

# Duplexer

## 890 – 915 / 935 – 960 MHz (GSM)

The Duplexer is designed to combine/split GSM Tx and Rx signals onto/from one common Tx/Rx antenna in order to save feeder cable and antenna costs.

- **782 10164:** Indoor version with 7-16 female connectors
- **782 10165:** Indoor version with 7-16/N female connectors
- **782 10161:** Indoor version with 7-16 female connectors mounted onto a 19" drawer
- **782 10162:** Outdoor version with 7-16 female connectors



**782 10162 (outdoor)**



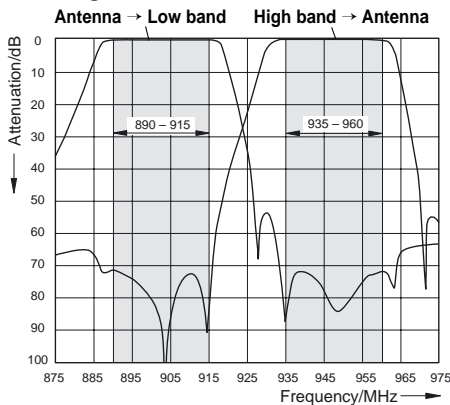
**782 10164 (indoor)**



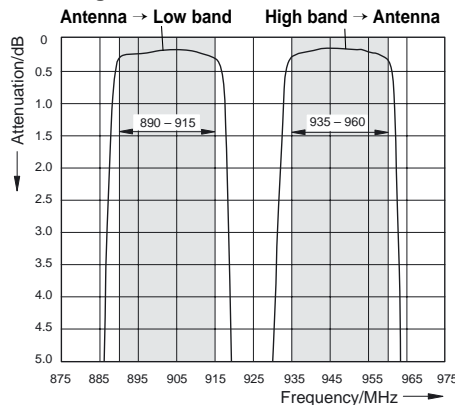
**782 10161 (19" drawer)**

### Typical Attenuation Curves

**Diagram I**



**Diagram II**



**782 10165 (indoor)**

### Technical Data

Type No.	782 10164	782 10165	782 10161	782 10162
Pass band Low band High band		890 – 915 MHz 935 – 960 MHz		
Insertion loss Antenna → Low band High band → Antenna		< 0.5 dB (890 – 915 MHz) < 0.5 dB (935 – 960 MHz)		
Isolation Low band ↔ High band		> 70 dB (890 – 915 / 935 – 960 MHz)		
VSWR		< 1.25 (890 – 915 / 935 – 960 MHz)		
Impedance		50 Ω		
Input power		< 500 W (high band; with max. 16 carriers)		
Intermodulation products		< -160 dBc (3rd order; with 2 x 20 W)		
Temperature range		-20 ... +55 °C		-40 ... +60 °C
Connectors Low band High band Antenna	7-16 female 7-16 female 7-16 female	N female 7-16 female 7-16 female	7-16 female 7-16 female 7-16 female	7-16 female 7-16 female 7-16 female
Application	<b>Indoor</b>	<b>Indoor</b>	<b>Indoor, 19" drawer</b>	<b>Outdoor (IP 66)</b>
Special features	Built-in DC stop between all ports			
Mounting	With 4 screws (max. 4 mm diameter)		With 4 screws (max. 6 mm diameter)	Wall mounting: With 4 screws (max. 8 mm diameter) Mast mounting: With additional clamp set
Weight	2.6 kg		3.5 kg	5.5 kg
Packing size	309 mm x 162 mm x 252 mm		612 mm x 312 mm x 224 mm	347 mm x 294 mm x 174 mm
Dimensions (w x h x d)	228.6 mm x 80 mm x 169.6 mm (including connectors and mounting feet)		19" drawer, 2 height units, plug-in depth 172 mm	238 mm x 93.5 mm x 305 mm (including connectors and mounting brackets)

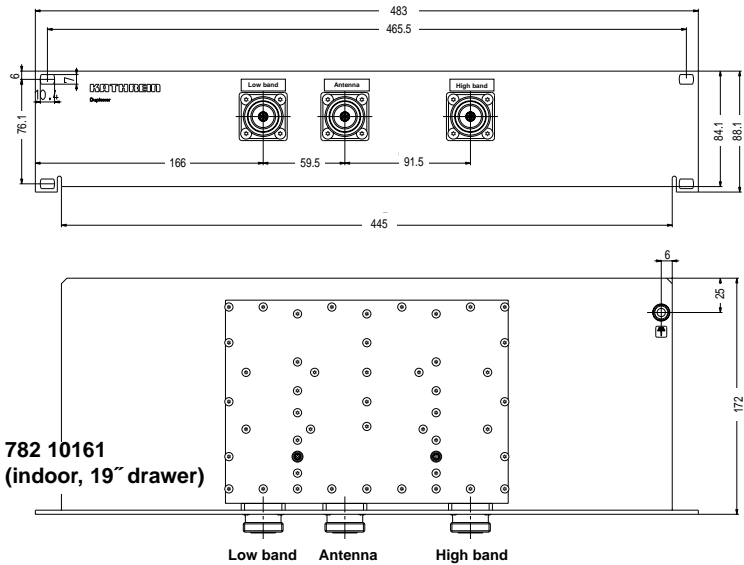
936.2277/b Subject to alteration.

# Duplexer

## 890 – 915 / 935 – 960 MHz (GSM)

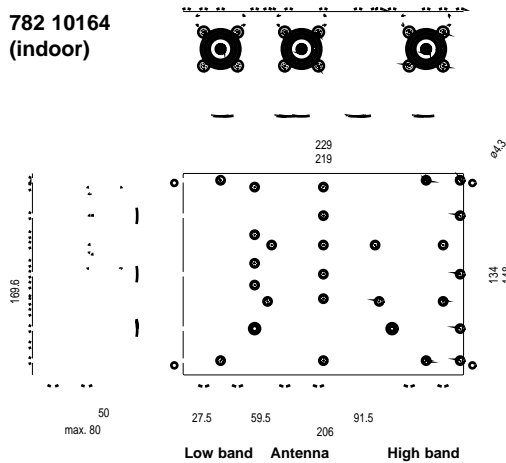
### Accessories (order separately)

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>

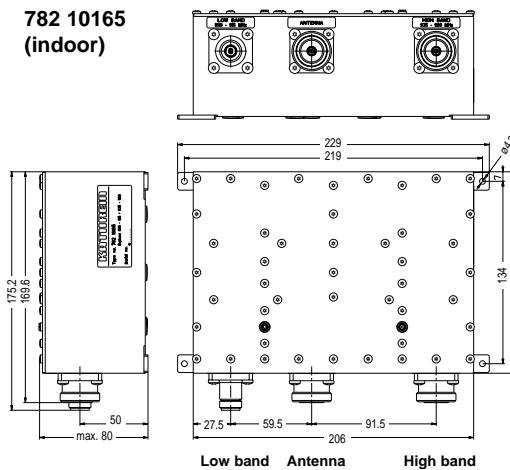


**782 10161**  
(indoor, 19" drawer)

**782 10164**  
(indoor)



**782 10165**  
(indoor)



**Please note:**

Type 782 10162 (outdoor version): IP66 protection will be lost, and all corresponding guarantees will become null and void, if mounting brackets are removed or tampered with. This type is designed to operate under the environmental conditions as described in ETS 300 019-1-4 class 4.1 E and has passed environmental tests as recommended in ETS 300 019-2-4.

**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 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 antennas, filters, combiners, amplifiers and accessories.

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

Any previous datasheet issues have now become invalid.



**782 10162**  
(outdoor)

