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Bandpass duplexers

Model	Description	Freq.band,MHz	Price, EUR
DPS5-4V	4 cavities, 5", min.sp. 4 MHz, BP=300kHz, 1 dB, -55 dB	140-174	785
DPS5-6V	6 cavities, 5", min.sp. 2 MHz, BP=370kHz, 1.5 dB, -63 dB	140-174	1164
DPS8-4V	4 cavities, 8", min.sp. 3.5 MHz, BP=300kHz, 1 dB, -60 dB	140-174	1071
DPS8-6V	6 cavities, 8", min.sp. 1.5 MHz, BP=370kHz, 1.5 dB, -75 dB	140-174	1602
DPS4-4A	4 cavities, 4", BP=700kHz, 1 dB, -55 dB	300-360	778
DPS4-6U	6 cavities, 4", min.sp. 5 MHz, BP=1MHz, 1.5 dB, -50 dB	400-490	1143



140-174 MHz Band Pass Duplexer DPS5-4V, DPS5-6V

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DPS5-4V



DPS5-6V



Electrical specifications

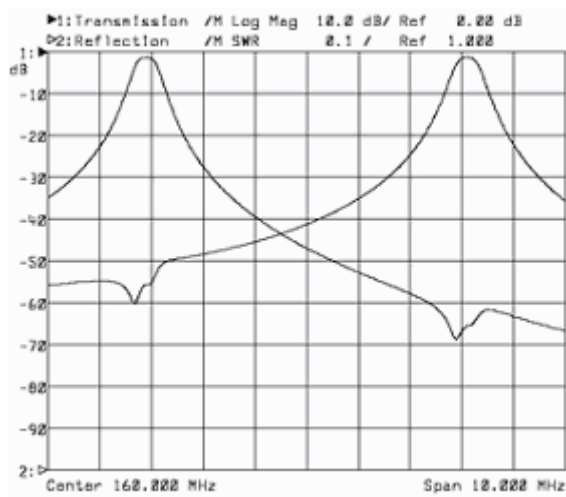
Model	DPS5-4V	DPS5-6V
Operating frequency band, MHz		140-174
Insertion loss (adjustable) not more, dB	1	1,5
Frequency separation TX/RX (min), MHz		5
Band pass, kHz	300	370
Impedance, Ohm		50
Isolation, not less, dB	55	70
VSWR, not more than		1,5
Input power, not more, W		300
Temperature range, °C		from -30 to +60
Cavity electrical length		1/4λ

Mechanical specifications

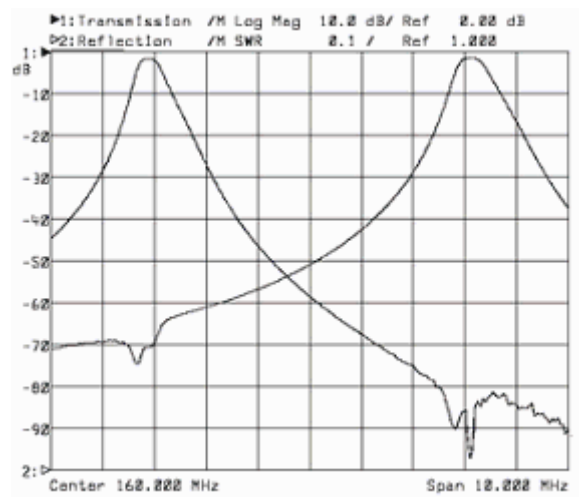
Model	DPS5-4V	DPS5-6V
Diameter, mm (ins.)		128 (5")
Weight, kg	8,45	12,35
Connector		N-female
Mount to 19-inch rack		yes
Length/Width/Depth, mm		800x480x265

It is become essential frequently while constructing multichannel sites to combine transmitter band and receiver band into one antenna. "DPS" series bandpass duplexer can handle this task. In DPS5-4V and DPS5-6V each arm represents two- or three-jar 5" coaxial resonator preselector. DPS5-6V duplexer provides wider transmitting and receiving bandwidth, than DPS5-4V.

Typical duplexers response curves



DPS5-4V



DPS5-6V



140-174 MHz Band Pass Duplexer DPS8-4V, DPS8-6V

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DPS8-4V



DPS8-6V



Electrical specifications

Model	DPS8-4V	DPS8-6V
Operating frequency band, MHz		140-174
Insertion loss (adjustable) not more, dB	1,5	2
Frequency separation TX/RX (min), MHz	3,5	1,5
Band pass, kHz	300	370
Impedance, Ohm		50
Isolation, not less, dB	60	75
VSWR, not more than		1,5
Input power, not more, W		300
Temperature Range, °C		from -30 to +60
Cavity electrical length		1/4λ

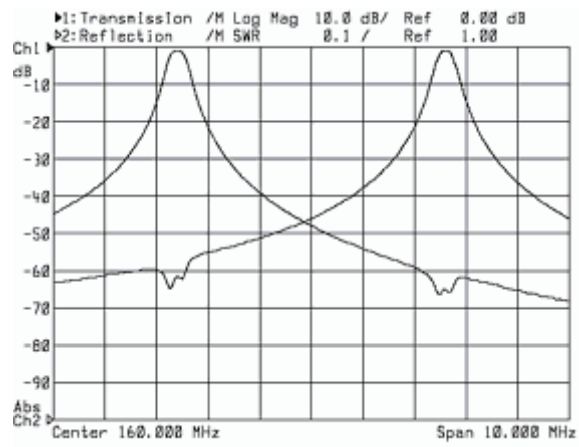
Mechanical specifications

Model	DPS8-4V	DPS8-6V
Diameter, mm (ins.)		206 (8")
Weight, kg	14	21,3
Connector		N-female
Mount to 19-inch rack		yes
Length/Width/Depth, mm	800x480x420	1600x480x420

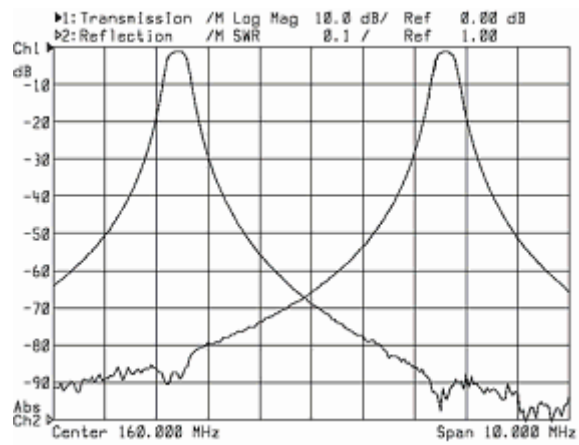
Constructing multichannel sites it is become essential frequently to combine transmitter band and receiver band into one antenna. "DPS" series bandpass duplexer can handle this task. In DPS8-4V and DPS8-6V each arm represents two- or three-jar 5" coaxial cavity preselector. DPS8-6V duplexer provides wider transmitting and receiving bandwidth, than DPS8-4V.

Typical duplexers response curves

DPS8-4V



DPS8-6V





300-360 MHz Band Pass Duplexer DPS4-4A, DPS4-6A

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DPS4-4A



DPS4-6A



Electrical specifications

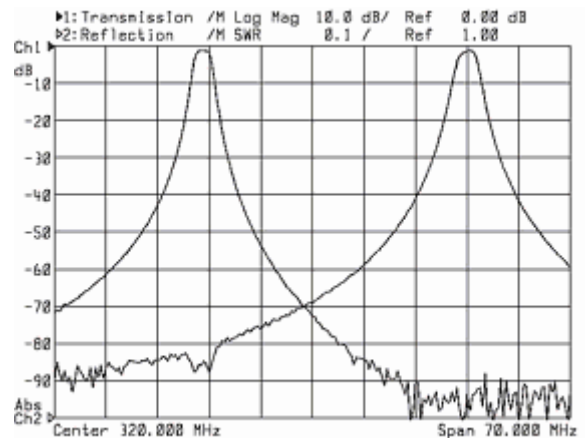
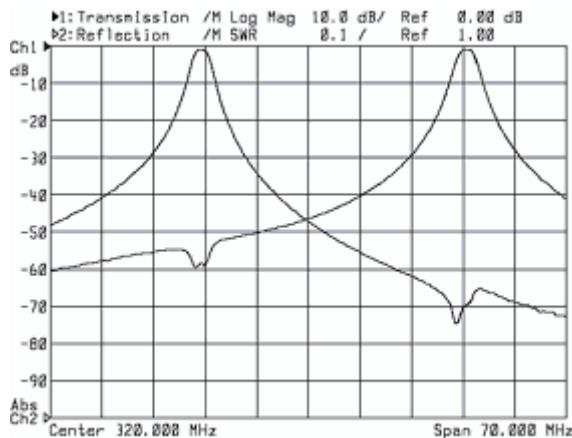
Model	DPS4-4A	DPS4-6A
Operating frequency band, MHz		300-360
Insertion loss (adjustable) not more, dB	1	1,5
Band pass, kHz	0,9	1,5
Impedance, Ohm		50
Isolation, not less, dB	55	70
VSWR, not more than		1,5
Input power, not more, W		200
Temperature range, °C		from -30 to +60
Cavity electrical length		1/4λ

Mechanical specifications

Model	DPS4-4A	DPS4-6A
Diameter, mm (ins.)		110 (4")
Weight, kg	6,2	8,5
Connector		N-female
Mount to 19-inch rack		yes
Length/Width/Depth, mm		400x480x230

We suggest you to utilize DPS4-4A and DPS4-6A duplexers, if you are planning to construct multichannel 300 MHz repeater but unable to install two separated antennas. It will provide, together with wide-band D or DS series antenna, operation of repeater at standard duplex separation of 36 MHz and will easily pass transmitting and receiving frequency bands. In DPS4-4A and DPS4-6A each arm represents two- or three-jar 4" coaxial cavity preselector. DPS4-6A duplexer provides wider transmitting and receiving bandwidth, than DPS4-4A.

Typical duplexers response curves





400-490 MHz Band Pass Duplexer DPS4-6U

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Electrical specifications

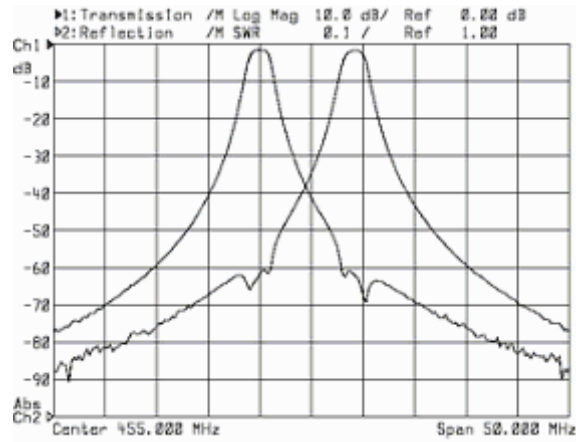
Model	DPS4-6U
Operating Frequency band, MHz	400-490
Insertion loss (adjustable) not more, dB	1,5
Frequency separation TX/RX (min), MHz	5
Band pass, MHz	1.0
Impedance, Ohm	50
Isolation, not less, dB	50
VSWR, not more than	1,5
Input power, not more, W	not more 200
Temperature Range, °C	from -30 to +60
Cavity electrical length	1/4λ

Mechanical specifications

Model	DPS4-6U
Diameter, mm (ins.)	116 (4")
Weight, kg	8,4
Connector	N-female
Mount to 19-inch rack	present
Length/Width/Depth, mm	360x480x225

Bandpass duplexer DPS4-6U was designed specifically for multichannel repeaters with 10 MHz TX/RX frequency separation and such number of channels, that will fit in not more than 1.0 MHz wide band. Beside bandwidth increase, slope of response curve inclinations will become better, if you'll install six jars (DPS4-6U).

Typical duplexers response curves



Our engineers are ready to offer you customized equipment, to solve different problems, you are facing constructing antenna-feeder systems, in addition to serial product line. Response curve of DPS4-10U 10 duplexer, build on 10 four-inch cavities, is demonstrated here as an exhibition. This duplexer is noted for wide bandwidth and higher value of TX/RX isolation.

