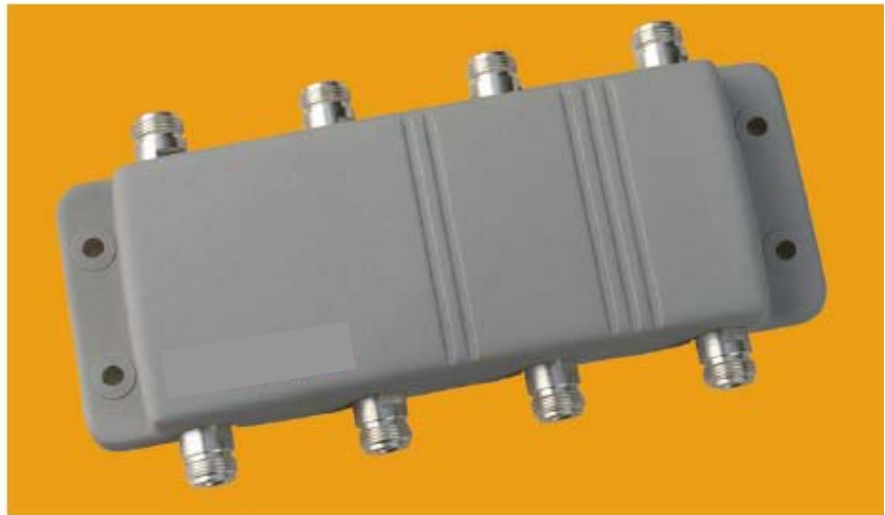
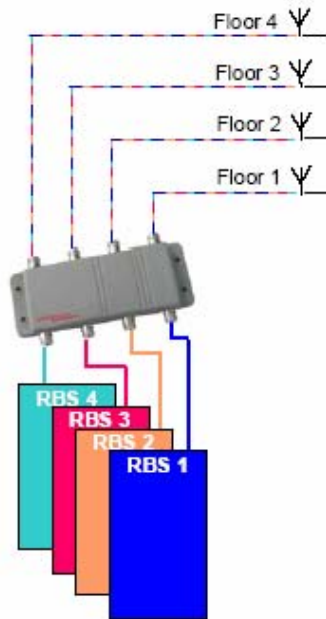


## Multicasting Matrix MCM 4x4 1710 - 2200 MHz GSM, TDMA, UMTS



### Combines up to 4 RBS's into the same antenna system.

The MCM allows you to connect 4 Radio Base Stations to the MCM. The MCM combines the signal and equally splits the signals between the antenna ports. This is a very important function when you are designing shared antenna systems and like to connect multiple RBS's to the same antennas.

### The innovative design.

The MCM is a Broad Band and Low Loss product design. The MCM is designed for low Insertion loss and Intermodulation. No terminations or attenuators are included in the MCM. This results in the very low Insertion loss and a outstanding Intermodulation performance.

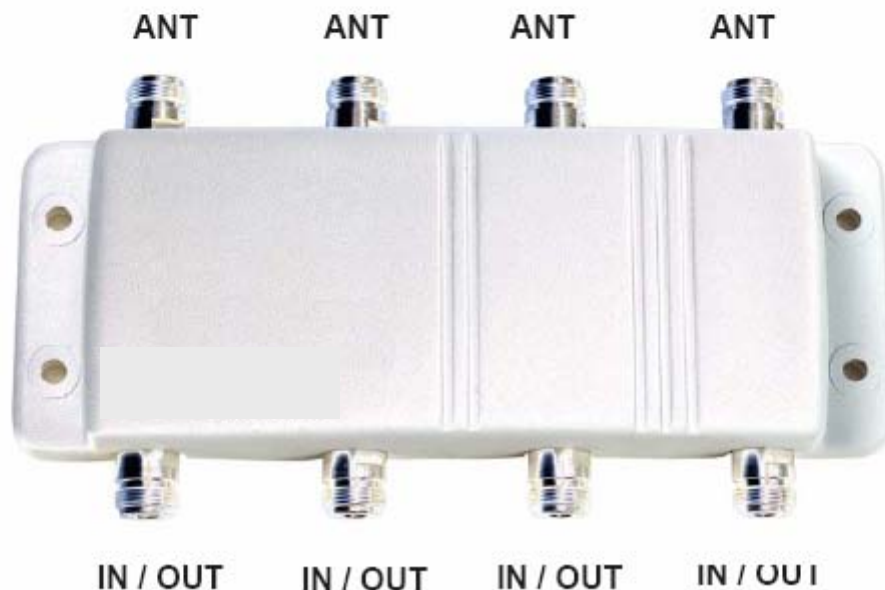
### By using the MCM instead of hybrid-combiners and splitters you gain:

- Lower Insertionloss
- Fewer components in your system
- Higher Antenna Isolation
- Higher quality in your system
- A cost-effective design improvement resulting in optimum system performance

**Technical Specifications for Multicasting Matrix (MCM)**

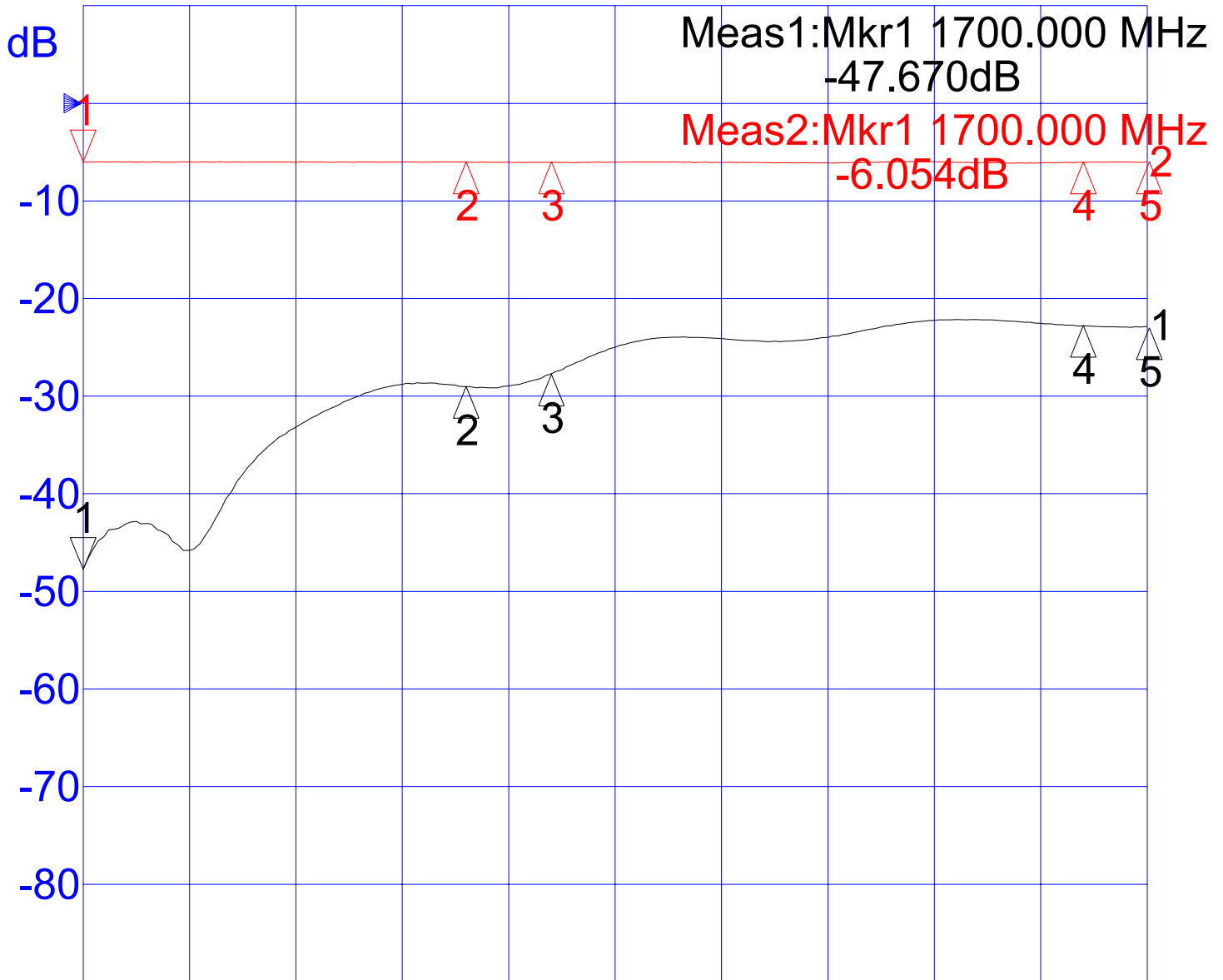
Below are some typical data. For more detailed information, please contact us.

<b>Electrical Specifications</b>	
Product number:	EG 500 8002
Passband:	1710 - 2200 MHz
Isolation between ports:	$\geq 25$ dB
Input return loss:	$> 22.0$ dB
Insertion loss:	$< 0.3$ dB
Coupling:	$6.2 \pm 0.5$ dB
Max input power/port:	100 W
3 <sup>rd</sup> order Intermodulation	
IM3, 2*43dBm:	$< -105$ dBm
Impedance in/out:	50 Ohm
<b>Mechanical Specifications</b>	
Dimensions (WxHxD):	220 x 32 x 110 mm
Connectors:	N (f)
<b>Environmental Specifications</b>	
Temp. range (normal operation):	- 30 to + 70° C
Humidity:	Relative 5 - 100%
Sealing:	IP65 classed



# Insertionloss/Return loss IN to OUT

▷ 1:S11 Refl Port1 Log Mag 10.0 dB/ Ref 0.00 dB C  
 ▶ 2:S21 Fwd Trans Log Mag 10.0 dB/ Ref 0.00 dB C



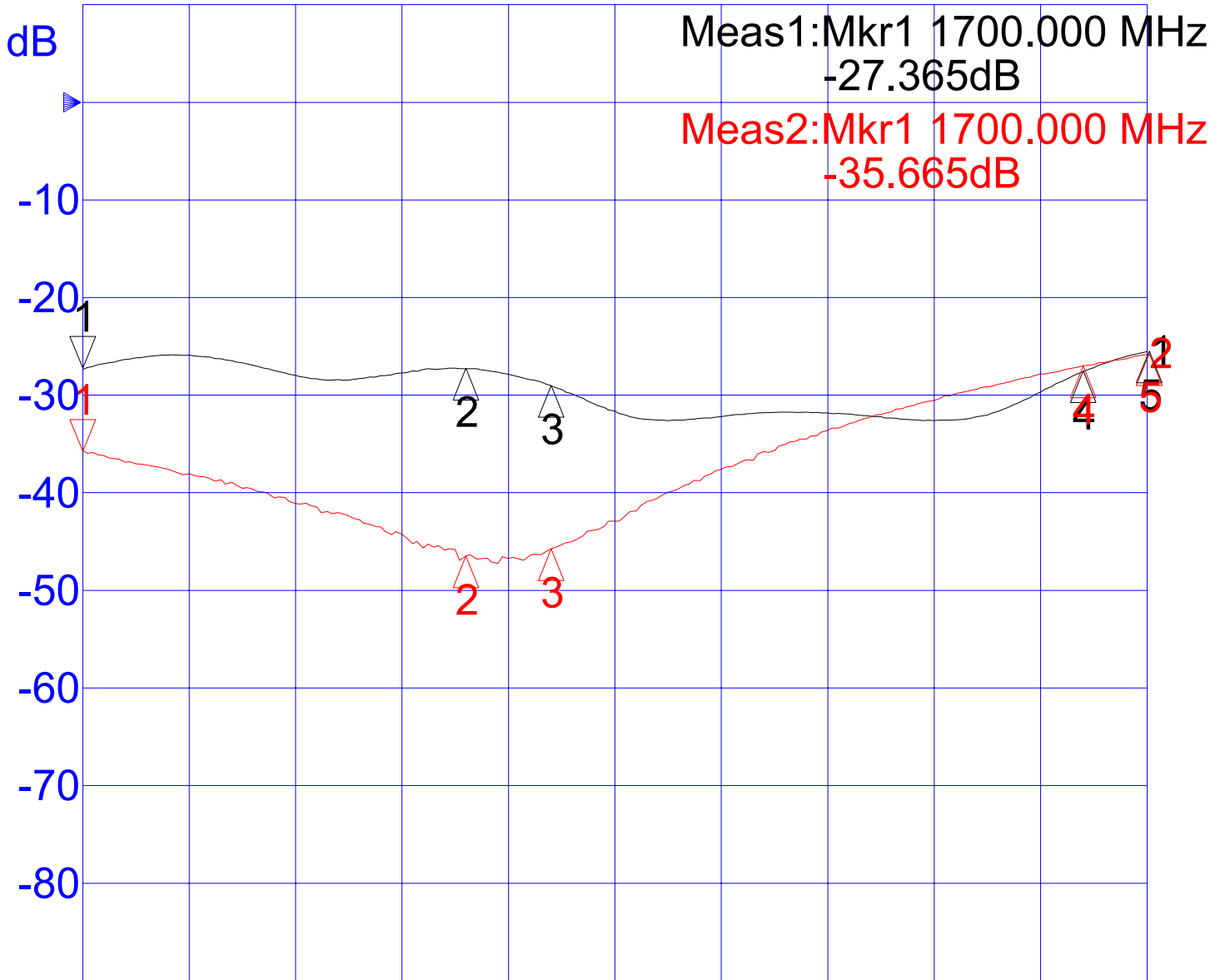
Start 1 700.000 MHz

Stop 2 200.000 MHz

1:Mkr (MHz)	dB	2:Mkr (MHz)	dB
1> 1700.0000	-47.670	1> 1700.0000	-6.054
2: 1880.0000	-28.990	2: 1880.0000	-6.035
3: 1920.0000	-27.709	3: 1920.0000	-6.056
4: 2170.0000	-22.784	4: 2170.0000	-6.050
5: 2200.0000	-22.882	5: 2200.0000	-6.024

# Isolation IN to IN

- ▷ 1:S11 Refl Port1 Log Mag 10.0 dB/ Ref 0.00 dB C
- ▶ 2:S21 Fwd Trans Log Mag 10.0 dB/ Ref 0.00 dB C



Start 1 700.000 MHz

Stop 2 2000.000 MHz

1:Mkr (MHz)	dB	2:Mkr (MHz)	dB
1> 1700.0000	-27.365	1> 1700.0000	-35.665
2: 1880.0000	-27.285	2: 1880.0000	-46.471
3: 1920.0000	-29.041	3: 1920.0000	-45.715
4: 2170.0000	-27.594	4: 2170.0000	-26.973
5: 2200.0000	-25.546	5: 2200.0000	-25.836