

# Triple-Band Combiner

# KATHREIN

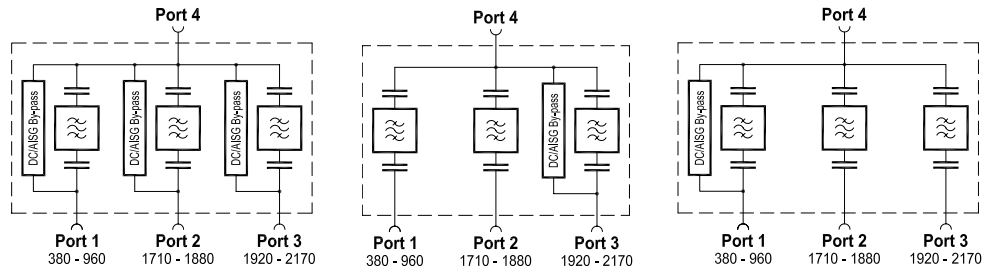
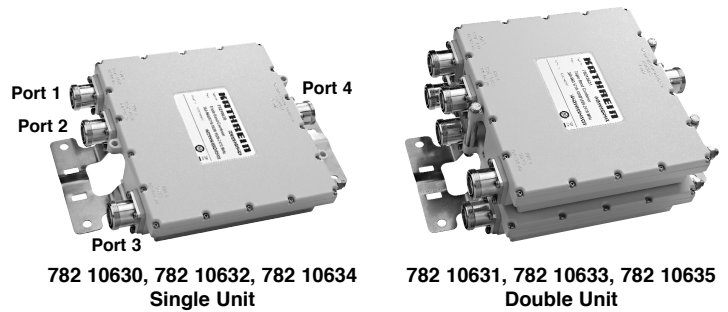
Antennen · Electronic

**380 – 960 MHz**  
TETRA / LTE 800 / CDMA 850 / GSM 900

**1710 – 1880 MHz**  
GSM 1800

**1920 – 2170 MHz**  
UMTS 2100

- 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



## Technical Data

Type No.	782 10630 Single Unit	782 10632 Single Unit	782 10634 Single Unit
	782 10631 Double Unit	782 10633 Double Unit	782 10635 Double Unit
Pass band Band 1 (TETRA ... GSM 900) Band 2 (GSM 1800) Band 3 (UMTS)		380 – 960 MHz 1710 – 1880 MHz 1920 – 2170 MHz	
Insertion loss Port 1 ↔ Port 4 Port 2 ↔ Port 4 Port 3 ↔ Port 4		< 0.2 dB ( 380 – 960 MHz) < 0.3 dB (1710 – 1880 MHz) < 0.3 dB (1920 – 2170 MHz)	
Isolation Port 1 ↔ Port 2 Port 1 ↔ Port 3 Port 2 ↔ Port 3		> 45 dB (380 – 600 MHz) / > 50 dB (600 – 960 / 1710 – 1880 MHz) > 45 dB (380 – 600 MHz) / > 50 dB (600 – 960 / 1920 – 2170 MHz) > 50 dB (1710 – 1880 / 1920 – 2170 MHz)	
VSWR		< 1.25 (380 – 960 / 1710 – 1880 / 1920 – 2170 MHz)	
Impedance		50 Ω	
Input power Band 1 / Band 2 / Band 3		< 700 W / < 300 W / < 300 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 4 Port 2 ↔ Port 4 Port 3 ↔ Port 4	<b>By-pass</b> (max. 2500 mA) <b>By-pass</b> (max. 2500 mA) <b>By-pass</b> (max. 2500 mA)	<b>Stop</b> <b>Stop</b> <b>By-pass</b> (max. 2500 mA)	<b>By-pass</b> (max. 2500 mA) <b>Stop</b> <b>Stop</b>
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: 3.2 kg / Double Unit: 6.3 kg	
Packing size		Single Unit: 392 x 292 x 139 mm / Double Unit: 392 x 292 x 189 mm	
Dimensions (w x h x d)		Single Unit: 219 x 199 x 48 mm / Double Unit: 219 x 199 x 104 mm (without connectors, without mounting brackets)	

936.3333/e Subject to alteration.

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## Accessories (order separately)

Type No.	Clamp set suitable for mast diameter of
734 360	34 – 60 mm
734 361	60 – 80 mm
734 362	80 – 100 mm
734 363	100 – 120 mm
734 364	120 – 140 mm
<b>734 365</b>	<b>45 – 125 mm</b>

### Clamp Set



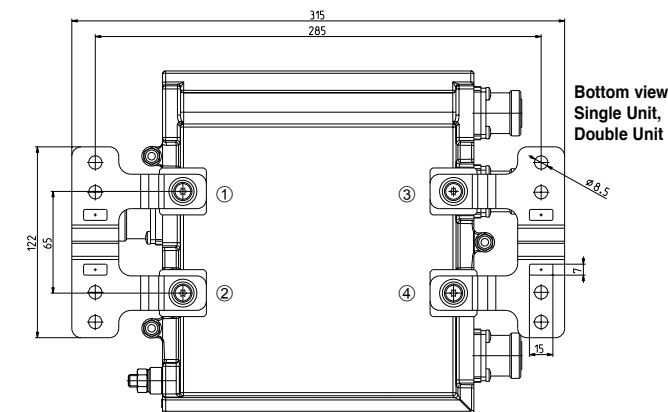
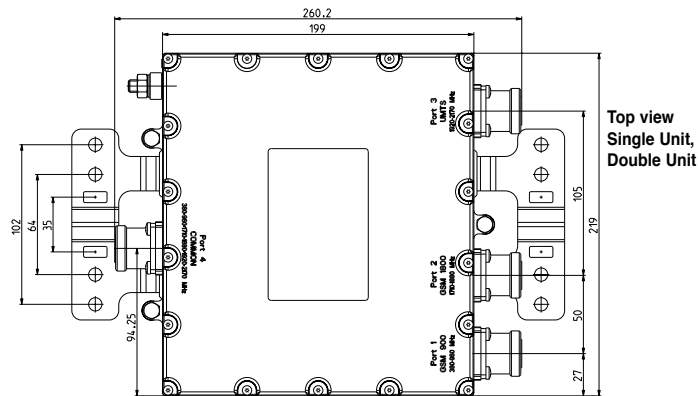
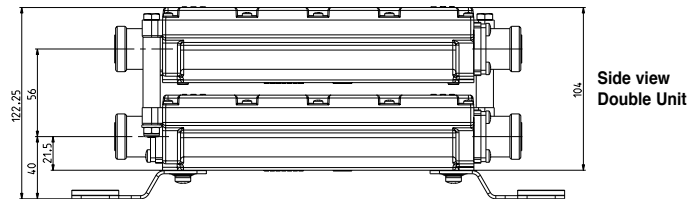
### DC stop



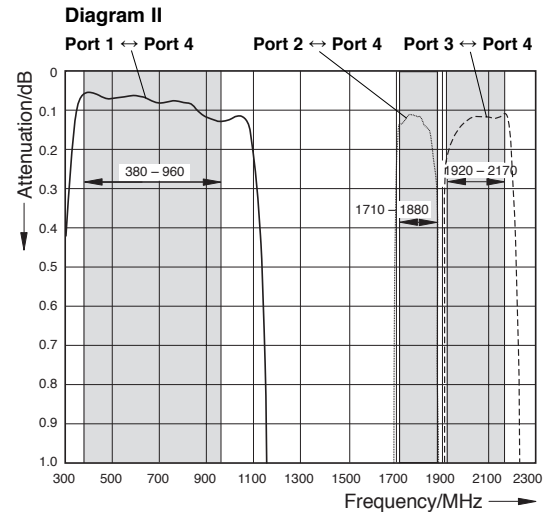
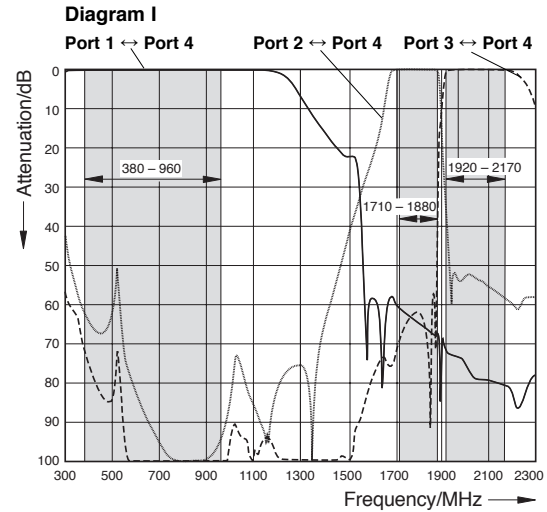
### 50-Ohm load



Type No.	Description
<b>782 10850</b>	<b>DC stop</b>
<b>784 10367</b>	<b>50-Ohm load</b>



## Typical Attenuation Curves



### Please note:

The mounting plates can be removed by loosening the screws ① to ④ (M5 x 12) and replaced with other means of mounting, always provided that the max. drilled depth of 7.5 mm is respected with the choice of replacement screws.

**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 Triple-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.**



Subject to alteration. 936.3333/e