

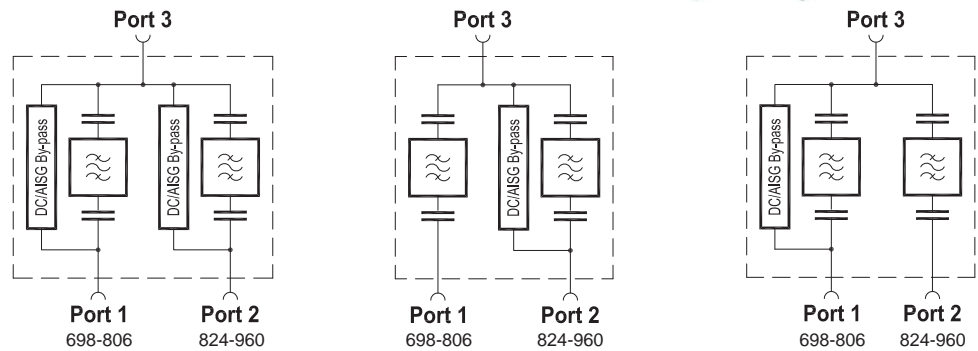
# Dual-Band Combiner

# KATHREIN

**698 - 806 MHz**  
LTE 700

**824 - 960 MHz**  
CDMA 850 / GSM 900

- Designed for co-siting purposes
- Enables feeder sharing
- Can be used as a combiner near the BTS or in a reciprocal function near the antenna
- Suitable for indoor or outdoor applications
- Wall or mast mounting
- Available as a single unit, or for XPol antennas as a double unit
- Built-in lightning protection
- External DC stop available as an accessory
- **Low insertion loss**
- **High input power**



## Technical Data

Type No.	78211280 Single Unit	78211282 Single Unit	78211284 Single Unit
	78211281 Double Unit	78211283 Double Unit	78211285 Double Unit
Pass band Band 1 Band 2	698 - 806 MHz 824 - 960 MHz		
Insertion loss Port 1 ↔ Port 3 Port 2 ↔ Port 3	< 0.3 dB (698 - 796 MHz); < 0.5 dB (796 - 806 MHz) < 0.5 dB (824 - 834 MHz); < 0.3 dB (834 - 960 MHz)		
Isolation Port 1 ↔ Port 2	> 50 dB		
VSWR	< 1.2 (698 - 806 MHz / 824 - 960 MHz)		
Impedance	50 Ω		
Input power Band 1 / Band 2	< 500 W / < 500 W		
Intermodulation products	< -160 dBc (3 <sup>rd</sup> order; with 2 x 20 W)		
Temperature range	-40 ... +60 °C		
Connectors	7-16 female (long neck)		
Application	Indoor or outdoor (IP 66)		
DC/AISG transparency Port 1 ↔ Port 3 Port 2 ↔ Port 3	By-pass (max. 2500 mA) By-pass (max. 2500 mA)	Stop By-pass (max. 2500 mA)	By-pass (max. 2500 mA) Stop
Lightning protection	3 kA, 10/350 μs pulse		
Mounting	Wall mounting: With 4 screws (max. 8 mm diameter) / Mast mounting: With additional clamp set		
Weight	Single Unit: 2.4 kg / Double Unit: 4.8 kg		
Packing size	Single unit: 365 x 235 x 145 mm/Double unit: 365 x 235 x 210 mm		
Dimensions (w x h x d)	Single Unit: 153 x 170.5 x 63.2 mm / Double Unit: 153 x 170.5 x 131.2 mm (without connectors, without mounting brackets)		

Subject to alteration.

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All specifications are subject to change without notice.  
The latest specifications are available at [www.kathreinusa.com](http://www.kathreinusa.com)

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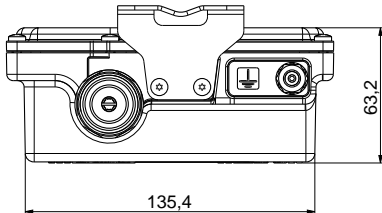
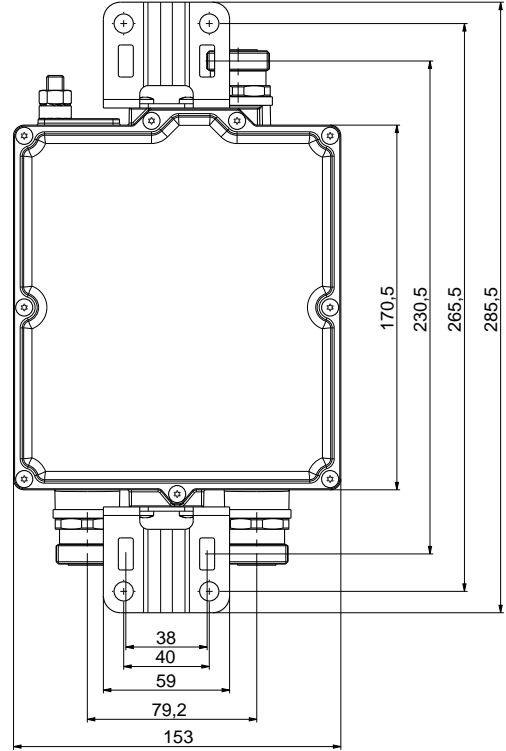
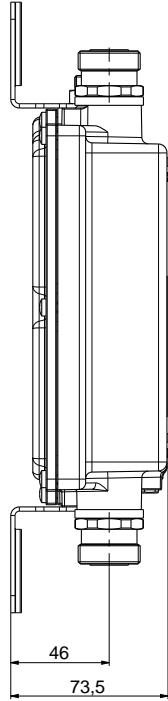
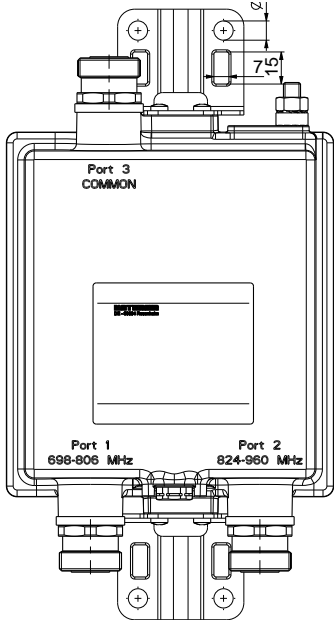
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Dimensions 78211280, 78211282, 78211284



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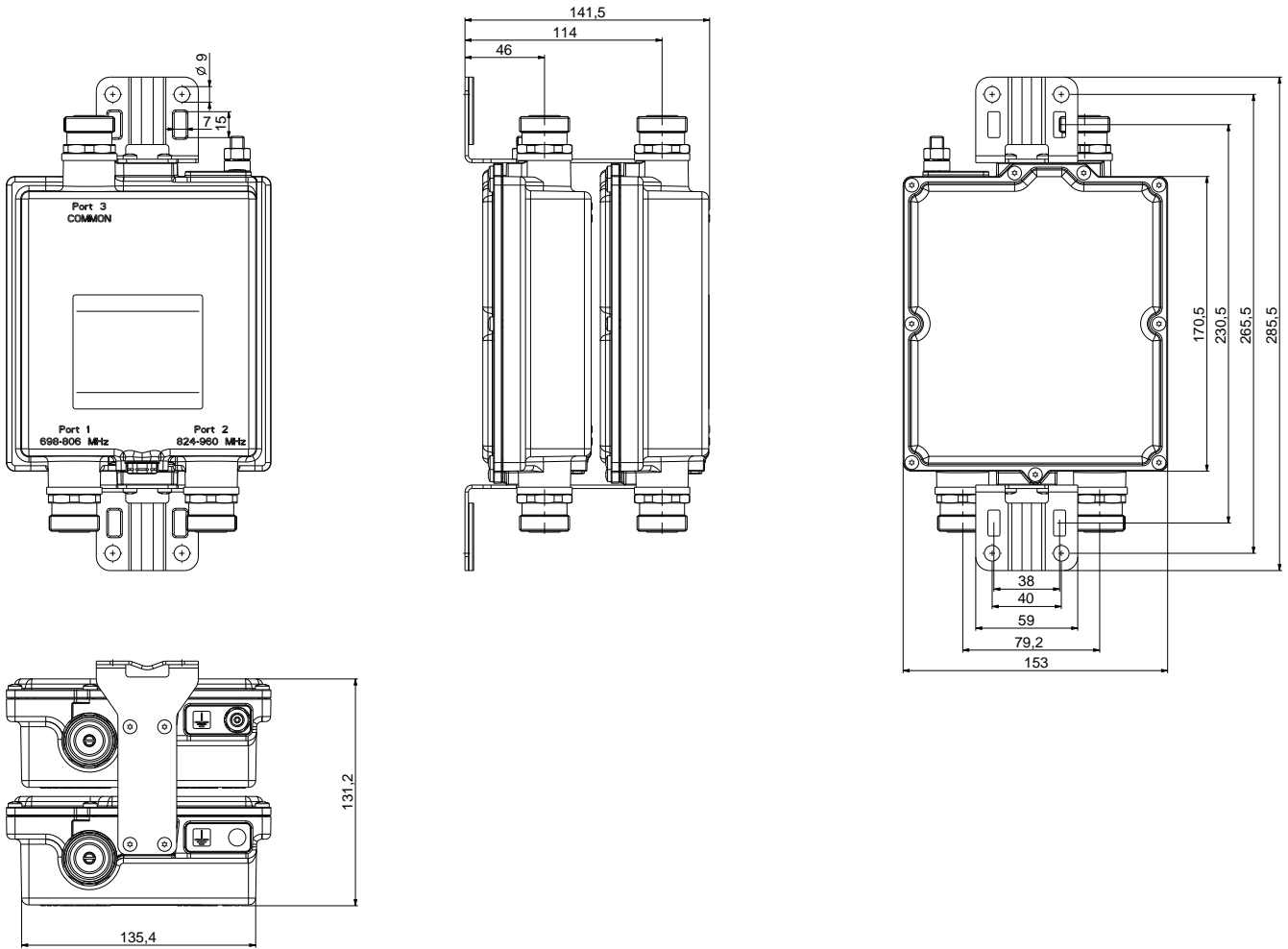
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## Dimensions 78211281, 78211283, 78211285



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**Accessories** (order separately)

Type No.	Clamp set suitable for mast diameter of
734360	34 - 60 mm
734361	60 - 80 mm
734362	80 - 100 mm
734363	100 - 120 mm
734364	120 - 140 mm
734365	45 - 125 mm
<b>*1311847</b>	50 - 145 mm

\*U.S. Customers order 1311847

Type No.	Description
<b>78210850V01</b>	<b>DC stop</b>
<b>78410367</b>	<b>50-Ohm load</b>



Diagram 1

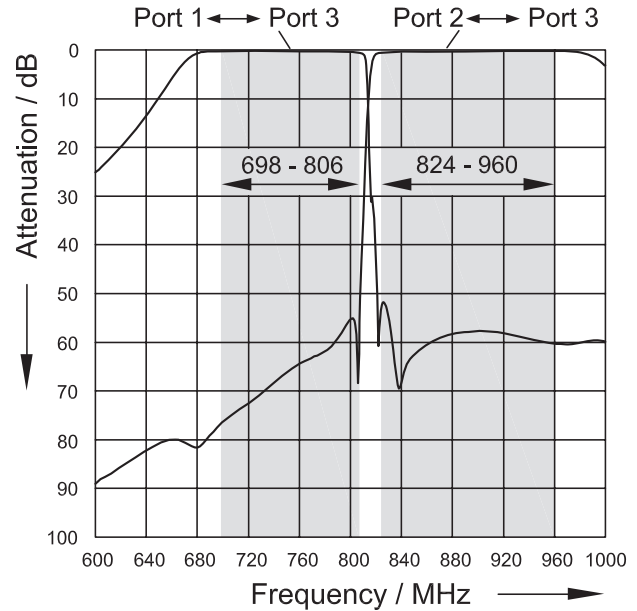
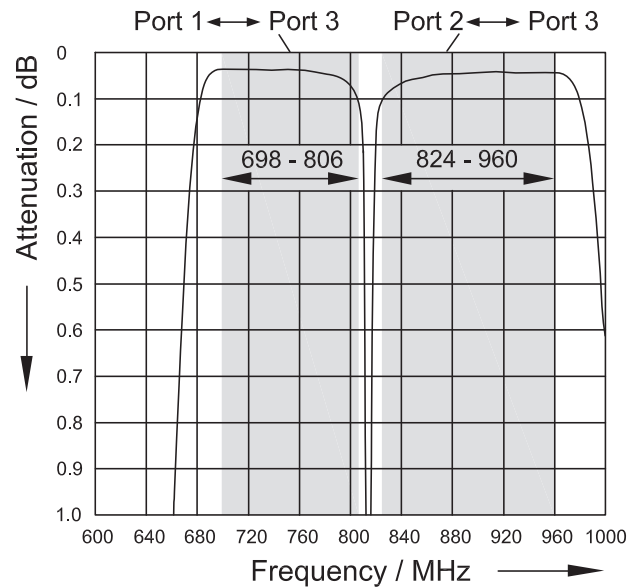


Diagram 2



**Please Note:**

As a result of more stringent legal regulations and judgements regarding product liability, we are obliged to point out certain risks that may arise when products are used under extraordinary operating conditions.

Extraordinary operating conditions, such as heavy icing or exceptional dynamic stress (e.g. strain caused by oscillating support structures), may result in the breakage of a mast mounted device or even cause it to fall to the ground.

These facts must be considered during the site planning process.

The Dual-band Combiners are designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E and have passed environmental tests as recommended in ETS 300 019-2-4.

The installation team must be properly qualified and also be familiar with the relevant national safety regulations.

The details given in our data sheets have to be followed carefully when installing the combiners and accessories.

The limits for the coupling torque of RF connectors, recommended by the connector manufacturers must be obeyed.

Terminate unused inputs with a suitable 50-Ohm load, e.g. 784 10367.

Any previous datasheet issues have now become invalid.



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