

BROADBAND DIPLEXER

DPX-9516

The DPX-9516 is a broadband low pass/high pass diplexer capable of multiplexing low frequency (DC-9.5 GHz) and high frequency (16-32 GHz) signals. The novel design offers extremely low insertion loss for both the low pass and high pass channels. The DPX-9516 is an excellent solution for applications such as high frequency/baseband signal routing (especially following a broadband high frequency mixing stage), low loss power splitting/combination and general-purpose lab use.



Features

- Broadband performance
- Low insertion loss
- High isolation between low pass and high pass ports
- Lightweight, compact design

Electrical Specifications

Parameter	Frequency Range (GHz)	Min	Typ	Max
Low Pass Filter				
Pass Band Insertion Loss (dB)	DC to 9.5		1.5	
Stop Band Rejection (dB)	16 to 32	30	45	
Pass Band Return Loss (dB)	DC to 8.5	13	17	
High Pass Filter				
Pass Band Insertion Loss (dB)	16 to 32		1.5	
Stop Band Rejection (dB)	DC to 9.5	25	> 30	
Pass Band Return Loss (dB)	18 to 32	9	13	
Common Port Return Loss (dB)	DC to 8.5	13	17	
	16 to 32	9	13	
Isolation (dB)	DC to 9.5	25	> 30	
	16 to 32	30	> 40	
Impedance (Ω) ¹			50	
RF Power (W)				1
Weight (g)			35	

¹Specifications guaranteed when operated in a 50 Ω system.

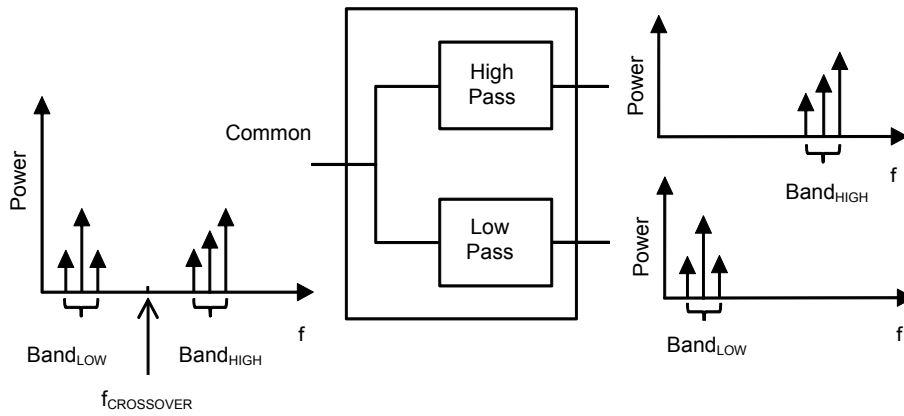


Fig. 1 Diplexer schematic diagram.

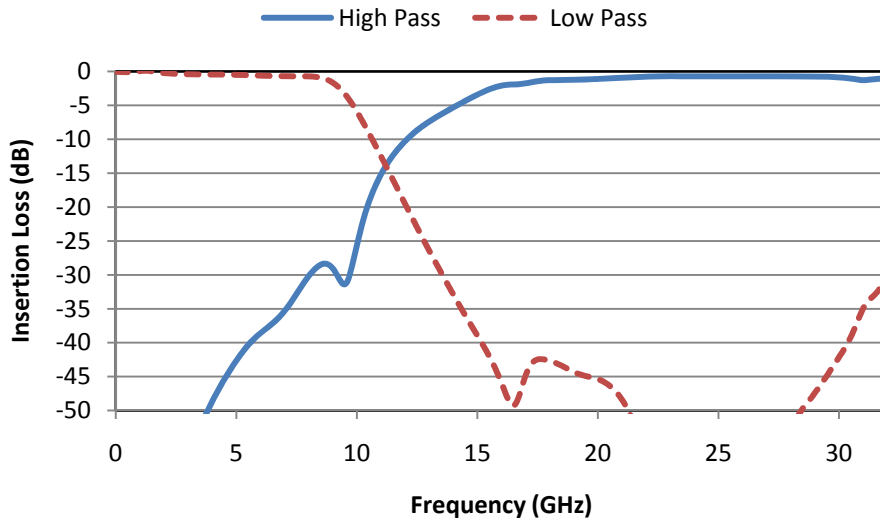


Fig. 2 Insertion Loss at High Pass and Low Pass port for a typical DPX-9516 Diplexer.

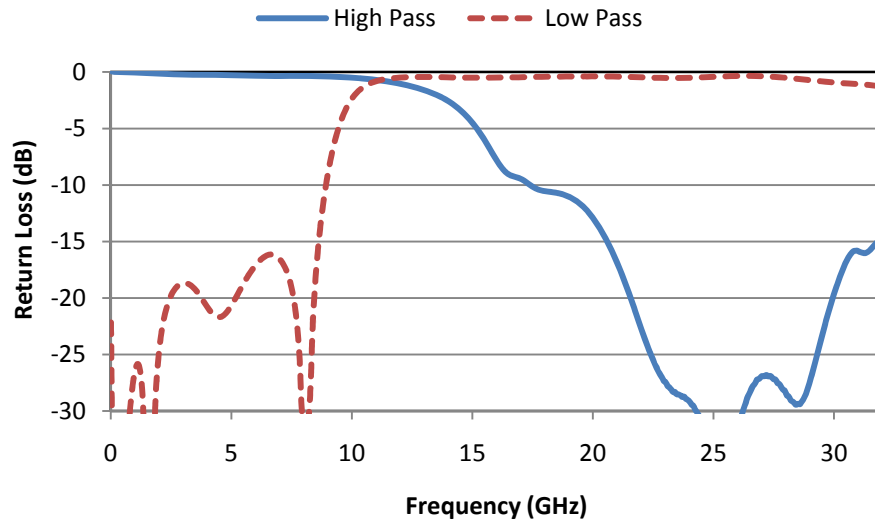


Fig. 3 Return Loss at High Pass and Low Pass port for a typical DPX-9516 Diplexer.

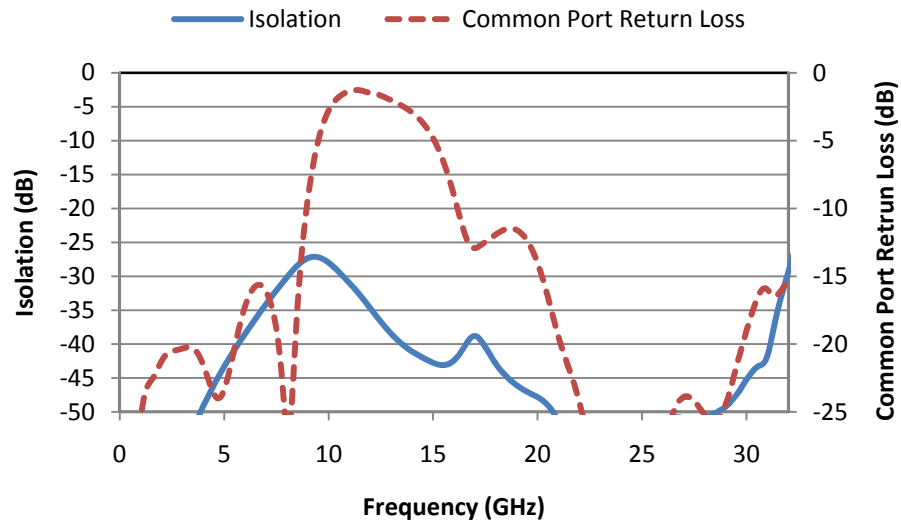
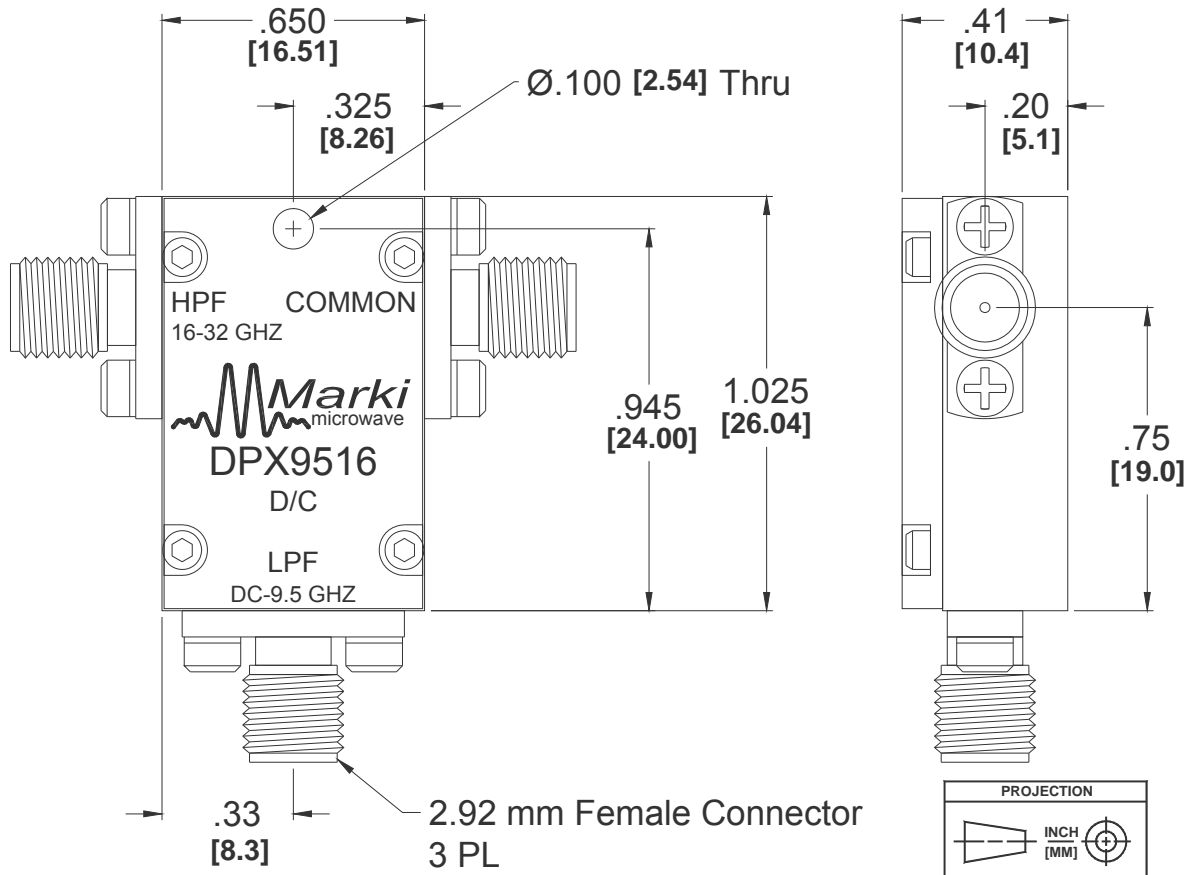


Fig. 4 Isolation and Common Port return loss for a typical DPX-9516 Diplexer.



Model Number	Description
DPX-9516	DC – 9.5 GHz Low Pass, 16 – 32 GHz High Pass P1- High Pass, P2- Common, P3- Low Pass with 2.92 Female connectors ¹

¹Default is 2.92 female connectors. Contact factory for other connector options.

Marki Microwave reserves the right to make changes to the product(s) or information contained herein without notice. Marki Microwave makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Marki Microwave assume any liability whatsoever arising out of the use of or application of any product.

© Marki Microwave, Inc.

