

Horwin DF-V/U-x-5 series is a "Band pass/reject" type duplex filters based on quarter wave 5 inches width square cavities. Duplexer allows simultaneous operation of transmitter and receiver into a single antenna. Using large 5" cavities means very high Q, resulting in very close frequency spacing and low insertion losses.

Cavities are aluminium made with 5 mm thick top plate welded to the cavity body. Inner conductor and coupling loops are silver plated cooper made. Central tuning rod is invar made. All this provides excellent frequency stability in temperature range from - 30 to + 60°C.

Each filter is individually made and tuned, so receive and transmit frequencies should be specified when ordering.



	DF-V4-5	DF-V6-5	DF-U4-5	DF-U6-5
DF duplex filter				
x frequency range (V=VHF, U=UHF)	4 cavities VHF duplex filter	6 cavities VHF duplex filter	4 cavities UHF duplex filter	6 cavities UHF duplex filter
x cavities numbers				
x cavity width (inches)				
Cavity size	1/4λ, 5"	1/4λ, 5"	1/4λ, 5"	1/4λ, 5"
Frequency range, MHz	144 – 174	144 – 174	400 – 470	400 – 470
Min. duplex frequency spacing, kHz	600	400	2000	1500
Max. continuous power input, W	150	150	150	150
Insertion loss, db	< 1.5	< 2	< 1.5	< 2
Tx noise suppression on Rx frequency, dB	> 75	> 85	> 75	> 85
Rx isolation on Tx frequency, dB	> 80	> 80	> 85	> 85
Nominal impedance, Ohm	50	50	50	50
VSWR	< 1.5	< 1.5	< 1.5	< 1.5
Connectors type	N-female	N-female	N-female	N-female
Temperature range, °C	-30 ... +60	-30 ... +60	-30 ... +60	-30 ... +60
Dimensions (HxWxD), mm (with rod extended)	880x260x260	880x390x260	400x260x260	400x390x260
Weight, kg	9.5	13.5	6.5	8.8