

## Section 9 Filters and Multicoupling



### **VHF Mobile Duplexer**

N-type female terminated VHF 136-180MHz - set configurations



The ZSGQ series of VHF duplexers are a 6 cavity filter design. Suitable for VHF or duplexed system. These models come in a 3 sub band range, each designed to work with a certain duplex spacing.

The filters have a very small physical dimension owning to the very high 'Q' helical resonators.

The housing is made from extruded aluminium with a passivated steel chasis. The filter is black vinyl coated for improved corrosion resistance.

Alternate options of input and output connectors are available. Please contact ZCG for more information.

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ZSGQ-150A

Specifications	ZSGQ-150A	ZSGQ-150L	
Construction	Black aluminium outer case, coaxial cable and chrome terminations		
Frequency range	VHF 150-174MHz	VHF 130-150MHz	
Bandwidth - specify	±200kHz		
VSWR	<1.5:1 - typical		
Impedance nominal	50 Ohms		
Frequency spacing	5.7MHz		
Insertion loss	≤1.0dB		
Suppresion	>75dB		
Isolation	>80dB		
Connector	3 x N-type female		
Maximum input power	50 Watts		
Dimensions	W: 221mm H: 154mm D: 31mm	W: 225mm H: 155mm D: 35mm	





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Specifications	ZSGQ-150D	ZSGQ-150K
Construction	Black aluminium outer case, coaxial cable and chrome termi- nations	Black compact aluminium outer case, coaxial cable and chrome terminations
Frequency range	VHF 136-180MHz	
Bandwidth - specify	±200kHz	±500kHz
Rx-Tx Spacing	3~20MHz avaialble - specify	3~15MHz avaialble - specify
VSWR	≤1.3:1 - typical	
Impedance nominal	50 Ohms	
Insertion loss	≤1.2dB at 3MHz spacing ≤1.0dB at 5MHz spacing	Low port: ≤1.0dB at 5MHz spacing High port: ≤1.0dB at 5MHz spacing
Rx-Tx Isolation	≥85dB at 3MHz spacing ≥90dB at 5MHz spacing	≥85dB at 5MHz spacing ≥90dB at 10MHz spacing
Rejection		>85dB at 5MHz spacing >90dB at 10MHz spacing
Connector	3 x N-type female as standard BNC or UHF available on request	3 x N-type female as standard BNC, SMA or UHF available on request
Maximum input power	50 Watts	100 Watts
Dimensions	W: 218mm H: 190mm D: 40mm	W: 275mm H: 170mm D: 39mm
Weight	1.6kg	1.9kg
Operating temperature	-30°C to +70°C	-20°C to +60°C



ZSGQ-150D



ZSGQ-150K - compact model with SMA terminations, N-type female as standard



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#### Typical response curve at 5MHz spacing - ZSGQ-150K



