

Horwin DF-V/UM6-x series is compact 6 cavity base station duplex filters. "Band pass/reject" duplexer is ideal for repeaters, duplex base stations and other applications when combining of both receive and transmit frequencies into a single antenna is needed.

The high Q's of the filter enable the duplexer to work with narrow duplex spacing and to keep low insertion losses. There are two model versions regarding power handling capability – low power up to 50 Watts continuously and high – up to 150 Watts.

The filter's cavities are made of extruded aluminium. All coaxial cables used are semi-rigid silver plated. Cables and connectors are with PTFE insulation. Filters are covered with black polymer powdered coating.

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



DF-VM6-H



DF-VM6-SL



DF-UM6-H



DF-UM6-L

**DF-VM6-H**

**DF-VM6-SL**

**DF-UM6-H**

**DF-UM6-L**

	<b>DF-VM6-H</b>	<b>DF-VM6-SL</b>	<b>DF-UM6-H</b>	<b>DF-UM6-L</b>
<b>DF</b> duplex filter				
<b>x</b> frequency range (V=VHF, U=UHF)				
<b>M6</b> "mobile" type, 6 cavities				
<b>S</b> helically resonator				
<b>x</b> input power (L=50W, H=150)				
	<b>high power with full quarter-wavelength resonators</b>	<b>low power compact with helically resonators</b>	<b>high power with full quarter-wavelength resonators</b>	<b>low power compact with full quarter-wavelength resonators</b>
Cavity size, mm	40 x 40	23 x 23	40 x 40	23 x 23
Frequency range, MHz	144 – 174	144 – 174	400 – 470	400 – 470
Duplex frequency spacing, MHz	4 – 15	4 – 24	4 – 15	4 – 15
Max. continuous power input, W	150	50	150	50
Insertion loss, db	< 1.4	< 1.4	< 1.4	< 1.4
Tx noise suppression on Rx frequency, dB	> 80	> 80	> 85	> 85
Rx isolation on Tx frequency, dB	> 80	> 80	> 85	> 85
Tx noise suppression on Rx (multichannel), dB	> 60 (1.5 MHz BW)	> 60 (1.5 MHz BW)	> 80 (2 MHz BW)	> 80 (2 MHz BW)
Rx isolation on Tx (multichannel), dB	> 60 (1.5 MHz BW)	> 60 (1.5 MHz BW)	> 80 (2 MHz BW)	> 80 (2 MHz BW)
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 (H x W x L), mm (length may vary depending on frequencies ordered)	55 x 252 x 630	30 x 155 x 220	55 x 252 x 274	30 x 155 x 250
Weight, kg	5	1	2.5	1