

The hybrid ring junction can be used:

- As a power splitter with a 1:1 ratio.
- For the decoupled combining of two transmitters with frequency spacing as narrow as desired (at 3 dB loss).
- For the decoupled combining of two receivers with frequency spacing as narrow as desired.
- For the decoupled combining of two transmitter/receiver units whose integrated duplexers are within the same frequency range.
- As a component to form combiners.



K6373621
790 881

Description:

The hybrid ring junction has four ports, two of which are decoupled from each other. For example effective power entering into port 1 is distributed into ports 2 and 4, port 3 is decoupled and without power if ports 2 and 4 are ideally matched. In practice an absorber of suitable power at port 3 is to be planned for according to the mismatch of ports 2 and 4.

Decoupled combining can be made via ports 1 and 3 or 2 and 4.



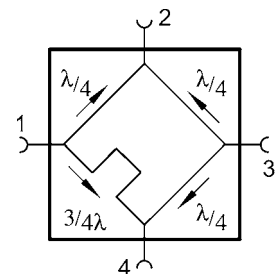
791 498

Specifications:	K6373621	790 881	791 498
Frequency range	806–960 MHz	890–960 MHz	1710–1880 MHz
Attenuation* 1↔2 or 1↔4	3±0.4 dB See diagram 1	3±0.3 dB See diagram 1	3±0.4 dB See diagram 1
Attenuation* 1↔3 or 2↔4	See diagram 2	See diagram 2	See diagram 2
Impedance	50 ohms	50 ohms	50 ohms
VSWR*	< 1.2:1	< 1.2:1	< 1.3:1
Maximum input power	<100 watts (each input)	<100 watts (each input)	<50 watts (each input)
Connector	N female	N female	N female
Weight	0.71 lb (0.32 kg)	0.77 lb (0.32 kg)	0.55 lb (0.25 kg)
Dimensions	5.9 x 3.4 x 1.2 inches (150 x 87 x 30 mm)	5.9 x 3.4 x 1.2 inches (150 x 87 x 30 mm)	4.2 x 3.1 x 1 inch (106 x 80 x 26 mm)
Application	Indoor	Indoor	Indoor
Shipping dimensions	6.3 x 4.1 x 1.6 inches (160 x 105 x 40 mm)	6.3 x 4.1 x 1.6 inches (160 x 105 x 40 mm)	4.3 x 3.5 x 1.6 inch (110 x 90 x 40 mm)
Mounting	Mounts with two screws. (max. 4.5 mm diameter)	Mounts with two screws. (max. 4.5 mm diameter)	Mounts with four screws. (max. 4.5 mm diameter)

* Attenuation and VSWR are measured when the remaining ports are terminated with 50 Ω loads.

Order Information:

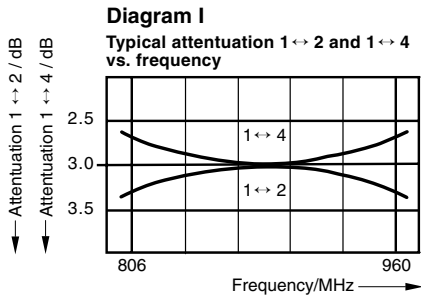
Model	Description
K6373621	Hybrid ring junction (806–960 MHz)
790 881	Hybrid ring junction (890–960 MHz)
791 498	Hybrid ring junction (1710–1880 MHz)



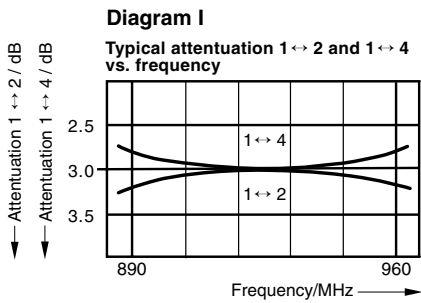
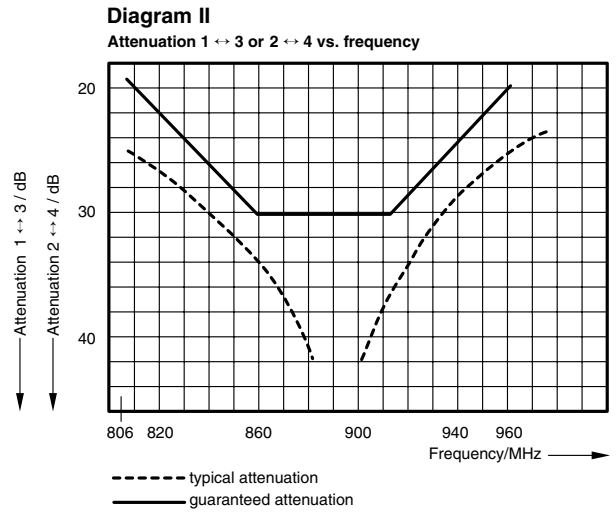
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Hybrid Ring Junction

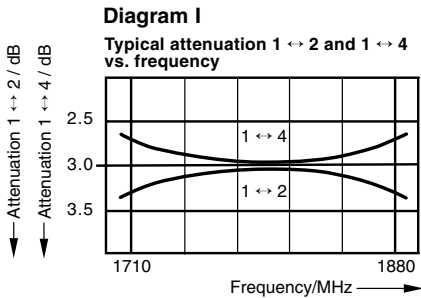
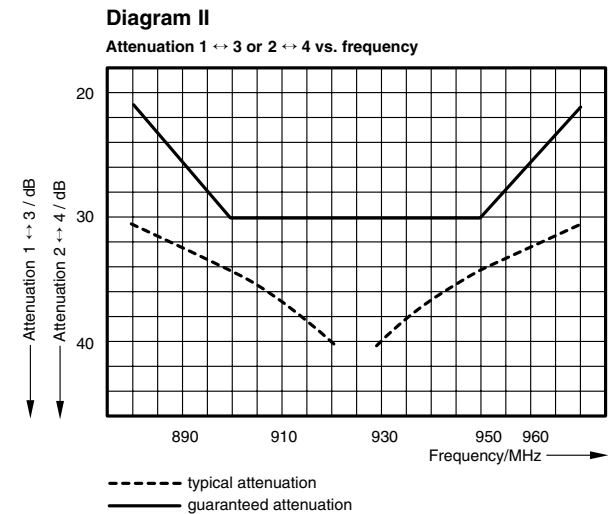
Typical Attenuation Curves



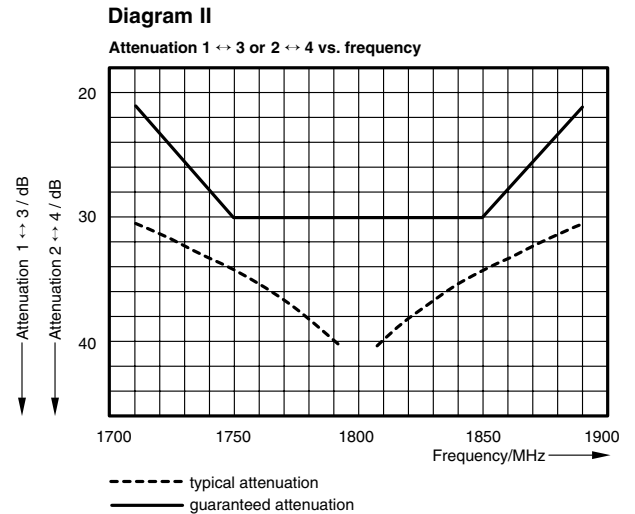
K6373621



790 881



790 498



All specifications are subject to change without notice. The latest specifications are available at www.kathrein-scala.com.