cable Length:130mm	A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U:MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5 GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T:LTE band W: WCDMA band	B: MP T:During Test X: Pile Run	0:None 1:∅0.81 3:∅1.13 6:RG316 7:∅1.37 8:RG178	01~99 series number

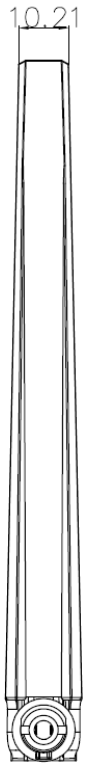
DIMENSIONS

ELECTRICAL

Frequency : 2.4~2.5/
5.15~5.85 GHz

NO	DESCRIPTION	DESCRIPTION；MAT'L；Color	QTY	REMARK
A	Antenna Cover	ABS；Black	1	
B	Antenna Base	PC+PBT；Black	1	
C	Connector	IPEX；Ni/Gold	1	20670-001R-37
D	Cable	(Ø1.37)；Gray	1	
E	Up Brass Tube	Brass	1	
F	Down Brass Tube	Brass	1	
G	Heat Shrink Tube	Black	1	
H	Rivet	POM；Black	2	
I	Tube	PE；Transparent	1	
J	Plug	Silicon Rubber；Black	1	
K	Sponge	Black	1	





※Mark□Bymark, Focused inspection dimensions

※標記□記號者，為重點檢驗尺寸

LTR	DESCRIPTION	DATE	REQ. BY

設計DR. PIPI 2019.12.16

核准APPD. Marco

容許公差 TOLERANCE
6以下.....±0.2
6以上~30.....±0.5
30以上~120.....±0.8
120以上~315.....±1.2
315以上~1000.....±2.0
1000以上~2000.....±3.0

品名 ARTICLE: RFDPA141516IMLB701

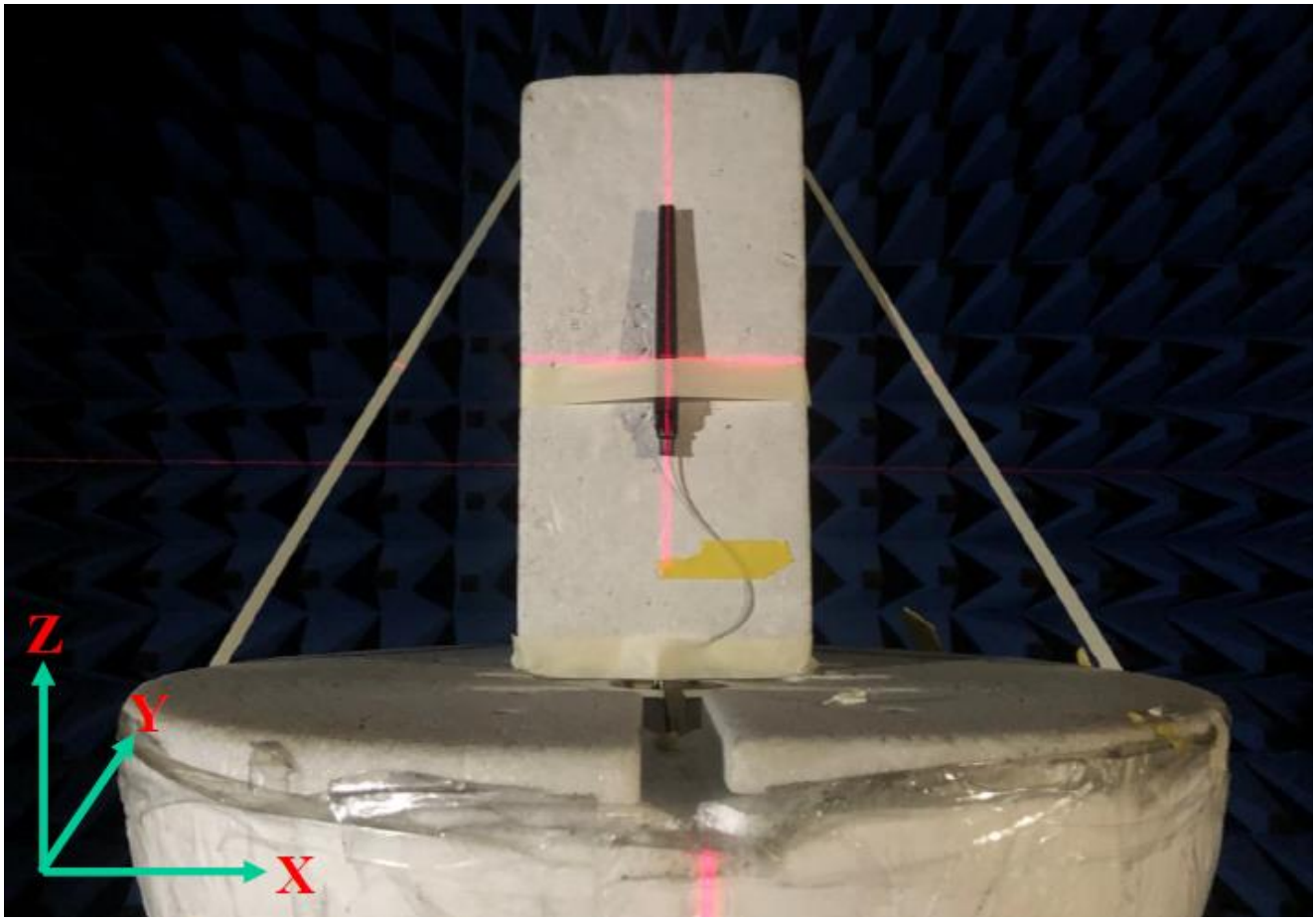
版本 REV. A

單位 UNIT: mm | 比例 SCALE: **** | 張數 SHEET: 1

PSA 華新科技股份有限公司 WALSIN TECHNOLOGY CORPORATION

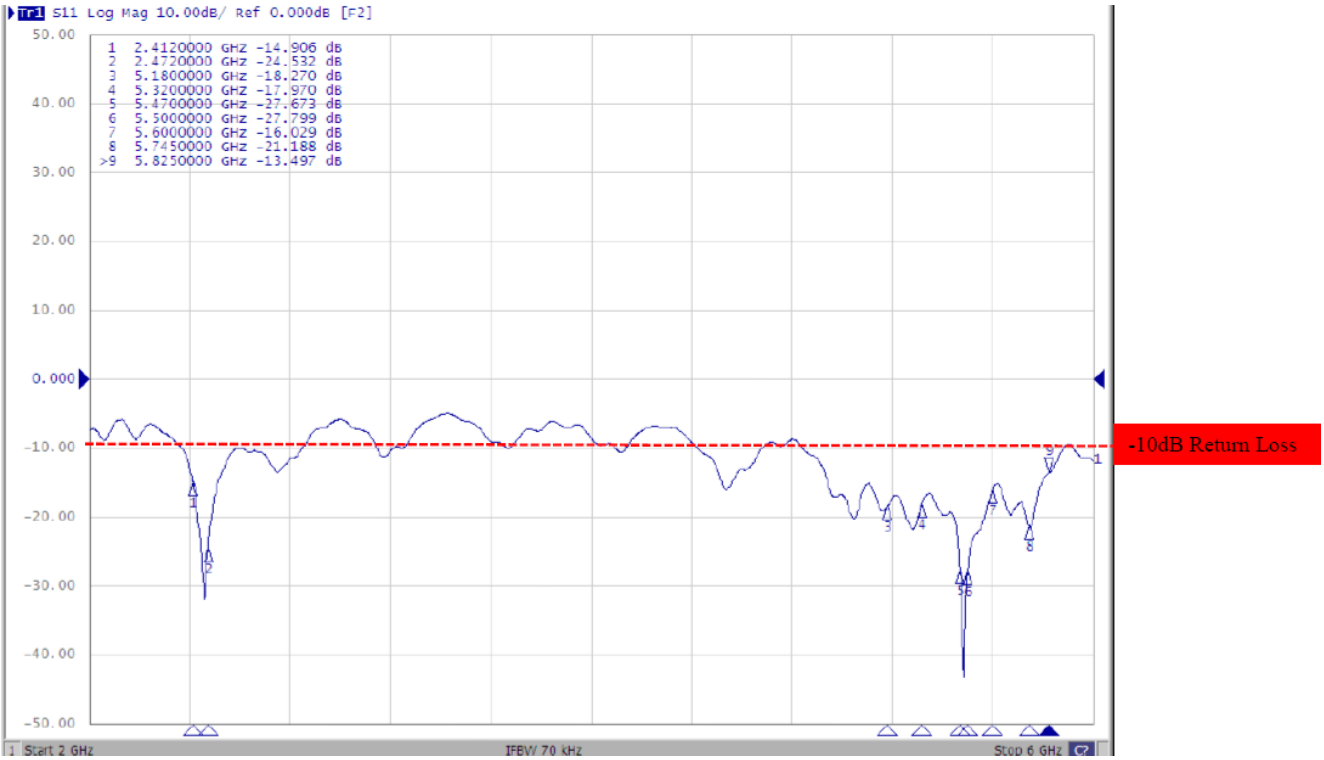
Test Report

Experimental Setup



ELECTRICAL CHARACTERISTICS

Return Loss

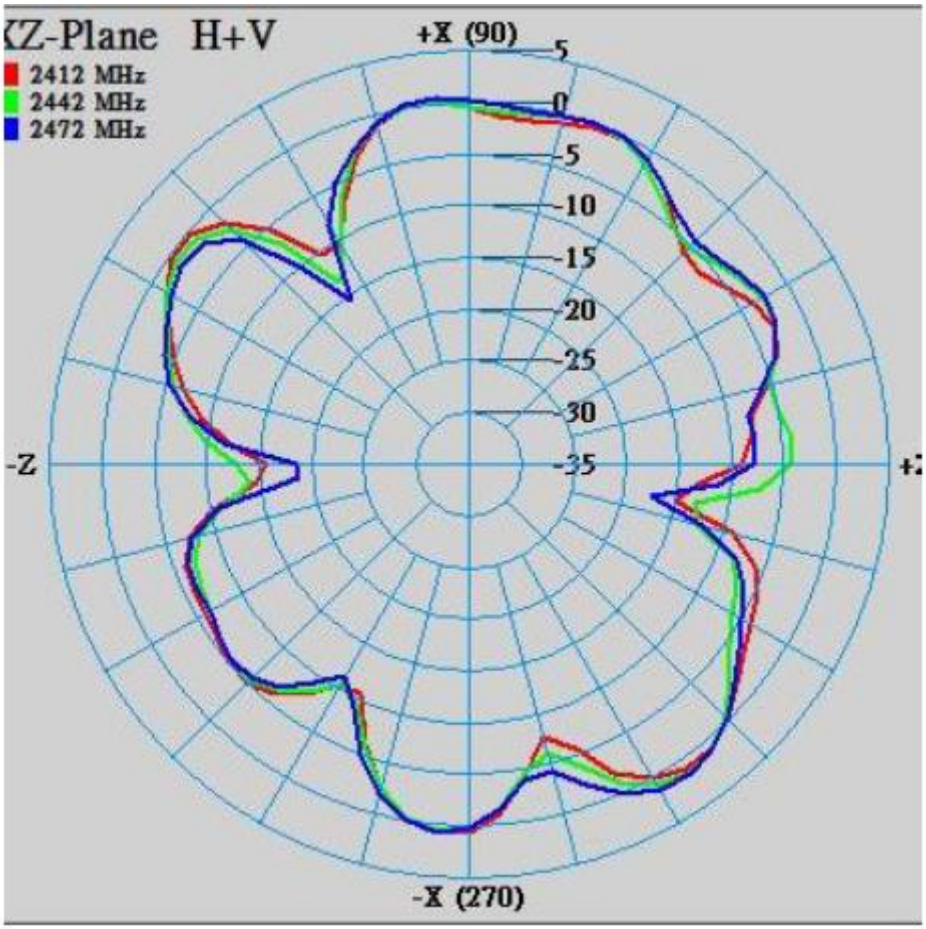


RADIATION PATTERN

2400~2500 MHz

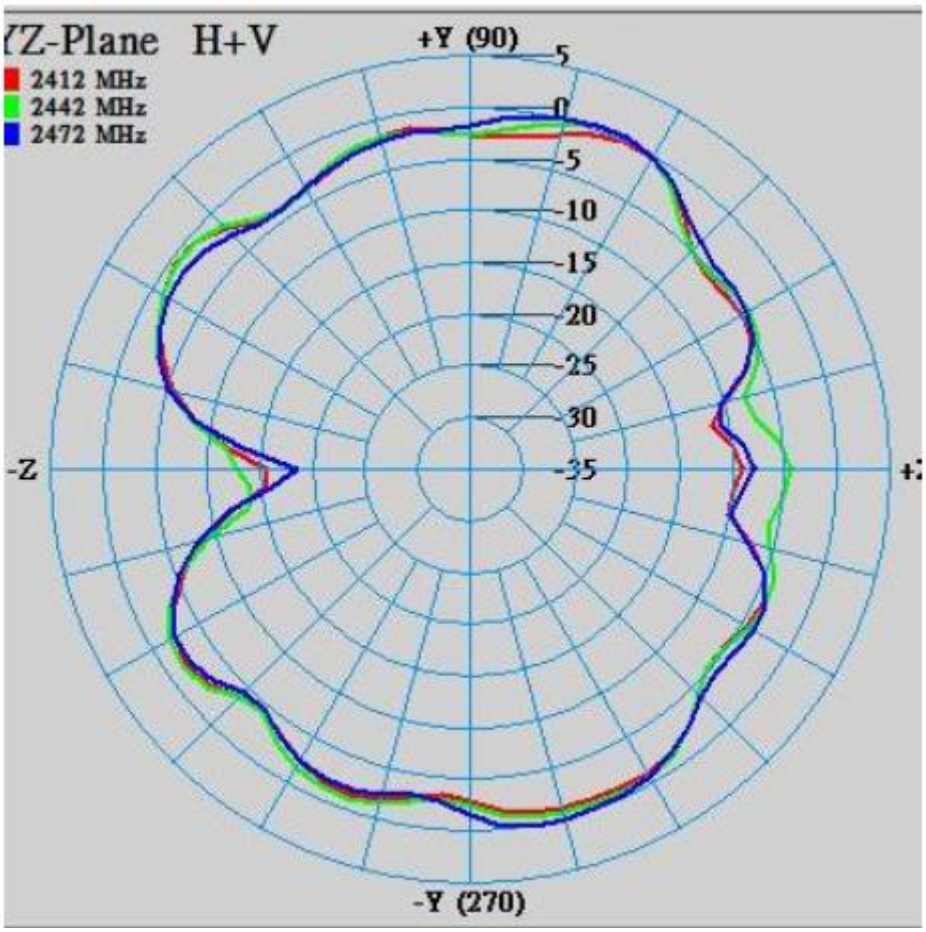
Phi=0.00deg

Gain . dB



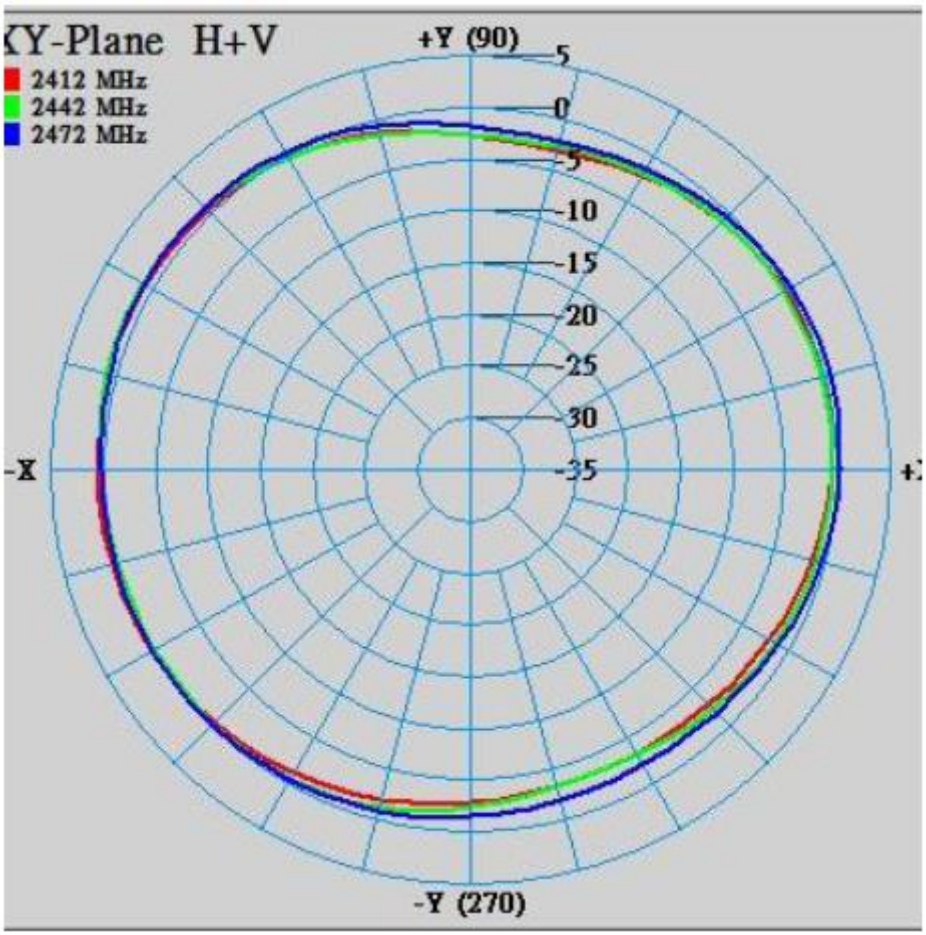
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB

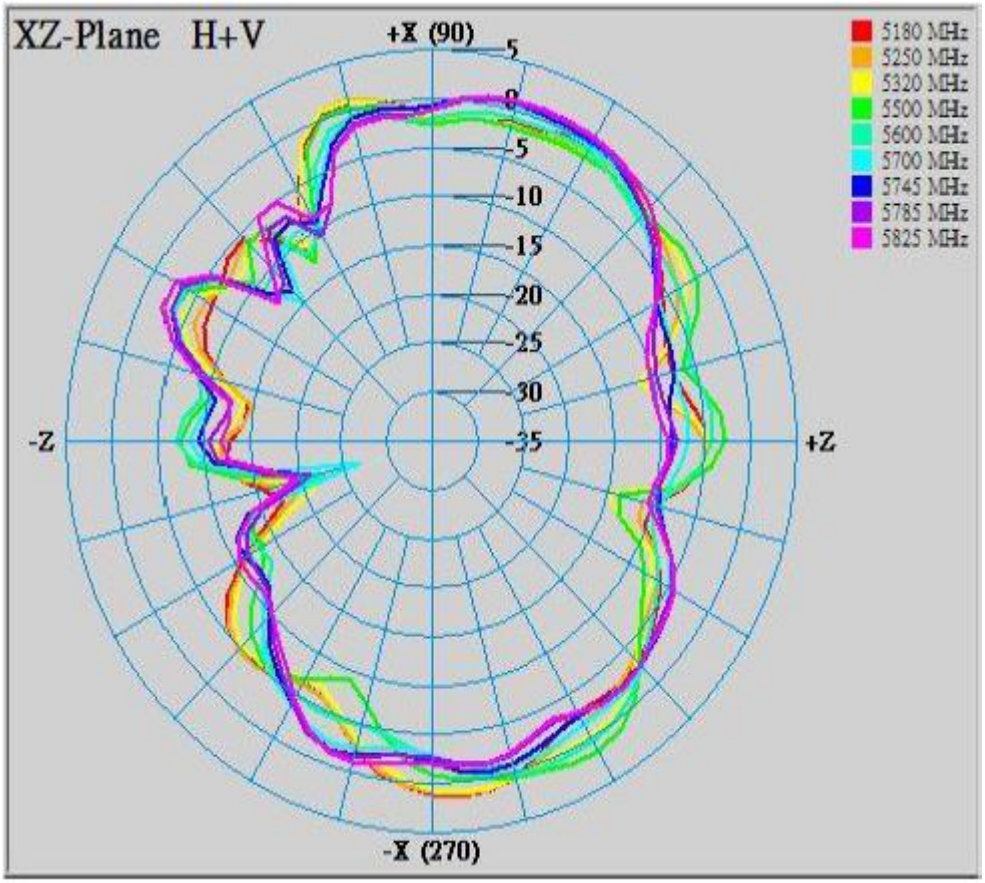


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2412	1.11	-3.33	-0.09	-3.34	0.76	-0.98
2442	1.48	-3.23	0.35	-2.92	1.10	-0.86
2472	1.61	-3.08	0.39	-3.05	0.88	-0.45

5150~5850 MHz

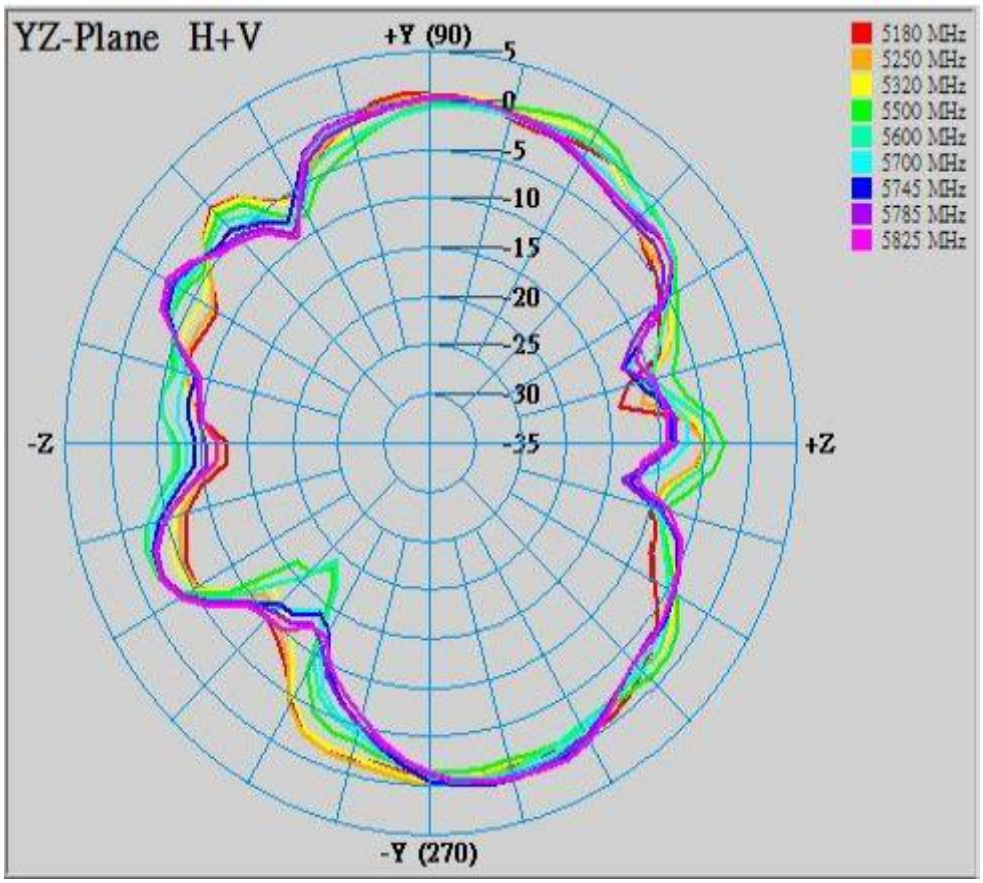
Phi=0.00deg

Gain . dB



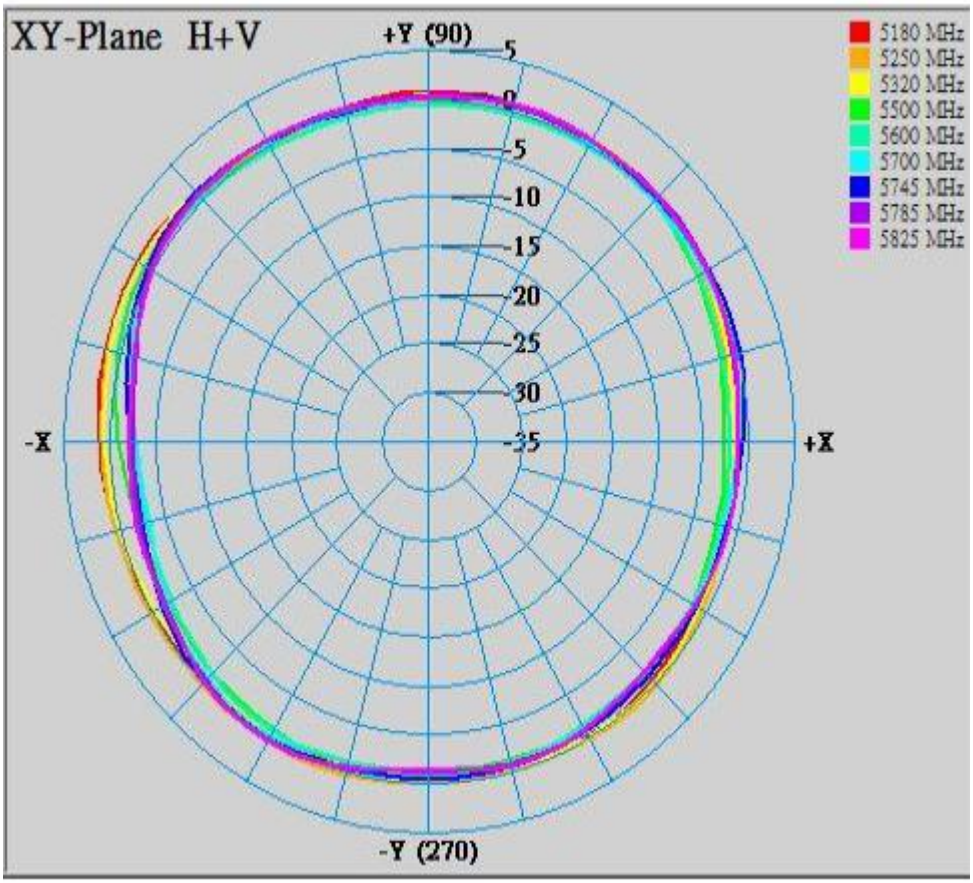
Phi=90.00deg

Gain . dB



Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5180	1.40	-3.47	0.80	-3.20	1.86	0.14
5250	1.18	-3.50	0.56	-3.09	1.52	0.13
5320	1.01	-3.49	0.96	-3.04	1.60	0.03
5500	1.50	-3.45	1.89	-2.84	0.89	-0.93
5600	0.51	-3.77	0.48	-3.22	0.47	-1.11
5700	0.44	-3.85	0.31	-3.29	0.89	-0.62
5745	0.69	-3.73	0.50	-3.27	1.05	-0.32
5785	0.75	-3.97	0.63	-3.54	0.82	-0.50
5825	0.95	-3.74	0.71	-3.36	0.73	-0.47