

27-520Mhz

Antennas and Antenna
line products

Catalogue 2021



Shaping the
connected world

ESB is a 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.



Indoor Antennas	4
Omnidirectional Antennas	6
Directional Antennas	10
Filters	11
Duplexers	12
Receiver Multicouplers	17
System Components	19

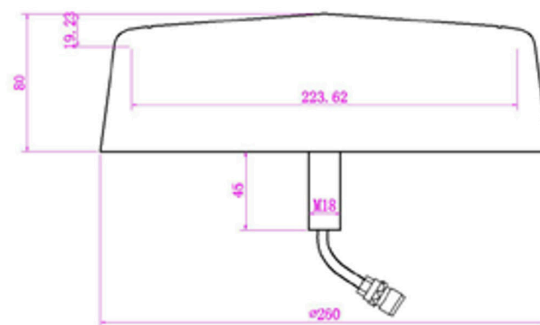


78721390

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





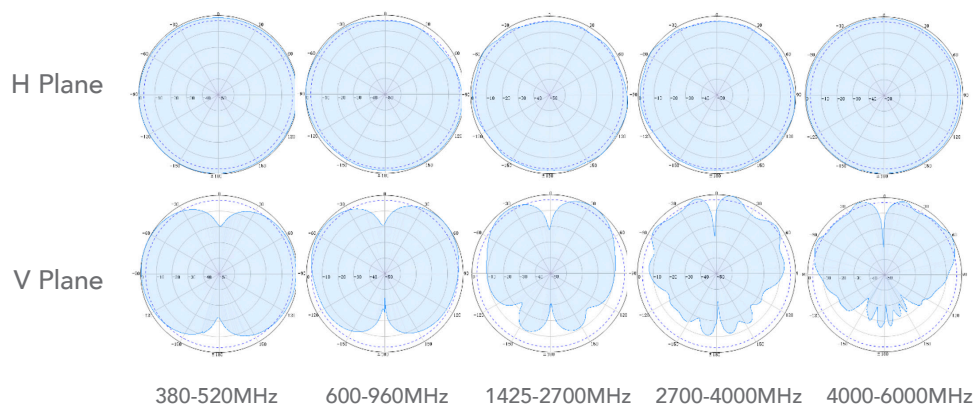
78712041

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





751638/5

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

V-Pol Omni 380-430 8dBi 5T

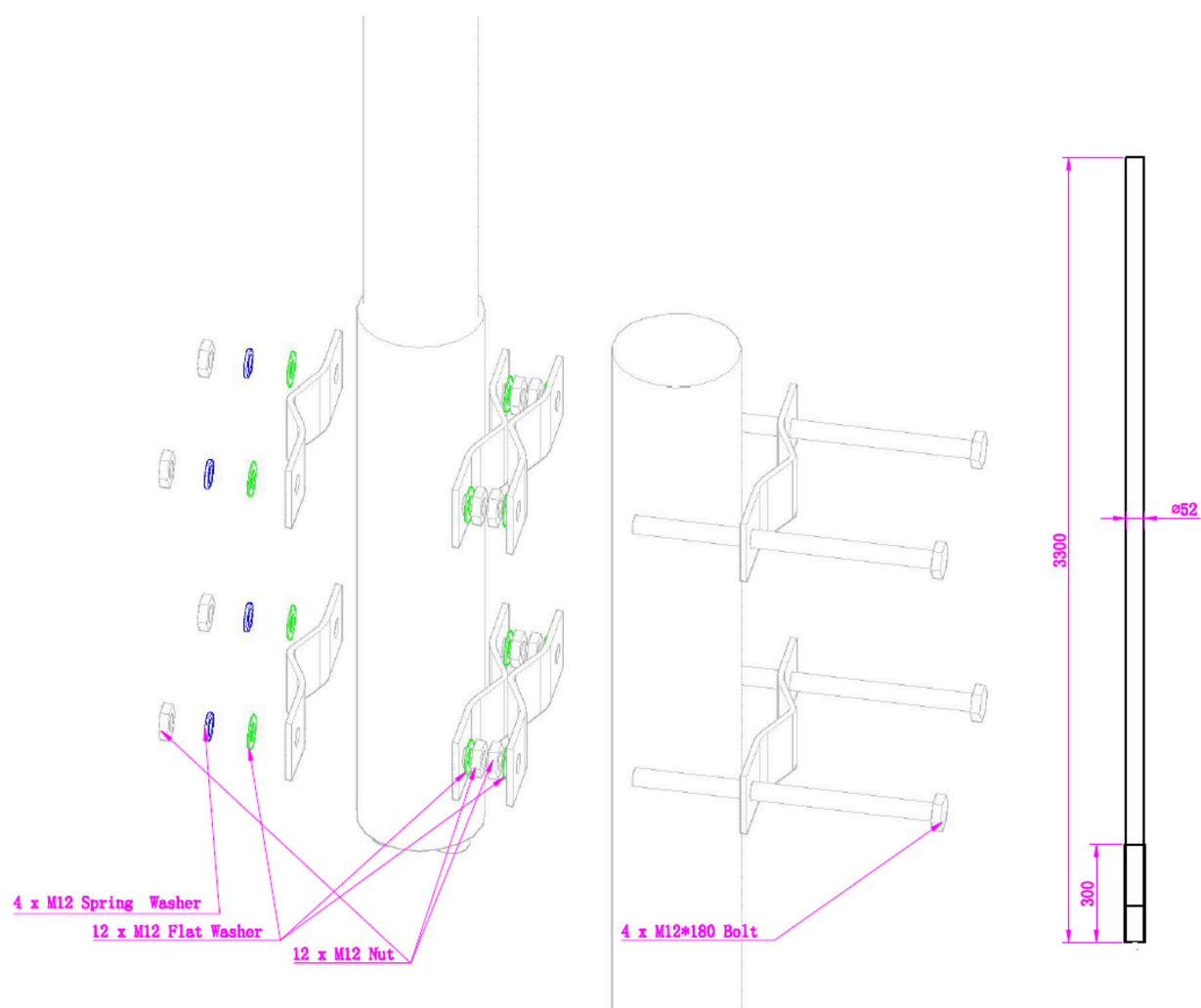
Type	751638/5
Frequency Range (MHz)	380-430
Gain (dBi)	8
VSWR	≤ 1.5
3rd Order PIM (dBc)	≤ -150 @ 2x43dBm
Polarization	Vertical
Electrical Downtilt (°)	5
Horizontal Beamwidth (°)	360
Vertical Beamwidth (°)	15 ±1
Input Impedance (ohm)	50
Max. Input Power (W)	300
Lightning Protection	DC Grounded
Connector 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





80010434 / 75110637

Omni Directional Antenna
V-Pol 1-port 8dBi
380 – 400 / Pre-fixed Electrical Downtilt 5°/0°

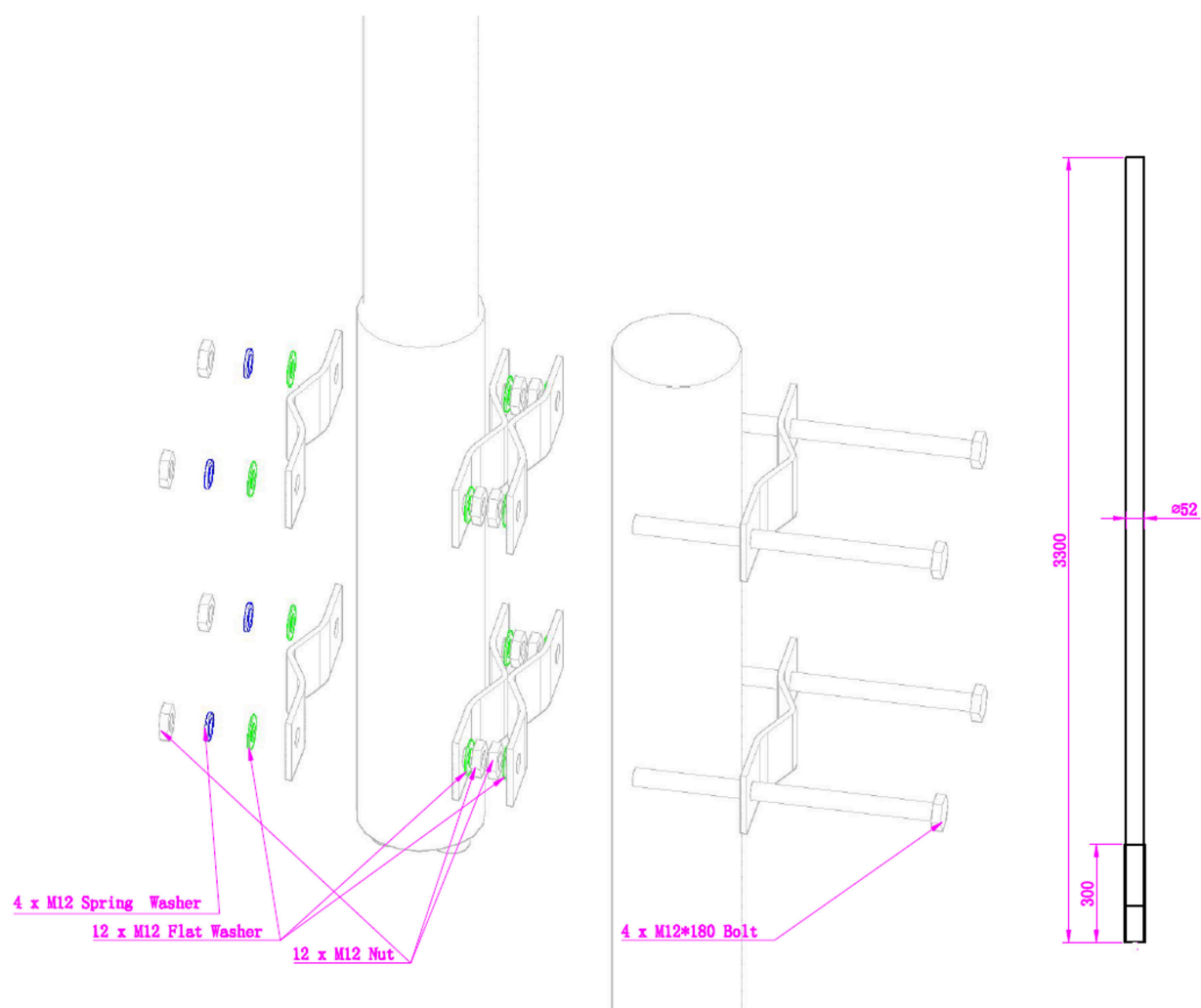
VPol Omni 380-400 360° 8dBi

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





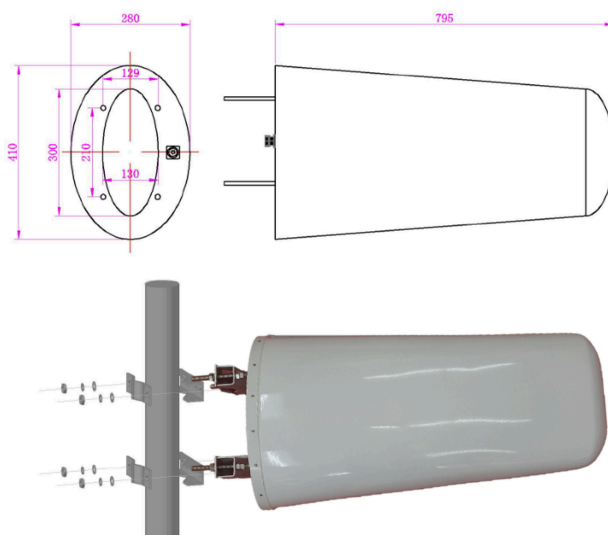
78721402

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

Log Periodic Antenna 380-520 10dBi

Type	78721402		
Frequency Range (MHz)	380-410	410-470	470-520
Gain (dBi)	9.5	10	10
VSWR	≤ 1.5	≤ 1.5	≤ 1.5
Polarization	≤ -150 @ 2x43dBm		
Horizontal Beamwidth (°)	75	60	58
Vertical Beamwidth (°)	60	53	51
Input Impedance (Ω)	50		
Max. Input Power (W)	500		
Lightning Protection	DC Grounded		
Connector Type	7/16 Female		
Dimension (mm)	795 x 410 x 260		
Weight (kgs)	4.5		
Reflector Material	Copper		
Radome Material	Fiberglass		
Operating Temperature (°C)	-40 to +65		

Mounting description (clamps included)

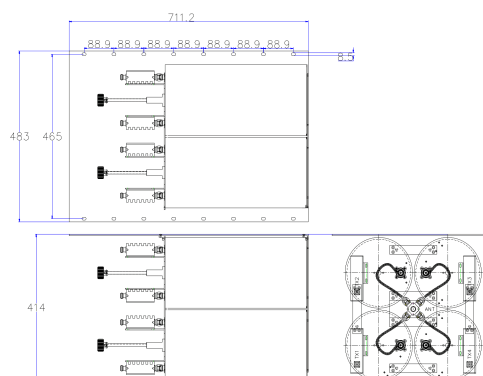
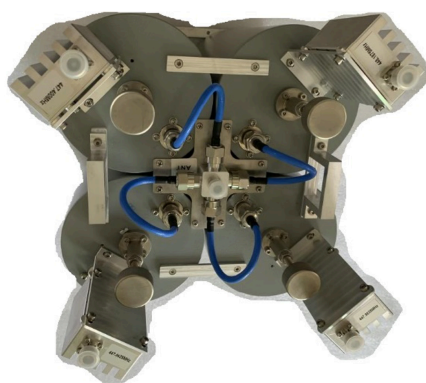


790965

144-175MHz 4-way TX Filter Combiner SPEC

VHF Filter combiner

Type	790965
Frequency Range(MHz)	144-175
Tuning Range(MHz)	5
Separation Between Channels(kHz)	200
Insertion Loss(dB)	<4
Isolation(dB)	>75
VSWR	<1.5
Impedance(Ω)	50
Power Rating(W)	150/Port,Average
Temperature Range($^{\circ}$ C)	-30~+60
Environmental rating	Indoor
Humidity($^{\circ}$ C)	0-95
Connectors	Female, N
Colour	Grey
Dimensions(mm)	712*483*414
Weight(kg)	40
Packing Dimensions(mm)	800*550*550
Packing Weight(kg)	45
P/N	YL-CB41-150BES





719240

UHF Spiral Duplexer 406 – 470MHz

UHF Spiral Duplexer 406-470MHz

Type	719240			
Frequency Range (MHz)	406 – 470			
Duplex Spacing (MHz)	5	5	10	10
Switching Bandwidth (MHz)	0.1	2	0.2	2
Insertion Loss (dB)	≤ 1.2	≤ 1.4	≤ 0.7	≤ 1.0
Tx Noise Suppression on Rx Frequency (dB)	≥ 80	≥ 60	≥ 75	≥ 65
Rx Isolation on Tx Frequency (dB)	≥ 80	≥ 60	≥ 75	≥ 65
VSWR	≤ 1.5			
Input Impedance (ohm)	50			
Input Power, Avg. (W)	150			
Connectors	N Female			
Dimension (mm)*	226.3 x 153.5 x 28			
Weight (kgs)	1.2			
Ingress Protection Class	Indoor Application Only			
Operating Temperature (°C)	-30 to +60			
Storage Temperature (°C)	-40 to +85			
Barometric Pressure (kPa)	55 to 106			
P/N	G2211007-v04			

* excluding connectors and clamp



7821136xV02

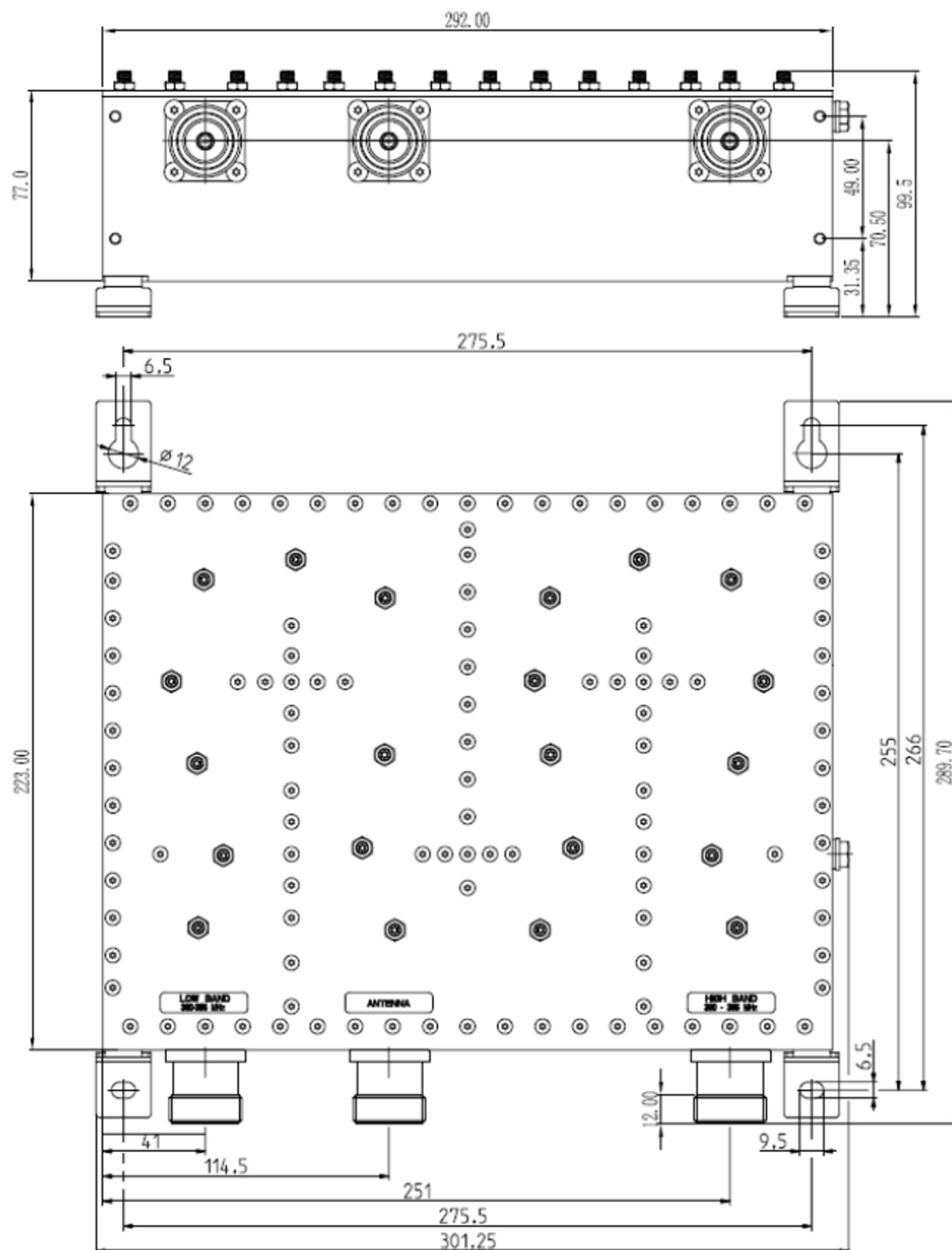
UHF Duplexer

**380-385/390-395 / 382-387/392-397 /
385-390/395-400**

UHF Duplexer 380-385/390-395 / 382-387/392-397 / 385-390/395-400

Type	78211362v02		78211365v02		78211363v02	
Frequency (MHz)	Low Band 380-385	High Band 390-395	Low Band 382-387	High Band 392-397	Low Band 385-390	High Band 395-400
Insertion Loss (dB)	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8
Ripple (dB)	≤ 0.5	≤ 0.5	≤ 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-377 ≥ 65 392-1000	≥ 65 DC-387 ≥ 50 402-1000	≥ 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 connectors and clamp



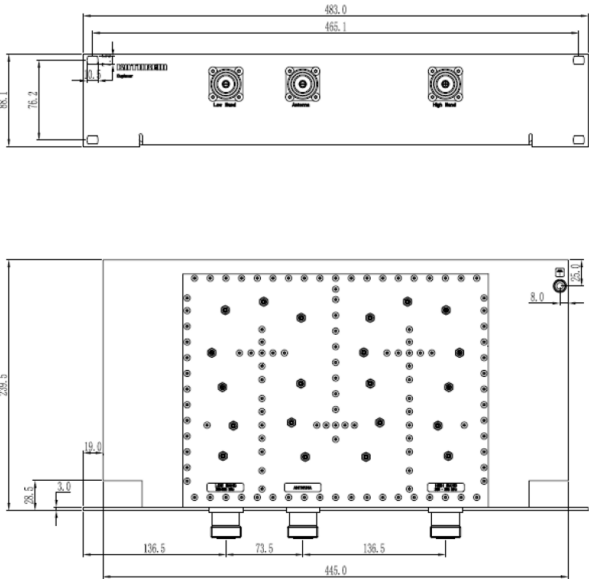
7821136xV02

UHF Duplexer

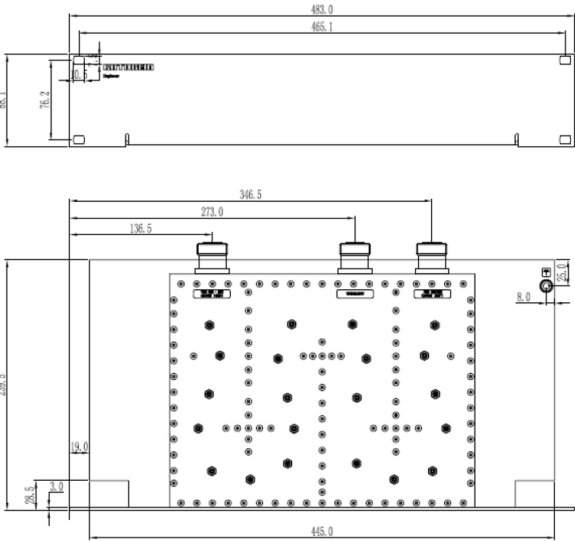
380-385/390-395 / 382-387/392-397 / 385-390/395-400

Optional Accessory (Order Separately)	19" Rack Mount Unit R0010005-V01 Front Mount R0010006-V01 Rear Mount
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

Front Mount Unit



Rear Mount Unit



* excluding connectors and clamp



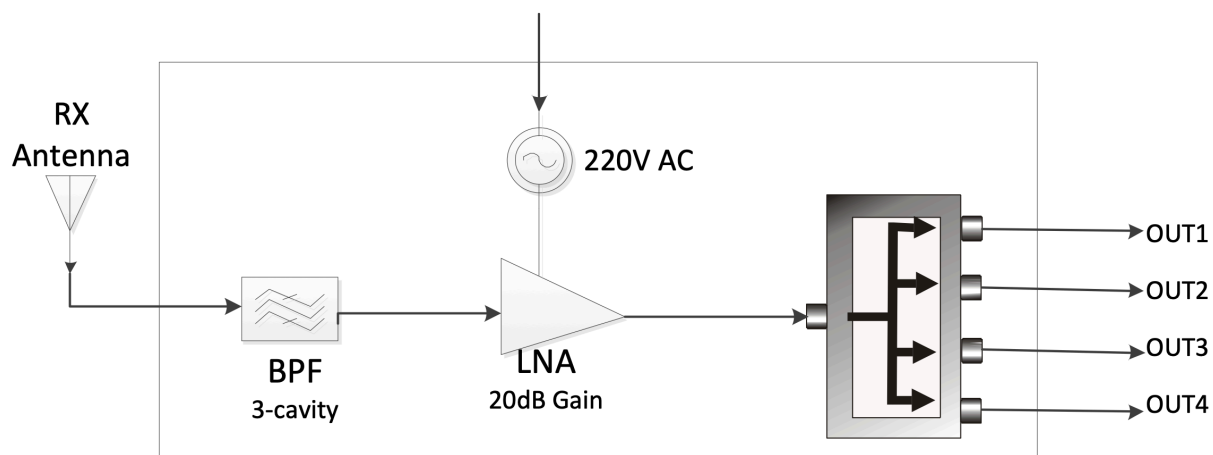
780234

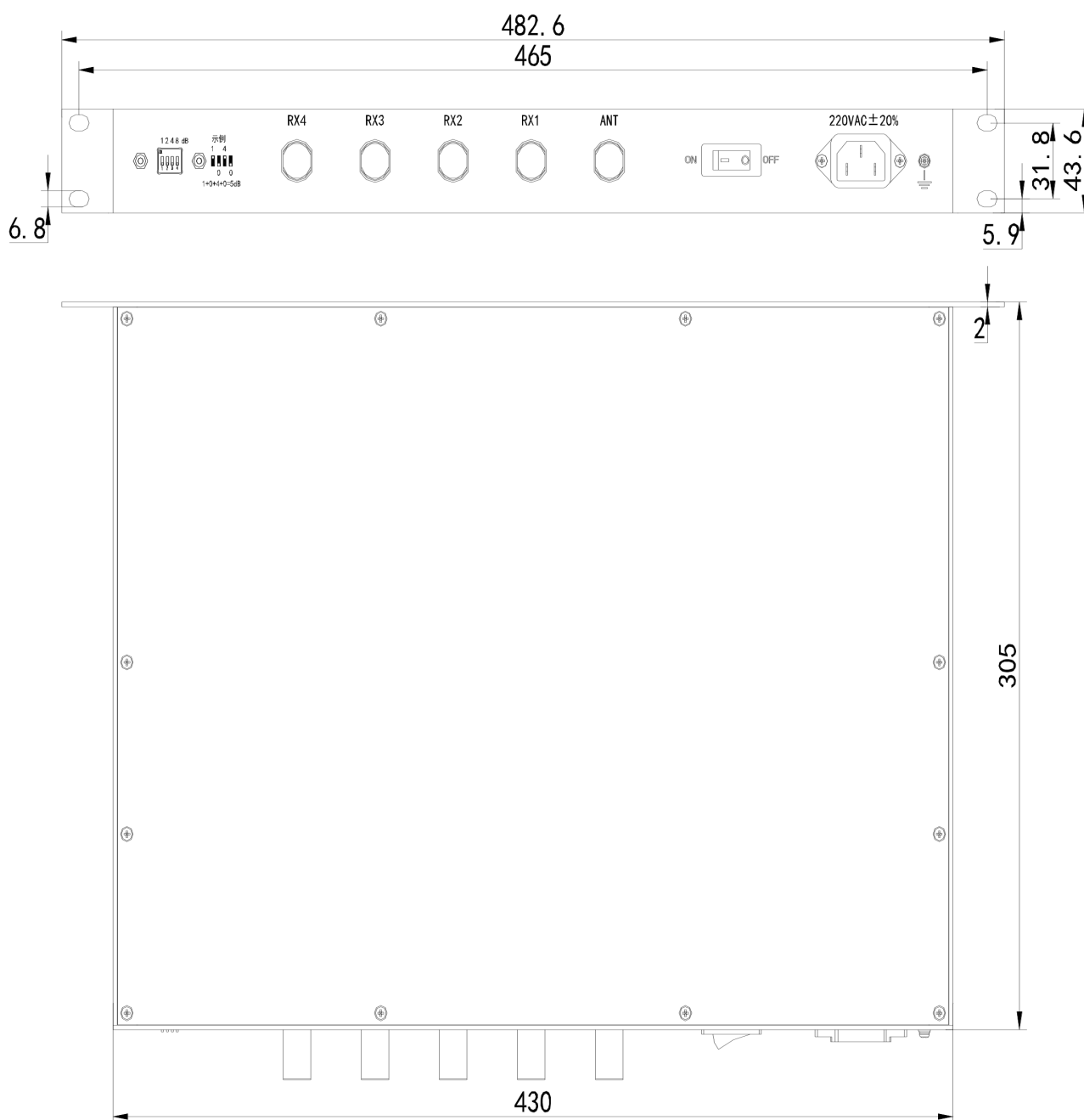
VHF Multi-coupler 4 Ports 136-174

VHF Multi-coupler 136-174 4-Port

Type	780234
Frequency (MHz)	136-174
Bandwidth (MHz)	3
Channels	4
NF (dB)	≤2
VSWR	≤1.5
Gain (dB)	≥12 ≥20,LNA
Impedance (Ω)	50
Power Handling (dBm)	12,AVG
Supply Voltage (V)	220,AC
Operating Temperature (°C)	-30-+60
Ingress Protection	Indoor
Connectors type	N-F
Dimensions(mm)	19" Rack,4U
P/N	YL-MCP-150-V200627

Block diagram

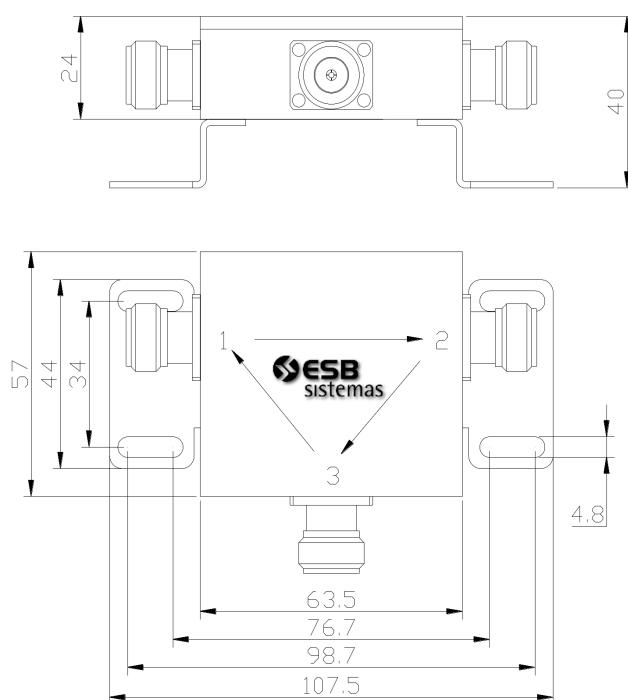




790217

Circulator

Type	790217
Frequency Range(MHz)	889.9-898.6&934.9-943.6
Insertion loss(dB)	≤0.4
VSWR	≤1.3
Isolation(dB)	≥25
Impedance(Ω)	50
Power Handling(dBc)	10,Avg
Operating Temperature Range (°C)	-40 to +70
Environmental Class	Outdoor,IP66
Connectors type	N-F
Surface	Grey
Mounting	Pole&Wall
P/N	YL-HXQ-800-7070N



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