Duplexer
380 … 470 MHz

KATHREIN
Antennen · Electronic

The duplexer is suited to combine **one** transmitter with **one or more** receivers to a common antenna.

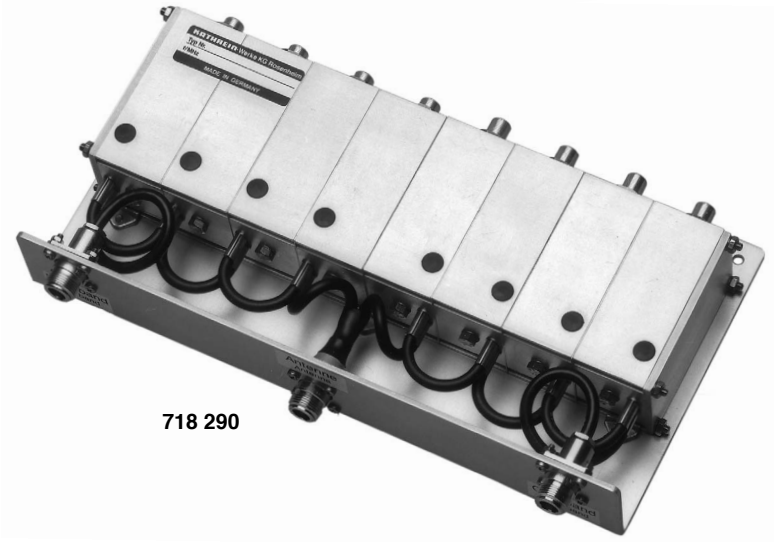
Design and construction:
The duplexer consists of a 3-cavity or 4-cavity S-P filter (Stop-Pass filter) for the low band and a 3-cavity or 4-cavity S-P filter for the high band. The two S-P filters are interconnected to a common antenna output using cables of defined electrical lengths.

The S-P filters are designed to allow the transmitter to operate in the low band as well as the high band.

Tuning:
The duplexer, because of its special construction can only be tuned at the factory. Special requests like other duplex spacings, switching bandwidths or attenuation values can be taken into account.

When ordering please specify the desired high **and** low band frequencies.

719 785



718 290

Technical Data

Type No.	719 785					718 290					
Number of resonators	3 + 3					4 + 4					
Frequency range	380 … 470 MHz										
Duplex spacing	5 MHz		10 MHz			5 MHz		10 MHz			
Switching bandwidth	0.2 MHz	0.5 MHz	0.5 MHz	1.0 MHz	2.0 MHz	0.5 MHz *	1.0 MHz *	2.0 MHz	3.0 MHz	4.0 MHz	5.0 MHz *
Insertion loss [1]	< 1.2 dB	< 1.5 dB	< 0.7 dB	< 0.8 dB	< 1.0 dB	< 1.6 dB	< 1.8 dB	< 1.0 dB	< 1.2 dB	< 1.5 dB	< 1.8 dB
Isolation [2]	> 65 dB	> 60 dB	> 75 dB	> 70 dB	> 65 dB	> 70 dB	> 60 dB	> 80 dB	> 75 dB	> 70 dB	> 60 dB
VSWR	< 1.4										
Impedance	50 Ω										
Input power [3]	< 100 W (–30 … +55 °C) / < 50 W (+55 … +70 °C) * < 50 W (–30 … +55 °C) / < 30 W (+55 … +70 °C)										
Temperature range	–30 … +70 °C										
Connectors	N female										
Material	S-P resonators: Aluminium / brass										
Cable	RG 223/U										
Installation	With 4 screws (M4)										
Weight	1.9 kg					2.5 kg					
Packing size	280 mm x 60 mm x 250 mm					410 mm x 85 mm x 205 mm					
Dimensions (w x h x d)	230 mm x 50 mm x 170 mm (with connectors)					300 mm x 50 mm x 170 mm (with connectors)					

[1] Low band ↔ Antenna / High band ↔ Antenna
[2] Low band ↔ High band
[3] Low band *or* High band

936.952/b Änderungen vorbehalten.

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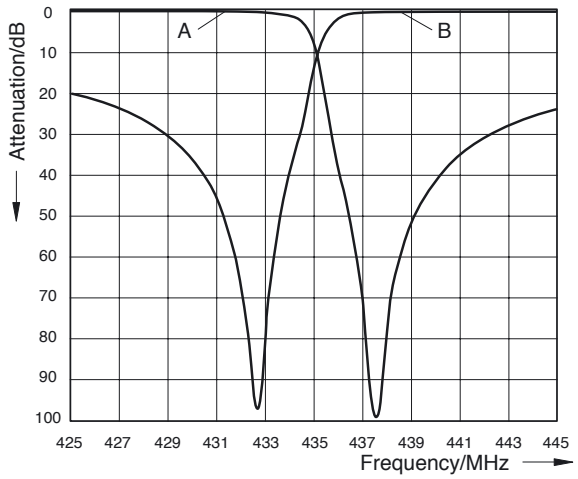
Duplexer
380 … 470 MHz
Typical attenuation curves

KATHREIN
Antennen · Electronic

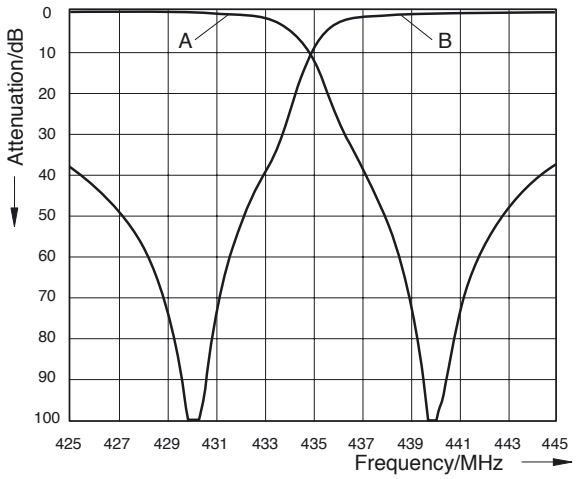
Tuning examples:

Duplexer 719 785

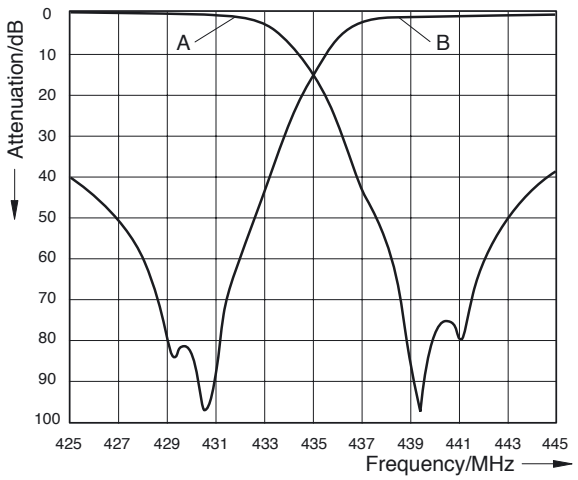
Duplex spacing : 5 MHz
Switching bandwidth: 0.5 MHz



Duplex spacing : 10 MHz
Switching bandwidth: 1.0 MHz

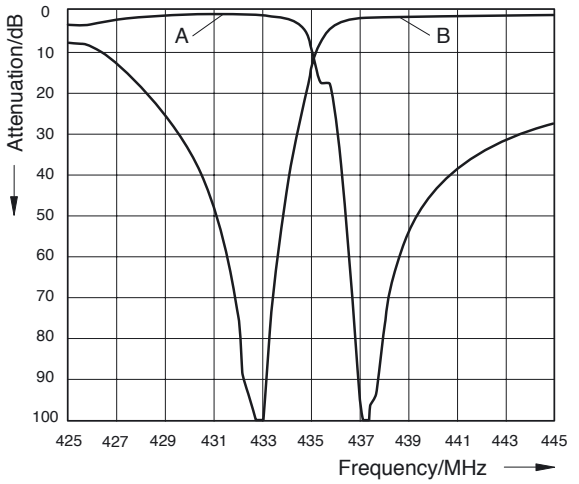


Duplex spacing : 10 MHz
Switching bandwidth: 2.0 MHz

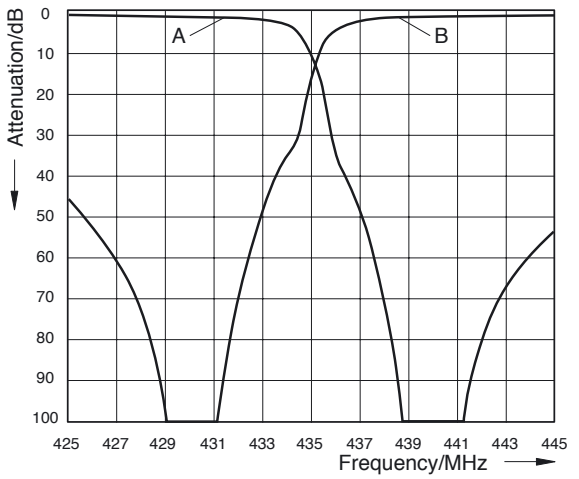


Duplexer 718 290

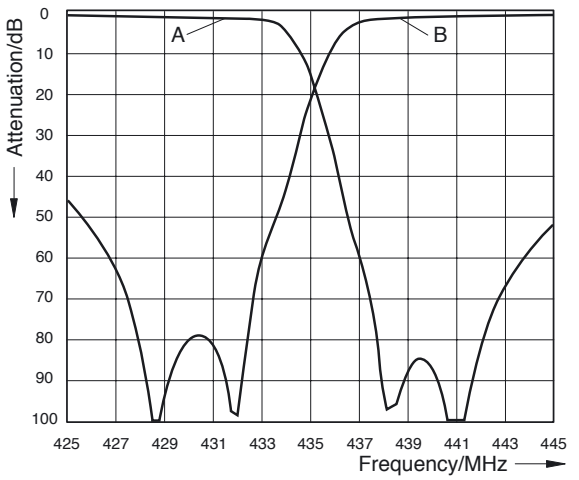
Duplex spacing : 5 MHz
Switching bandwidth: 1.0 MHz



Duplex spacing : 10 MHz
Switching bandwidth: 2.0 MHz



Duplex spacing : 10 MHz
Switching bandwidth: 4.0 MHz



A: Low band ↔ Antenna
B: High band ↔ Antenna

Internet: http://www.kathrein.de

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