



# ANTENNA SYSTEM COMPONENTS PRODUCT CATALOGUE 2025<sub>v1</sub>



ab Intensa



# ⌘ Dual B





## Introduction

Dual B antennas are widely used in Scandinavia in shopping malls, airports, hospitals, mines, metro stations, schools, residential and office buildings, etc.

Our aim is to offer the antenna network components with the latest technology to secure reliable network operation.

High performance, reliability and competitive prices are the main characteristics of the products.

We grant 2-years warranty for Dual B products.

**2 years warranty**

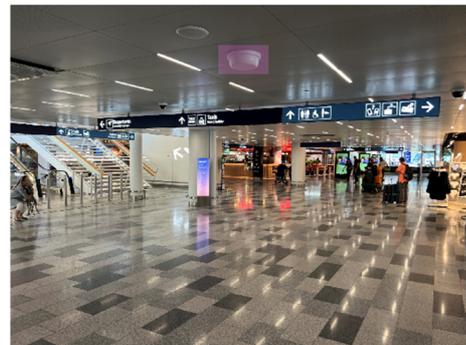
## References

- University hospital, new Tammi hospital. Helsinki, Finland
- Ikea warehouses (20 pcs). Sweden
- New Natural History Museum. Copenhagen, Denmark
- Nokia Arena. Tampere, Finland
- University hospital. Cancer clinic. Helsinki, Finland
- University hospital. Linköping, Sweden
- Scandic Meilahti hotel. Helsinki, Finland
- Länsimetro. Espoo, Finland
- Helsinki/Vantaa airport Terminal 2 extension. Vantaa, Finland
- University hospital T3. Turku, Finland
- Stockholm's tunnelbana. Stockholm, Sweden
- HUS Siltasairaala hospital. Helsinki, Finland
- Redi shopping mall. Helsinki, Finland
- Arlanda airport. Stockholm, Sweden
- LKAB mine. Kiruna, Sweden
- Karlatornet. Göteborg, Sweden
- Comfort hotels. Around in Sweden and Copenhagen, Denmark
- Hospital. Nyköping, Sweden
- Agnico Eagle mine. Kittilä, Finland
- Mälar hospital. Eskilstuna, Sweden
- Region hospital. Karsudden, Sweden



Ikea warehouse.

698-4000 MHz MiMo omni (AN7040-OI-M1-4) antennas and 350-5925 MHz (TA3559-xx-01-4) power tappers.



Helsinki/Vantaa airport Terminal 2 extension.

380-3800 MHz MiMo omni (AN3838-OI-M1-4) antennas.



# Advantages of Dual B products

- **Unlike typical standard products.** Dual B products have own requirements for factory testing procedures and used components.



Most of Dual B DAS antennas have 1 meter white cable for easier and more discrete installation.



Typical standard DAS antennas in the market have 30 cm blue cable



We also offer 3 meters cable with male 4.3-10 connector on some antenna models

- **Unique/specialized designs.** Some of the products are exclusively designed for Dual B and are not available elsewhere. E.g. 380-3800 MHz indoor MiMo omni and panel antennas.



380-3800 MHz omni SiSo antenna. Ø 186 x 85 mm. Smallest on the market, operates mounted on a metal ceiling.



380-3800 MHz MiMo antenna. Installation on vertically or horizontally. Exclusive on the market.

- **Premium quality with affordable prices.** We are working tightly with carefully selected manufacturers. We use different manufacturers which are specialized for each product segments allowing us to offer our customers the best quality and product performance.
- **Continuous product improvement** in cooperation with our manufacturers and customers.
- **Short lead times.** Most of Dual B products are immediately available from our stock located in Lidingö, Sweden.
- **Competitive prices level.** There can be cheaper products in the market, but hardly with the same features and quality.



Low profile 698-4000 MHz omni antenna with three variations; with 1 meter, 2 meters cable, with black radome and cable.



Outdoor antennas can be mounted on wall or a pole. Our wide range of tilt accessories fits all needs.

- **We offer customized products and solutions.** We have developed the custom products for different customer projects with close cooperation with our manufacturers.
- **Vex files** for  iBwave planning software are available for most of the products.

 iBwave Vex files are available for the products which are marked with  logo in data sheets.

Download vex files, [CLICK HERE](#)

## Highlights of the new products

380-4000 MHz Indoor panel antenna Water protected. Page 17

Vertically and horizontally adjustable by swivel bracket. Wall and pole installation.



698-4000MHz Indoor panel antenna Water protected.

Page 20

Vertically and horizontally adjustable by swivel bracket. Wall and pole installation.



698-3800MHz VPOL Directional Antenna 12 dBi 70°. Page 28

Two ways radiating antenna e.g. for tunnels and corridors



698-960/1710-2700/3300-3800 MHz

Triple band combiner Double twin unit. Page 42



380-960MHz / 1695-2700MHz Dual-Band Combiners

Single and Double units

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350-6000 MHz

Low profile Omni ceiling antenna



Bottom view

Side view

Top view

**Product number: AN3560-OI-01-4****Key features**

- This low profile Low PIM antenna is horizontally polarized and operates at 350-6000 MHz.
- Super wideband antenna does cover all indoor frequency bands including TETRA, 2G, 3G, 4G, 5G and 5 GHz WiFi.
- Fast installation. Additional ground plane or foil is not needed.

**Electrical specification**

Frequency Band	350-698 MHz	698-960 MHz	1710-2700 MHz	3300-3800 MHz	4900-6000 MHz
Gain	3.5 dBi	3.5 dBi	3.5 dBi	4.5 dBi	4.5 dBi
VSWR	≤ 1.8	≤ 1.5	≤ 1.5	≤ 1.5	≤ 1.5
PIM, 3rd Order, 2×20W	≤-153 dBc				
Polarization	Horizontal				
Input Impedance	50 Ω				
Input Power. Max.	50 Watts				

**Mechanical specification**

Radome color	White
Radome material	ABS
Dimensions (D x H)	Ø 300 x 40.4 mm
Weight	700 g
Cable length	1000 mm
Connector	4.3-10 female

**Environmental specification**

Operating temperature	from -40°C to +55°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

**Installation**

Mounting	Ceiling mounting. Maximum ceiling thickness can be 35mm. Drill a hole with a 23-30 mm diameter into suspended ceiling and secure the antenna with included plastic nut.
Grounding	All metal parts inclusive the inner conductors are DC grounded

20210329/JB



## 380-3800 MHz

### Omni ceiling antenna

Product number	Cable length	Connector	Application
AN3838-OI-01-4	1 meter	4.3-10 female	Indoor
AN3838-OI-01-N	1 meter	N female	Indoor
AN3838-OI-03-4	3 meters	4.3-10 male	Indoor
AN3838-OO-01-4	1 meter	4.3-10 female	Humid Indoor



Bottom view



Side view



Top view

#### Electrical specification

Frequency Band	380-490 MHz	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Gain	0 dBi	1.5 dBi	5 dBi	5 dBi
VSWR	≤2.0			
PIM, 3rd Order, 2×20W	N/A	≤-150 dBc		
Polarization	Vertical			
Beamwidth, Horizontal	360°			
Input Impedance	50 Ω			
Input Power. Max.	10 Watts	50 Watts		

#### Mechanical specification

Radome color	White
Radome material	ABS, UV resistant
Dimensions	Ø 186 x 85 mm
Weight	380 g
Cable length	See table above
Connector	See table above

#### Environmental specification

Operating temperature	from -40°C to +60°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

#### Installation

Mounting	Ceiling mounting. Maximum ceiling thickness can be 35mm. Drill a hole with a 19-29mm diameter into suspended ceiling and secure the antenna with included plastic nut and aluminium washer. AN3838-OO-01-4 is water protected version for humid environments e.g. tunnels and parking halls.
Grounding	All metal parts inclusive the inner conductors are DC grounded

#### Key features

- The antenna is vertically polarized and operates at 380-3800 MHz covering also the public safety TETRA band
- Small size
- The best antenna on the market for metal ceilings.** No need for additional absorbers to get PIM and VSWR to work.

20241020/JB



380-3800 MHz

## MiMo Omni ceiling antenna



Bottom view



Side view



Top view

Product number: AN3838-OI-M1-4

### Key features

- This Low PIM MiMo antenna operates at 380-3800 MHz
- Wideband antenna does cover all indoor frequency bands including TETRA, 2G, 3G, 4G, 5G and 5 GHz WiFi.
- Fast installation. Additional ground plane or foil is not needed.

### Electrical specification

	Port 1				Port 2		
	380-490	698-960	1710-2700	3400-3800	698-960	1710-2700	3400-3800
Frequency Band (MHz)	380-490	698-960	1710-2700	3400-3800	698-960	1710-2700	3400-3800
Gain	0 dBi	1.5 dBi	5 dBi		2 dBi	4 dBi	
VSWR	≤ 2.0	≤ 1.8	≤ 1.8		≤ 1.8	≤ 1.8	
Polarization	Vertical				Horizontal		
Input Power. Max.	10 Watts	50 Watts			50 Watts		
PIM, 3rd Order, 2×20W	NA	≤-150 dBc		NA	≤-150 dBc		NA
Beamwidth, horizontal	360°						
Isolation, between ports	> 20 dB						
Input Impedance	50 Ω						

### Mechanical specification

Radome color	White
Radome material	ABS
Dimensions (D x H)	Ø 280 x 95 mm
Weight	850 g
Cable length & color	2 x 1000 mm White
Connector	4.3-10 female (2 pcs)

### Environmental specification

Operating temperature	from -40°C to +60°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Ceiling mounting. Drill a hole with a 24-27mm diameter into suspended ceiling and secure the antenna with included plastic nut and washer. Maximum ceiling thickness can be 30mm without washer and 27 mm with washer.
Grounding	All metal parts inclusive the inner conductors are DC grounded

20200831/JB



## 698-4000 MHz Slim Omni ceiling antenna

Product number	Cable length	Connector	Color
AN7040-OI-01-4	1 meter	4.3-10 female	White
AN7040-OI-02-4	2 meters	4.3-10 male	White
AN7040-OI-BL1-4	1 meter	4.3-10 female	Black



### Key features

- This low profile Low PIM antenna operates at 698-4000 MHz.
- AN7040-OI-BL1-4 is completely black, including cable and backside of the antenna
- Almost unnoticeable due to very slim design.

### Electrical specification

Frequency Band	698-960MHz	1690-2170 MHz	2300-2500 MHz	2500-2700 MHz	3300-4000 MHz
Gain	3 dBi	4 dBi	4 dBi	5 dBi	3 dBi
Vertical Beamwidth	120°	85°	76°	70°	62°
Horizontal Beamwidth	360°				
VSWR	≤ 1.8				≤ 2
PIM, 3rd Order, 2×20W	≤-153 dBc				
Polarization	Horizontal				
Input Impedance	50 Ω				
Input Power. Max.	50 Watts				

### Mechanical specification

Radome color	White or Black
Radome material	ABS (UV stabilized)
Dimensions (D x H)	Ø 190 x 7,3 mm
Weight	250 g
Cable length	See the table above
Connector	See the table above

### Environmental specification

Operating temperature	from -40°C to +65°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Ceiling mounting. Maximum ceiling thickness can be 40mm. Drill a hole with a 25-30 mm diameter into suspended ceiling and secure the antenna with included plastic nut.
Grounding	All metal parts inclusive the inner conductors are DC grounded

20241113/JB



## 698-3800 MHz Omni ceiling antenna



Bottom view



Side view



Top view

**Product number: AN7038-OI-11-4**

### Electrical specification

Frequency Band	698-800 MHz	800-960 MHz	1710-2700 MHz	3300-3800 MHz
Gain	2 dBi		5 dBi	5.5 dBi
VSWR	≤1.8		≤1.5	
Beamwidth, Vertical	85°	80°	54°	28°
Beamwidth, Horizontal	360°			
Polarization	Vertical			
PIM, 3rd Order, 2×20W	≤-153 dBc			NA
Input Impedance	50 Ω			
Input Power. Max.	50 Watts			

### Mechanical specification

Radome color	White
Radome material	ABS, UV resistant
Dimensions	Ø 186 x 86 mm
Weight	200 g
Cable length	1000 mm
Connector	4.3-10 female

### Environmental specification

Operating temperature	from -40°C to +65°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Ceiling mounting. Maximum ceiling thickness can be 35mm. Drill a hole with a 19-29mm diameter into suspended ceiling and secure the antenna with included plastic nut and aluminium washer.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- The antenna is vertically polarized and operates at 698-3800 MHz
- Low PIM value meets highest requirements for indoor or outdoor DAS.
- Small size
- **The best antenna on the market for metal ceilings.** No need for additional absorbers to get PIM and VSWR to work.

20241120/JB



## 698-3800 MHz Omni ceiling Antenna 3m



Bottom view



Side view

Product number: AN7038-OI-03-4

### Electrical specification

Frequency Band	698-806 MHz	806-960 MHz	1710-2700 MHz	3300-3800 MHz
Gain	2 dBi		5 dBi	5.5 dBi
VSWR	≤2	≤1.8	≤1.5	
Beamwidth, Horizontal	85°	80°	54°	28°
PIM, 3rd Order, 2×20W	≤-153 dBc			
Polarization	Vertical			
Input Impedance	50 Ω			
Input Power. Max.	50 Watts			

### Mechanical specification

Radome color	White
Radome material	ABS, UV resistant
Dimensions	Ø 186 x 86 mm
Weight	300 g
Cable length	3000 mm
Connector	4.3-10 male

### Environmental specification

Operating temperature	from -40°C to +65°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Ceiling mounting. Maximum ceiling thickness can be 35mm. Drill a hole with a 19-29mm diameter into suspended ceiling and secure the antenna with included plastic nut and aluminium washer.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- The antenna is vertically polarized and operates at 698-3800 MHz
- 3 meters cable with male connector enables direct connection to splitter or tapper
- **The best antenna on the market for metal ceilings.** No need for additional absorbers to get PIM and VSWR to work.

20241130/JB



## 698-4000 MHz Omni MiMo ceiling antenna



**Product number: AN7040-OI-M1-4**

### Electrical specification

Frequency Band (both ports)	698-806 MHz	800-960 MHz	1425-2700 MHz	3300-4000 MHz
Gain	2.5 dBi	3.5 dBi	4.5 dBi	5 dBi
Beamwidth, Horizontal	360°			
Beamwidth, Vertical	95°	90°	46°	38°
VSWR	≤2.0	≤1.8		
Isolation	>19 dB		>23 dB	
PIM, 3rd Order, 2×20W	≤-153 dBc			
Input Impedance	50 Ω			
Input Power. Max.	50 Watts			

### Mechanical specification

Radome color	White
Radome material	ABS, UV stabilized
Dimensions	Ø 215 x 47 mm
Weight	450 g
Cable length	1000 mm (2 pcs)
Connector	4.3-10 female (2 pcs)

### Environmental specification

Operating temperature	from -40°C to +65°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Ceiling mounting. Maximum ceiling thickness can be 30mm. Drill a hole with a 24-30mm diameter into suspended ceiling and secure the antenna with included plastic nut.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- The antenna is vertically and horizontally polarized and operates at 698-4000 MHz
- Low PIM value meets highest requirements for indoor or outdoor DAS.
- Small size
- Fast installation

20191128/JB



## 698-4000 MHz Slim Omni MiMo ceiling antenna



Product number: AN7040-OI-M2-4

### Electrical specification

Frequency Band (both ports)	698-806 MHz	1425-2170 MHz	2300-2700 MHz	3300-4000 MHz
Gain	3 dBi	4 dBi	6 dBi	5.5 dBi
Beamwidth, Horizontal	360°			
Beamwidth, Vertical	110°	68°	29°	30°
VSWR	≤2.0		≤1.8	
Isolation	>20 dB	>23 dB		
PIM, 3rd Order, 2×20W	≤-150 dBc			
Input Impedance	50 Ω			
Input Power. Max.	50 Watts			

### Mechanical specification

Radome color	White
Radome material	ABS, UV stabilized
Dimensions	Ø 280 x 19 mm
Weight	550 g
Cable length	1000 mm (2 pcs)
Connector	4.3-10 female (2 pcs)

### Environmental specification

Operating temperature	from -40°C to +65°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Ceiling mounting. Maximum ceiling thickness can be 40mm. Drill a hole with a 31-38mm diameter into suspended ceiling and secure the antenna with included plastic nut.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- The antenna is linear horizontally polarized and operates at 698-4000 MHz
- Low PIM value meets highest requirements for indoor or outdoor DAS.
- Fast installation
- Slim design

20191128/JB



Front view

Side view

Back view



380-3800 MHz

## Directional wall mount antenna

Product number	Connector	Application
AN3838-DI-01-4	4.3-10 female	Indoor
AN3838-DO-01-4	4.3-10 female	Humid Indoor

## Electrical specification

Frequency Band	380-400 MHz	400-490 MHz	698-960 MHz	1710-2700 MHz	3400-3800 MHz
Gain	2 dBi		5 dBi	8 dBi	8 dBi
VSWR	≤2.0	≤2.35	≤2.0		
PIM, 3rd Order, 2×20W	N/A		≤-150 dBc		
Beamwidth, Horizontal	>120°		100°	65°	64°
Beamwidth, Vertical	90°		75°	60°	59°
Polarization	Vertical				
Input Impedance	50 Ω				
Input Power	max. 50 Watts				

## Mechanical specification

Radome color	White
Radome material	ABS, UV resistant
Dimensions (HxWxD)	280 x 160 x 60 mm
Weight	700 g
Cable length	1000 mm
Connector	4.3-10 female

## Environmental specification

Operating temperature	from -40°C to +60°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

## Installation

Mounting	After affixing the mounting plate (included) to the wall, then mount the antenna on to the mounting plate by sliding it into the slot. Can be installed cable up- or downwards. 50 mm space is required above the antenna. Four screws and screw plugs are included. AN3838-DO-01-4 is water protected version for humid environments e.g. tunnels and parking halls. NOTE: Cable shall be installed straight up- or downwards. If installed on metal surface, we recommend the accessory MKP-01 to prevent VSWR interference on low band.
Grounding	All metal parts inclusive the inner conductors are DC grounded

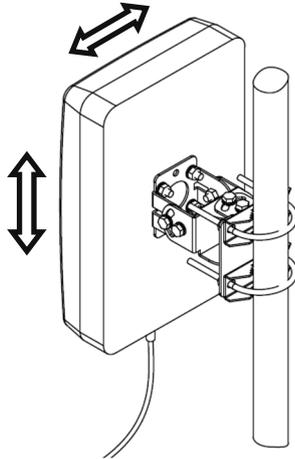
## Key features

- The antenna is vertically polarized and operates at 380-3800 MHz covering also the public safety frequency band for TETRA.
- Low PIM values meets highest requirements for indoor DAS
- Easy installation

20240927JB



## 380-4000 MHz Indoor panel antenna Water protected



Product number: AN3840-DO-01-4

### Electrical specification

Frequency Band	380-520 MHz	698-960 MHz	1710-2700 MHz	3300-4000 MHz
Gain	4 dBi	5 dBi	7 dBi	7.5 dBi
Beamwidth, Horizontal	150°	90°	75°	65°
Beamwidth, Vertical	75°	65°	65°	60°
Front to back ratio @ 180°	≥9 dB	≥10 dB	≥15 dB	≥11 dB
VSWR	≤3	≤2		
PIM, 3rd Order, 2×20W	≤-153 dBc			
Input Impedance	50 Ω			
Input Power. Max. Per port	50 W			

### Mechanical specification

Radome color	White
Radome material	ABS, UV resistant
Dimensions (H x W x D)	315 x 195 x 68 mm
Weight	800 g
Cable length	1000 mm
Connector	4.3-10 female

### Environmental specification

Operating temperature	from -40°C to +65°C
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Mounting on a wall and pole with 38 - 52 mm diameter. Mounting brackets are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- Operates at 380-4000 MHz
- Suitable for humid environment as tunnels and parking halls
- Wall and pole installation
- Vertically and horizontally adjustable by swivel bracket

20241030/JB



## 380-3800 MHz Directional MiMo wall antenna

Product number: AN3838-DO-M1-4

### Key features

- Vertically polarized and operates as MiMo antenna at 698-3800 MHz and SiSo at 380-400 MHz
- Wideband antenna does cover all indoor frequency bands including TETRA, 2G, 3G, 4G, 5G
- Waterprotection enables installations for humid indoor environments as parking halls and tunnels

### Electrical specification

	Port 1				Port 2		
Frequency Band (MHz)	380-400	698-960	1710-2700	3400-3800	698-960	1710-2700	3400-3800
Gain	0.5 dBi	5 dBi	7 dBi		5 dBi	7 dBi	
VSWR	≤ 2.5	≤ 2.0					
Polarization	Vertical						
Input Power. Max.	50 Watts						
PIM, 3rd Order, 2×20W	NA	≤-150 dBc		NA	≤-150 dBc		NA
Beamwidth, Horizontal	>120°	90°		60°	90°		60°
Beamwidth, Vertical	90°	75°	70°	50°	75°	70°	50°
Isolation, between ports	NA	> 18 dB	> 20 dB		> 18 dB	> 20 dB	
Input Impedance	50 Ω						

### Mechanical specification

Radome color	White
Radome material	ABS
Dimensions (H x W x D)	360 x 160 x 60 mm
Weight	1.2 kg
Cable length & color	2 x 800 mm White
Connector	4.3-10 female (2 pcs)

### Environmental specification

Operating temperature	from -40°C to +60°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Antenna can be mounted vertically (cable outlet up) or horizontally (cable outlet of left). After affixing the mounting plate (included) to the wall, then mount the antenna on to the mounting plate by sliding it into the slot. Four screws, screw plugs and rubber plugs for moisture preventing are included. Cable shall not be installed on metal surface as it interferes VSWR on low band.
Grounding	All metal parts inclusive the inner conductors are DC grounded

20240606/JB



698-3800 MHz

Directional indoor wall mount antenna



Product number: AN7038-DI-01-4

**Electrical specification**

Frequency Band	698-800 MHz	800-960 MHz	1710-2700 MHz	3400-3800 MHz
Gain	5 dBi	6 dBi	8 dBi	8 dBi
Beamwidth, Horizontal	100°	100°	65°	64°
Beamwidth, Vertical	75°	70°	60°	59°
VSWR	≤2.0			
PIM, 3rd Order, 2×20W	≤-150 dBc			
Polarization	Vertical			
Input Impedance	50 Ω			
Input Power. Max.	50 Watts			

**Mechanical specification**

Radome color	White
Radome material	ABS, UV resistant
Dimensions (H x W x D)	165 x 155 x 45 mm
Weight	380 g
Cable length	1000 mm
Connector	4.3-10 female

**Environmental specification**

Operating temperature	from -40°C to +60°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

**Installation**

Mounting	Wall mounting. After affixing the mounting plate (included) to the wall, then mount the antenna on to the mounting plate by sliding it into the slot. Can be installed cable up- or downwards in dry indoor and cable downwards in humid indoor environments. 50 mm space is required above the antenna. Screws and screw plugs are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

**Key features**

- The antenna is vertically polarized and operates at 698-3800 MHz
- Suitable for indoor applications such as DAS and for humid environment as metro tunnel or parking hall
- Low PIM value meets highest requirements for indoor DAS
- 4.3-10 connector enables stable PIM for every connection

20200527/JB



## 698-4000MHz Indoor panel antenna Water protected



Product number: AN7040-DO-01-4

### Electrical specification

Frequency Band	698-806 MHz	806-960 MHz	1710-2700 MHz	3300-4000 MHz
Gain	5.5 dBi	6.5 dBi	8 dBi	7 dBi
Beamwidth, Horizontal	100°	85°	65°	50°
Beamwidth, Vertical	90°	82°	60°	45°
Front to back ratio @ 180°	≥9 dB	≥10 dB	≥15 dB	≥11 dB
VSWR	≤2		≤1.8	
PIM, 3rd Order, 2×20W	≤-153 dBc			
Input Impedance	50 Ω			
Input Power. Max.	50 W			

### Mechanical specification

Radome color	White
Radome material	ABS, UV resistant
Dimensions (H x W x D)	180 x 158 x 60 mm
Weight	400 g
Cable length	1000 mm
Connector	4.3-10 female

### Environmental specification

Operating temperature	from -40°C to +65°C
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Mounting on a wall and pole with 38 - 52 mm diameter. Mounting brackets are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- Operates at 698-4000 MHz
- Suitable for humid environment as tunnels and parking halls
- Wall and pole installation
- Vertically and horizontally adjustable by swivel bracket

20241023/JB



## 698-4000 MHz Directional MiMo wall antenna



**Product number: AN7040-DI-M1-4**

### Electrical specification

Frequency Band (both ports)	698-960 MHz	1710-2700 MHz	3300-4000 MHz
Gain	5.5 dBi	8.5 dBi	7 dBi
VSWR	≤ 2.0	≤ 1.8	≤ 2.0
Beamwidth, Horizontal	90°	65°	45°
Beamwidth, Vertical	78°	60°	38°
PIM, 3rd Order, 2×20W	≤ -153 dBc		
Isolation (typ.)	20 dB		
Polarization	±45°		
Input Impedance	50 Ω		
Input Power. Max.	50 Watts		

### Mechanical specification

Radome color	White
Radome material	ABS, UV stabilized
Dimensions (H x W x D)	315 x 195 x 68 mm
Weight	650 g
Cable length	2 x 1000 mm
Connector	4.3-10 female (2 pcs)

### Environmental specification

Operating temperature	from -40°C to +65°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Wall mounting. After affixing the mounting plate (included) to the wall, then mount the antenna on to the mounting plate by sliding it into the slot. 50 mm space is required above the antenna.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- Vertically and horizontally polarized
- Operates at 698-4000 MHz
- Full range MIMO in both ports
- Low PIM value meets highest requirements
- 4.3-10 connector enables stable PIM for every connection
- Easy installation

20191120/JB



## 698-3800 MHz Directional MiMo wall antenna 4 ports



Product number: AN7038-DI-M1-4

### Electrical specification

Frequency Band (all ports)	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Gain	6 dBi	8 dBi	
Beamwidth, Horizontal	75±15°	60±15°	65±15°
Beamwidth, Vertical	75°	55°	35°
Front to back ratio	≥15 dB	≥25 dB	≥20 dB
Isolation	≥18 dB	≥20 dB	≥25 dB
VSWR	≤ 1.8		
PIM, 3rd Order, 2×20W	≤-150 dBc		
Polarization	±45°		
Input Impedance	50 Ω		
Input Power. Max.	50 Watts		

### Mechanical specification

Radome color	White
Radome material	ABS
Dimensions (W x H xD)	410 x 305 x 84 mm
Weight	2 kg
Cable length	4 x 1000 mm
Connector	4.3-10 female (4 pcs)

### Environmental specification

Operating temperature	from -40°C to +60°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes
Application	Indoor

### Installation

Mounting	Wall mounting. After affixing the mounting plate (included) to the wall, then mount the antenna on to the mounting plate by sliding it into the slot. 50 mm space is required above the antenna.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- 4 port MiMo indoor antenna
- For 2G, 3G, 4G and 5G frequency bands
- Low PIM value meets highest requirements

20191111/JB



## 380-3800 MHz Outdoor panel antenna



**Product number: AN3838-DO-02-4**

### Electrical specification

Frequency Band	380-400	400-490	698-960	1710-2700	3400-3800
Gain	2 dBi		5 dBi	8 dBi	8 dBi
VSWR	≤2.0	≤2.35	≤2.0		
PIM, 3rd Order, 2×20W	N/A		≤-150 dBc		N/A
Beamwidth, Horizontal	>120°		100°	65°	64°
Beamwidth, Vertical	90°		75°	60°	59°
Polarization	Vertical				
Input Impedance	50 Ω				
Input Power Max.	50 Watts				

### Mechanical specification

Radome color	Light grey
Radome material	Fiberglass
Dimensions (HxWxD)	260 x 165 x 85 mm
Weight	1,2 kg
Cable length	1000 mm
Connector	4.3-10 female

### Environmental specification

Operating temperature	from -40°C to +60°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Pole and wall mounting. Mounting brackets are included and they are compatible with Ø 30-54 mm pole. NOTE: Cable shall be installed straight downwards. If installed on metal surface, we recommend the accessory MKP-01 to prevent VSWR interference on low band.
Grounding	All metal parts inclusive the inner conductors are DC grounded

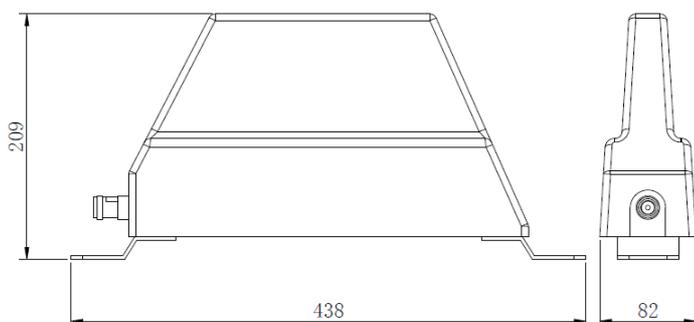
### Key features

- The outdoor antenna is vertically polarized and operates at 380-3800 MHz covering also the public safety frequency band for TETRA.
- Low PIM values meets highest requirements for outdoor DAS
- Installation on pole or wall

20241021/JB



## 698-3800MHz Bi-Directional antenna



Mounting brackets



Product number: AN7038-BO-01-4

### Electrical specification

Frequency Band (both ports)	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Gain	5 dBi	5.5 dBi	6 dBi
VSWR	≤ 2.0	≤ 1.8	≤ 2.0
Beamwidth, Horizontal	90°	75°	58°
Beamwidth, Vertical	75°	60°	50°
PIM, 3rd Order, 2×20W	≤ -153 dBc		
Input Impedance	50 Ω		
Input Power. Max.	100 Watts		

### Mechanical specification

Radome color	White
Radome material	ASA+PC, UV resistant
Dimensions (H x W x D)	400 x 82 x 190 mm
Weight	900 g
Connector	4.3-10 female

### Environmental specification

Operating temperature	from -40°C to +65°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes
Wind load, at 150 km/h, N	Frontal 27.96 Lateral: 80.28 Rearside: 48.96

### Installation

Mounting	Pole and wall mounting. Mounting brackets are included. Stainless steel tension bands (2 pcs) are compatible for Ø 38-90 mm poles. Stainless steel anchor bolts (2 pcs) are for mounting on wall.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- Radiates vertically two ways
- Designed for outdoors
- Operates at 698-3800 MHz
- Low PIM value meets highest requirements
- Installation on pole or wall
- E.g. for corridors, tunnels

20220504/JB



## 690-4000MHz Log period antenna 13dBi 39°



Product number: AN6940-DO-01-4

### Key features

- Vertical polarized and operates at 690-4000 MHz
- High gain antenna for repeater solutions
- Low PIM

### Electrical specification

Frequency Band	690-806 MHz	806-960 MHz	1710-2170 MHz	2170-2700 MHz	3300-4000 MHz
Gain	11.5 dBi	12.5 dBi	13.5 dBi		
Beamwidth, Horizontal	56°	54°	45°	41°	40°
Beamwidth, Vertical	47°	45°	37°	35°	32°
Front to back ratio	≥23 dB				
VSWR	≤1.5				
PIM, 3rd Order, 2×20W	≤-150 dBc				
Polarization	Vertical				
Input Impedance	50 Ω				
Input Power Max.	200 Watts				

### Mechanical specification

Radome color	Light gray
Radome material	Fiberglass
Dimensions (HxWxD)	250 x 200 x 1060 mm
Weight	5.4 kg
Connector	4.3-10 female
Max. wind velocity	200 km/h
Wind Load @150km/h	Frontal 33.5 N / Lateral 159.7 N / Rearside 58.6 N

### Environmental specification

Operating temperature	from -40°C to +65°C
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Pole mounting. Hot galvanized steel mounting brackets are included and they are compatible with Ø 50-70 mm pole.
Grounding	All metal parts inclusive the inner conductors are DC grounded

20241021/JB



## 698-3800 MHz Omni Outdoor Antenna



Product number: AN7038-OO-01-4

### Electrical specification

Frequency Band	698-960 MHz	1710-2700 MHz	3400-3800 MHz
Gain	3 dBi	5 dBi	
VSWR	≤ 1.8		
PIM, 3rd Order, 2×20W	≤ -150 dBc		
Polarization	Vertical		
Beamwidth, Horizontal	360°		
Input Impedance	50 Ω		
Input Power. Max.	100 W		

### Mechanical specification

Radome color	White
Radome material	ABS, UV resistant
Dimensions	200 x 65 x 65 mm
Weight	450 g
Cable length	1000 mm
Connector	4.3-10 female

### Environmental specification

Operating temperature	from -40°C to +60°C
Flammability rating	UL 94-V0
ROHS	Compliant
CE certificate	Yes
Application	Outdoor / Indoor

### Installation

Mounting	Mounting on a wall or a pole with 30-50 mm diameter. Mounting bracket and clamps are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- Small size antenna for 2G, 3G, 4G and 5G frequency bands
- Vertical polarized
- Low PIM value meets highest requirements
- Versatile installation on a wall or a pole
- Suitable for Outdoor use

20241021/JB



## 698 - 4000 MHz Omni MiMo Antenna 3.5 dBi



Product number: AN7040-OP-M1-4

### Electrical specification

Frequency Band	698-960 MHz	1710-2700 MHz	3300-4000 MHz
Gain	3 dBi	4 dBi	3.5 dBi
VSWR	≤2.5	≤2.0	
Beamwidth, Horizontal	360°		
Beamwidth, Vertical	80°	50°	55°
PIM, 3rd Order, 2×20W	≤-150 dBc		
Isolation between ports	≥16 dB	≥20 dB	
Polarization	Vertical / Vertical		
Input Impedance	50 Ω		
Input Power Max. Per port	50 W		

### Mechanical specification

Radome color	White
Radome material	PVC, UV resistant
Connector	4.3-10 female (2 pcs)
Dimensions (D x H)	Ø 63 x 500 mm
Weight	1 kg
Cable length	2 x 1000 mm
Cable color	Black

### Environmental specification

Operating temperature	from -40°C to +65°C
Max. wind velocity	200 km/h
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Mounting on a pole with Ø 38 - 52 mm diameter. Stainless steel U-clamps are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

### Key features

- MiMo donor antenna for repeater applications
- Operates at 698-4000 MHz
- 4.3-10 connector enables stable PIM for every connection
- Pole installation

20241021/JB



## 698-3800MHz VPOL Directional Antenna 12 dBi 70°



**Product number: AN7038-DO-02-4**

### Electrical specification

Frequency Band	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Gain ±0.5 dBi	11 dBi	12 dBi	
Beamwidth, Horizontal ±5°	75°	68°	65°
Beamwidth, Vertical ±5°	35°	34°	34°
Front to back ratio @ 180°	≥20 dB		≥22 dB
Polarisation	Vertical		
VSWR	≤1.8		
PIM, 3rd Order, 2×20W	≤-150 dBc		NA
Input Impedance	50 Ω		
Input Power. Max. Per port	100 W		

### Mechanical specification

Radome color	Light gray
Radome material	PVC, UV resistant
Connector	4.3-10 female
Dimensions (H x W x D)	650 x 286 x 132 mm
Weight	7,5 kg

### Environmental specification

Operating temperature	from -40°C to +65°C
Max. wind velocity	210 km/h
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Mounting on a wall and pole with 50 - 80 mm diameter. Mounting brackets are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

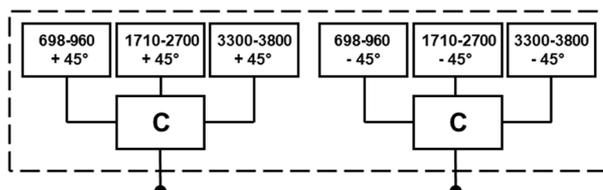
### Key features

- VPOL antenna for outdoor applications
- Operates at 698-3800 MHz
- Suitable for many applications as donor antenna for 2G/3G/4G/5G repeaters
- 4.3-10 connector enables stable PIM for every connection
- Wall and pole installation

20240304/JB



## 698-3800MHz Xpol Directional Antenna 8 dBi 65°



Product number: AN7038-DO-M4-4

### Electrical specification

Frequency Band	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Gain ±0.5 dBi	8 dBi	9 dBi	8 dBi
Beamwidth, Horizontal ±5°	75°	65°	65°
Beamwidth, Vertical ±5°	63°	60°	60°
Front to back ratio @ 180°	≥20 dB	≥20 dB	≥23 dB
Isolation	≥20 dB	≥25 dB	≥23 dB
VSWR	≤1.8		
PIM, 3rd Order, 2×20W	≤-150 dBc		
Polarization	±45°		
Input Impedance	50 Ω		
Input Power. Max. Per port	150 W		

### Mechanical specification

Radome color	White
Radome material	PVC, UV resistant
Connector	4.3-10 female (2 pcs)
Dimensions (H x W x D)	350 x 286 x 132 mm
Weight	3 kg

### Environmental specification

Operating temperature	from -40°C to +65°C
Max. wind velocity	210 km/h
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Mounting on a wall and pole with 50 - 80 mm diameter. Mounting brackets are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

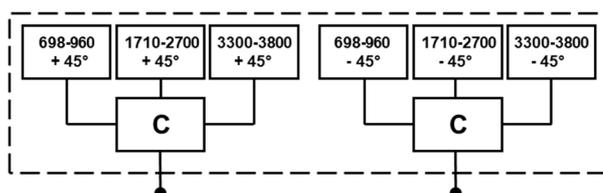
### Key features

- XPOL antenna for outdoor applications
- Operates at 698-3800 MHz
- Suitable for many applications as for 2G/3G/4G/5G repeaters
- 4.3-10 connector enables stable PIM for every connection
- Wall and pole installation

20240610/JB



## 698-3800MHz Xpol Directional Antenna 12 dBi 65°



Product number: AN7038-DO-M5-4

### Electrical specification

Frequency Band	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Gain ±0.5 dBi	11 dBi	12 dBi	13 dBi
Beamwidth, Horizontal ±5°	75°	65°	65°
Beamwidth, Vertical ±5°	35°	28°	28°
Front to back ratio @ 180°	≥20 dB	≥20 dB	≥23 dB
Isolation	≥23 dB		
VSWR	≤1.8		
PIM, 3rd Order, 2×20W	≤-150 dBc		
Polarization	±45°		
Input Impedance	50 Ω		
Input Power. Max. Per port	150 W		

### Mechanical specification

Radome color	White
Radome material	PVC, UV resistant
Connector	4.3-10 female (2 pcs)
Dimensions (H x W x D)	650 x 286 x 132 mm
Weight	8.5 kg

### Environmental specification

Operating temperature	from -40°C to +65°C
Max. wind velocity	210 km/h
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Mounting on a wall and pole with 50 - 80 mm diameter. Mounting brackets are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

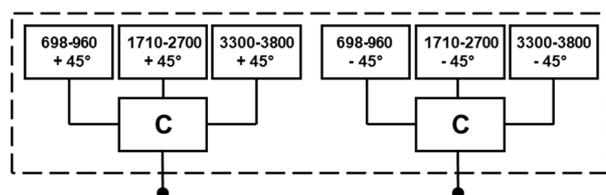
### Key features

- XPOL antenna for outdoor applications
- Operates at 698-3800 MHz
- Suitable for many applications as for 2G/3G/4G/5G repeaters
- 4.3-10 connector enables stable PIM for every connection
- Wall and pole installation

20240610/JB



## 698-3800MHz Xpol Directional Antenna 14 dBi 17°



Product number: AN7038-DO-M6-4

### Electrical specification

Frequency Band	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Gain ±0.5 dBi	13 dBi	14 dBi	14 dBi
Beamwidth, Horizontal ±5°	21°	17°	17°
Beamwidth, Vertical ±5°	75°	68°	68°
Front to back ratio @ 180°	≥20 dB	≥20 dB	≥23 dB
Isolation	≥25 dB		
VSWR	≤1.8		
PIM, 3rd Order, 2×20W	≤-150 dBc		
Polarization	±45°		
Input Impedance	50 Ω		
Input Power. Max. Per port	150 W		

### Mechanical specification

Radome color	White
Radome material	PVC, UV resistant
Connector	4.3-10 female (2 pcs)
Dimensions (H x W x D)	286 x 900 x 132 mm
Weight	8.5 kg

### Environmental specification

Operating temperature	from -40°C to +65°C
Max. wind velocity	200 km/h
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Mounting on a wall and pole with 50 - 80 mm diameter. Mounting clamp are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

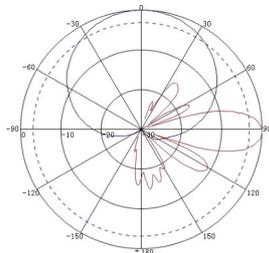
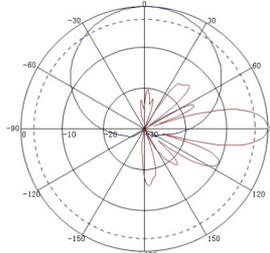
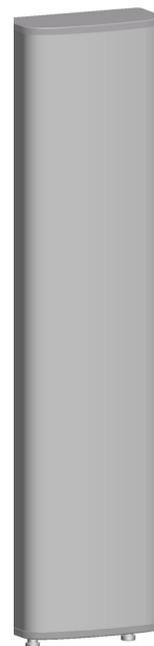
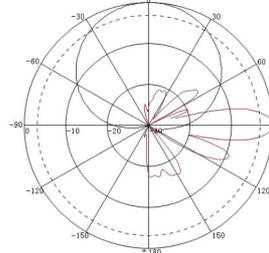
### Key features

- High gain narrow beam XPOL antenna for MIMO and repeaters applications
- Operates at 698-3800 MHz
- 4.3-10 connectors enables stable PIM for every connection
- Wall and pole installation

20220201/JB



## 690-960 MHz XPOL 65°15dBi

690-790 MHz  $\pm 45^\circ$  polarization870-896 MHz  $\pm 45^\circ$  polarization880-960 MHz  $\pm 45^\circ$  polarization

Product number: AN6996-DO-01-4

## Electrical specification

Frequency Band (both ports)	690 - 790 MHz	790 - 896 MHz	880 - 960 MHz
Gain	2 x 14.5 dBi	2 x 15 dBi	2 x 15.2 dBi
Half Power Beamwidth	Horizontal: 68° Vertical: 16°	Horizontal: 66° Vertical: 14.3°	Horizontal: 64° Vertical: 13.2°
Polarization	$\pm 45^\circ$		
1st upper sideslobesuppression (dB)	$\geq 15$ dB		
VSWR	$\leq 1.5$		
Front to back ratio	$\geq 25$ dB		
Cross polarization discrimination	$\geq 15$ dB ( $\pm 60^\circ \geq 10$ dB)		
Isolation	$\geq 25$ dB		
Input Impedance	50 $\Omega$		
Input Power. Max.	250 W		

## Mechanical specification

Radome color	Gray
Radome material	UPVC
Connector	4.3-10 female (2 pcs)
Mechanical tilt	0...15°
Tilt adjustment	Mechanical
Dimensions (H x W x D)	1280 x 300 x 146 mm
Weight (Bracket included)	12 kg

## Packaging

Packaging dimensions (H x W x D)	1520 x 400 x 260 mm
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## Enviromental specification

Operating temperature	from -40°C to +60°C
Max. wind velocity	216 km/h
ROHS	Compliant
CE certificate	Yes

## Installation

Mounting	Mounting on a pole with 50-115 mm diameter. Mounting clamps and mechanical tilt kit are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

## Key features

- The antenna operates at 690-960 MHz
- Ideal for 868 MHz IOT
- Robust construction for long life operation
- Mechanical tilt kit is included

20241024/JB



## 698-3800 MHz 10 dBi Yagi antenna



Product number: AN7038-DO-01-4

### Electrical specification

Frequency Band	698 - 960 MHz	1710 - 2700 MHz	3300 - 3800 MHz
Gain	9.5±1 dBi	10.5±1 dBi	11±1 dBi
Beamwidth, Horizontal	85±15°	70±15°	60±15°
Beamwidth, Vertical	60°	55°	50°
Front to back ratio	15 dB	20 dB	18 dB
PIM, 3rd Order, 2×20W	-153 dBc		
VSWR	≤ 1.7		
Polarization	Vertical		
Input Impedance	50 Ω		
Input Power. Max.	50 W		

### Mechanical specification

Radome color	White
Radome material	ABS
Dimensions (L x H x W)	442 x 210 x 65 mm
Weight (includes bracket)	1300 g
Cable length	0.3 m
Connector	4.3-10 female
Max. wind velocity	198 km/h

### Environmental specification

Operating temperature	from -40°C to +60°C
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Pole mounting. Mounting bracket with downtilt is included and it is compatible with Ø 35-65 mm pole.
Grounding	Metal parts inclusive the inner conductors are DC grounded

### Key features

- The antenna is vertically polarized and operates at 698-3800 MHz
- Suitable for many applications as for 2G/3G/4G/5G repeaters
- Robust construction for long life operation
- High gain
- Mounting bracket with downtilt

20241021/JB



## 380-430 MHz Yagi antenna 9 dBi / 12 dBi



BY70-7GT



BY70-10GT

### Electrical specification

Product number	BY70-7GT	BY70-10GT
Frequency Band	380-430 MHz	
Gain	9.2 dBi	12.2 dBi
Beamwidth, Horizontal	50°	46°
Beamwidth, Vertical	64°	52°
Elements	5	7
VSWR	≤1.5	
Front to back ratio @ 180°	18 dB	
Polarization	Vertical or Horizontal	
Input Impedance	50 Ω	
Input Power. Max.	150 W	

### Mechanical specification

Radome color	Painted black epoxy	
Radome material	Aluminium	
Cable length	30 cm	
Connector	N female	
Length	1,1 m	1.3 m
Weight	4,5 kg	3 kg

### Environmental specification

Operating temperature	from -40°C to +85°C	
Max. wind velocity	160 km/h	
ROHS	Compliant	
CE certificate	Yes	

### Installation

Mounting	Mounting on a pole with 35-60 mm diameter. Mounting clamps are included.
Grounding	All metal parts inclusive the inner conductors are DC grounded

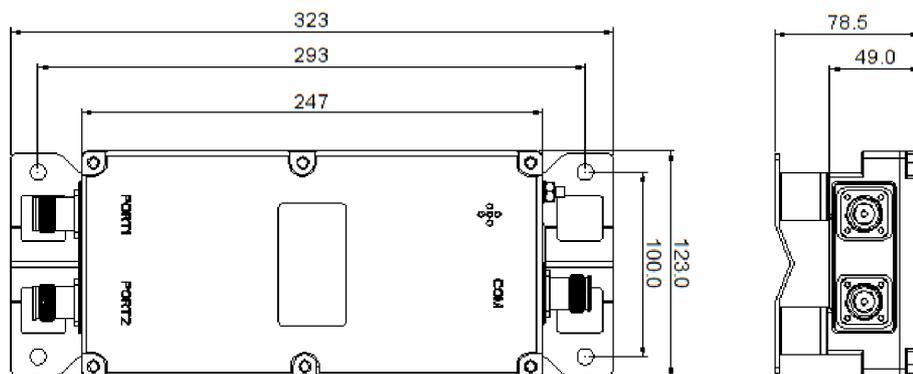
### Key features

- Outdoor antenna for applications like TETRA
- Operates at 380-430 MHz
- Robust construction for long life operation
- Vertical or Horizontal polarized
- Pole installation

20210503JB



## 68-490 / 698-2690 MHz Dual-band combiner



**Product number: DC1027-12-01-4**

### Electrical specification

Frequency band (Port 1 / Port 2)	68 - 490 / 698 - 2690 MHz
Insertion loss (Port 1 / Port 2)	≤ 0.25 dB / ≤ 0.25 dB
VSWR	≤ 1.25
Isolation (Port 1 / Port 2)	≥ 50 dB / ≥ 50 dB
PIM, 3rd Order, 2×20W	≤ -160 dBc
Input Impedance	50 Ω
Input Power per port . Max.	500 W
DC/AISG Bypass (Port 1 / Port 2)	Pass (max. 2500 mA) / Stop

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H) . Excluding connectors and mounting bracket	247 x 123 x 49 mm
Weight	2.5 kg

### Environmental specification

Operating temperature	from -40°C to +65°
IP rating	IP68
ROHS	Compliant
CE certificate	Yes
Relative humidity	≤ 95 %
Lightning protection	10 kA; 8/20 μs pulse

### Installation

Mounting	Pole or wall mounting. Mounting clamps are included and they are compatible for Ø35 - 125 mm pole. Can be mounted on a wall by screws (not included).
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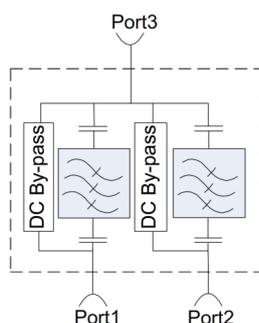
### Key features

- Designed for the decoupled combining of 2 transmitter or receiver signals and distributing these signals equally onto one antenna output
- Pole or wall mounting
- For indoor and outdoor use
- Built in lightning protection

20190911/JB



## 64-490 / 694-3800 MHz Dual-band combiner



**Product number: DC1038-12-01-4**

### Electrical specification

Frequency band (Port 1 / Port 2)	694 - 3800 MHz / 64 - 490 MHz
Insertion loss (Port 1 / Port 2)	≤ 0.3 dB / ≤ 0.3 dB
VSWR	≤ 1.3
Isolation (Port 1 / Port 2)	≥ 50 dB / ≥ 50 dB
PIM, 3rd Order, 2×20W	≤ -160 dBc
Input Impedance	50 Ω
Input Power per port . Max.	200 W
DC/AISG Bypass (Port 1 / Port 2)	Pass (max. 3000 mA) / Stop

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H) . Excluding connectors and mounting bracket	166 x 177 x 47 mm
Weight	2.1 kg

### Environmental specification

Operating temperature	from -40°C to +65°
IP rating	IP67
ROHS	Compliant
CE certificate	Yes
Relative humidity	≤ 95 %
Lightning protection	10 kA; 10/350 μs pulse

### Installation

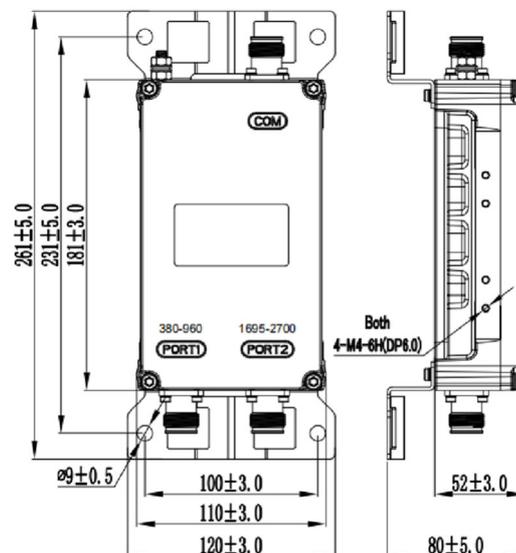
Mounting	Pole or wall mounting. Mounting clamps are included and they are compatible for Ø64 - 114 mm pole. Can be mounted on a wall by screws.
----------	--

### Key features

- Designed for the decoupled combining of 2 transmitter or receiver signals and distributing these signals equally onto one antenna output
- Pole or wall mounting
- For indoor and outdoor use
- Built in lightning protection

20230419/JB

## 380-960MHz / 1695-2700MHz Dual-Band Combiner



Product number : DC3827-12-01-4

### Electrical specification

Frequency Band	380 - 960 MHz / 1695 - 2700 MHz
Insertion loss Port 1 / Port 2	≤ 0.3 dB / ≤ 0.3 dB
VSWR	≤ 1.22
Isolation	≥ 50 dB
PIM, 3rd Order, 2×20W	≤ -160 dBc
Input Impedance	50 Ω
Input Power per port	< 300 W
DC/AISG Bypass (Port 1 / Port 2)	Pass / Pass

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H) Excluding connectors and brackets	181 x 110 x 52 mm
Weight	1.9 kg

### Environmental specification

Operating temperature	from -40°C to +65°
IP rating	IP67
Operational humidity	≤ 95 %
ROHS	Compliant
CE certificate	Yes
Lightning protection	8kA; 8/20 μs pulse

### Installation

Mounting	Pole or wall mounting. Clamps included for Ø 35-125 mm pole.
----------	--

### Key features

- Designed for the decoupled combining of 2 transmitter or receiver signals and distributing these signals equally onto one antenna output
- For indoor and outdoor use
- Lightning protection

20241017/JB

## 380-960MHz / 1695-2700MHz Dual-Band Combiner Double unit



**Product number : DC3827-24-01-4**

### Electrical specification

Frequency Band	380 - 960 MHz / 1695 - 2700 MHz
Insertion loss Port 1 / Port 2	≤ 0.3 dB / ≤ 0.3 dB
VSWR	≤ 1.22
Isolation	≥ 50 dB
PIM, 3rd Order, 2×20W	≤ -160 dBc
Input Impedance	50 Ω
Input Power per port	< 300 W
DC/AISG Bypass (Port 1 / Port 2)	Pass / Pass

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H) Excluding connectors and brackets	181 x 110 x 107 mm
Weight	3.6 kg

### Environmental specification

Operating temperature	from -40°C to +65°
IP rating	IP67
Operational humidity	≤ 95 %
ROHS	Compliant
CE certificate	Yes
Lightning protection	8kA; 8/20 μs pulse

### Installation

Mounting	Pole or wall mounting. Clamps included for Ø 35-125 mm pole.
----------	--

### Key features

- Designed for the decoupled combining of 2 transmitter or receiver signals and distributing these signals equally onto one antenna output
- Double unit
- For indoor and outdoor use
- Lightning protection

20241030/JB



## 698-2700 / 3400-3800MHz Dual-band combiner



**Product number: DC7038-12-01-4**

### Electrical specification

Frequency band	698 - 2700 / 3400 - 3800 MHz
Insertion loss (Port 1 / Port 2)	≤ 0.35 dB / ≤ 0.35 dB
VSWR	≤ 1.22
Isolation (Port 1 / Port 2)	≥ 50 dB / ≥ 50 dB
PIM, 3rd Order, 2x20W	≤ -160 dBc
Input Impedance	50 Ω
Input Power per port . Max.	300 W
DC/AISG	Pass

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H) . Excluding connectors and mounting bracket	217 x 97 x 47 mm
Weight (including mounting bracket)	1.35 kg

### Environmental specification

Operating temperature	from -40°C to +65°
IP rating	IP68
ROHS	Compliant
CE certificate	Yes
Relative humidity	≤ 95 %
Lightning protection	3 kA; 10/350 μs pulse

### Installation

Mounting	Pole or wall mounting. Mounting clamps are included and they are compatible for Ø35 - 125 mm pole. Can be mounted on a wall by screws (not included).
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### Key features

- Designed for the decoupled combining of 2 transmitter or receiver signals and distributing these signals equally onto one antenna output
- Pole or wall mounting
- For indoor and outdoor use
- Built in lightning protection

20230929/JB



698-2700 / 3400-3800MHz

Dual-band combiner Double unit



Product number: DC7038-24-01-4

**Electrical specification**

Frequency band	698 - 2700 / 3400 - 3800 MHz
Insertion loss (Port 1 / Port 2)	$\leq 0.35$ dB / $\leq 0.35$ dB
VSWR	$\leq 1.22$
Isolation (Port 1 / Port 2)	$\geq 50$ dB / $\geq 50$ dB
PIM, 3rd Order, 2x20W	$\leq -160$ dBc
Input Impedance	50 $\Omega$
Input Power per port . Max.	300 W
Peak power	< 1500 W
DC/AISG	Pass

**Mechanical specification**

Color	Light grey
Connectors	4.3-10 female
Dimensions (L x W x H) . Excluding connectors and mounting bracket	217 x 97 x 100 mm
Weight (including mounting bracket)	2.7 kg

**Environmental specification**

Operating temperature	from -40°C to +65°
IP rating	IP65
ROHS	Compliant
CE certificate	Yes
Relative humidity	$\leq 95$ %
Lightning protection	3 kA; 10/350 $\mu$ s pulse

**Installation**

Mounting	Pole or wall mounting. Mounting clamps are included and they are compatible for $\varnothing 35$ - 125 mm pole. Can be mounted on a wall by screws (not included).
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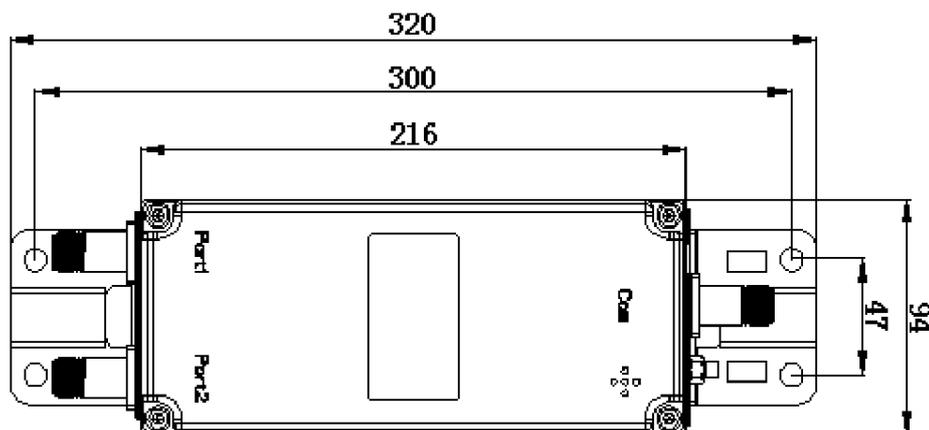
**Key features**

- Designed for the decoupled combining of 2 transmitter or receiver signals and distributing these signals equally onto one antenna output
- Double unit
- Pole or wall mounting
- For indoor and outdoor use
- Built in lightning protection

20200709/JB



## 68-2700 / 3300-4000 MHz Dual-band Combiner Double unit



Product number : DC0740-24-01-4

### Electrical specification

Frequency Band	68 - 2700 MHz / 3300– 4000 MHz
Insertion loss Port 1 / Port 2	≤ 0.5 dB / ≤ 0.5 dB
VSWR	≤ 1.25
Isolation	≥ 50 dB
PIM, 3rd Order, 2×20W	≤ -160 dBc
Input Impedance	50 Ω
Input Power per port	< 200 W
Peak power	< 1500 W
DC/AISG Bypass	Pass@68-2700 / Stop 3300-4000 Mhz

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H)	320 x 94 x 120 mm
Weight	2.4 kg

### Environmental specification

Operating temperature	from -30°C to +60°
IP rating	IP67
Operational humidity	≤ 95 %
ROHS	Compliant
CE certificate	Yes
Lightning protection	10kA; 8/20 μs pulse

### Installation

Mounting	Pole or wall mounting. Clamps included for Ø 35-125 mm pole.
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### Key features

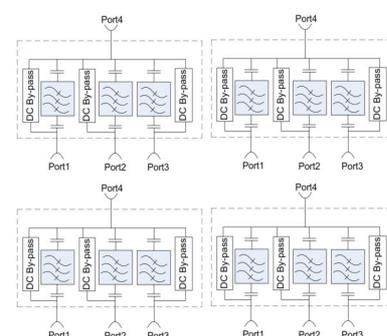
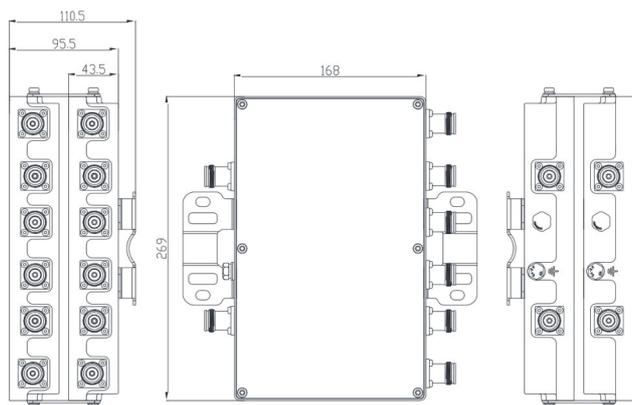
- Designed for the decoupled combining of 2 transmitter or receiver signals and distributing these signals equally onto one antenna output
- Double unit
- For indoor and outdoor use
- Lightning protection

20191126/JB



698-960/1710-2700/3300-3800 MHz

Triple band combiner Double twin unit



Product number : TC7038-412-01-4

**Electrical specification**

Frequency Band	698-960 / 1710-2700 / 3400-3800 MHz
Insertion loss	< 0.35 dB
VSWR	≤1.25
Isolation	≥ 50 dB
PIM, 3rd Order, 2×20W	≤-160 dBc
Input Impedance	50 Ω
Input Power per port . Max.	300 W

**Mechanical specification**

Colour	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H). Excluding mounting bracket	168 x 269 x 95.5
Weight	8.5 kg

**Environmental specification**

Operating temperature	from -20°C to +65°C
IP rating	IP67
ROHS	Compliant
CE certificate	Yes
Relative humidity	5 - 95 %
Lightning protection	3 kA; 10/350 μs pulse

**Installation**

Mounting	Wall and pole mounting. Installation bracket is included.
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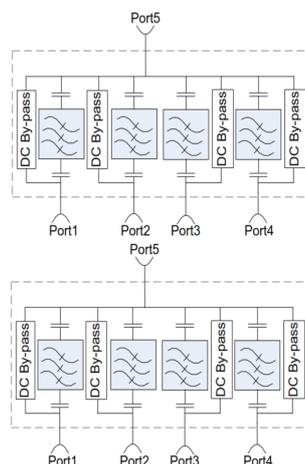
**Key features**

- Designed for the decoupled combining of 3 transmitter or receiver signals and distributing these signals equally onto 1 antenna output
- Double twin unit
- 4.3-10 connectors
- For indoor and outdoor use

20241106/JB



## 698-3800 MHz Quad-band combiner double unit



Product number : QC7038-28-01-4

### Electrical specification

Frequency Band	698-960 / 1710-2170 / 2300-2700 / 3300-3800 MHz
Insertion loss	≤ 0.3 dB
VSWR	≤ 1.3
Isolation	≥ 50 dB
PIM, 3rd Order, 2×20W	≤ -160 dBc
Input Impedance	50 Ω
Input Power per port . Max.	200 W

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H)	195 x 170 x 105 mm
Weight	4.5 kg

### Environmental specification

Operating temperature	from -20°C to +65°C
IP rating	IP67
ROHS	Compliant
CE certificate	Yes
Relative humidity	0 - 95 %
Lightning protection	3 kA; 10/350 μs pulse

### Installation

Mounting	Pole or wall mounting. Brackets are included. Pole mounting for Ø 28-68 mm pole.
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### Key features

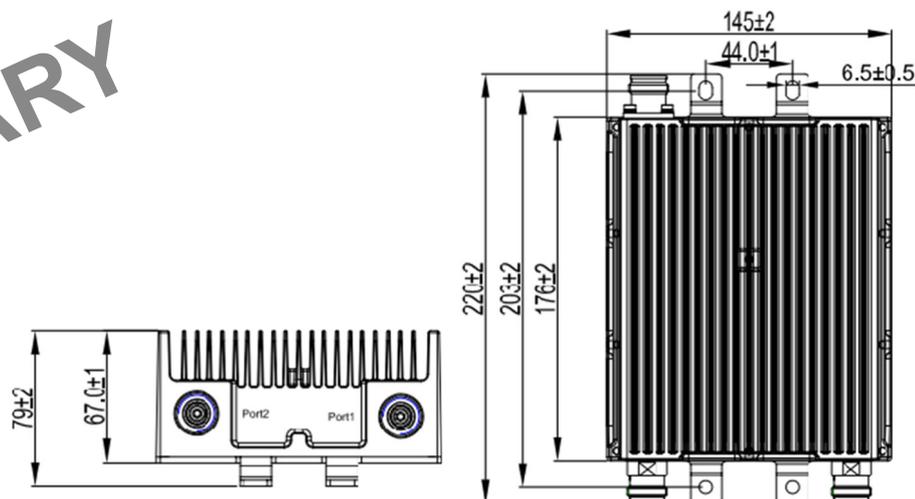
- Designed for the decoupled combining of 4 transmitter or receiver signals and distributing these signals equally onto 1 antenna output
- 4.3-10 connectors
- For indoor and outdoor use

20241107/JB



## 698 - 3800 MHz Hybrid combiner 2 : 1

PRELIMINARY



Product number: HC7038-21-01-4

## Electrical specification

Frequency band	698 - 3800 MHz
Insertion loss	3.1 ±0.6 dB
VSWR	≤ 1.25
Isolation	≥ 23 dB
PIM, 3rd Order, 2×20W	≤ -160 dBc
Input Impedance	50 Ω
Input Power IN ports Max.	60 W
DC/AISG Bypass	Port 1 -> Port 3 Pass. Port 2 -> Port 3 Stop

## Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H)	176 x 145 x 67 mm
Weight	2.5 kg

## Environmental specification

Operating temperature	from -35°C to +65°
IP rating	IP65
ROHS	Compliant
CE certificate	Yes
Relative humidity	≤ 95 %

## Installation

Mounting	Wall mounting
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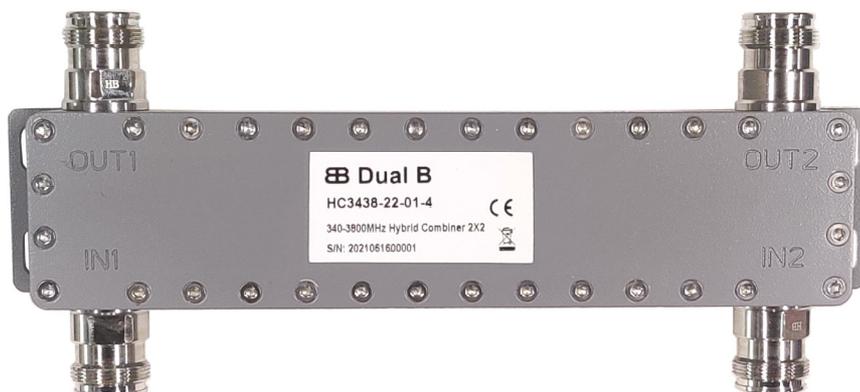
## Key features

- Designed for the decoupled combining of 2 transmitter or receiver signals and distributing these signals equally onto 1 antenna output
- Wall mounting
- For indoor and outdoor use

20241023/JB



## 340 - 3800 MHz Hybrid combiner 2x2



**Product number: HC3438-22-01-4**

### Electrical specification

Frequency band	340 - 3800 MHz
Insertion loss	3.1 ±1.2 dB @340-698MHz / 3.1 ±0.6 dB @ 698-3800MHz
VSWR	≤ 1.25
Isolation	≥ 26 dB
PIM, 3rd Order, 2×20W	≤-160 dBc
Input Impedance	50 Ω
Input Power per port . Max.	300 W
Peak power	1500 W

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H)	227 x 49 x 43 mm
Weight	1.3 kg

### Environmental specification

Operating temperature	from -35°C to +65°
IP rating	IP65
ROHS	Compliant
CE certificate	Yes
Relative humidity	≤ 95 %

### Installation

Mounting	Wall mounting
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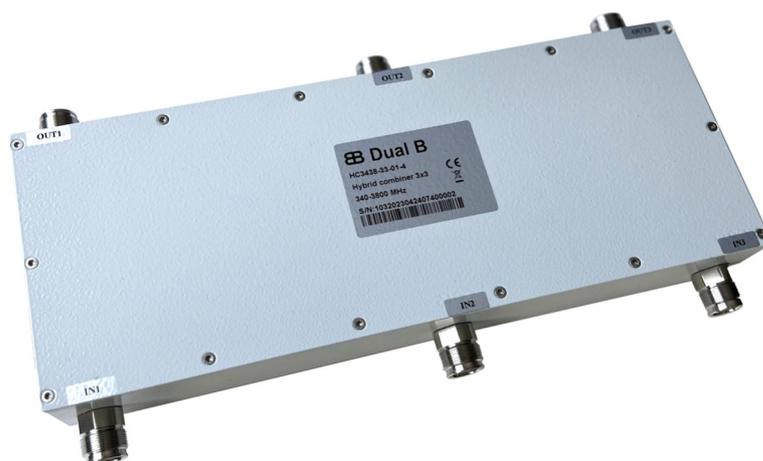
### Key features

- Designed for the decoupled combining of 2 transmitter or receiver signals and distributing these signals equally onto 2 antenna out-put
- Operates from TETRA up to 5G frequency bands
- For indoor and outdoor use

20220211/JB



## 340 - 3800 MHz Hybrid combiner 3x3



Product number: HC3438-33-01-4

### Electrical specification

Frequency band	340 - 3800 MHz
Insertion loss	5.1 ±1.8 dB
VSWR	≤ 1.25
Isolation	≥ 25dB@340-2700MHz / ≥ 22dB@2701-3800MHz
PIM, 3rd Order, 2×20W	≤-160 dBc
Input Impedance	50 Ω
Input Power per port . Max.	300 W

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H)	342 x 126 x 46 mm
Weight	4,02 kg

### Environmental specification

Operating temperature	from -35°C to +75°C
IP rating	IP65
ROHS	Compliant
CE certificate	Yes
Relative humidity	≤ 95 %

### Installation

Mounting	Wall mounting
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### Key features

- Designed for the decoupled combining of 3 transmitter or receiver signals and distributing these signals equally onto 3 antenna outputs
- Operates from TETRA up to 5G frequency bands
- For indoor and outdoor

20230801/JB



## 698-3800 MHz Hybrid combiner 3x3



Product number : HC7038-33-28-4

### Electrical specification

Frequency Band	698 - 3800 MHz
Insertion loss	5.5 ±1.2 dB
VSWR	≤1.3
Isolation	≥ 28 dB
PIM, 3rd Order, 2×20W	≤-160 dBc
Input Impedance	50 Ω
Input Power per port . Max.	500 W
Peak power max.	1500 W

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H)	273 x 105 x 42 mm
Weight	1965 g

### Environmental specification

Operating temperature	from -40°C to +80°
IP rating	IP65
ROHS	Compliant
CE certificate	Yes
Relative humidity	5 - 95 %

### Installation

Mounting	Combiner can be mounted by screws (not included)
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### Key features

- Designed for the decoupled combining of 3 transmitter or receiver signals and distributing these signals equally onto 3 antenna outputs
- 4.3-10 connectors
- For indoor and outdoor use

20240301/JB



## 340 - 3800 MHz Hybrid combiner 4x4



**Product number: HC3438-44-01-4**

### Electrical specification

Frequency band	340 - 3800 MHz
Insertion loss	6.1 ±1.9 dB
VSWR	≤ 1.25
Isolation	≥ 25dB@340-2700MHz / ≥ 22dB@2701-3800MHz
PIM, 3rd Order, 2×20W	≤-160 dBc
Input Impedance	50 Ω
Input Power per port . Max.	300 W

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H)	254 x 101 x 68 mm
Weight	3.86 kg

### Environmental specification

Operating temperature	from -35°C to +75°C
IP rating	IP65
ROHS	Compliant
CE certificate	Yes
Relative humidity	≤ 95 %

### Installation

Mounting	Wall mounting
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### Key features

- Designed for the decoupled combining of 4 transmitter or receiver signals and distributing these signals equally onto 4 antenna outputs
- Operates from TETRA up to 5G frequency bands
- For indoor and outdoor

20230731/JB



## 380-2700 MHz Hybrid combiner 4x4



Product number : HC3827-44-01-4

### Electrical specification

Frequency band	380 - 2700 MHz
Coupling	$\leq 6.1\text{dB}$ $\pm 1.5\text{dB}$
VSWR	$\leq 1.25$
Isolation	$\geq 25\text{ dB}$
PIM, 3rd Order, 2x20W	$\leq -160\text{ dBc}$
Input Impedance	50 $\Omega$
Input Power per port . Max.	300 W

### Mechanical specification

Color	Light gray
Connectors	4.3-10 female
Dimensions (L x W x H) excluding connectors	364 x 121 x 54 mm
Weight	3.8 kg

### Environmental specification

Operating temperature	from $-40^{\circ}\text{C}$ to $+65^{\circ}$
IP rating	IP65
Relative humidity	$\leq 5\text{...}95\%$
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Wall mounting by screws (not included)
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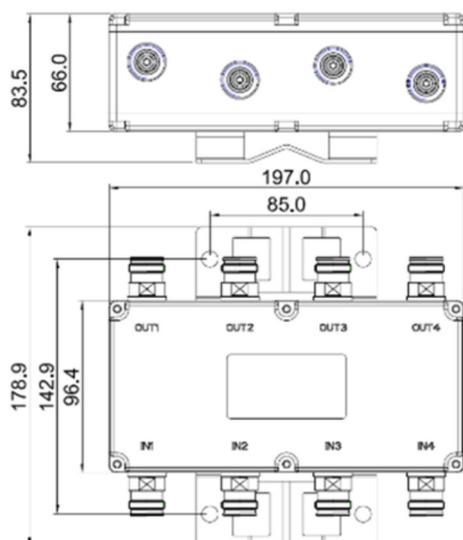
### Key features

- Designed for the decoupled combining of 4 transmitter or receiver signals and distributing these signals equally onto 4 antenna outputs
- Low PIM
- For indoor and outdoor use

20200901/JB



## Hybrid combiner 4x4 698-3800 MHz



Product number : HC7038-44-01-4

### Electrical specification

Frequency Band	698 - 3800 MHz
Insertion loss	$\leq 6 \pm 0.9$ dB
VSWR	$\leq 1.25@698-2700$ MHz / $\leq 1.3@2700-3800$ MHz
Isolation	$\geq 25$ dB
PIM, 3rd Order, 2x20W	$\leq -160$ dBc
Input Impedance	50 $\Omega$
Input Power per port	< 300 W
Peak power	< 1500 W

### Mechanical specification

Color	Light grey
Connectors	4.3-10 female
Dimensions (L x W x H)	197 x 96.4 x 66 mm
Weight	2.3 kg

### Environmental specification

Operating temperature	from $-40^{\circ}\text{C}$ to $+65^{\circ}$
IP rating	IP65
Operational humidity	$\leq 5 - 95$ %
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Pole or wall mounting
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### Key features

- Designed for the decoupled combining of 4 transmitter or receiver signals and distributing these signals equally onto 4 antenna outputs
- 4.3-10 connectors
- For indoor and outdoor use

20210518/JB



## 340-3800 MHz Power splitters



SP3438-02-01-4

SP3438-03-01-4

SP3438-04-01-4

Mounting bracket

### Electrical specification

Product number	SP3438-02-01-4	SP3438-03-01-4	SP3438-04-01-4
Number of split ways	2	3	4
Split loss	3 dB	4.8 dB	6 dB
Insertion loss	≤ 0.3	≤ 0.6	≤ 0.6
Frequency band	340 - 3800 MHz		
PIM, 3rd Order, 2×20W	≤ -160 dBc (698 – 3800 MHz)		
VSWR	≤ 1.25 @ 340-2700MHz & ≤ 1.29 @ 3400-3800 MHz		
Input Impedance	50 Ω		
Input Power. Max.	300 W		

### Mechanical specification

Color	Light grey		
Material	Aluminium alloy		
Dimensions (L x W x H). Excluding connectors and mounting bracket.	251.3 x 25 x 25 mm	272.5 x 25 x 25 mm	339.4 x 25 x 25 mm
Weight	480 g	550 g	680 g
Connector	4.3-10 female		

### Environmental specification

Operating temperature	from - 45°C to + 65°C
IP rating	IP 65
ROHS	Compliant
CE certificate	Yes
Relative humidity	≤ 95 %

### Installation

Mounting	Mounting bracket (included) has two holes for mounting. Bracket screw shall to be tightened to hold a splitter in firm position.
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### Key features

- Versatile for many frequency bands as for Tetra, LTE450, 2G, 3G, 4G, 5G and WiFi
- No connectors on another side. Requires less space when cables are connected
- Low PIM value meets highest requirements
- Mounting bracket is included
- For indoor and outdoor use

20190919/JB



## 698-3800 MHz Low PIM power splitters



Mounting bracket

### Electrical specification

Product number	SP7038-02-01-4	SP7038-03-01-4	SP7038-04-01-4
Number of split ways	2	3	4
Split loss	3 dB	4.8 dB	6 dB
Insertion loss	≤ 0.3	≤ 0.5	≤ 0.6
Frequency band	698 - 3800 MHz		
PIM, 3rd Order, 2×20W	≤ -160 dBc		
VSWR	≤ 1.25		
Input Impedance	50 Ω		
Input Power. Max.	300 W		

### Mechanical specification

Color	Light grey		
Material	Aluminium alloy		
Dimensions (L x W x H). Excluding connectors and mounting bracket.	199 x 25 x 25 mm	234 x 25 x 25 mm	236 x 25 x 25 mm
Weight	210 g	250 g	290 g
Connector	4.3-10 female		

### Environmental specification

Operating temperature	from - 40°C to + 65°C		
IP rating	IP 65		
ROHS	Compliant		
CE certificate	Yes		
Relative humidity	≤ 95 %		

### Installation

Mounting	Wall mounting bracket (included). After the bracket is fastened then the splitter shall be snapped on to the bracket to hold the splitter in firm position.
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### Key features

- Versatile for many frequency bands as for 2G, 3G, 4G, and 5G
- Low PIM value meets highest requirements
- Mounting bracket is included
- For indoor and outdoor use

20240606/JB



## 350 - 960 MHz / 1710 - 5925 MHz Wideband Low PIM power tappers

Mounting bracket



### Key features

- Versatile e.g. for Tetra, LTE450, 2G, 3G, 4G, 5G and WiFi
- Very Low PIM value
- For indoor and outdoor use

### Electrical specification

Product number TA3559-xx-01-4. See variant (xx) number below.

Variant	Ratio	Main/Branch Output Split. dB	Branch Flatness to Input Level (Include Loss). dB						Max Input VSWR	
			350-380	380-520	698-960	1710-2700	3500-4500	4900-5925	698-2700	350-5925
05	2:1	-1.8/-4.8	+0/-1.3	+0.3/-1.0	±0.5	±0.5	+0/-1.5	± 0.5	1.3	1.4
06	3:1	-1.3/-6.1	+0/-1.3	+0.3/-0.8	±0.5	±0.5	+0/-1.5	± 0.5	1.2	1.3
07	4:1	-1.0/-7.0	+0/-1.3	+0.3/-0.8	±0.5	±0.5	+0/-1.5	± 0.5	1.2	1.3
08	6:1	-0.7/-8.6	+0/-1.3	+0.3/-0.5	±0.5	±0.5	+0/-1.5	± 0.5	1.2	1.3
10	10:1	-0.4/-10.4	+0/-1.3	+0.3/-0.5	±0.5	±0.5	+0/-1.5	± 0.6	1.2	1.3
13	20:1	-0.2/-13.2	±1.0	±0.6	±0.6	±0.6	+0/-1.5	± 0.6	1.2	1.3
15	30:1	-0.1/-15.1	±1.0	±0.7	±0.7	±0.7	+0/-1.5	± 1.0	1.2	1.3
20	100:1	-0.1/-20.1	±1.0	±1.0	±1.0	±0.7	+2/-0	+4/-0	1.2	1.2
30	1000:1	-0.1/-30.1	±1.0	±1.5	±1.0	±0.7	+2/-1	+4/-0	1.2	1.2
Frequency band		350 - 960 MHz & 1710 - 5925 MHz								
PIM. 3rd Order. 2×20W		≤ -161 dBc								
Input Impedance		50 Ω								
Input Power		500 W								
Peak Power		3000 W								

### Mechanical specification

Color	Silver
Material	Aluminium alloy
Dimensions (L x W x H)	94 x 23 x 23 mm
Weight	380 g
Connectors	4.3-10 female

### Environmental specification

Operating temperature	from - 35°C to + 75°C
IP rating	IP 65
ROHS	Compliant
CE certificate	Yes
Relative humidity	≤ 95 %

### Installation

Mounting	Mounting bracket (included) has two holes for mounting. Bracket screw shall to be tightened to hold a taper in firm position.
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20240610/JB



## 0-4000 MHz Attenuator 15 W



### Key features

- Signal attenuation for test, measuring or tuning purposes
- Free choice of mounting position due to convection-cooling
- Compact size

### Electrical specification

Product number	AT0040-15-03-01-4	AT0040-15-06-01-4	AT0040-15-10-01-4	AT0040-15-20-01-4	AT0040-15-30-01-4
Attenuation	3 dB $\pm$ 0.5	6 dB $\pm$ 0.5	10 dB $\pm$ 0.5	20 dB $\pm$ 0.5	30 dB $\pm$ 0.5
Power rating	15 W				
Frequency band	0 - 4000 MHz				
VSWR	$\leq$ 1.15				
Input Impedance	50 $\Omega$				

### Mechanical specification

Colour	Black
Material	Aluminium
Dimensions (D x L)	$\varnothing$ 35 x 69 mm
Weight	139 g
Connectors	4.3-10 female and male

### Environmental specification

Operating temperature	from - 40°C to + 125°C
IP rating	IP 65
ROHS	Compliant
CE certificate	Yes
Relative humidity	5 - 95 %

20230829/JB



## 0 – 3800 MHz RF Terminators



10W, 25W &amp; 50W



100W

### Key features

- Suitable for terminating open ports on RF equipment
- Low PIM values with 4.3-10 connectors
- For indoor and outdoor use

### Electrical specification

Product number	TE0038-10-01-4	TE0038-25-01-4	TE0038-50-01-4	TE0038-100-01-4
Input Power. Max.	10 W	25 W	50 W	100 W
PIM, 3rd Order, 698-3800 MHz	≤ -150 dBc (2 x 2W)	≤ -160 dBc (2 x 10 W)	≤ -160 dBc (2 x 20 W)	
Frequency band	0 - 3800 MHz			
VSWR	≤ 1.25			
Input Impedance	50 Ω			

### Mechanical specification

Material	Aluminium			
Dimensions (D x L) / (L x W x H)	Ø 52 x 144 mm	Ø 52 x 144 mm	Ø 52 x 192 mm	275 x 110 x 75 mm
Weight	680 g	680 g	920 g	2 kg
Connectors	4.3-10 female			

### Environmental specification

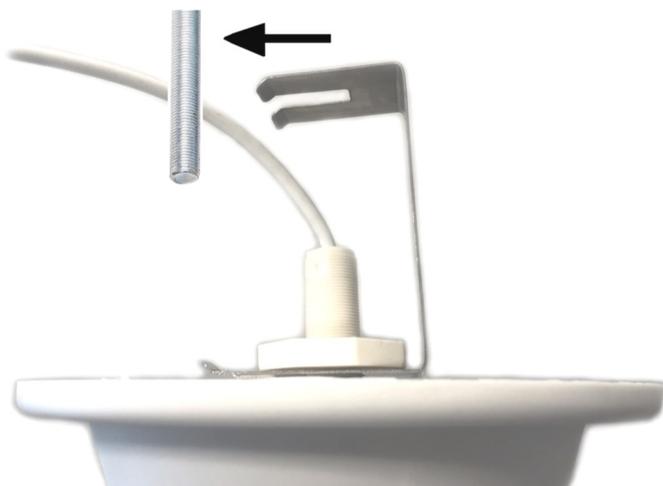
Operating temperature	from - 55°C to + 65°C
IP rating	IP 66
ROHS	Compliant
CE certificate	Yes

### Installation

Mounting	Tighten with stainless steel band clamps (2 pcs included) on to pole mast. TE0038-100-01-4 can be mounted also on a wall.
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20210503/JB

## Mounting bracket for omni antennas



**Product number: MOS-02**

### Key features

- Omni antenna installation to thread rod or cable ladder
- Robust and corrosion proof material
- Compatible with all Dual B omni indoor antennas

### Mechanical specification

Material	Stainless steel
Material thickness	1 mm
Dimensions (H x W x D)	100 x 40 x 72 mm
Size of thread rod	Max. Ø 10 mm

### Installation

Mounting	<p>U-shape mounting part shall be tighten between antenna's plastic nut and antenna. Top of the mounting bracket shall be tighten between two nuts in the thread rod.</p> <p>Note. Size of the opening in the mounting bracket for thread rod is 10,5 mm. Use washers with smaller rods when required.</p>
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20210521/JB

## Mounting kit for AN3838-Dx-xx-4 antennas



MKP-01 mounting kit contains 4 pcs of plastic anchors and 4 pcs of cable ties. Installation distance shall be 200 mm from each other and from the antenna.

Product number: MKP-01

### Key features

- Needed when AN3838-Dx-xx-x antenna is installed on pole or on other metal surface.
- When MKP-01 is installed VSWR and PIM issues can be avoided on metal surface
- For AN3838-Dx-xx-x antennas

### Installation

Distance of installation anchors shall be 200 mm from each other and from the antenna. Cable shall be tighten enough between anchors to prevent it touching the metal surface.

**Installation on a pole:** Anchors shall be tighten by cable ties (included) around a pole. Max. Pole diameter  $\varnothing$  50 mm.

**Installation on metal surface:** Anchors shall be mounted on the surface by M6 screws (not included).

20240927/JB

## Torque Wrench for coupling torque of 4.3-10 connectors



Product number: TW43-01

### Specification

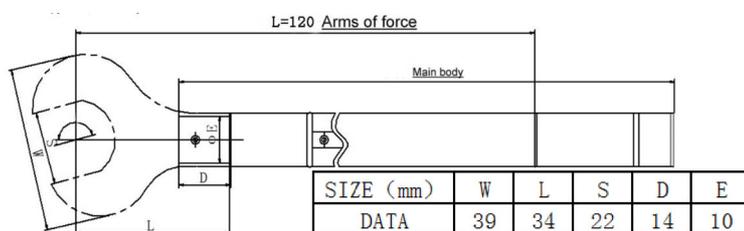
Preset torque	5 Nm
Torque tolerance	-0 / +2 %

### Mechanical specification

Material	Chromium steel
ROHS	Compliant

### Dimensions of the wrench

Wrench opening	22 mm
Driving end thickness	6 mm
Diameter of the handle	16 mm
Length	160 mm
Weight	170 g



### Dimensions of the packing

Height and width	45 mm
Length	240 mm
Weight	240 g

### Key features

- Torque wrench for 4.3-10 connectors
- Ensures correct torque force and good connection to counterpart connector
- Robust structure
- Will give audible "click" sound and vibration to the handle when the wrench has reached the 5 Nm torque

20210326/JB

## Torque Wrench for coupling torque of NEX10 connector



Product number: TWNX-01

### Specification

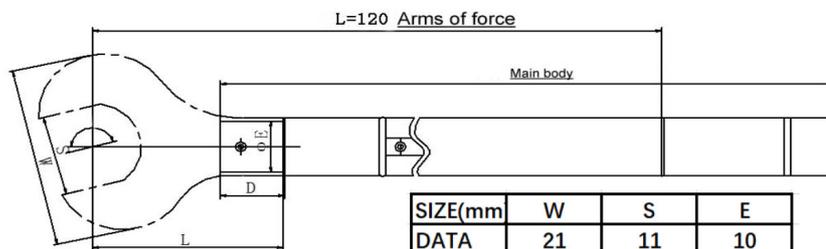
Preset torque	1.5 Nm
Torque tolerance	-0 / +2 %

### Mechanical specification

Material	Chromium steel
ROHS	Compliant

### Dimensions of the wrench

Wrench opening	11 mm
Driving end thickness	5 mm
Diameter of the handle	16 mm
Length	160 mm
Weight	130 g



### Dimensions of the packing

Height and width	45 mm
Length	240 mm
Weight	200 g

### Key features

- Torque wrench for NEX10 connectors
- Ensures correct torque force and good connection to counterpart connector
- Robust structure
- Will give audible "click" sound and vibration to the handle when the wrench has reached the 1.5 Nm torque

20210517/JB

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