

4.7-dB, 6-dB, 7-dB, 10-dB Coupler (90° Hybrid) 806 – 960 MHz

The **4.7-dB coupler** is used as a decoupled splitter for power splitting purposes at a 1 : 2 ratio.
An effective power entering into e. g. port 1 is divided between the ports 2 and 3 at a ratio of 1 : 2.
Thus 1/3 of the input power (attenuation: 4.7 dB) is available at port 2 and 2/3 of the input power is available at port 3.

The **6-dB coupler** is used as a decoupled splitter for power splitting purposes at a 1 : 3 ratio.
An effective power entering into e. g. port 1 is divided between the ports 2 and 3 at a ratio of 1 : 3.
Thus 1/4 of the input power (attenuation: 6 dB) is available at port 2 and 3/4 of the input power is available at port 3.

The **7-dB coupler** is used as a decoupled splitter for power splitting purposes at a 1 : 4 ratio.
An effective power entering into e. g. port 1 is divided between the ports 2 and 3 at a ratio of 1 : 4.
Thus 1/5 of the input power (attenuation: 7 dB) is available at port 2 and 4/5 of the input power is available at port 3.

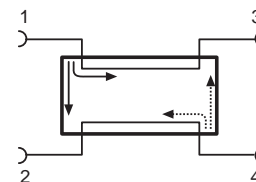
The **10-dB coupler** is used as a decoupled splitter for power splitting purposes at a 1 : 9 ratio.
An effective power entering at e. g. port 1 is divided between the ports 2 and 3 at a ratio of 1 : 9.
Thus 1/10 of the input power (attenuation: 10 dB) is available at port 2 and 9/10 of the input power is available at port 3.

Port 4 is decoupled and remains free of power if the ports 2 and 3 are ideally matched. In practice an absorber of suitable power at port 4 is to be planned in accordance with the mismatch of ports 2 and 3.

Decoupled combining can be achieved via the diagonally opposite ports 2 and 3 respectively 1 and 4.



790 213
792 170
792 180
793 107



Technical Data

Type No.	N female 7-16 female	792 937 792 170 4.7-dB Coupler	793 105 792 180 6-dB Coupler	793 106 793 107 7-dB Coupler	793 108 790 213 10-dB Coupler
Version					
Frequency range		806 – 960 MHz			
Attenuation 1 ↔ 3 (4 ↔ 2)		1.8 ±0.3 dB	1.25 ±0.2 dB	1.0 ±0.2 dB	0.5 ±0.2 dB
Attenuation 1 ↔ 2 (4 ↔ 3)		4.7 ±0.5 dB	6.0 ±0.5 dB	7.0 ±0.5 dB	10 ±0.5 dB
Directivity		> 27 dB			
VSWR		< 1.1			
Impedance		50 Ω			
Input power		< 350 W total power			
Application		Indoor			
Mounting		With 2 screws (max. 5.5 mm diameter)			
Weight		0.6 kg			
Packing size		Approx. 300 mm x 65 mm x 115 mm			
Dimensions (w x h x d)					
N female		157 mm x 55 mm x 95 mm (including connectors)			
7-16 female		157 mm x 55 mm x 84 mm (including connectors)			

Note: VSWR and attenuation values are measured when the remaining ports are terminated with 50-Ω loads.

936.1493/g Subject to alteration