



Shaping the  
connected world



# Public safety

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Catalogue 2026

**We are your  
specialist for  
reliable, high  
quality and  
innovative  
communication  
technologies.**



ESB is a global company Customer-focused with headquarters in Spain (Valencia) which manufactures and develops Mobile Communication solutions in different areas like macro, micro, indoor coverage, smallcells and camouflage antenna Solutions for Communication Service Providers around the world.

### **Our vision**

We trust in the efficient and sustainable telecom infrastructure as a primary driver in the international integration

### **Mission**

Communication technologies play an important role in the process of evolution.

They connect people and enable the world to be connected. ESB pursues an effective and responsible connection of the worlds' technologies. Demand of these technologies is constantly rising, as well as global data consumption. With more than 40 years experience, we are capable of meeting the most complex requirements and challenges.

"It is our mission to shape a connected world, continue to build it and improve its efficiency using innovative and sustainable technologies"

Our near future depends on new technologies. Due to our strong roots and experience, we will fight daily to achieve this environmental friendly connected world.

Esb mobile communication portfolio offers high-end Wireless products for all frequency bands and global standards, we are constantly evolving our portfolio to meet the market demand and in close cooperation with our customers and sales network, from the proof of concept to massive production.

## Our Values

ESB develops and sales telecom products on a global market. Working globally with the automotive and telecom industry brings the responsibility of working towards social and economic development and sustainability, as well as conducting business responsibly.

We work actively in our basic values: Innovation, cooperation, long-term approach and reduction of environmental impact.

**Innovation:** every day we pursue innovation in all we do. we focus on research, development and innovation (R & D & I). These 3 factors are the basis of our growth and our main difference compared to our competitors.

**Cooperation.** Working on product development gives us the opportunity to collaborate with any kind of company. We work effusively to maintain respectful and positive relations with all of our partners as well as suppliers, clients and everyone else whom we work with.

**Long-Term approach.** Developing products implies committing to long-term approaches with our partners and major investors. Having a long-term mind-set with regard to sustainability and management secures customer and owner value over time.

**Environmental friendly.** ESB works on daily basis to reduce visual impact of the telecommunication sector in our world. Therefore, product development moves towards the integration of the antenna with the environment.

**Quality Policy.** Quality is the best argument when it comes to competing on the market and represents a guarantee for the continuity and the future of any company.





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# Passive DAS products

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78710141	2-way Splitter 380-4000 MHz 4.3-10	20
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**78712038**

Indoor  
Omni Antenna Thin  
H-Pol 1-port 2/5dBi  
380-4000Mhz

**Omni Indoor**  
**380-4000 2/5dBi (Thin-plate)**

Type	78712038			
Frequency (MHz)	380-520	698-960	1710-2700	3300-4000
Gain (dBi)	2.0 ±1	2.0 ±1	4.0 ±1	4.5 ±1
VSWR	≤ 2.0	≤ 2.0	≤ 1.8	≤ 1.8
Polarization	Vertical			
PIM3 (dBc, @2x43dBm)	≤-153			
Horizontal Beamwidth (°)	360			
Vertical Beamwidth (°)	120	85	76	58
Input Impedance (ohm)	50			
Max. Input Power (W)	50			
Lightning Protection	DC Grounded			
Connector	1 x 4.3-10 Female			
Dimension (mm)	Ø280 x 19			
Weight (kgs)	Approx. 0.5			
Radome Material	ABS (UV Stabilized)			
Operating Temperature (°C)	-40 to +65			

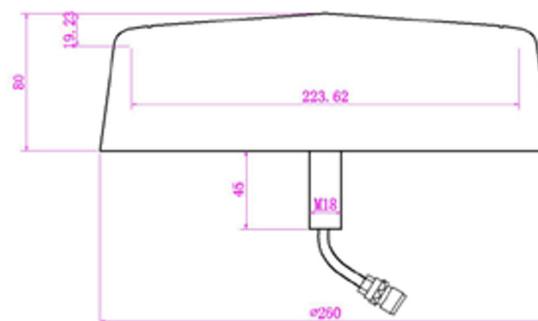


**78721390**

Indoor  
Omni Directional Antenna (Slim)  
V-Pol 1-port 3dBi  
380-520

**Omni Indoor 380-520 3dBi (Slim)**

Type	78721390
Frequency (MHz)	380-520
Gain (dBi)	3
VSWR	≤ 1.8
Polarization	Vertical
Horizontal Beamwidth (°)	360
Vertical Beamwidth (°)	98
Input Impedance (ohm)	50
Max. Input Power (W)	50
Lightning Protection	DC Grounded
Connector	1 x N Female
Dimension (mm)	Ø280 x 80
Weight (kgs)	Approx. 1.1
Reflector Material	Aluminum
Radome Material	Fiberglass
Operating Temperature (°C)	-40 to +65



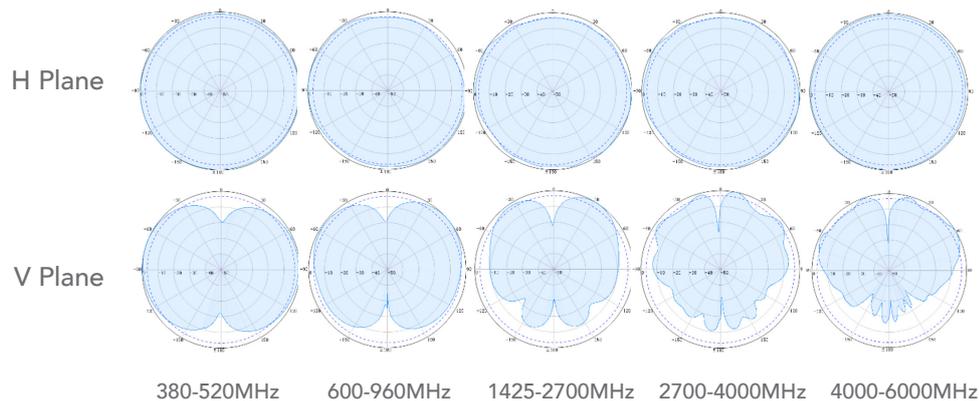
# 78712041

Indoor  
Omni Directional Antenna (Dome)  
V-Pol 1-port 2/3/6dBi  
380-520 / 600-960 / 1425-6000

## Omni Indoor 380-520/600-960/1425-6000 2/3/6dBi (Dome)

Type	78712041				
Frequency (MHz)	380-520	600-960	1425-2700	2700-4000	4000-6000
Gain (dBi)	1.5	2.5	4.5	5.0	5.5
VSWR	≤ 2.5	≤ 2.0	≤ 2.0	≤ 2.0	≤ 2.0
Polarization	Vertical				
PIM3 (dBc, @2x43dBm)	≤ -153				
Horizontal Beamwidth (°)	360				
Vertical Beamwidth (°)	100	90	45	22	35
Input Impedance (ohm)	50				
Max. Input Power (W)	50				
Lightning Protection	DC Grounded				
Connector	1 x 4.3-10 Female				
Dimension (mm)	Ø285 x 135				
Weight (kgs)	Approx. 0.85				
Reflector Material	Aluminum				
Radome Material	ABS (UV Stabilized)				
Operating Temperature (°C)	-40 to +65				

(A)3WQMN41117194YR/3WQM41117194YR  
(A)4WQMN41117194YR/4WQM41117194YR



**78721353**

Indoor  
Directional Panel Antenna  
V-Pol 1-port 4dBi  
380-520MHz

**Panel Indoor 380-520MHz 4dBi**

Type	78721353
Frequency (MHz)	380-520
Gain (dBi)	4±1
VSWR	≤ 2.5
Polarization	Vertical
Front-to-Back Ratio (dB)	>6
Horizontal Beamwidth (°)	130
Vertical Beamwidth (°)	120
Input Impedance (ohm)	50
Max. Input Power (W)	50
Lightning Protection	DC Grounded
Connector	N Female
Dimension (mm)	315 x 195 x 68
Weight (kgs)	Approx. 0.45
Reflector Material	Aluminum
Radome Material	ABS (UV Stabilized)
Operating Temperature (°C)	-40 to +65

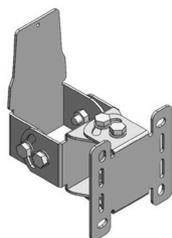


**80012323**

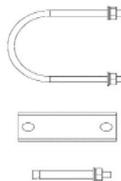
Outdoor  
Panel Directional Antenna  
VPol 1-port 3/8dBi  
380-6000

**Panel Outdoor**  
**380-6000 3/8dBi**

Type	80012323				
Frequency (MHz)	380-520	698-960	1710-2700	3300-4200	4900-6000
Gain (dBi)	3	6	8	7.5	8
VSWR	≤ 3.0	≤ 2.0	≤ 2.0	≤ 2.0	≤ 2.0
Polarization	Vertical				
PIM3 (dBc, @2x43dBm)	N/A	≤ -150			N/A
Front-to-Back Ratio (dB)	N/A	≥ 10	≥ 18	≥ 14	≥ 12
Horizontal Beamwidth (°)	110	90	65	40	14
Vertical Beamwidth (°)	80	65	60	36	18
Input Impedance (ohm)	50				
Max. Input Power (W)	50				
Lightning Protection	All metal parts of the antenna and mounting kit are DC grounded. Inner conductor is not DC grounded				
Connector	1 x 4.3-10 Female				
Dimension (mm)	315 x 195 x 68				
Weight (kgs)	Approx. 0.7				
Reflector Material	Aluminum				
Radome Material	ABS (UV Stabilized) RAL 90003				
Operating Temperature (°C)	-40 to +65				
Ingress protection	IP54 (outdoor or indoor) application				
Mounting	Wall mount plate included in the scope of the antenna				
Optional accessory (*order separately)	Universal Mounting Bracket 70010015v01 Wall mount: ±25° horizontal swivel & +27°/-35° vertical tilt Pole mount: ±45° horizontal swivel; pole size Ø38-Ø52mm				

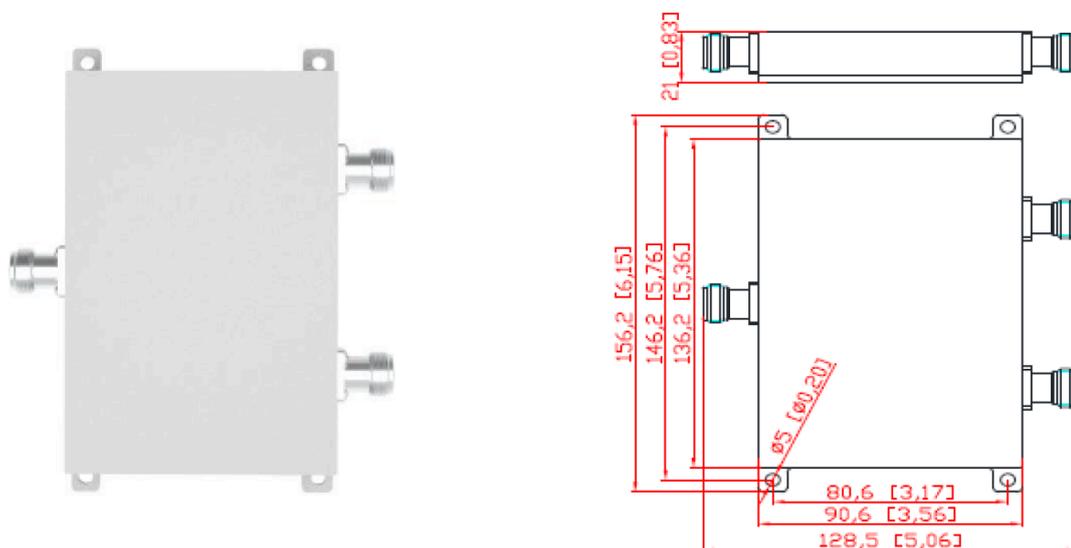


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**78771022****2 way Wilkinson splitter 138-960Mhz**138-960Mhz 2 way  
N female Wilkinson Splitter

Type	78771022
Frequency (MHz)	138-960Mhz
Impedance (ohm)	50
VSWR	≤1.3
Isolation (dB)	18
Split Loss (dB)	≤3.6
Application	Indoor & outdoor
Degree of protection	IP 65
Operating Temperature (°C)	-40+80
Connector	N female
Handling Power (Watt, max)	50
Peak Power (Watt, max)	200
Dimension (mm)(LxWxH, excl connectors)	136.2x90.6x21
Net Weight (g)	550
Packing dimensions (mm)	210x170x65
ROHS compliance	Yes



# 787710XX

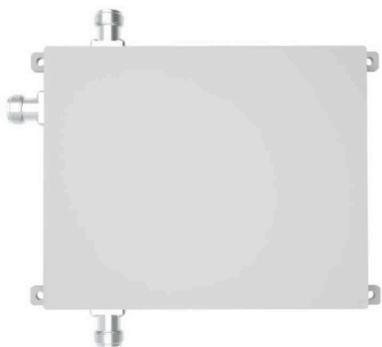
Directional Coupler NF  
PIM -150dBc  
70-1000MHz

## Directional Coupler 70-1000MHz

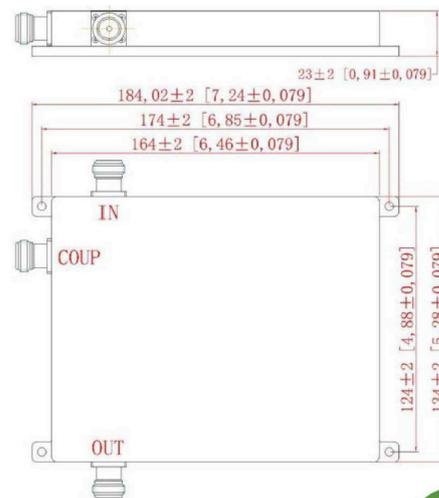
Type	78771006	78771007	78771010	78771015	78771020	78771030
Coupling Value (dB)	6	7	10	15	20	30
Coupling Bias (dB)	±2.2	±2.2	±2.2	±2.2	±2.4	±2.4
Insertion Loss (dB)	≤1.9	≤1.7	≤1.0	≤0.8	≤0.5	≤0.3
Isolation (dB)	≥26	≥27	≥30	≥35	≥40	≥45
VSWR	≤1.3					

Electrical Specifications	
Frequency Range (MHz)	70-1000
Impedance (Ω)	50
IM3 (dBc, @2x43dBm)	≤ -150
Connector Type	N female
Max. Power Rating (W)	200
Peak Power (W)	1,200

Mechanical and Environmental Specifications	
Dimension (mm)**	164 x 134 x 23
Colour	Light Grey
Mounting	Wall Mount
Operating Temp (°C)	-30 to +60
Ingress Protection Class	IP65



\* excluding mounting bracket and connectors



**7871013x**

340-3800Mhz Outdoor Power Splitter  
 2-/3-/4- Way Power Splitter  
 Low PIM -160dBc  
 500W DIN 7/16

**Power Splitter**  
**500W 340-3800 (Square Tube)**

Type	78710131	78710133	78710134
Frequency (MHz)	340-3800		
Splitting Output	2-way	3-way	4-way
Distribution Loss (dB)	3.0	4.8	6.0
Insertion Loss (dB)	< 0.3	< 0.4	< 0.5
Return Loss (dB)	≥ 19		
PIM3 (dBc, @2x43dBm)	≤ -160		
Input Impedance (ohm)	50		
Max. Input Power (W)	500		
Connector	DIN 7/16 Female		
Weight (kgs)*	0.6	0.7	0.8
Dimension (mm)**	249 x 25 x 25	275 x 25 x 25	295 x 25 x 25
Ingress Protection Class	IP65 (for outdoor and indoor)		
Operating RH (%)	≤ 95		
Operating Temperature (°C)	-25 to +65		
Environmental data	Electromagnetic Compatibility 2014/30/EU RoHS compliance directive 2011/65/EU ETSI EN 300 019-1-4		
Mounting	Built-in Bracket for wall mount		
Colour	Light Grey		



# 787610X2v03

Power Splitter  
2-/3-/4-way  
N 300W PIM -160dBc  
350-6000MHz

## Power Splitter 300W 350-6000 (Square Tube)

Type	78761022v03	78761032v03	78761042v03
Frequency (MHz)	350-6000		
Splitting Output	2-way	3-way	4-way
VSWR	≤1.25	≤1.25	≤1.25
Split Loss (dB)	≤3.5	≤5.6	≤7.1
PIM3 (dBc, @2x43dBm)	≤ -160		
Input Impedance (ohm)	50		
Max. Input Power (W)	300		
Peak Power (W)	1200		
Connector	N Female		
Weight (kgs)	0.5	0.6	0.65
Dimension (mm)	318 x 25 x 25	365 x 25 x 25	399 x 25 x 25
Dimension (mm)**	420x80x40	420x80x40	460x80x60
Ingress Protection Class	IP65 (for outdoor and indoor)		
Operating RH (%)	≤ 95		
Operating Temperature (°C)	-25 to +65		
Mounting	Built-in Bracket for wall mount		
Colour	Light Grey		



**787611XXv03****Directional Coupler  
350-6000Mhz**Directional Coupler NF  
PIM -160dBc  
350-6000MHz

Type	78761105v03	78761106v03	78761108v03
Coupling Value (dB)	5	6	8
Coupling Bias (dB)	±2.0	±2.0	±2.0
Insertion Loss (dB)	≤3.0	≤1.8	≤1.5
Isolation (dB)350-4800	≥22	≥23	≥26
Isolation(dB)4800-6000	≥20	≥21	≥22
VSWR	≤1.3 (350-4800Mhz) ≤1.40 (4800-6000MHz)		

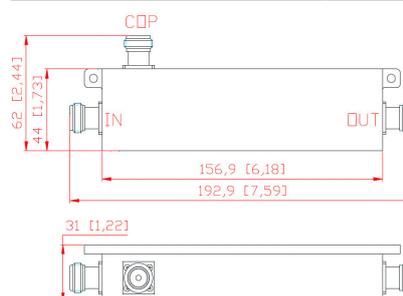
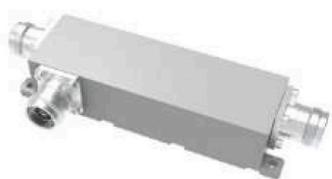
Type	78761110v03	78761115v03	78761120v03
Coupling Value (dB)	10	15	20
Coupling Bias (dB)	±2.0	±2.3	±2.3
Insertion Loss (dB)	≤1.1	≤0.8	≤0.22
Isolation (dB)350-4800	≥28	≥33	≥38
Isolation(dB)4800-6000	≥23	≥30	≥35
VSWR	≤1.3 (350-4800Mhz) ≤1.40 (4800-6000MHz)		

**Electrical Specifications**

Frequency Range (MHz)	350-6000
Impedance (Ω)	50
IM3 (dBc, @2x43dBm)	≤ -160
Connector Type	N female
Max. Power Rating (W)	200
Peak Power (W)	1,200

**Mechanical and Environmental Specifications**

Dimension (mm)**	156.90 x 44 x 31
Weight (kgs)*	0.6
Colour	Light Grey
Mounting	Wall Mount
Operating Temp (°C)	-35 to +85
Ingress Protection Class	IP65
Packing Dimension (mm)	180 x 100 x 55



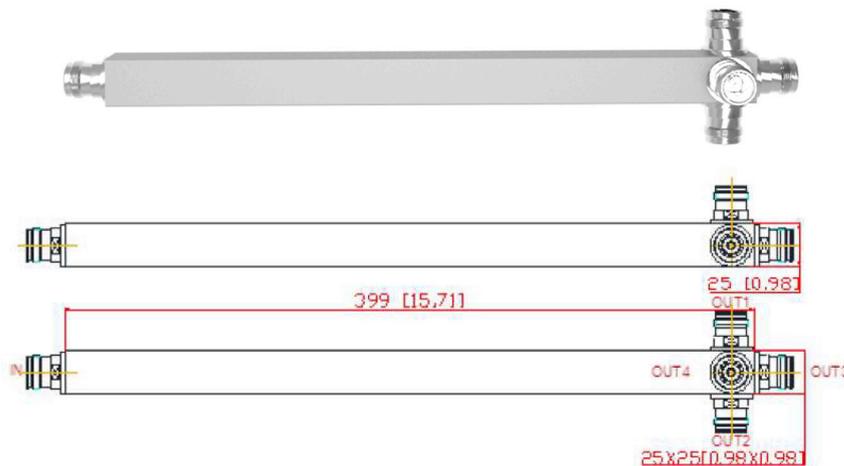
\* including mounting bracket and connectors  
\*\* excluding mounting bracket and connectors

**7871014X**

380-4000Mhz Outdoor Power Splitter  
 2-/3-/4- Way Power Splitter  
 Low PIM -160dBc  
 500W 4.3-10 F

**Power Splitter 500W 380-4000  
 (Square Tube)**

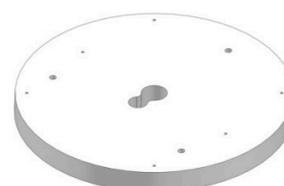
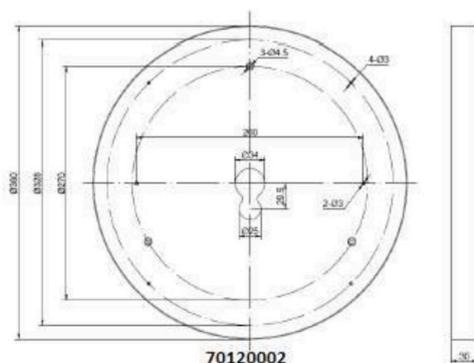
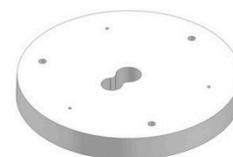
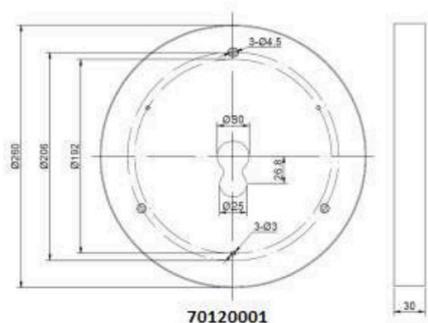
Type	78710141	78710143	78710144
Frequency (MHz)	380-4000		
Splitting Output	2-way	3-way	4-way
Split Loss (dB)	≤3.5	≤5.6	≤6.8
PIM3 (dBc, @2x43dBm)	≤ -160		
Input Impedance (ohm)	50		
Handling Power (W)	500		
Peak Power (W)	1500		
Connector	4.3-10 Female		
Weight (kgs)	0.5	0.64	0.75
Dimension (mm)	318 x 25 x 25	365 x 25 x 25	399 x 25 x 25
Ingress Protection Class	IP65 (for outdoor and indoor)		
Operating RH (%)	≤ 95		
Operating Temperature (°C)	-25 to +65		
Environmental data	Electromagnetic Compatibility 2014/30/EU RoHS compliance directive 2011/65/EU ETSI EN 300 019-1-4		
Mounting	Built-in Bracket for wall mount		
Colour	Light Grey		



## 70120001 / 70120002

RF absorbing base for ESB omni ceiling antennas

Type	70120001	70120002
Mounting	30 x Ø260	30 x Ø360
Colour	ABS (UV Stabilized)	



### Application of ESB absorbing base

In general, omni ceiling-mounted antennas are installed on non-metallic surface and avoid being installed near any metallic object or surface to avoid RF interferences which could badly affect the antenna performance. When such installation becomes not possible, ESB RF Absorbing Base is used to minimize the RF interferences and improve the performance to acceptable level. ESB does not guarantee the operation of this device and highly recommends installing antennas on non-metallic surfaces

# Omnidirectional and Log-Per antennas

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Part Number	Type	Inputs	Connector	MHz	Gain (db)	Page
78721402	Log-per	1 port	7/16F	380-430	10dB	25
80010434	Omni	1 port	7/16F	380-400	8dB	26
75110637	Omni	1 port	7/16F	380-400	8dB	26
751638/5	Omni	1 port	7/16F	380-400	8dB	28
751121	Omni	1 port	N-F	406-470	2dB	30
737005	Omni	1 port	N-F	370-430	2dB	31
751288	Omni	1 port	4.3-10-F	380-430	5.5dB	32

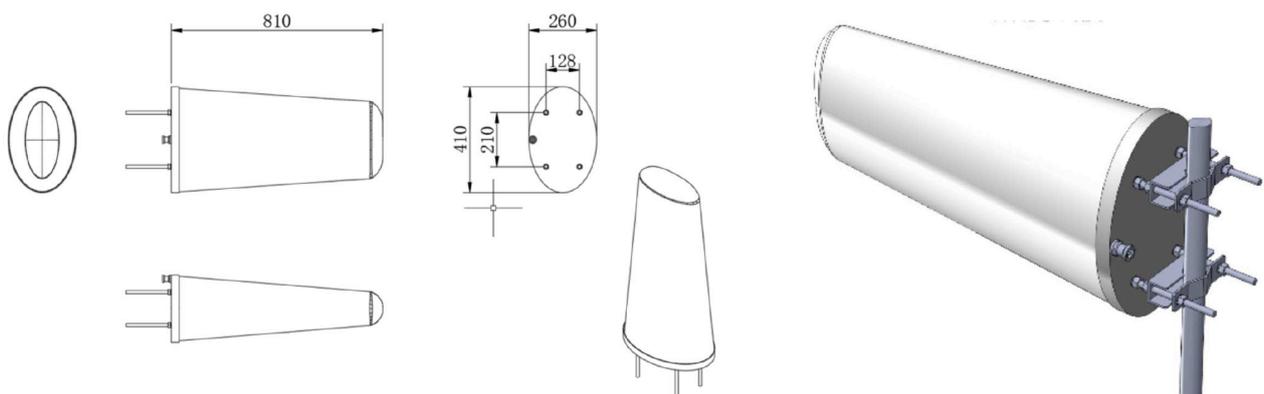


# 78721402

Log Periodic directional Antenna  
V-Pol 1-port 10dBi 380-520Mhz

## Log Periodic directional Antenna 380-520Mhz 10dBi

Type	78721402		
Frequency (MHz)	380-410	410-470	470-520
Gain (dBi)	9.5	10	10
VSWR	≤ 1.5	≤ 1.5	≤ 1.5
Polarization	Vertical		
Intermodulation IM3:(2x 43 dBm)	< -150 dBc		
Front to back ratio	≥15dB		
Horizontal Beamwidth (°)	75	60	58
Vertical Beamwidth (°)	60	53	51
Input Impedance (Ω)	50		
Max. Input Power (W)	500		
Lightning Protection	DC Grounded		
Connector	7/16 Female		
Dimension (mm)	810 x 410 x 260		
Windload (N) at 150Km/h wind speed	Frontal 76.89 Lateral 235.12 Rearside 134.55		
Max. wind speed (km/h)	200		
Weight (kgs)	5		
Reflector Material	Cooper		
Radome Material	Fiberglass (RAL7035)		
Operating Temperature (°C)	-40 to +65		
Mounting	Bracket for pole mounting 50-70mm included		



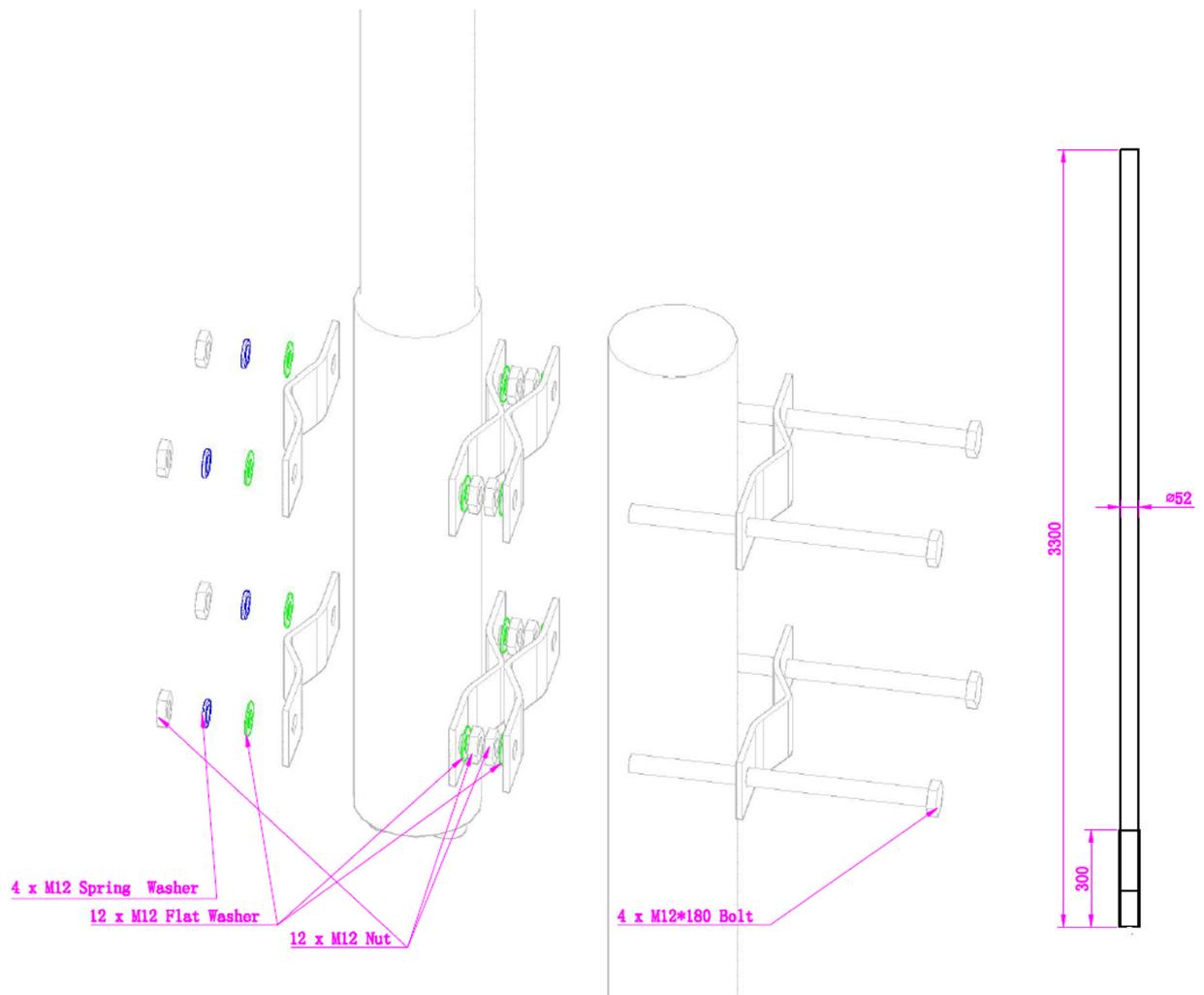
**80010434 / 75110637**Omni Directional Antenna  
V-Pol 1-port 8dBi**VPol Omni 380-400 360° 8dBi**

380 – 400 / Pre-fixed Electrical Downtilt 5°/0°

Type	80010434	75110637
Frequency Range (MHz)	380-400	
Gain (dBi)	8	
VSWR	≤ 1.5	
3rd Order PIM (dBc)	≤ -150 @ 2x43dBm	
Polarization	V	
Electrical Tilt (°)	5, Fixed	0, Fixed
Horizontal Beamwidth (°)	360	
Vertical Beamwidth (°)	14	
Input Impedance (ohm)	50	
Max. Input Power (W)	500	
Lightning Protection	DC Grounded	
Connector Type	1 x 7/16 Female	
Dimension (mm)	Ø52 x L3600	
Weight (kgs)	7.5	
Reflector Material	Copper	
Radome Material	Fiber Glass	
Rated Wind Velocity (km/h)	210	
Operating Temperature (°C)	-40 to +65	
Mounting	U-clamps supplied for mast diameter 60mm to 110mm	



## Mounting Clamp Installation Illustration



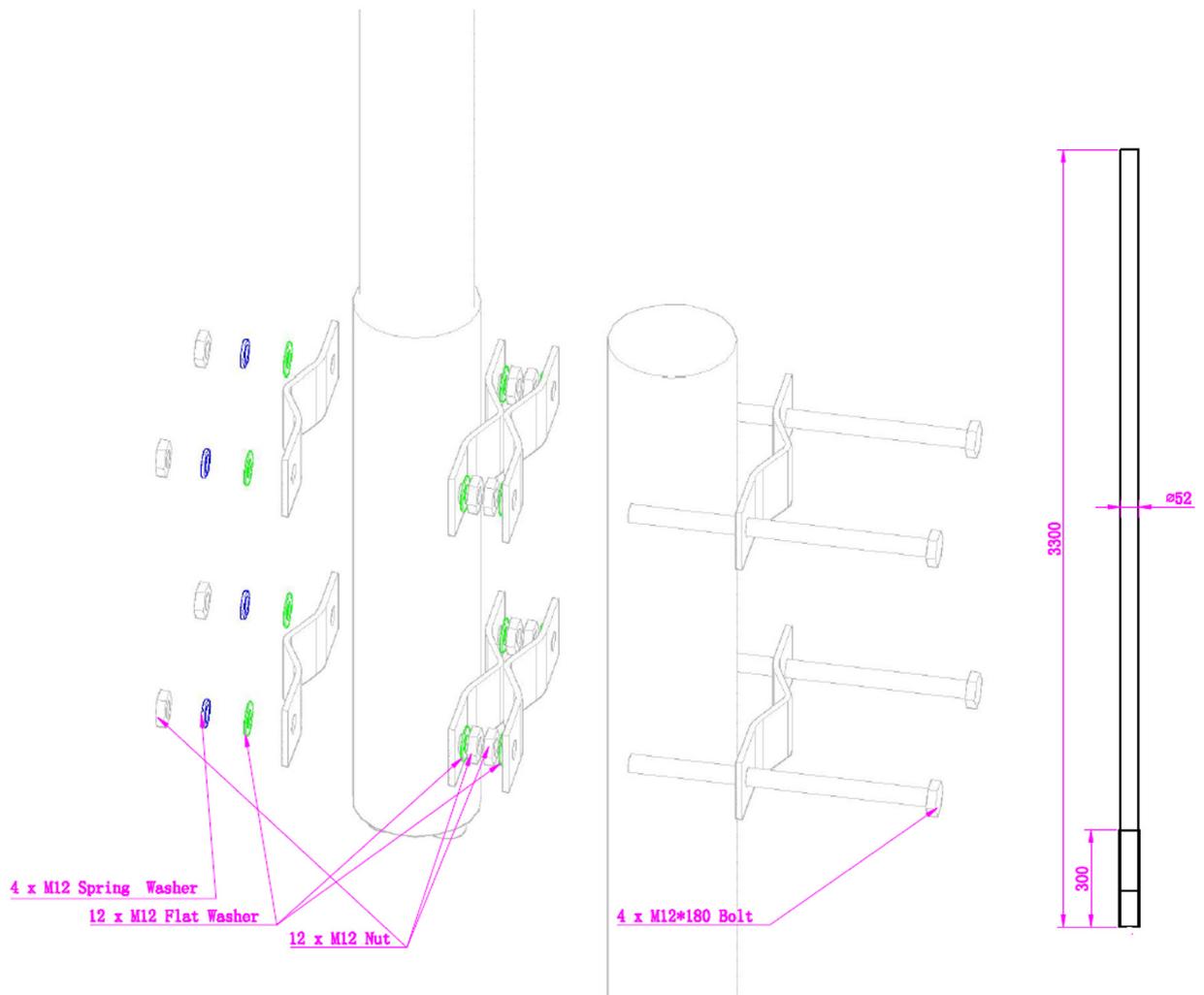
**751638/5**Omni Antenna  
V-Pol 1-port 8dBi 5T  
380-430**V-Pol Omni 380-430 8dBi 5T**

Type	751638/5
Frequency Range (MHz)	380-430
Gain (dBi)	8
VSWR	≤ 1.5
3rd Order PIM (dBc)	≤ -150 @ 2x43dBm
Polarization	Vertical
Electrical Downtilt (°)	5
Horizontal Beamwidth (°)	360
Vertical Beamwidth (°)	15 ±1
Input Impedance (ohm)	50
Max. Input Power (W)	300
Lightning Protection	DC Grounded
Connector Type	4.3-10 Female
Dimension (mm)	Ø52 x 3300
Weight (kgs)	7
Radome Material	Fiber Glass
Reflector Material	Aluminum
Operating Temperature (°C)	-40 to +65
Max. Wind Velocity (km/h)	210
Mounting	Clamps for Pole Mount Size Ø60 – Ø110 Included

(A)U6I9145194KR



## Mounting Clamp Installation Illustration



**751121****Omni Antenna**V-Pol 1-port  
2dBi 406-470

Type	751121
Frequency	406-470
Gain (dBi)	2
VSWR	≤ 1.5
Polarization	Vertical
Horizontal beamwidth°	360
Vertical beamwidth°	66
Input Impedance (ohm)	50
Max. Input Power (W)	50
Lightning Protection	DC Grounded
Connector	N Female
Dimension (mm)	Ø20 x 600
Weight (kgs)	0.8
Radome Material	Fiber Glass
Operating Temperature (°C)	-40 to +65
Max. Wind Velocity (km/h)	210
Mounting kit	Clamps for Pole Mount Size Ø38 – Ø60 Included

**737005**V-Pol 1-port  
2dBi 370-430**Omni Antenna**

Type	737005
Frequency	370-430
Gain (dBi)	2
VSWR	≤ 1.5
Polarization	Vertical
Horizontal beamwidth°	360
Vertical beamwidth°	68
Input Impedance (ohm)	50
Max. Input Power (W)	50
Lightning Protection	DC Grounded
Connector	N Female
Dimension (mm)	Ø20 x 600
Weight (kgs)	1
Radome Material	Fiber Glass
Operating Temperature (°C)	-40 to +65
Max. Wind Velocity (km/h)	210
Mounting kit	Clamps for Pole Mount Size Ø38 – Ø60 Included

**751288****Omni antenna 380-430MHz**Omni antenna  
V-Pol 1-port 5.5dBi 0T  
380-430Mhz

Type	751288
Frequency (MHz)	380 - 430
Gain (dBi)	5.5
Polarization	Vertical
Impedance ( $\Omega$ )	50
VSWR	$\leq 1.5$
PIM3 (dBc, @2x43dBm)	$\leq -150$
Connector	4.3-10 female
Electrical downtilt ( $^{\circ}$ )	0
Horizontal Beamwidth ( $^{\circ}$ )	360
Vertical Beamwidth ( $^{\circ}$ )	35
Max input power (W)	250
Lightning protection	DC Grounded
Dimension (mm)	$\varnothing 52 \times 2000$
Weight (kgs)	Approx. 4
Radome material	Fiber glass
Radiator material	Copper
Operating temperature ( $^{\circ}\text{C}$ )	-40 to +65
Max. Wind Velocity (Km/h)	210
Mounting	Bracket for pole mount included (pole size $\varnothing 60$ - $\varnothing 110$ mm)





# Panel antenas

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Part Number	Type	Inputs	Connector	MHz	Gain (db)	Page
80011506	Panel antenna 90°	2port	7/16F	380-520	13dB	36
80011253	Panel antenna 65°	2port	7/16F	380-520	15dB	38

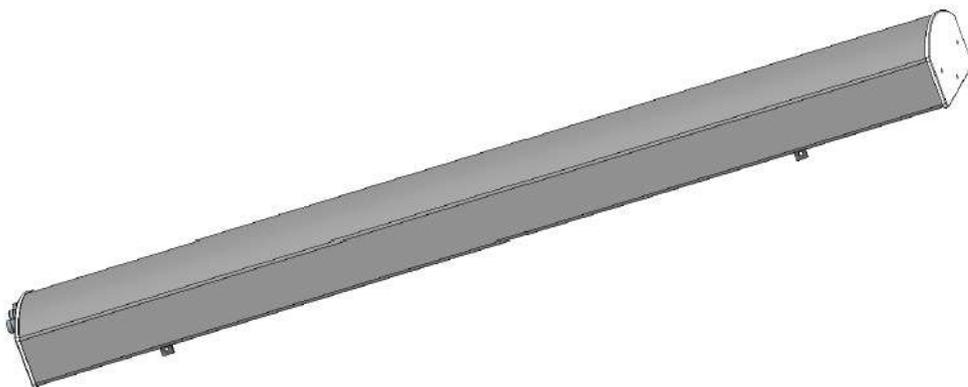
**80011506**

2-Ports 1L Antenna  
 1x380-500MHz  
 90° 13dBi 2.05m  
 E-Tilt: 0°

**Electrical Specifications**

Frequency Range (MHz)	380-450	450-500
Polarization	±45°	
Electrical Downtilt (°)	0, Fixed	
Gain (dBi)	12.5	13
Horizontal Power Beam Width (°)	85±8	83±8
Vertical Power Beam Width (°)	19±2	17±2
Front-to-Back Ratio (dB)	≥23	
Port-Port Isolation(dB)	≥26	
Cross-Polar Discrimination (dB)	≥30	
Impedance (Ω)	50	
VSWR	<1.5	
Intermodulation IM3 (2×43dBm carrier)	≤ -153dBc	
Maximum Power (W)	2 x 400	
Peak Instantaneous Power (KW)	25	
Ground Protection	DC GROUND	

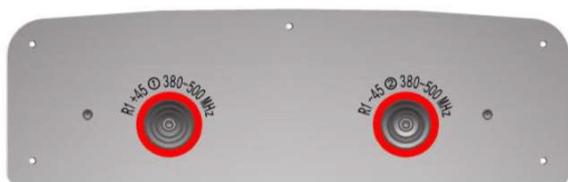
Values based on NGMN recommendations on Base Station Antenna Standards\_v11.1 (BASTA\_v11.1)



**Mechanical Specifications**

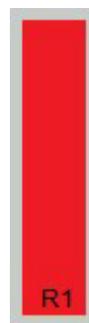
Connector	2 x 7/16DIN Female
Connector Position	Bottom
Antenna dimensions (H x W x D) (mm)	2050x450x145
Packing dimensions (H x W x D) (mm)	2310x510x265
Antenna weight (kg)	22.6/27.5 (clamps incl.)
Radome material	Fiberglass
Radome color	Gray
Operational temperature (°)	-40 to +75
Wind Load@150km/h Frontal /Lateral/ Rear side (N)	826/163/1052
Max. operational wind speed (km/h)	200
Diameter of installation pole	50 ~115 mm
Mechanical Tilt (°)	0-10
Mounting kit	Included

Connector Position:



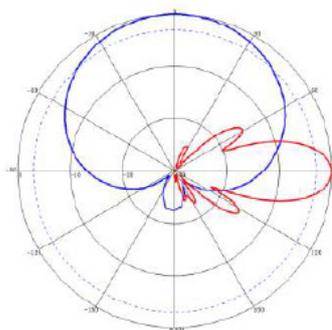
R1:380-500MHz

Configuration Types:

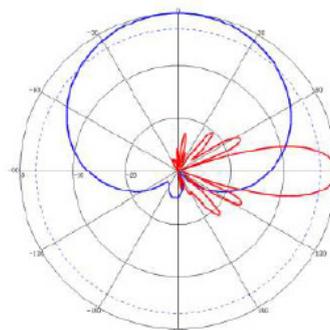


Pattern sample for reference:

380-450 MHz: ±45° Pol.



450-500 MHz: ±45° Pol.



**80011253**

2-Ports 1L Antenna  
 1x380-500MHz  
 65° 15dBi 2.05m  
 E-Tilt: 0°

**Electrical Specifications**

Frequency Range (MHz)	380-450	450-500
Polarization	±45°	
Electrical Downtilt (°)	0, Fixed	
Gain (dBi)	14	14.5
Horizontal Power Beam Width (°)	70±5	68±5
Vertical Power Beam Width (°)	19±2	17±2
Front-to-Back Ratio (dB)	≥23	
Port-Port Isolation(dB)	≥26	
Cross-Polar Discrimination (dB)	≥30	
Impedance (Ω)	50	
VSWR	<1.5	
Intermodulation IM3 (2×43dBm carrier)	≤ -150dBc	
Maximum Power (W)	400	
Peak Instantaneous Power (KW)	25	
Ground Protection	DC GROUND	

## Mechanical Specifications

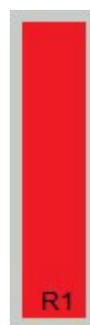
Connector	2 x 7/16DIN Female
Connector Position	Bottom
Antenna dimensions (H x W x D) (mm)	2050x450x145
Packing dimensions (H x W x D) (mm)	2310x510x265
Antenna weight (kg)	20/24.5 (clamps incl.)
Radome material	Fiberglass
Radome color	Gray
Operational temperature (°)	-40 to +75
Wind Load@150km/h Frontal /Lateral/Rear side (N)	826/163/1052
Max. operational wind speed (km/h)	200
Diameter of installation pole	50 ~115 mm
Mechanical Tilt (°)	0-10
Mounting kit	included

Connector Position:



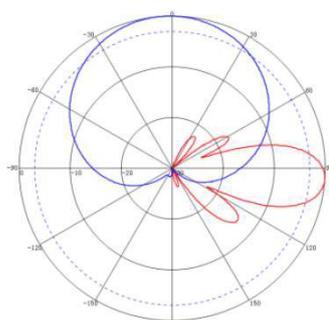
R1:380-500MHz

Configuration Types:

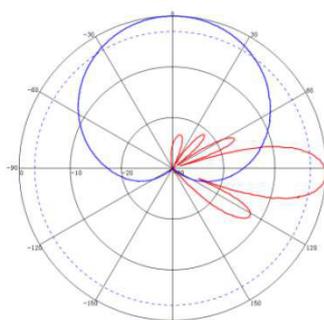


Pattern sample for reference:

380-450 MHz:  $\pm 45^\circ$  Pol.



450-500 MHz:  $\pm 45^\circ$  Pol.



# Multi-Band combiners and Duplexers

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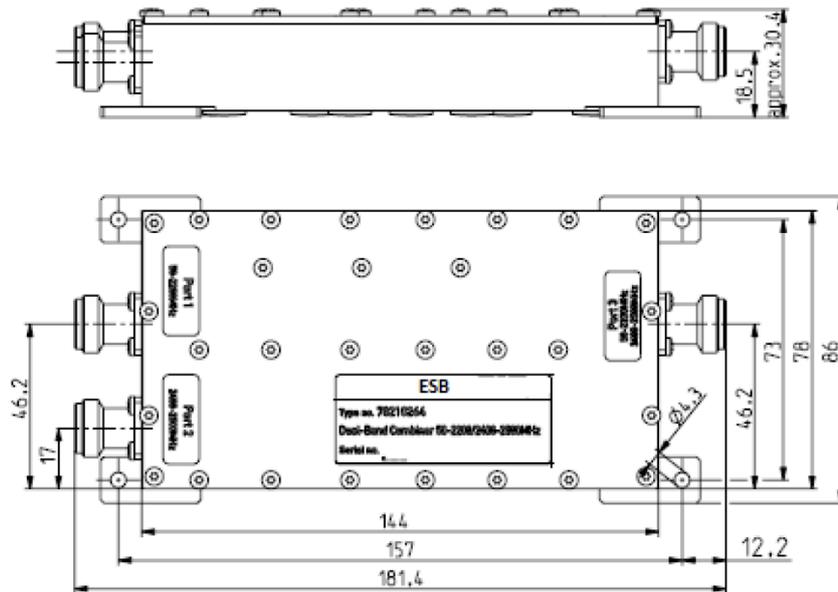
Part Number	Description	Page
78210264	DBC 50-2200/2400-2500MHz N(f) SU	42
728956	DBC 68-470/870-970MHz N(f) SU	44
728959	DBC 68-470/698-2700MHz N(f) SU	45
78211374	Diplexer 410-430/440-470 MHz N(f) SU	46
78211362v04	Duplexer 380-385/390-395 MHz 7/16 SU	48
78211363v02	Duplexer 385-390/395-400 MHz 7/16 SU	48
78211364	Duplexer 410-415/420-425 MHz 7/16 SU	50

**78210264****Dual Band Combiner  
50-2200 / 2400-2500Mhz**Dual Band Combiner  
50-2200 / 2400-2500

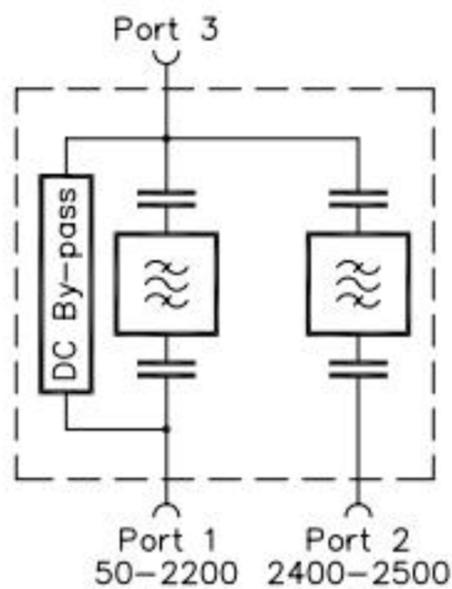
Type	78210264 Single Unit
Frequency (MHz) Band 1 Band 2	50-2200 2400-2500
Insertion Loss (dB)	Port1-3: < 0.1 dB (50 – 2200 MHz) Port2-3: < 0.2 dB (2400 – 2500 MHz)
Isolation (dB)	≥ 50
PIM3 (dBc, @2x43dBm)	≤ -150
VSWR	< 1.25 (50 – 2200 / 2400 – 2500 MHz)
Input Impedance (ohm)	50
Max. Input Power (W)	200 per Port
DC/AISG transparency Port 1 ↔ Port 3 Port 2 ↔ Port 3	DC By-pass (max 2500mA) Built-in DC Stop
Connectors	N Female
Dimension (mm)*	86 mm x 30.4 mm x 181.4 mm (including connectors and mounting feet)
Weight (kgs)	Approx 0.5
Ingress Protection Class	Indoor
Operational RH (%)	≤ 95
Operating Temperature (°C)	-30 to +60
Storage Temperature (°C)	-40 to +85



## Dimensions

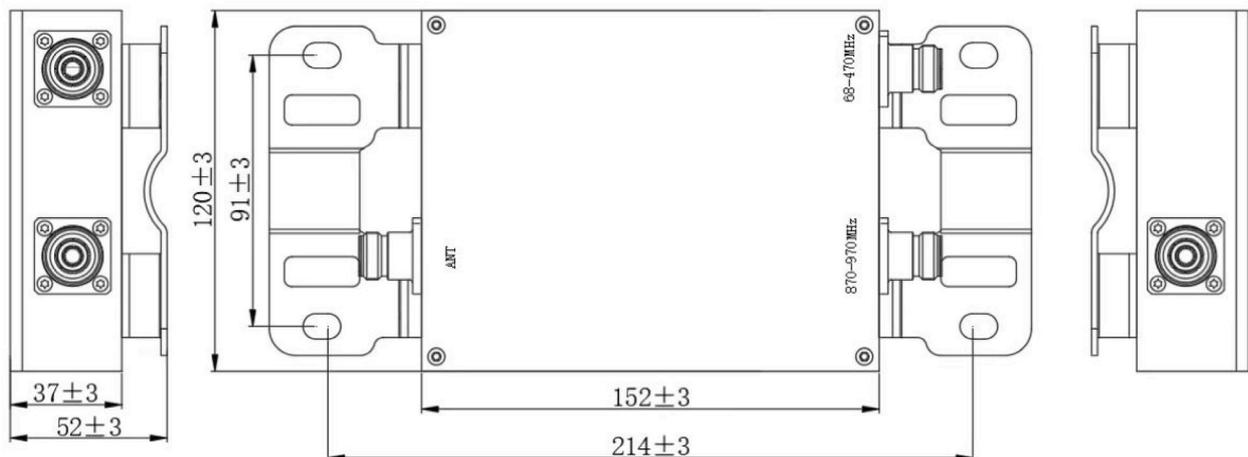


## Block Diagram



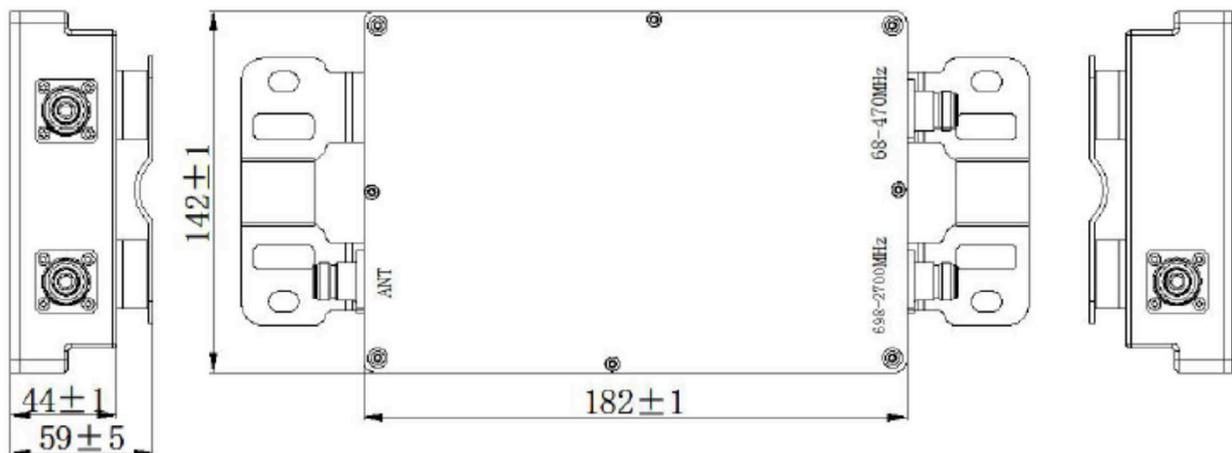
**728956****Dual Band combiner  
68-470/870-970MHz**Dual-band combiner  
68-470/870-970MHz

Type	728956
Frequency (MHz) Band 1 Band 2	68-470 870-970
Insertion Loss (dB)	≤ 0.5
Isolation (dB)	≥ 45
Input Impedance (ohm)	50
Max. Input Power (W)	50 per Port
Connectors	N Female
Dimension (mm)	152 x 120 x 37
Weight (kgs)	1.2
Ingress Protection Class	IP65
Operational RH (%)	≤ 95
Operating Temperature (°C)	-20 to +70
Storage Temperature (°C)	-40 to +85

**Dimensions**

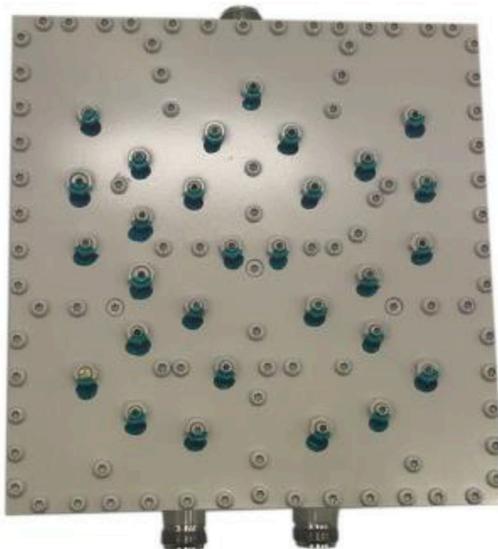
**728959****Dual Band Combiner  
68-470 / 698-2700**Dual Band Combiner  
68-470 / 698-2700

Type	728959
Frequency (MHz) Band 1 Band 2	68-470 698-2700
Insertion Loss (dB)	≤ 0.5
Isolation (dB)	≥ 40
VSWR	1.4
Input Impedance (ohm)	50
Max. Input Power (W)	50 per Port
Connectors	N Female
Dimension (mm)	188 x 142 x 44
Weight (kgs)	TBD
Ingress Protection Class	IP65
Operational RH (%)	≤ 95
Operating Temperature (°C)	-20 to +75
Storage Temperature (°C)	-40 to +85

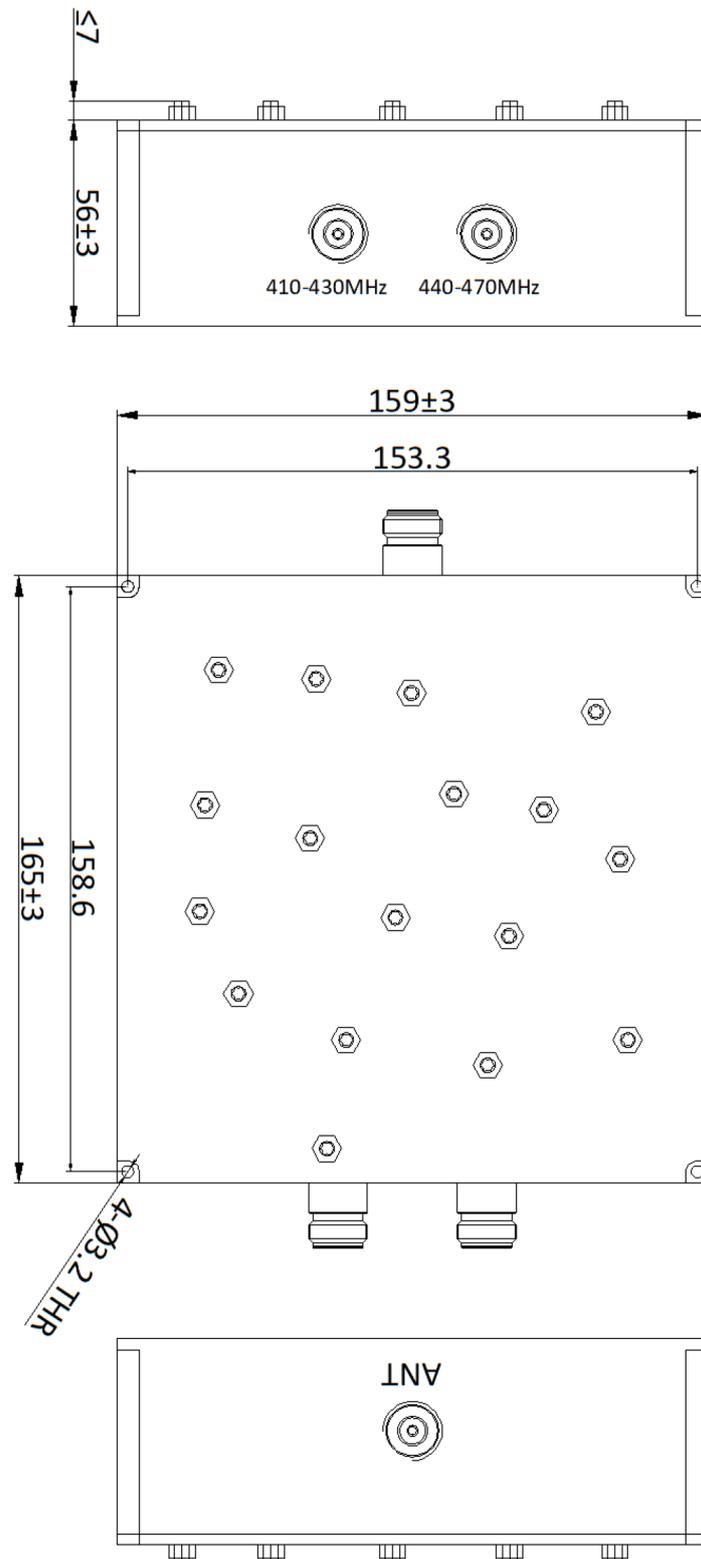
**Dimensions**

**78211374****Diplexer UHF  
410-430/440-470MHz**DIPLEXER  
410-430/440-470Mhz

Type	78211374
Frequency (MHz) Band 1 Band 2	410-430 440-470
Insertion Loss (dB)	≤ 1.0
Isolation (dB)	≥ 55
Input Impedance (ohm)	50
Max. Input Power (W)	50 per Port
Connectors	N Female
Dimension (mm)	165 x 159 x 56
Weight (kgs)	1.2
Ingress Protection Class	IP54
Operational RH (%)	≤ 95
Operating Temperature (°C)	-30 to +70
Storage Temperature (°C)	-40 to +85



## Dimensions



# 78211362V04

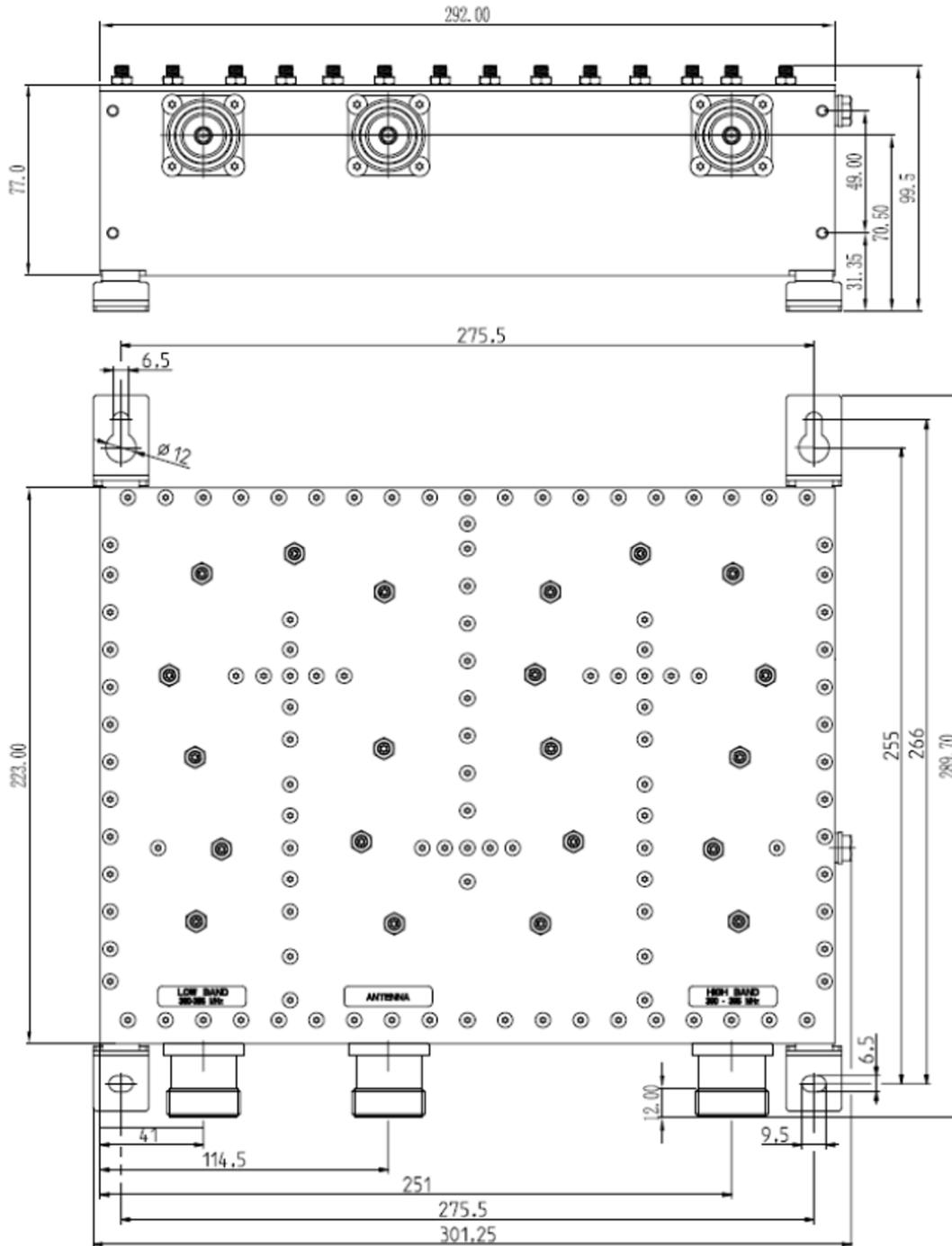
# 78211363V02

## UHF Duplexer 380-385/390-395 / 385-390/395-400

UHF Duplexer  
380-385/390-395  
/ 385-390/395-400

Type	78211362v04		78211363v02	
	Low Band 380-385	High Band 390-395	Low Band 385-390	High Band 395-400
Frequency (MHz)				
Insertion Loss (dB)	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8
Ripple (dB)	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
Out-of-Band Rejection (dB)	≥ 50 DC-375 ≥ 65 390-1000	≥ 65 DC-385 ≥ 50 400-1000	≥ 50 DC-380 ≥ 65 395-1000	≥ 65 DC-390 ≥ 50 405-1000
PIM3 (dBc, @2x43dBm)	≤ -150			
Isolation (dB)	≥ 65			
VSWR	≤ 1.25			
Return Loss (dB)	≥ 19			
Input Impedance (ohm)	50			
Input Power, Avg. (W)	200 per Port			
Input Power, Peak (W)	1,500			
DC Stop	Between All Ports			
Connectors	7/16 Female			
Dimension (mm)*	223 x 292 x 77			
Weight (kgs)	4.5			
Ingress Protection Class	Indoor Application Only			
Operational RH (%)	≤ 95			
Operating Temperature (°C)	-20 to +60			
Storage Temperature (°C)	-40 to +85			
Barometric Pressure (kPa)	55 to 106			
Optional Accessory (Order Separately)	19" Rack Mount Unit R0010005-V01 Front Mount R0010006-V01 Rear Mount			

\* excluding mounting bracket and connectors

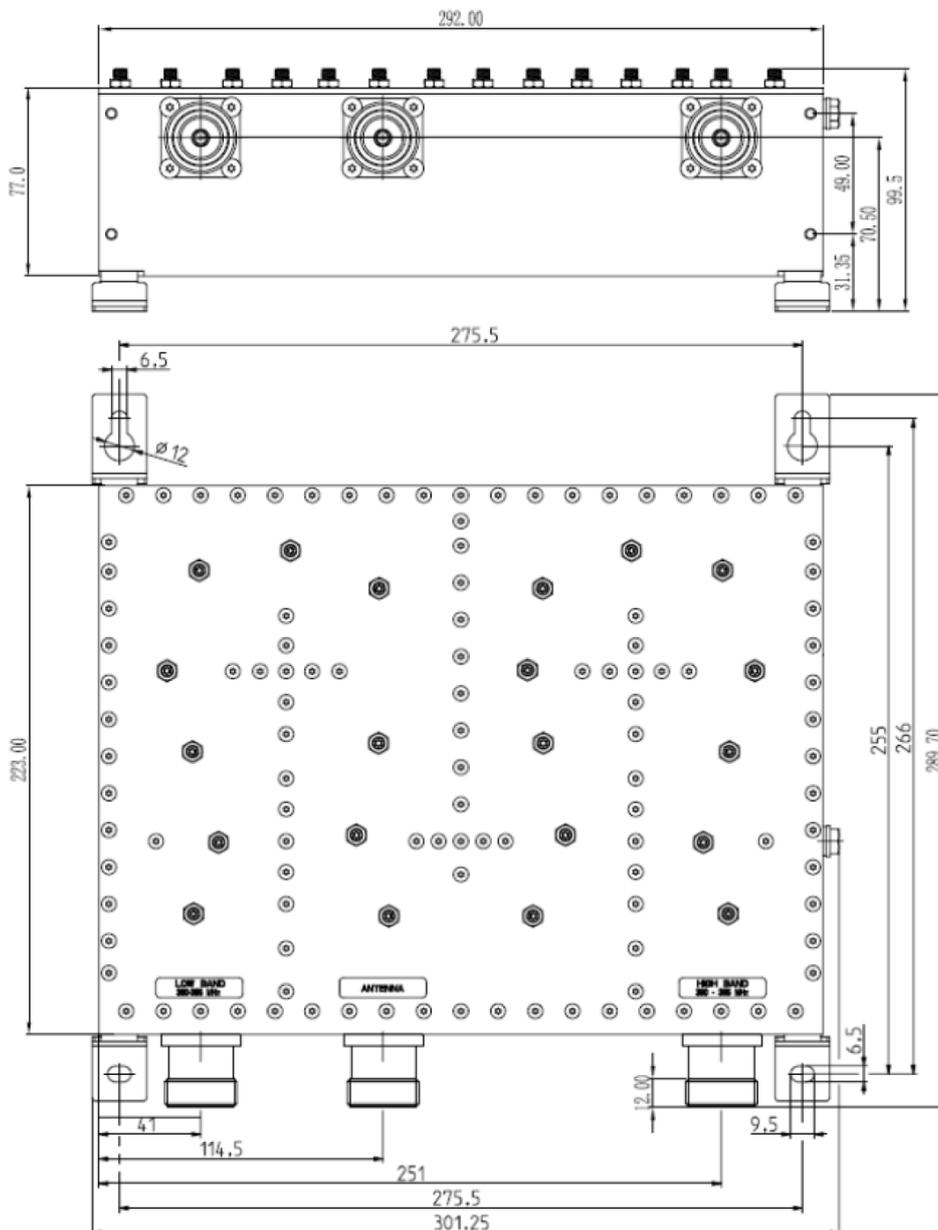


**78211364****UHF Duplexer 410-415/420-425**UHF Duplexer  
410-415 / 420-425

Type	78211364 Single Unit	
Frequency (MHz)	Low Band 410-415	High Band 420-425
Insertion Loss (dB)	≤ 0.8	≤ 0.8
Ripple (dB)	≤ 0.5	≤ 0.5
Out-of-Band Rejection (dB)	≥ 50 (DC-405MHz) ≥ 65 (420-1000MHz)	≥ 65 (DC-415MHz) ≥ 50 (430-1000MHz)
PIM3 (dBc, @2x43dBm)	≤ -150	
Isolation (dB)	≥ 65	
VSWR	≤ 1.25	
Return Loss (dB)	≥ 19	
Input Impedance (ohm)	50	
Input Power, Avg. (W)	200 per Port	
Input Power, Peak (W)	1,500	
DC Stop	Between All Ports	
Connectors	7/16 Female	
Dimension (mm)*	223 x 292 x 77	
Weight (kgs)	5.4	
Ingress Protection Class	Indoor Application Only	
Operational RH (%)	≤ 95	
Operating Temperature (°C)	-20 to +60	
Storage Temperature (°C)	-40 to +85	
Barometric Pressure (kPa)	55 to 106	
Optional Accessory (Order Separately)	Rack Mount Unit	

\* excluding mounting bracket and connectors

Optional Accessory (Order Separately)	<b>19" Rack Mount Unit</b> <b>R0010005-V01 Front Mount</b> <b>R0010006-V01 Rear Mount</b>
Dimensions	19" Standard Rack, 2U Height Plug-in Depth: 253mm max.
Installation Note	1. Remove the mounting feet from the Duplexer unit 2. Reuse the four screw (M3 x 8 countersink head) to mount the Duplexer onto the Mounting Unit





Shaping the  
connected world