

RFパッシブおよびアンテナ製品のご紹介

RFパッシブ製品

1. Power Divider 屋内用 700 ~ 2700MHz (2/3/4-way)	3
2. Power Divider 屋内用 700 ~ 6000MHz (2/3/4-way)	6
3. 2*2 Hybrid Combiner 屋内用 718 ~ 4600MHz	9
4. 4*4 Hybrid Coupler 屋内用 600 ~ 6000MHz	10
5. 5G Modular POI 屋内用 698 ~ 6000MHz	11
6. 5G Add-on POI 屋内用 698 ~ 6000MHz	12

1-1. Power Divider 屋内用 2-way 700 ~ 2700MHz

3

General Specifications

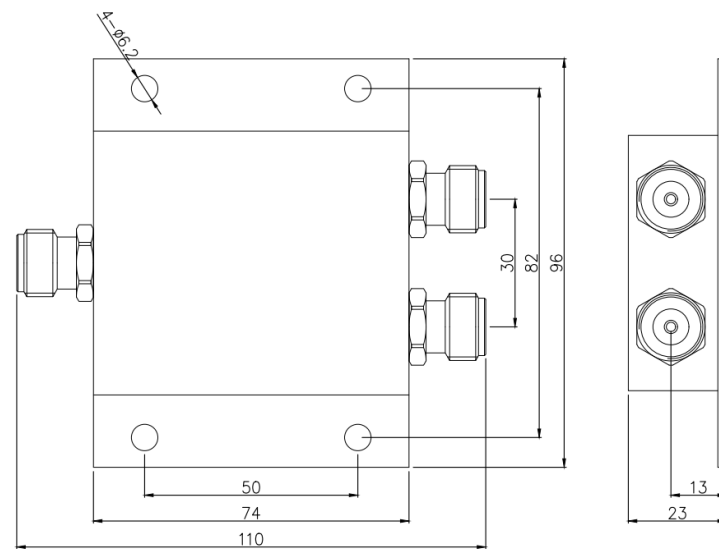
Device Type	Divider
Interface	N-Female
Part Number	DIV-2-NF-0727

Electrical Specifications

Operating Frequency Bands (MHz)	700 ~ 2700
Impedance (s11, s22), (Max)	50Ω
VSWR (s11, s22), (Max)	1.25 : 1
Insertion Loss (Max)	3.4dB
Isolation (Max)	20dB
Distribution Ratio	1 : 1
Input Power, as divider (Max)	20W
Output Power, as combiner (Max per port)	1W
Operating Temperature / Humidity	-35°C to +75°C / up to 95%

Mechanical Specifications

Inner Contact Plating	Silver Plated
Interface	Alloy Plated
Ingress Protection Test Method	IEC 60529:2001, IP65
Dimension (mm)	96x74x23 (exclude connectors)
Weight	300g



1-2. Power Divider 屋内用 3-way 700 ~ 2700MHz

4

General Specifications

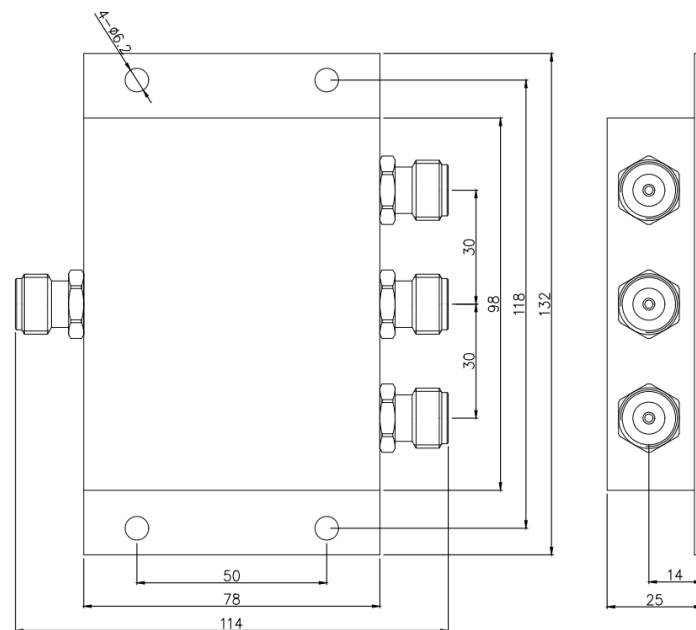
Device Type	Divider
Interface	N-Female
Part Number	DIV-3-NF-0727

Electrical Specifications

Operating Frequency Bands (MHz)	700 ~ 2700
Impedance (s11, s22), (Max)	50Ω
VSWR (s11, s22), (Max)	1.25 : 1
Insertion Loss (Max)	5.4dB
Isolation (Max)	20dB
Distribution Ratio	1 : 1 : 1
Input Power, as divider (Max)	20W
Output Power, as combiner (Max per port)	1W
Operating Temperature / Humidity	-35°C to +75°C / up to 95%

Mechanical Specifications

Inner Contact Plating	Silver Plated
Interface	Alloy Plated
Ingress Protection Test Method	IEC 60529:2001, IP65
Dimension (mm)	132*78*25 (exclude connectors)
Weight	540g



1-3. Power Divider 屋内用 4-way 700 ~ 2700MHz

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General Specifications

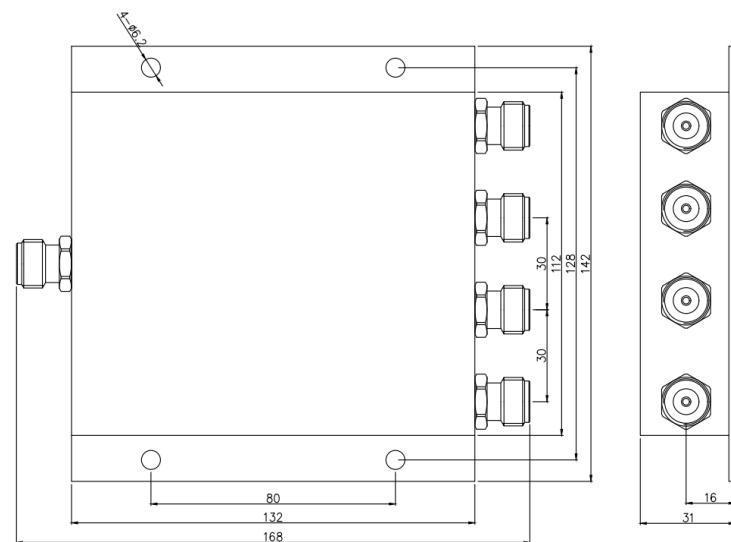
Device Type	Divider
Interface	N-Female
Part Number	DIV-4-NF-0727

Electrical Specifications

Operating Frequency Bands (MHz)	700 ~ 2700
Impedance (s11, s22), (Max)	50Ω
VSWR (s11, s22), (Max)	1.25 : 1
Insertion Loss (Max)	6.6dB
Isolation (Max)	18dB
Distribution Ratio	1 : 1 : 1 : 1
Input Power, as divider (Max)	20W
Output Power, as combiner (Max per port)	1W
Operating Temperature / Humidity	-35°C to +75°C / up to 95%

Mechanical Specifications

Inner Contact Plating	Silver Plated
Interface	Alloy Plated
Ingress Protection Test Method	IEC 60529:2001, IP65
Dimension (mm)	142*132*31 (exclude connectors)
Weight	700g



2-1. Power Divider 屋内用 2-way 700 ~ 6000MHz

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General Specifications

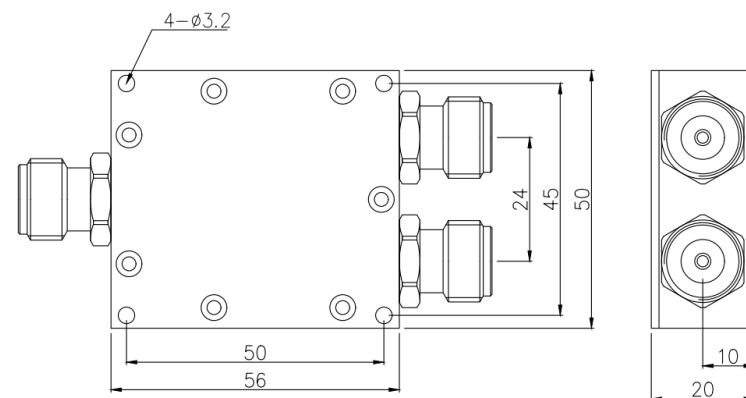
Device Type	Divider
Interface	N-Female
Part Number	DIV-2-NF-0760

Electrical Specifications

Operating Frequency Bands (MHz)	700 ~ 6000
Impedance (s11, s22), (Max)	50Ω
VSWR (s11, s22), (Max)	Input ≤1.5 , Output ≤1.4
Insertion Loss (Max)	4.2dB
Isolation (Max)	18dB
Distribution Ratio	1 : 1
Input Power, as divider (Max)	20W
Output Power, as combiner (Max per port)	1W
Operating Temperature / Humidity	-35°C to +75°C / up to 95%

Mechanical Specifications

Inner Contact Plating	Silver Plated
Interface	Alloy Plated
Ingress Protection Test Method	IEC 60529:2001, IP65
Dimension (mm)	50*56*20 (exclude connectors)
Weight	400g



2-2. Power Divider 屋内用 3-way 700 ~ 6000MHz

7

General Specifications

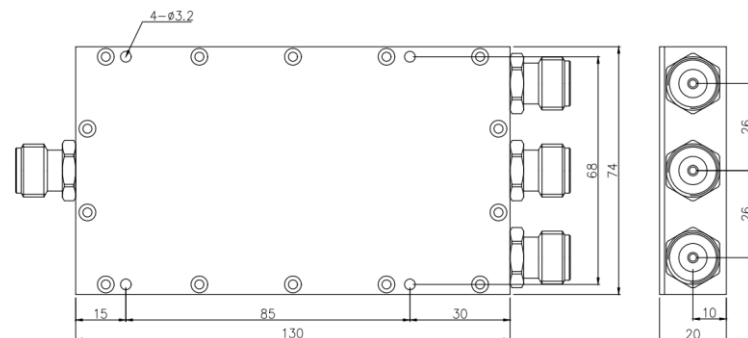
Device Type	Divider
Interface	N-Female
Part Number	DIV-3-NF-0760

Electrical Specifications

Operating Frequency Bands (MHz)	700 ~ 6000
Impedance (s11, s22), (Max)	50Ω
VSWR (s11, s22), (Max)	Input ≤1.5 , Output ≤1.4
Insertion Loss (Max)	7.6dB
Isolation (Max)	18dB
Distribution Ratio	1 : 1 : 1
Input Power, as divider (Max)	20W
Output Power, as combiner (Max per port)	1W
Operating Temperature / Humidity	-35°C to +75°C / up to 95%

Mechanical Specifications

Inner Contact Plating	Silver Plated
Interface	Alloy Plated
Ingress Protection Test Method	IEC 60529:2001, IP65
Dimension (mm)	74*130*20 (exclude connectors)
Weight	700g



2-3. Power Divider 屋内用 4-way 700 ~ 6000MHz

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General Specifications

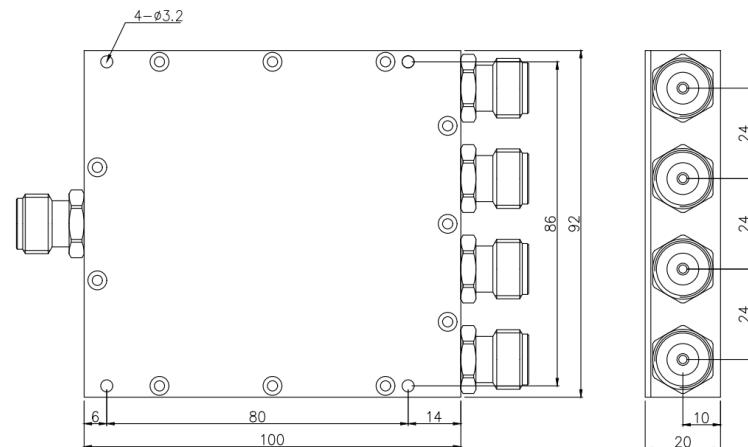
Device Type	Divider
Interface	N-Female
Part Number	DIV-4-10-NF-0760

Electrical Specifications

Operating Frequency Bands (MHz)	700 ~ 6000
Impedance (s11, s22), (Max)	50Ω
VSWR (s11, s22), (Max)	Input ≤1.5 , Output ≤1.4
Insertion Loss (Max)	7.8dB
Isolation (Max)	18dB
Distribution Ratio	1 : 1 : 1 : 1
Input Power, as divider (Max)	20W
Output Power, as combiner (Max per port)	1W
Operating Temperature / Humidity	-35°C to +75°C / up to 95%

Mechanical Specifications

Inner Contact Plating	Silver Plated
Interface	Alloy Plated
Ingress Protection Test Method	IEC 60529:2001, IP65
Dimension (mm)	92*100*20 (exclude connectors)
Weight	950g



3. 2*2 Hybrid Combiner 718 ~ 4600MHz

General Specifications

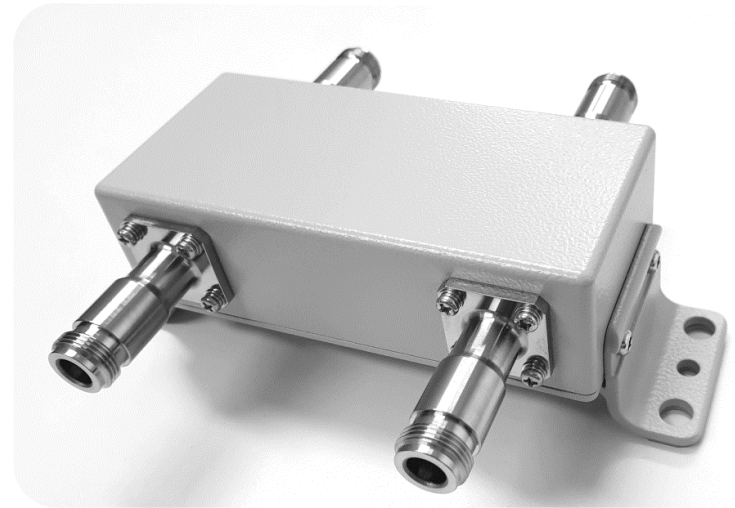
Device Type	Combiner
Interface	N-Female
Part Number	COM-22-NF-0746

Electrical Specifications

Operating Frequency Bands (MHz)	718 ~ 4600
Insertion Loss	$3 \pm 0.7\text{dB}$
Return Loss	19.1dB (Min)
In/Out Isolation	20dB (Min)
Impedance	50 Ω
PIMD (43dBm*2)	-155 dBc (Min), -158 dBc (Typical)
Input Power	150Watt/Total (Average Power)
Operating Temperature / Humidity	-35°C to +75°C / up to 95%

Mechanical Specifications

Inner Contact Plating	Silver Plated
Interface	Alloy Plated
Ingress Protection Test Method	IP67
Dimension (mm)	177*60.1*56.9 (including bracket)
Weight	< 1.2kg



4. 4*4 Hybrid Coupler 600 ~ 6000MHz

General Specifications

Device Type	Combiner
Interface	4.3-10-Female
Part Number	COM-44-4310-0660

Electrical Specifications

Operating Frequency Bands (MHz)	600 ~ 6000
Impedance	50Ω
VSWR	≤1.35 (600~2700) , ≤1.40 (2700~6000)
Insertion Loss (Max)	6.2dB±2.0
Isolation	≥ 20dB
PIMD (43dBm*2)	-155 dBc (Min)
Average Power	200W
Operating Temperature / Humidity	-35°C to +75°C / up to 95%

Mechanical Specifications

Inner Contact Plating	Silver Plated
Interface	Alloy Plated
Ingress Protection Test Method	IEC 60529:2001, IP65
Dimension (mm)	225*78*59 (exclude connectors)
Weight	1.8kg



Key Features

- Future Proof to New Spectrum
- Modular Slots
- Expandable with more Ports
- 19" Rack Type or Stand-alone Type

Expandable with more Ports

13 Input Ports

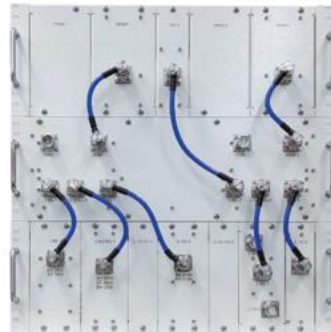


20 Input Ports



19" Rack Type or Stand-alone Type

Rack Type



Stand-alone Type



6. 5G Add-on POI 698~6000MHz

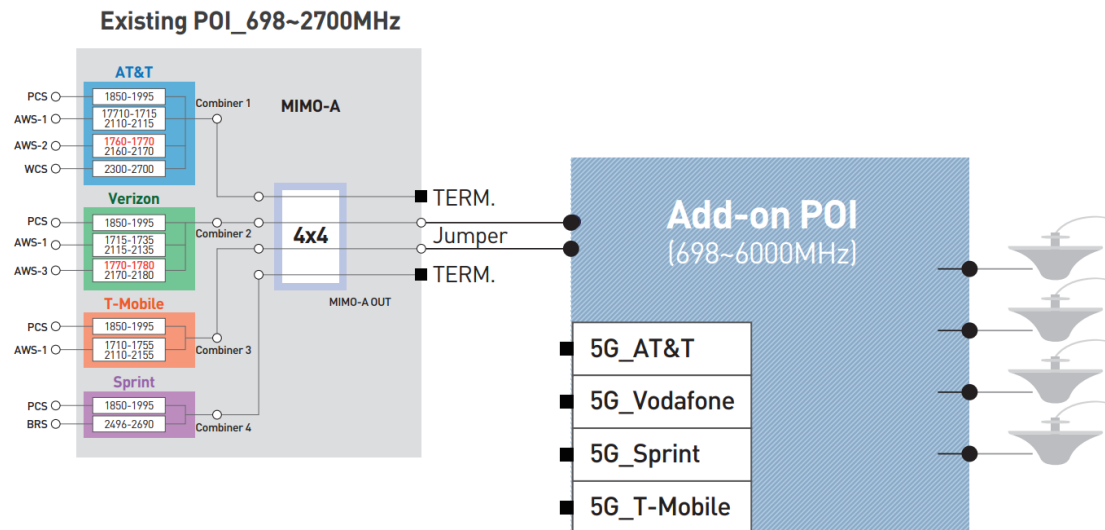
12

Advantages

- Utilizing existing antenna feeder network (cables)
- Less new 5G antenna feeder network installation
- Less cost – Labor & Materials



Configuration



アンテナ製品

1. Flat Antenna	14	10. Multi-Band Yagi Antenna	26
2. Flat MIMO Antenna	15	11. Multi-Band MIMO Yagi Antenna	29
3. Multi-Band Omni Antenna	16	12. Single Band Dual Polarization Horizontal 63°	30
4. Multi-Band Omni(Pole) Antenna	18	13. Quad Band Dual Polarization Horizontal 63°	31
5. Multi-Band Patch Antenna	19	14. Tilt Max Sector Dual Polarization Horizontal 63°	33
6. Quad-Band Patch Antenna	21	15. Tilt Max Cylindrical Dual Polarization Horizontal 65°	34
7. Multi-Band MIMO Patch Antenna	22	16. Cylinder Type Sector Antenna	35
8. Single-Band MIMO Omni Antenna	24	17. 4G Patch Antenna	39
9. Multi-Band MIMO Omni Antenna	25	18. 4G 4T4R Patch Antenna	40

1. Flat Antenna

819~960, 1710~2690MHz / 3, 3.5dBi

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General Specifications

Device Type	RF Antenna
Connector Type	N-Female
Part Number	Omni-3.5dBi _Flat

Electrical Specifications

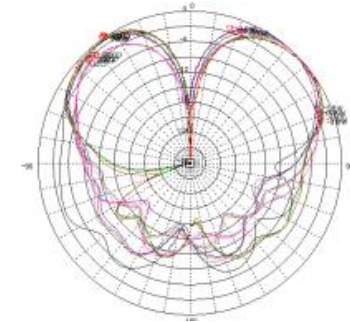
Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690
Gain (dBi)	3 ~ 3.5
VSWR	1.6 : 1

Beam Width	Horizontal 360° Vertical $\geq 30^\circ \sim 90^\circ$
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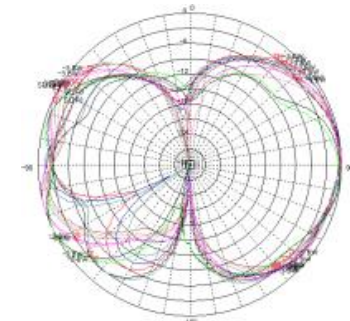
Polarization	-
Isolation	-
IMD (3rd)	$\leq -150\text{dBc @ } 2 \times 40\text{dBm}$
Input Power (Max)	$\leq 20\text{ W}$
Impedance	50 Ω

Mechanical Specifications

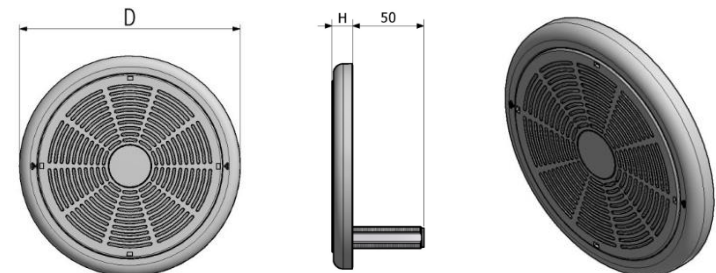
Radom Dimension (D x H)	$\varnothing 147 \times 15\text{ mm}$
Weight (exclude bracket)	$\leq 0.2\text{ kg}$
Radom Material (color)	ABS (White)
Operating Temperature / Humidity	$-40^\circ\text{C} \sim 70^\circ\text{C}$



Vertical Pattern
(High Band)



Vertical Pattern
(Low Band)



2. Flat MIMO Antenna

819~960, 1710~2690MHz / 3, 3.5dBi

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General Specifications

Device Type	RF Antenna
Connector Type	N-Female x 2
Part Number	Omni-3.5dBi_Flat_MIMO

Electrical Specifications

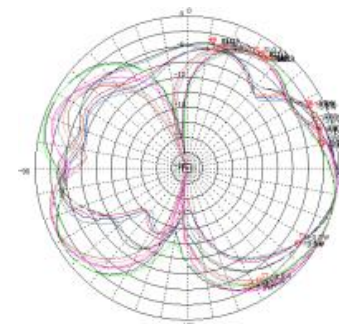
Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690
Gain (dBi)	3 ~ 3.5
VSWR	1.8 : 1

Beam Width	Horizontal 360° Vertical $\geq 30^\circ \sim 90^\circ$
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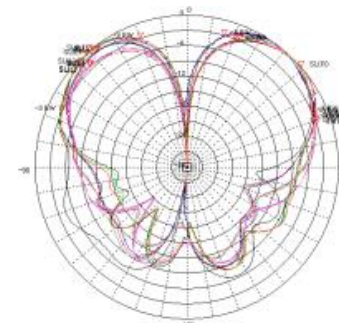
Polarization	-
Isolation	$\geq 20 \text{ dB} \sim \geq 25 \text{ dB}$
IMD (3rd)	$\leq -150\text{dBc} @ 2 \times 40\text{dBm}$
Input Power (Max)	$\leq 20 \text{ W}$
Impedance	50 Ω

Mechanical Specifications

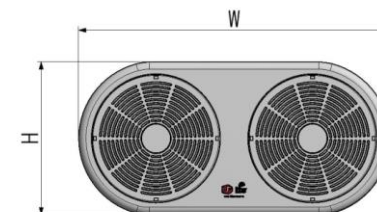
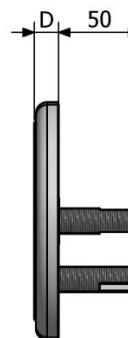
Radom Dimension (W x D)	299 x 15 mm
Weight (exclude bracket)	$\leq 0.5 \text{ kg}$
Radom Material (color)	ABS (White)
Operating Temperature / Humidity	-40 °C ~ 70 °C



Vertical Pattern
(High Band)



Vertical Pattern
(Low Band)



3-1. Multi-Band Omni Antenna

819~960, 1710~2690, 3400~3700MHz / 2, 3, 4dBi

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General Specifications

Device Type	RF Antenna
Connector Type	N-Female x 1
Part Number	CPWWM-WDT-234

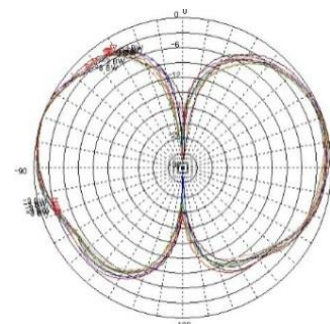
Electrical Specifications

Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690 / 3400 ~ 3700
Gain (dBi)	2 ~ 4
VSWR	1.7 : 1
Beam Width	Horizontal 360° Vertical 30° ~ 140°

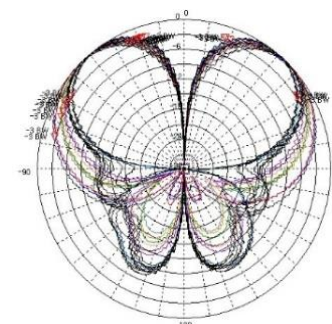
Polarization	-
Isolation	-
IMD (3rd)	$\leq -140\text{dBc}$ @ 2x40dBm
Input Power (Max)	$\leq 10\text{ W}$
Impedance	50 Ω

Mechanical Specifications

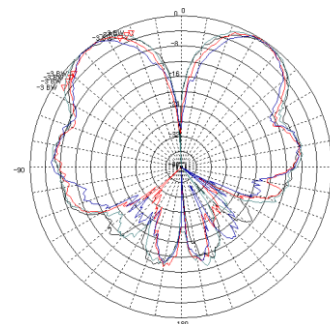
Radom Dimension (D x H)	180 $\varnothing$ x 109 mm
Weight (exclude bracket)	$\leq 0.5\text{ kg}$
Radom Material (color)	ABS (White)
Operating Temperature / Humidity	-30 °C ~ 60 °C



Vertical Pattern
(Low Band)



Vertical Pattern
(High Band)



Vertical Pattern
(3.5 Band)



3-2. Multi-Band Omni Antenna

819~960, 1710~2690MHz / 2, 3dBi

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General Specifications

Device Type	RF Antenna
Connector Type	N-J (Female)
Part Number	CPWW-IDT-23

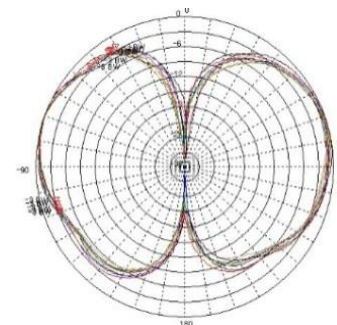
Electrical Specifications

Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690
Gain (dBi)	2 ~ 3
VSWR	1.8 : 1
Beam Width	Horizontal 360° Vertical $\geq 30^\circ \sim 90^\circ$

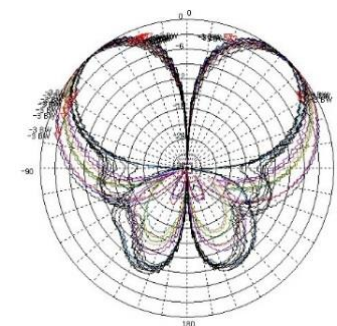
Polarization	-
Isolation	-
IMD (3rd)	$\leq -140\text{dBc} @ 2 \times 40\text{dBm}$
Input Power (Max)	$\leq 10 \text{ W}$
Impedance	50 Ω

Mechanical Specifications

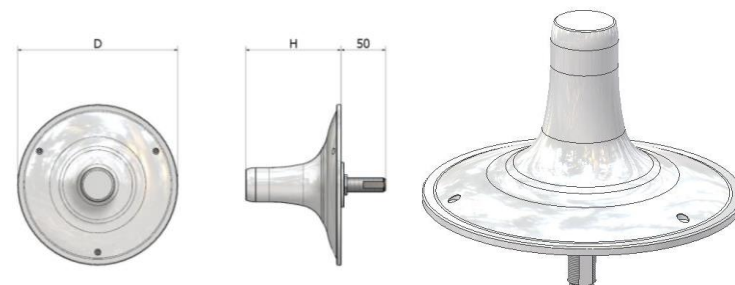
Radom Dimension (D x H)	$\varnothing 180 \times 110 \text{ mm}$
Weight (exclude bracket)	$\leq 0.4 \text{ kg}$
Radom Material (color)	ASA (Gray)
Operating Temperature / Humidity	$-30^\circ \text{C} \sim 60^\circ \text{C}$



Vertical Pattern
(High Band)



Vertical Pattern
(Low Band)



4. Multi-Band Omni(Pole) Antenna

824~894, 1710~2170MHz / 2dBi, 2dBi

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General Specifications

Device Type	RF Antenna
Connector Type	N-J (Female)
Part Number	CP-ST-22

Electrical Specifications

Operating Frequency Bands (MHz)	824 ~ 894 / 1710 ~ 2170
Gain (dBi)	2
VSWR	1 : 1.8

Beam Width	Horizontal 360° Vertical $\geq 30^\circ$
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Polarization

-

Isolation

-

IMD (3rd)

$\leq -140\text{dBc}$ @ 2x40dBm

Input Power (Max)

$\leq 50\text{ W}$

Impedance

50 Ω

Mechanical Specifications

Radom Dimension (D x H)

$\varnothing 20 \times 215\text{ mm}$

Weight (exclude bracket)

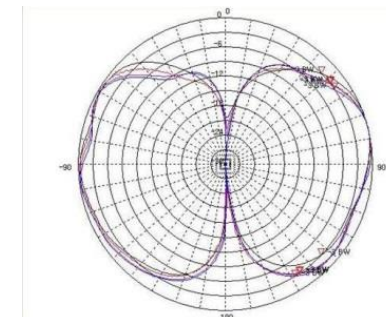
$\leq 0.2\text{ kg}$

Radom Material (color)

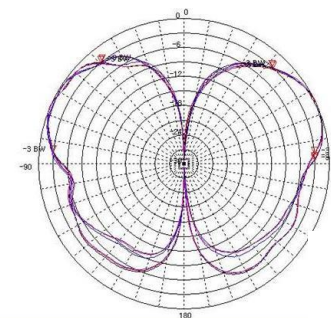
FRP (Gray)

Operating Temperature / Humidity

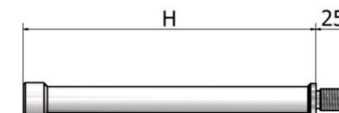
$-40^\circ\text{C} \sim 70^\circ\text{C}$



Vertical Pattern
(High Band)



Vertical Pattern
(Low Band)



5-1. Multi-Band Patch Antenna

819~960, 1710~2690, 3400~3700MHz / 4, 6, 7dBi

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General Specifications

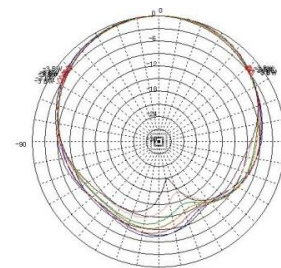
Device Type	RF Antenna
Connector Type	N-Female X 1
Part Number	CPWWM-CPB-467

Electrical Specifications

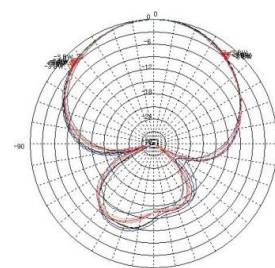
Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690 / 3400 ~ 3700
Gain (dBi)	4 ~ 7
VSWR	1 : 1.8
Beam Width	Horizontal 90° ~ 150° / 40° ~ 80° / 40° ~ 70° Vertical 30° ~ 95° / 40° ~ 80° / 20° ~ 50°
Polarization	V / V
Isolation	-
IMD (3rd)	≤ -140dBc @ 2x37dBm
Input Power (Max)	≤ 10 W
Impedance	50 Ω

Mechanical Specifications

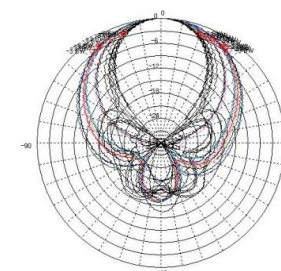
Radom Dimension (W x D x H)	111 x 45 x 145 mm
Weight (exclude bracket)	≤ 0.4 kg
Radom Material (color)	ASA (Gray)
Operating Temperature / Humidity	-40 °C ~ 70 °C
Mechanical Tilt	± 30°



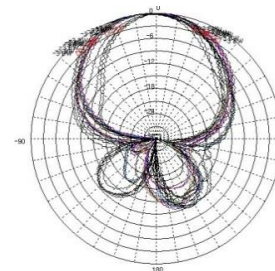
Horizontal Pattern
(Low Band)



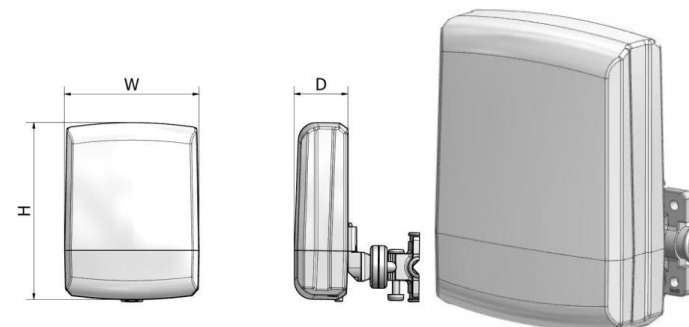
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



5-2. Multi-Band Patch Antenna

839~894, 1710~2120, 2520~2660, 3400~3700MHz / 5, 7, 7, 8dBi

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General Specifications

Device Type	RF Antenna
Connector Type	SMA-Female x 1
Part Number	CPWWM-CPB-578

Electrical Specifications

Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2120 / 2520 ~ 2660 / 3400 ~ 3700
Gain (dBi)	5 ~ 8
VSWR	1 : 1.6

Beam Width	Horizontal 70° ~ 110° / 40° ~ 100° / 30° ~ 90° / 20° ~ 80° Vertical 60° ~ 100° / 40° ~ 90° / 20° ~ 80° / 20° ~ 80°
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Polarization	V / V
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Isolation	-
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IMD (3rd)	≤ -140dBc @ 2x37dBm
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Input Power (Max)	≤ 10 W
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Impedance	50 Ω
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Mechanical Specifications

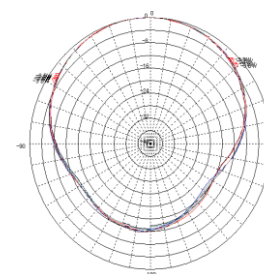
Radom Dimension (W x D x H)	172 x 182 x 54 mm
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Weight (exclude bracket)	≤ 0.8 kg
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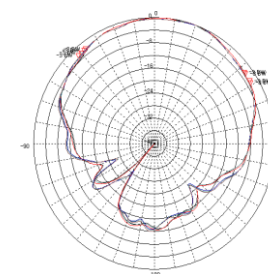
Radom Material (color)	ASA (Gray)
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Operating Temperature / Humidity	-40 °C ~ 70 °C
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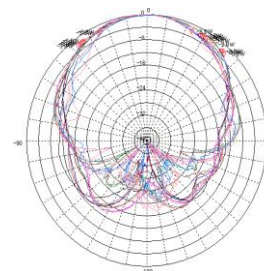
Mechanical Tilt	± 30°
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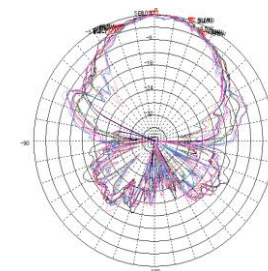
Horizontal Pattern
(Low Band)



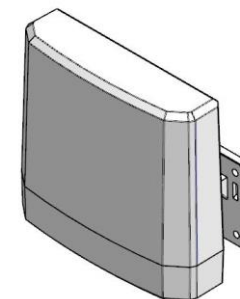
Vertical Pattern
(Low Band)



Horizontal Pattern
(2.6 High Band)



Vertical Pattern
(2.6 High Band)



6. Quad-Band Patch Antenna

839~894, 1710~2120, 2520~2660MHz / 6, 8, 8dBi

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General Specifications

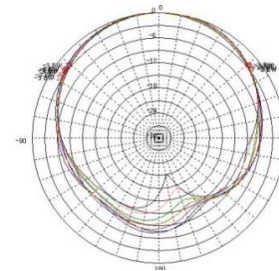
Device Type	RF Antenna
Connector Type	SMA-J (Female)
Part Number	CPWW-CPB-688

Electrical Specifications

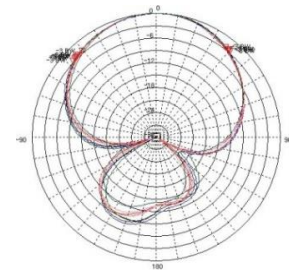
Operating Frequency Bands (MHz)	839 ~ 894 / 1710 ~ 2120 / 2520 ~ 2690
Gain (dBi)	6 ~ 8
VSWR	1 : 1.5
Beam Width	Horizontal 70° ~ 90° / 40° ~ 80° / 40° ~ 80° Vertical 70° ~ 90° / 40° ~ 80° / 40° ~ 80°
Polarization	V / V / V
Isolation	-
F-B ratio (-180 ± 30°)	13 dB ~ 15 dB
Input Power (Max)	≤ 10 W
Impedance	50 Ω

Mechanical Specifications

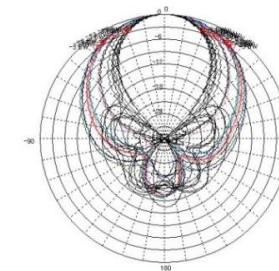
Radom Dimension (W x D x H)	169 x 44 x 155 mm
Weight (exclude bracket)	≤ 0.4 kg
Radom Material (color)	ASA (Gray)
Operating Temperature / Humidity	-40 °C ~ 70 °C
Mechanical Tilt	± 30°



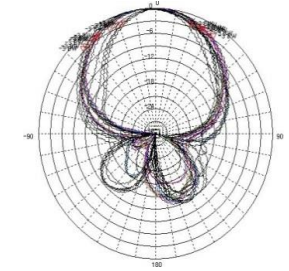
Horizontal Pattern
(Low Band)



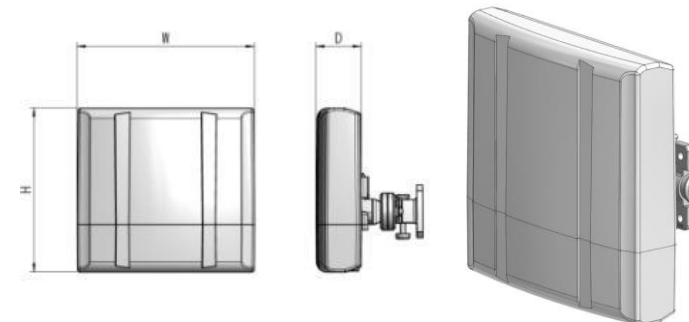
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



7-1. Multi-Band MIMO Patch Antenna

819~960, 1710~2690, 3400~3700MHz / 4, 6, 7dBi

22

General Specifications

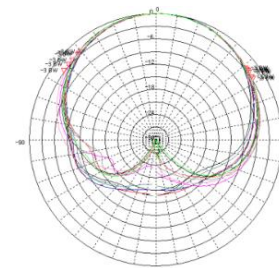
Device Type	RF Antenna
Connector Type	N-Female x 2
Part Number	CPWWM-CPBM-467

Electrical Specifications

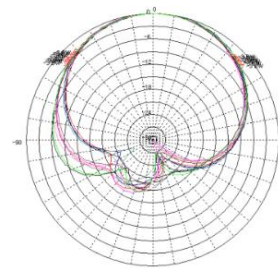
Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690 / 3400 ~ 3700
Gain (dBi)	4 ~ 7
VSWR	1 : 1.9
Beam Width	Horizontal 90° ~ 180° / 40° ~ 90° / 20° ~ 60° Vertical 90° ~ 160° / 40° ~ 90° / 20° ~ 60°
Polarization	$\pm 45^\circ$
Isolation	17 dB
F-B ratio ($-180 \pm 30^\circ$)	15 dB ~ 18 dB
Input Power (Max)	≤ 10 W
Impedance	50 Ω

Mechanical Specifications

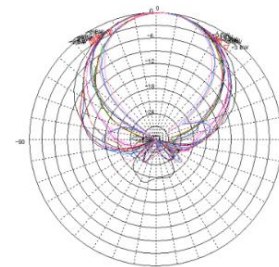
Radom Dimension (W x D x H)	198 x 198 x 68 mm
Weight (exclude bracket)	≤ 2 kg
Radom Material (color)	ASA (White)
Operating Temperature / Humidity	-40 °C ~ 70 °C
Mechanical Tilt	$\pm 30^\circ$



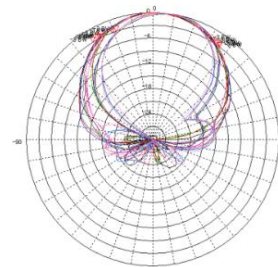
Horizontal Pattern
(Low Band)



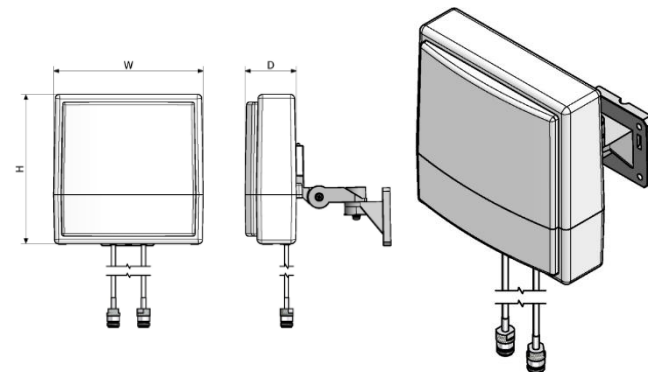
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



7-2. Multi-Band MIMO Patch Antenna

814~960, 1710~2170, 2300~2690MHz / 5, 8, 9dBi

23

General Specifications

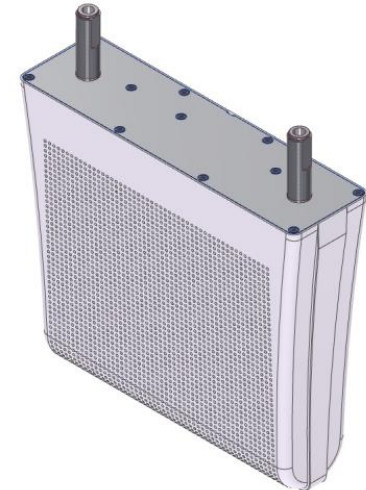
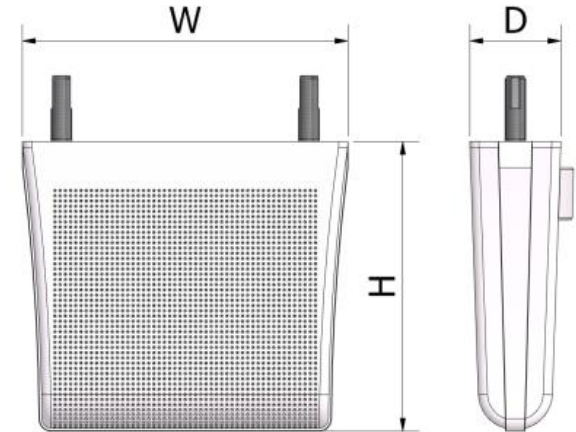
Device Type	RF Antenna
Connector Type	N-Female x 2
Part Number	Patch-9dBi_MIMO

Electrical Specifications

Operating Frequency Bands (MHz)	814 ~ 960 / 1710 ~ 2170 / 2300 ~ 2690
Gain (dBi)	5 ~ 9
VSWR	1 : 1.9
Beam Width	Horizontal 90° ~ 130° / 35° ~ 75° / 35° ~ 75° Vertical 90° ~ 130° / 35° ~ 75° / 35° ~ 75°
Polarization	±45°
Isolation	-
IMD (3rd)	≤ -140 dBc @ 2x37dBm
Input Power (Max)	≤ 150 W
Impedance	50 Ω

Mechanical Specifications

Radom Dimension (W x D x H)	250 x 75 x 250 mm
Weight (exclude bracket)	≤ 2 kg
Radom Material (color)	ABS (White)
Operating Temperature / Humidity	-40 °C ~ 70 °C



8. Single-Band MIMO Omni Antenna

3600~4100MHz / 4dBi

24

General Specifications

Device Type	RF Antenna
Connector Type	N-J (Female) × 2
Part Number	O-0T04XT-0004-K

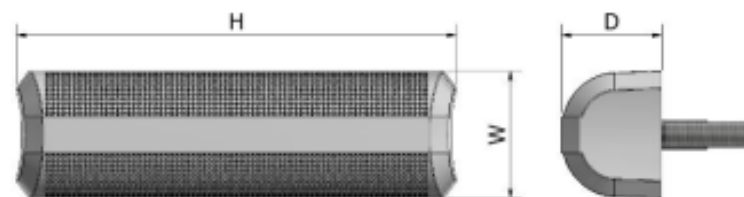
Electrical Specifications

Operating Frequency Bands (MHz)	3600 ~ 4100
Gain (dBi)	≥ 4
VSWR	1.5 : 1
Beam Width	Horizontal 360° Vertical 10°
Polarization	V / V
F-B Ratio	-

Isolation	≥ 15 dB
Input Power (Max)	50 W
Impedance	50 Ω

Mechanical Specifications

Radom Dimension (W x D x H)	72 x 58 x 246 mm
Weight (exclude bracket)	≤ 1.5 kg
Radom Material (color)	White / Gray
Operating Temperature / Humidity	-30 °C ~ 60 °C



9. Multi-Band MIMO Omni Antenna

819~960, 1710~2690, 3400~3700MHz / 3, 3, 4dBi

25

General Specifications

Device Type	RF Antenna
Connector Type	N-J (Female) × 2
Part Number	CPWWM-MDT-334

Electrical Specifications

Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690 / 3400 ~ 3700
Gain (dBi)	3 ~ 4
VSWR	1.9 : 1

Beam Width	Horizontal 360° Vertical 20° ~ 8°
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Polarization	-
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Isolation	≥ 15 dB
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IMD (3rd)	≤ -140dBc @ 2x40dBm
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Input Power (Max)	≤ 50 W
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Impedance	50 Ω
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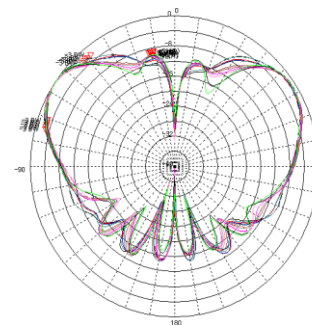
Mechanical Specifications

Radom Dimension (W x D x H)	73 x 57 x 246 mm
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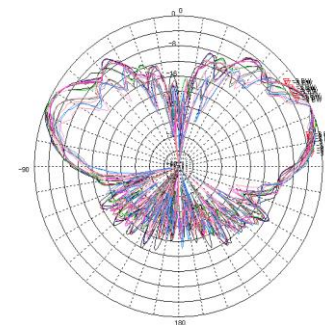
Weight (exclude bracket)	≤ 1.5 kg
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Radom Material (color)	ABS (White)
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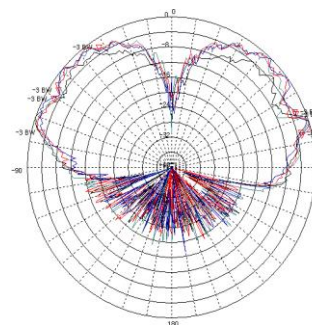
Operating Temperature / Humidity	-30 °C ~ 60 °C
----------------------------------	----------------



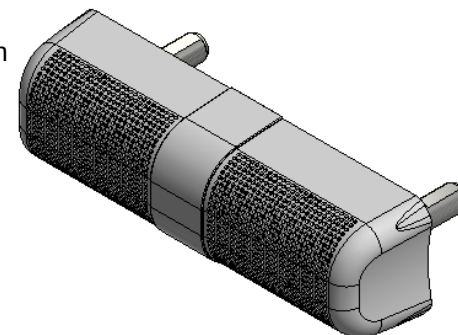
Vertical Pattern
(Low Band)



Vertical Pattern
(High Band)



Vertical Pattern
(3.5 Band)



10-1. Multi-Band Yagi Antenna

819~960, 1710~2690, 3400~3700MHz / 5, 11, 12dBi

26

General Specifications

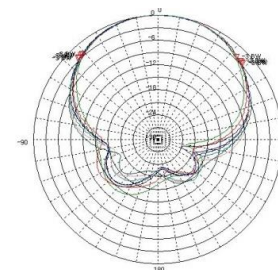
Device Type	RF Antenna
Connector Type	N-J (Female)
Part Number	CPWWM-YG-512

Electrical Specifications

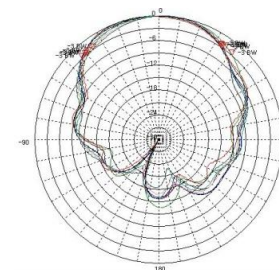
Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690 / 3400 ~ 3700
Gain (dBi)	5 ~ 12
VSWR	1 : 1.5
Beam Width	Horizontal 70° ~ 130° / 35° ~ 60° / 30° ~ 70° Vertical 50° ~ 90° / 30° ~ 55° / 30° ~ 60°
Polarization	V / V
IMD (3rd)	≤ -140dBc @ 2x40dBm
F-B ratio (-180 ± 30°)	10 dB ~ 15 dB
Input Power (Max)	≤ 100 W
Impedance	50 Ω

Mechanical Specifications

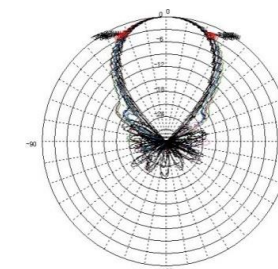
Radom Dimension (W x D x H)	40 x 620 x 100 mm
Weight (exclude bracket)	≤ 0.9 kg
Radom Material (color)	ASA (White)
Operating Temperature / Humidity	-40 °C ~ 70 °C
Mechanical Tilt	Up/Down ± 30° / Right/Left 0°~ 30°



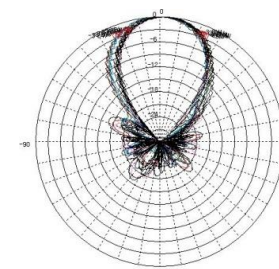
Horizontal Pattern
(Low Band)



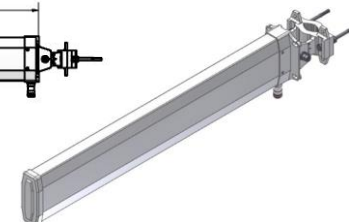
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



10-2. Multi-Band Yagi Antenna

819~960, 1710~2690MHz / 8, 14dBi

27

General Specifications

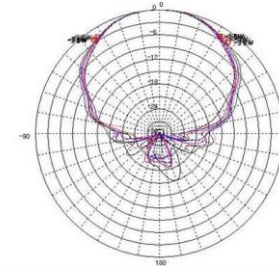
Device Type	RF Antenna
Connector Type	N-J (Female)
Part Number	CPWW-YG-814 (Variable)

Electrical Specifications

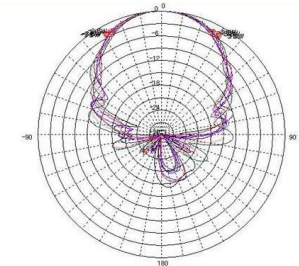
Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690
Gain (dBi)	8 ~ 14
VSWR	1 : 1.6
Beam Width	Horizontal 60° ~ 130° / 25° ~ 60° Vertical 40° ~ 90° / 20° ~ 55°
Polarization	Vertical @ 0° , Horizontal @ 90°
IMD (3rd)	≤ -140dBc @ 2x40dBm
Isolation between two antennas	≥ 30 dB (Pol. Angle 90°, Distance 1m)
Input Power (Max)	≤ 200 W
Impedance	50 Ω

Mechanical Specifications

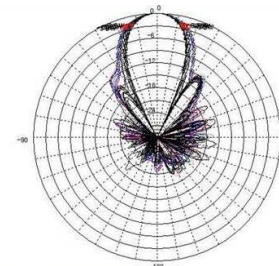
Radom Dimension (W x D x H)	100 x 36 x 1080 mm
Weight (exclude bracket)	≤ 3 kg
Radom Material (color)	ASA (Gray)
Operating Temperature / Humidity	-40 °C ~ 70 °C
Mechanical Tilt	Up/Down ± 30° / Right/Left 0°~ 30°



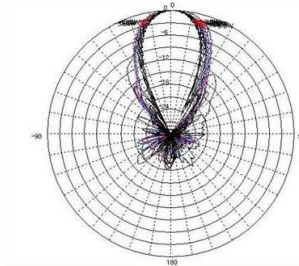
Horizontal Pattern
(Low Band)



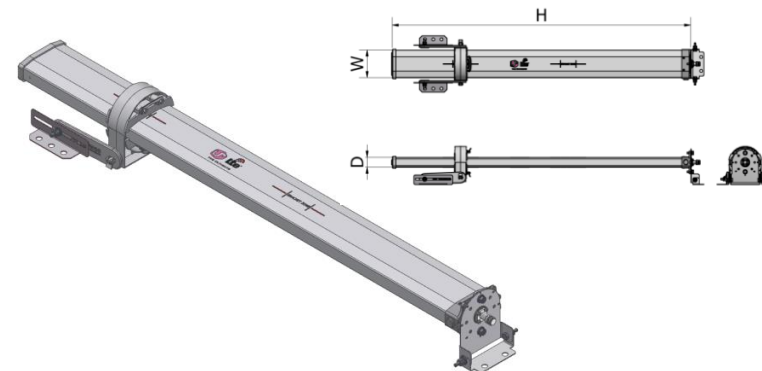
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



10-3. Multi-Band Yagi Antenna

819~960, 1710~2690MHz / 12dBi

28

General Specifications

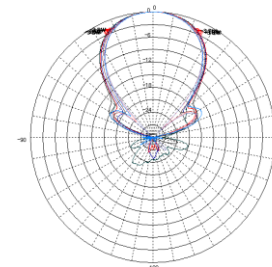
Device Type	RF Antenna
Connector Type	N-J (Female)
Part Number	CPWW-YG-1212 (Variable)

Electrical Specifications

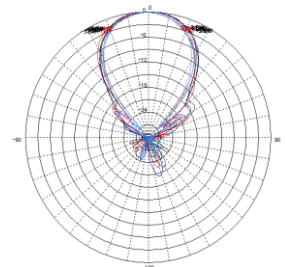
Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690
Gain (dBi)	12~ 12
VSWR	1 : 1.6
Beam Width	Horizontal 20° ~ 70° / 20° ~ 70° Vertical 20° ~ 70° / 20° ~ 70°
Polarization	V / V
IMD (3rd)	≤ -140dBc @ 2x40dBm
F-B ratio (-180 ± 30°)	10 dB ~ 15 dB
Input Power (Max)	≤ 200 W
Impedance	50 Ω

Mechanical Specifications

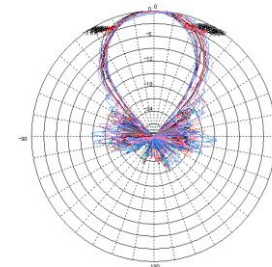
Radom Dimension (W x D x H)	100 x 36 X 1251 mm
Weight (exclude bracket)	≤ 3 kg
Radom Material (color)	ASA (Gray)
Operating Temperature / Humidity	-40 °C ~ 70 °C
Mechanical Tilt	Up/Down ± 30° / Right/Left 0°~ 30°



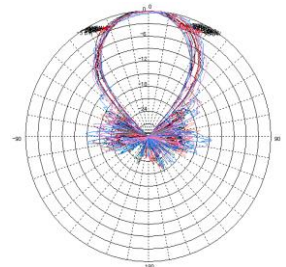
Horizontal Pattern
(Low Band)



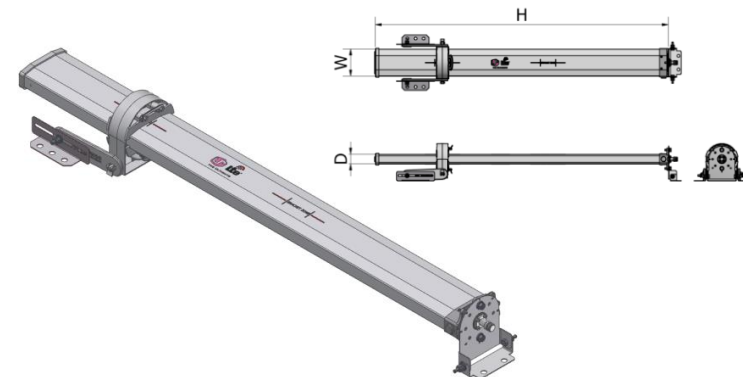
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



11. Multi-Band MIMO Yagi Antenna

819~960, 1710~2690, 3400~3700MHz / 8, 14, 14dBi

29

General Specifications

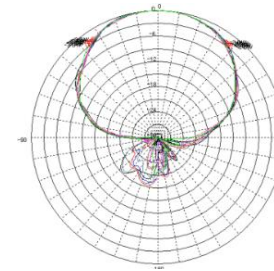
Device Type	RF Antenna
Connector Type	N-J (Female) x 2
Part Number	CPWW-MYG-814

Electrical Specifications

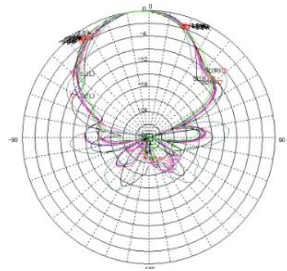
Operating Frequency Bands (MHz)	819 ~ 960 / 1710 ~ 2690 / 3400 ~ 3700
Gain (dBi)	8~ 14
VSWR	1 : 1.6
Beam Width	Horizontal 40° ~ 120° / 20° ~ 60° / 20° ~ 60° Vertical 30° ~ 90° / 20° ~ 60° / 20° ~ 60°
Polarization	VH
IMD (3rd)	≤ -140dBc @ 2x40dBm
F-B ratio (-180 ± 30°)	15 dB
Input Power (Max)	≤ 100 W
Impedance	50 Ω

Mechanical Specifications

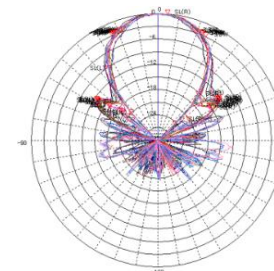
Radom Dimension (W x D x H)	1300 x 100 x 160 mm
Weight (exclude bracket)	≤ 5 kg
Radom Material (color)	ASA (Gray)
Operating Temperature / Humidity	-40 °C ~ 70 °C
Mechanical Tilt	Up/Down ± 30° / Right/Left 0°~ 30°



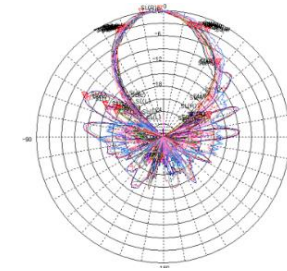
Horizontal Pattern
(Low Band)



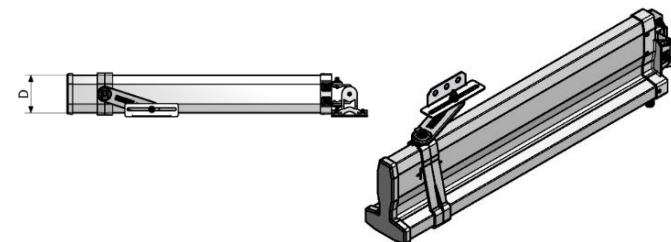
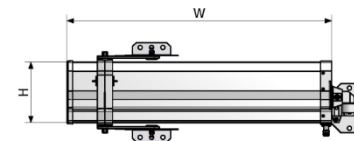
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



12. Single Band Dual Polarization Horizontal 63° 17dBi

Adjust. Electrical Down tilt

30

General Specifications

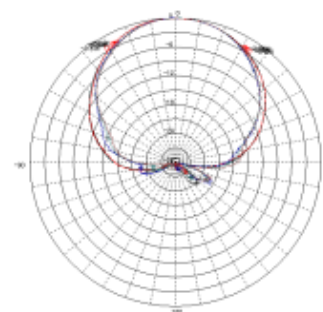
Device Type	RF Antenna
Connector Type	Mini DIN-Female x 4
Part Number	ESBDP_H65_17dBi_4x4_3.5GHz

Electrical Specifications

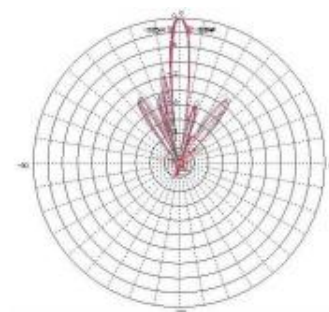
Operating Frequency Bands (MHz)	3600 ~ 4100
Gain (dBi)	16 ~ 17
VSWR	1.5 : 1
Beam Width	Horizontal 63° ± 9° Vertical ≥ 4.5°
Polarization	± 45° SLANT
Isolation	≥ 27 dB
IMD (3rd)	≤ -150 dBc @ 2x43dBm
Input Power (Max)	200 W
Impedance	50 Ω

Mechanical Specifications

Radom Dimension (W x D x H)	≤ 262 x 140 x 1000 mm
Weight (exclude bracket)	≤ 12 kg
Withstand Wind Pressure	60 m/sec
Radom Material (color)	A.S.A. (Cool Gray 4C)
Operating Temperature / Humidity	-40 °C ~ 70 °C
Mechanical Tilt	± 30°



Horizontal Pattern



Vertical Pattern



13-1. Quad Band Dual Polarization Horizontal 63° 15dBi

Adjust. Electrical Down tilt

31

General Specifications

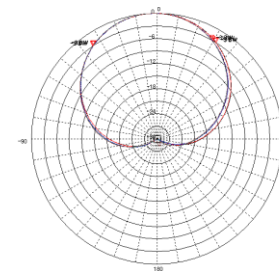
Device Type	RF Antenna
Connector Type	7/16"DIN-Female x 6
Part Number	2.6G_EQBDP_63_15dBi

Electrical Specifications

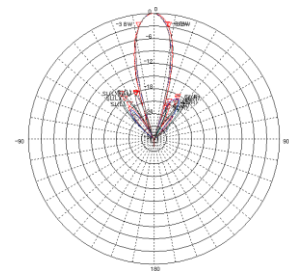
Operating Frequency Bands (MHz)	839~894 / 1755~2130 / 2500~2660
Gain (dBi)	$\geq 13 \sim \geq 14$
VSWR	1.5 : 1
Beam Width	Horizontal $65^\circ \pm 5^\circ / 63^\circ \pm 9^\circ / 63^\circ \pm 9^\circ$ Vertical $13^\circ \pm 3^\circ / 12^\circ \pm 3^\circ / 9^\circ \pm 3^\circ$
Polarization	$\pm 45^\circ$ SLANT
Isolation	≥ 27 dB $\sim \geq 30$ dB
IMD (3rd)	≤ -150 dBc @ 2x43dBm
Input Power (Max)	200 W
Impedance	50 Ω

Mechanical Specifications

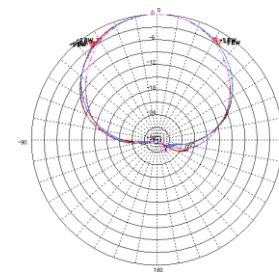
Radom Dimension (W x D x H)	297 x 150 x 1599 mm
Weight (exclude bracket)	≤ 13 kg
Withstand Wind Pressure	60 m/sec
Radom Material (color)	A.S.A. (Cool Gray 4C)
Operating Temperature / Humidity	-30 $^\circ$ C $\sim$ 60 $^\circ$ C
Mechanical Tilt	$\pm 30^\circ$



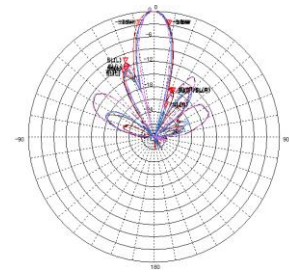
Horizontal Pattern
(Low Band)



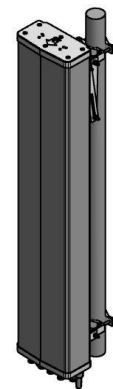
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



13-2. Quad Band Dual Polarization Horizontal 63° 12.5dBi

Adjust. Electrical Down tilt

32

General Specifications

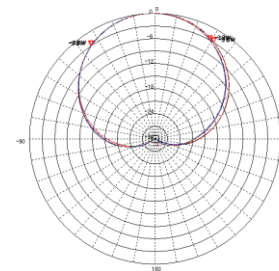
Device Type	RF Antenna
Connector Type	7/16"DIN-Female x 6
Part Number	2.6G_EQBDP_63_12.5dBi

Electrical Specifications

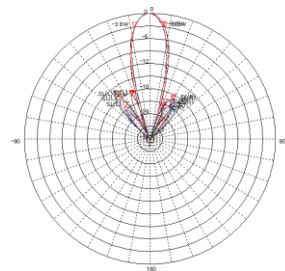
Operating Frequency Bands (MHz)	839~894 / 1755~2130 / 2500~2660
Gain (dBi)	$\geq 11.5 \sim \geq 12.5$
VSWR	1.5 : 1
Beam Width	Horizontal $65^\circ \pm 5^\circ / 63^\circ \pm 9^\circ / 63^\circ \pm 9^\circ$ Vertical $22^\circ \pm 3^\circ / 20^\circ \pm 3^\circ / 18^\circ \pm 3^\circ$
Polarization	$\pm 45^\circ$ SLANT
Isolation	≥ 27 dB $\sim \geq 30$ dB
IMD (3rd)	≤ -150 dBc @ 2x43dBm
Input Power (Max)	200 W
Impedance	50 Ω

Mechanical Specifications

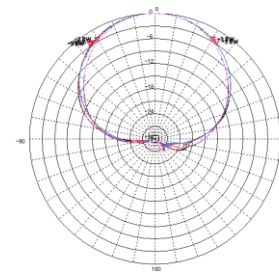
Radom Dimension (W x D x H)	290 x 147 x 1096 mm
Weight (exclude bracket)	≤ 10 kg
Withstand Wind Pressure	60 m/sec
Radom Material (color)	A.S.A. (Cool Gray 4C)
Operating Temperature / Humidity	-30 $^\circ$ C $\sim$ 60 $^\circ$ C
Mechanical Tilt	$\pm 30^\circ$



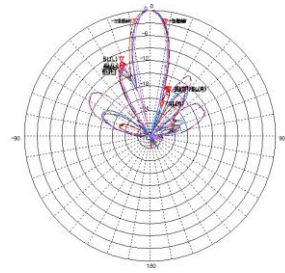
Horizontal Pattern
(Low Band)



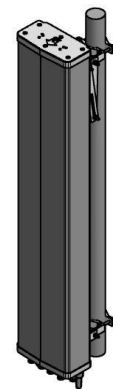
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



14. Tilt Max Sector Dual Polarization Horizontal 63° 14dBi

Adjust. Wide Range Electrical Down tilt

33

General Specifications

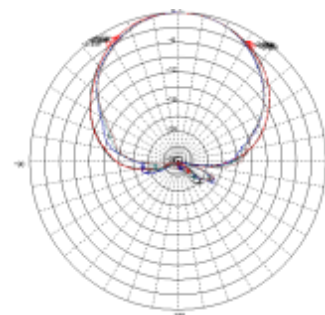
Device Type	RF Antenna
Connector Type	4.3-10 Female x 4
Part Number	B-0T04XV-0014

Electrical Specifications

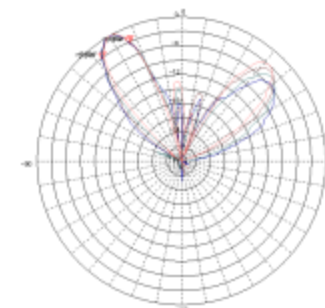
Operating Frequency Bands (MHz)	3600 ~ 4100
Gain (dBi)	≥ 14
VSWR	1.5 : 1
Beam Width	Horizontal 63° ± 9° Vertical ≥ 14° ± 3°
Polarization	± 45° SLANT
Isolation	≥ 27 dB
IMD (3rd)	≤ -150 dBc @ 2x43dBm
Input Power (Max)	200 W
Impedance	50 Ω
Electrical tilt	30°

Mechanical Specifications

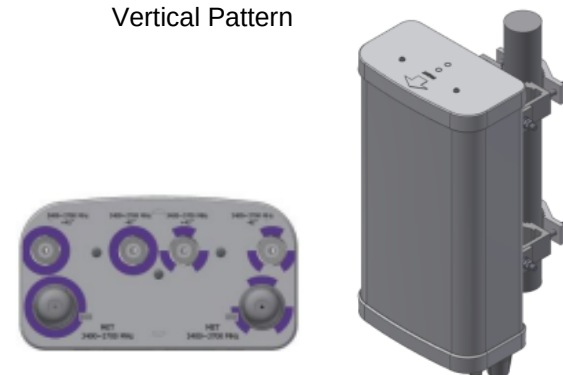
Radom Dimension (W x D x H)	≤ 262 x 140 x 500 mm
Weight (exclude bracket)	≤ 7 kg
Withstand Wind Pressure	60 m/sec
Radom Material (color)	A.S.A. (Cool Gray 4C)
Operating Temperature / Humidity	-30 °C ~ 60 °C



Horizontal Pattern



Vertical Pattern



15. Tilt Max Cylindrical Dual Polarization Horizontal 65° 10dBi High Angle Electrical Up tilt

34

General Specifications

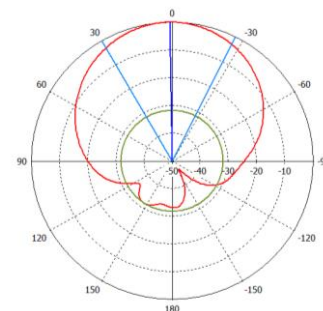
Device Type	RF Antenna
Connector Type	4.3-10 Female x 4
Part Number	C-0T04XV-0010

Electrical Specifications

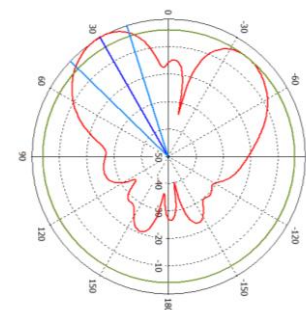
Operating Frequency Bands (MHz)	3600 ~ 4100
Gain (dBi)	≥ 10
VSWR	1.5 : 1
Beam Width	Horizontal 65° ± 8° Vertical ≥ 30° ± 5°
Polarization	± 45° SLANT
Isolation	≥ 27 dB
IMD (3rd)	≤ -150 dBc @ 2x43dBm
Input Power (Max)	200 W
Impedance	50 Ω
Electrical tilt	28° ~ 32°

Mechanical Specifications

Radom Dimension (D x H)	≤ 120 x 500 mm
Weight (exclude bracket)	≤ 3 kg
Withstand Wind Pressure	60 m/sec
Radom Material (color)	ASA FRP
Operating Temperature / Humidity	-30 °C ~ 60 °C



Horizontal Pattern



Vertical Pattern



16-1. Cylinder Type Sector Antenna

814~960, 1710~2690MHz / 10dBi

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General Specifications

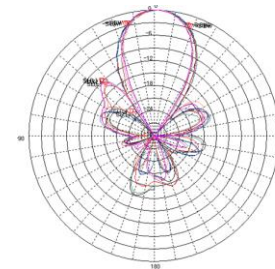
Device Type	RF Antenna
Connector Type	N-J (Female) x 2
Part Number	MB2P-35-10dBi-T0

Electrical Specifications

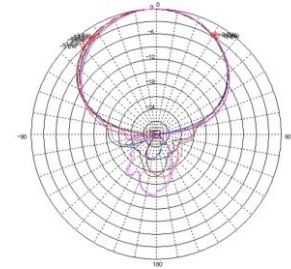
Operating Frequency Bands (MHz)	814 ~ 960 / 1710 ~ 2690
Gain (dBi)	≥ 10
VSWR	1.5 : 1
Beam Width	Horizontal $35^{\circ} \pm 10^{\circ} / 35^{\circ} \pm 10^{\circ}$ Vertical $65^{\circ} \pm 10^{\circ} / 35^{\circ} \pm 10^{\circ}$
Polarization	$\pm 45^{\circ}$ SLANT
Isolation	≥ 23
IMD (3rd)	$\leq -150\text{dBc}$ @ 2x43dBm
Input Power (Max)	200 W
Impedance	50 Ω

Mechanical Specifications

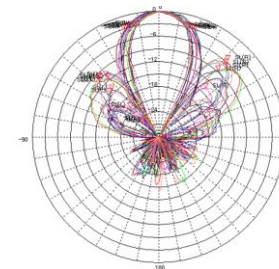
Radom Dimension (D x H)	$\varnothing 200 \times 670$ mm
Weight (exclude bracket)	≤ 5 kg
Withstand Wind Pressure	60 m/sec
Radom Material (color)	A.S.A. (Cool Gray 4C)
Operating Temperature / Humidity	-30 $^{\circ}\text{C}$ ~ 60 $^{\circ}\text{C}$



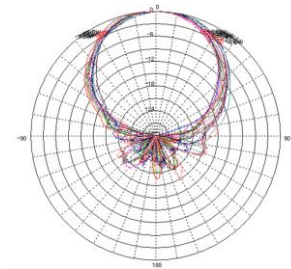
Horizontal Pattern
(Low Band)



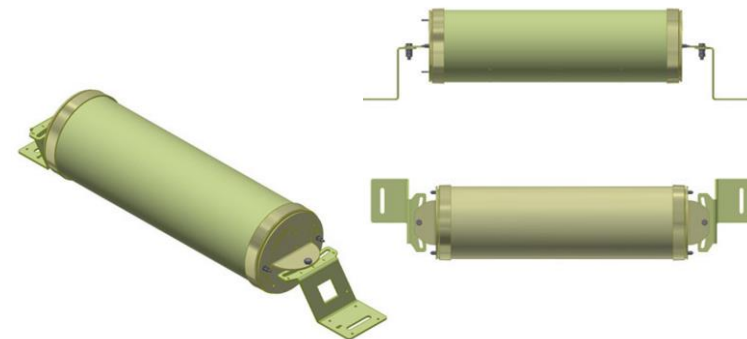
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



16-2. Cylinder Type Sector Antenna

814~960, 1710~2690MHz / 10dBi

36

General Specifications

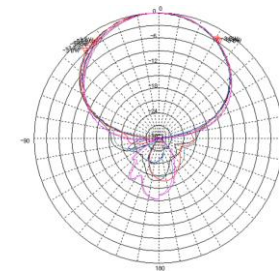
Device Type	RF Antenna
Connector Type	N-J (Female) x 2
Part Number	MB2P-35-10dBi-T0

Electrical Specifications

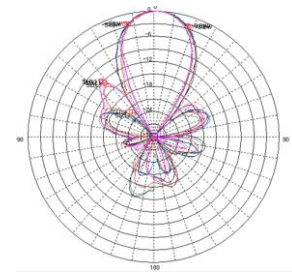
Operating Frequency Bands (MHz)	814 ~ 960 / 1710 ~ 2690
Gain (dBi)	≥ 10
VSWR	1.5 : 1
Beam Width	Horizontal $65^{\circ} \pm 10^{\circ}$ / $65^{\circ} \pm 10^{\circ}$ Vertical $35^{\circ} \pm 10^{\circ}$ / $35^{\circ} \pm 10^{\circ}$
Polarization	$\pm 45^{\circ}$ SLANT
Isolation	≥ 23
IMD (3rd)	$\leq -150\text{dBc}$ @ 2x43dBm
Input Power (Max)	200 W
Impedance	50 Ω

Mechanical Specifications

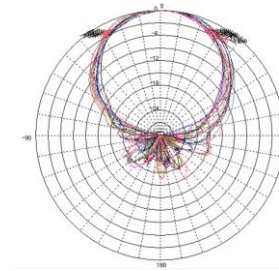
Radom Dimension (D x H)	$\varnothing 200 \times 670$ mm
Weight (exclude bracket)	≤ 5 kg
Withstand Wind Pressure	60 m/sec
Radom Material (color)	A.S.A. (Cool Gray 4C)
Operating Temperature / Humidity	-30 $^{\circ}\text{C}$ ~ 60 $^{\circ}\text{C}$



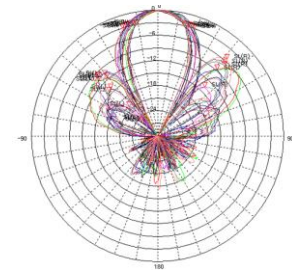
Horizontal Pattern
(Low Band)



Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



16-3. Cylinder Type Sector Antenna

814~960, 1710~2200MHz / 6.5dBi

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General Specifications

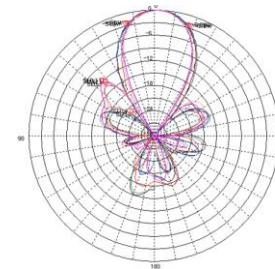
Device Type	RF Antenna
Connector Type	N-J (Female)
Part Number	CPI-CQBDP-066DT

Electrical Specifications

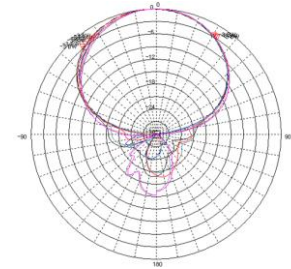
Operating Frequency Bands (MHz)	814 ~ 960 / 1710 ~ 2200
Gain (dBi)	≥ 6.5
VSWR	1.5 : 1
Beam Width	Horizontal $100^{\circ} \pm 30^{\circ}$ / $75^{\circ} \pm 20^{\circ}$ Vertical $50^{\circ} \pm 20^{\circ}$ / $50^{\circ} \pm 20^{\circ}$
Polarization	$\pm 45^{\circ}$ SLANT
Isolation	≥ 20 / ≥ 25
IMD (3rd)	$\leq -140\text{dBc}$ @ 2x43dBm
Input Power (Max)	200 W
Impedance	50 Ω

Mechanical Specifications

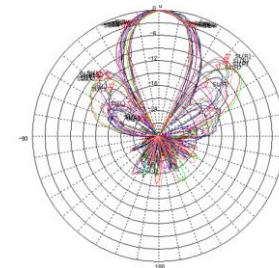
Radom Dimension (D x H)	$\varnothing 120 \times 520$ mm
Weight (exclude bracket)	≤ 5 kg
Withstand Wind Pressure	60 m/sec
Radom Material (color)	A.S.A. (Cool Gray 4C)
Operating Temperature / Humidity	$-30^{\circ}\text{C} \sim 60^{\circ}\text{C}$



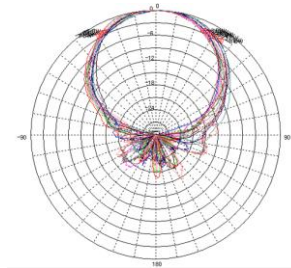
Horizontal Pattern
(Low Band)



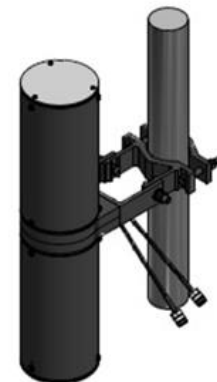
Vertical Pattern
(Low Band)



Horizontal Pattern
(High Band)



Vertical Pattern
(High Band)



16-4. Cylinder Type Sector Antenna

4T4R 3600~4100MHz / 6dBi

38

General Specifications

Device Type	RF Antenna
Connector Type	7/16" DIN-Female × 4
Part Number	TM-CQBBDP-06(4T4R)

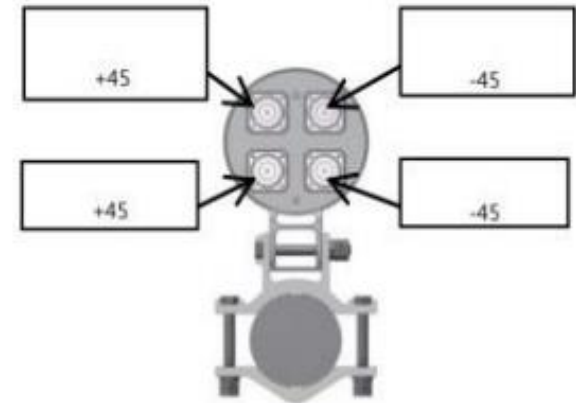
Electrical Specifications

Operating Frequency Bands (MHz)	3600 ~ 4100
Gain (dBi)	≥ 6
VSWR	1.5 : 1
Beam Width	Horizontal 70° ± 20° Vertical ≥ 50° ± 20°
Polarization	± 45° SLANT

F-B Ratio	≥ 13 dB
PIMD (3rd)	-140dBc
Input Power (Max)	200 W
Impedance	50 Ω

Mechanical Specifications

Radom Dimension (D x H)	Ø120 × 400 mm
Weight (exclude bracket)	≤ 3 kg
Withstand Wind Pressure	60 m/sec
Radom Material (color)	ASA FRP
Operating Temperature / Humidity	-40 °C ~ 70 °C



17. 4 GHz Patch Antenna

3600~4100MHz / 16dBi

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General Specifications

Device Type	RF Antenna
Connector Type	N-J (Female) × 2
Part Number	P-0T02XT-0016-K

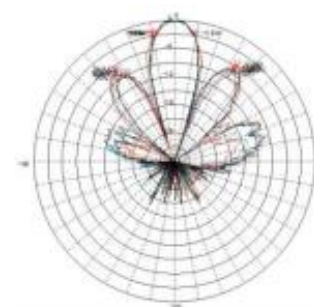
Electrical Specifications

Operating Frequency Bands (MHz)	3600 ~ 4100
Gain (dBi)	≥ 16
VSWR	1.5 : 1
Beam Width	Horizontal 20° ± 5° Vertical 20° ± 5°

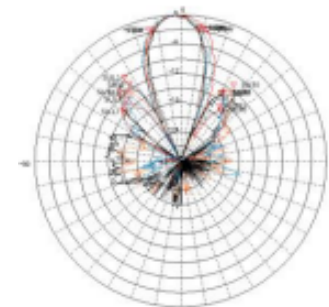
Polarization	± 45°
F-B Ratio	≥ 13 dB
Isolation	≥ 20 dB
Input Power (Max)	100 W
Impedance	50 Ω

Mechanical Specifications

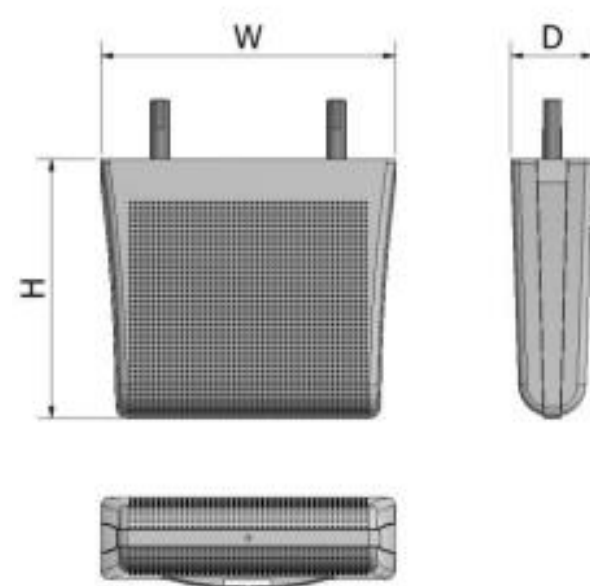
Radom Dimension (W x D x H)	222 x 250 x 70 mm
Weight (exclude bracket)	≤ 1.5 kg
Radom Material (color)	White
Operating Temperature / Humidity	-30 ° C ~ 60 ° C



Horizontal Pattern



Vertical Pattern



18. 4 GHz 4T4R Patch Antenna

3600~4100 MHz/ 10dBi

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General Specifications

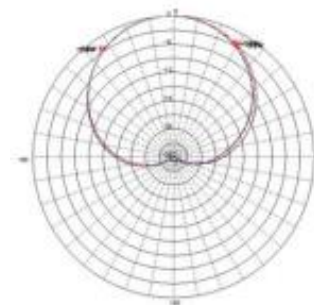
Device Type	RF Antenna
Connector Type	N-J (Female) × 4
Part Number	P-0T04XT-0010-K

Electrical Specifications

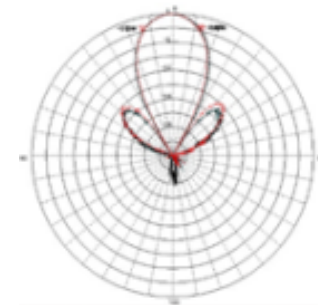
Operating Frequency Bands (MHz)	3600 ~ 4100
Gain (dBi)	≥ 10
VSWR	1.5 : 1
Beam Width	Horizontal ≥ 60° Vertical 30°
Polarization	± 45°
F-B Ratio	≥ 15 dB
Isolation	≥ 20 dB
Input Power (Max)	100 W
Impedance	50 Ω

Mechanical Specifications

Radom Dimension (W x D x H)	195 x 195 x 45 mm
Weight (exclude bracket)	≤ 800 g
Radom Material (color)	White
Operating Temperature / Humidity	-30 ° C ~ 60 ° C
Mechanical Tilt	± 30°



Horizontal Pattern



Vertical Pattern

