

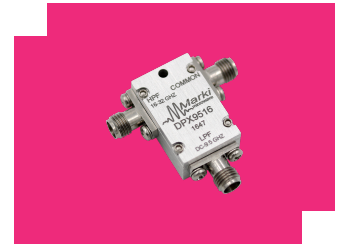
DPX-9516

Broadband Diplexer 16 - 32 Ghz

DEVICE OVERVIEW

General Description

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.



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Features

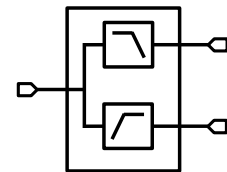
- Broadband performance
- Low insertion loss
- High isolation between low pass and high pass ports
- Lightweight, compact design

Applications

- Reflectionless Filter Applications
- RF Transceivers

Functional Block

Diagram



Part Ordering Options

Part Number	Description	Connectors	Green Status	Product Lifecycle	Export Classification
DPX-9516	Broadband Diplexer 16 - 32 Ghz	<u>Standard</u>	Non-RoHS	Released	EAR99

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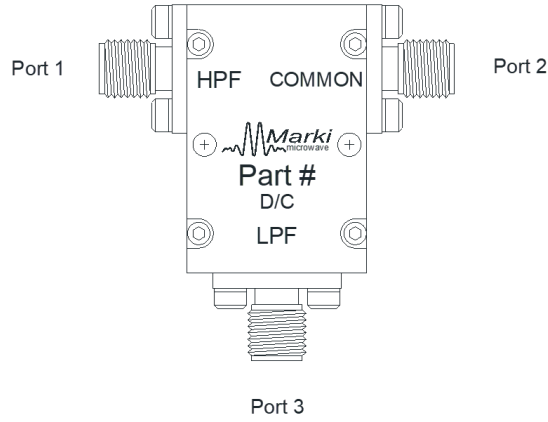
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Revision History

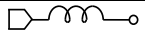
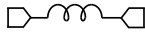

Revision Code	Revision Date	Comment
-	2014-04-15	Datasheet Initial Release

Port Configuration and Functions

Port Diagram



Port Functions

Port	Function	Connector Type	Description	Equivalent Circuit for Package
Port 1	High Pass Filter	2.92F	Port 1 is DC open to Port 2 and Port 3.	
Port 2	Common/Input	2.92F	Port 2 is DC open to Port 1 and short to Port 3.	
Port 3	Low Pass Filter	2.92F	Port 3 is DC open to Port 1 and short to Port 2.	

Specifications

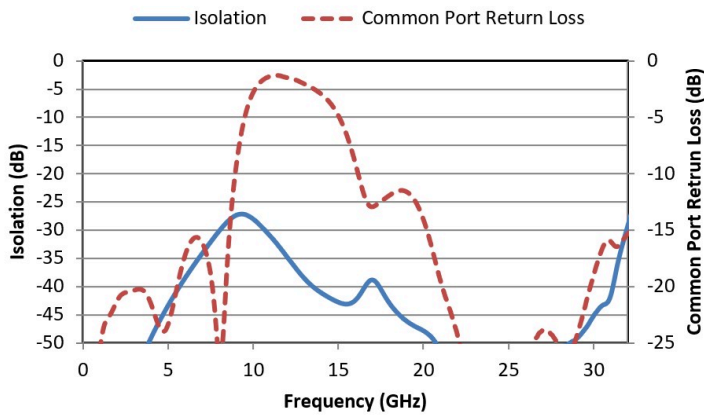
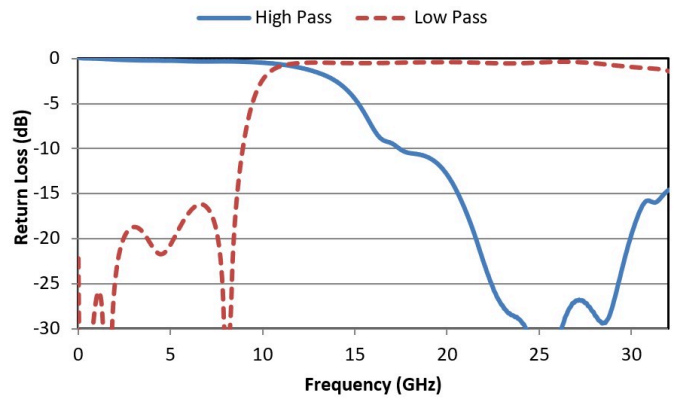
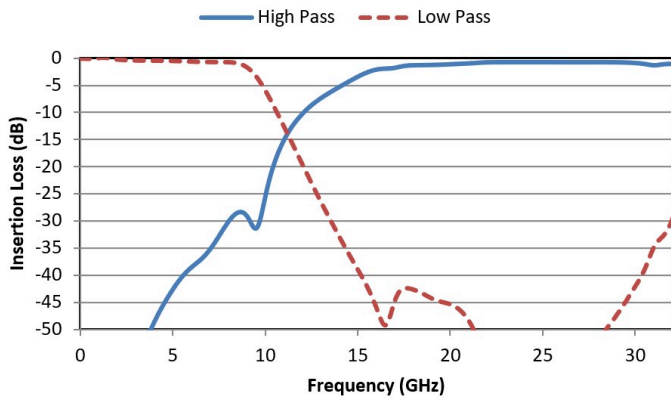
Package Information

Parameter	Details	Rating
Weight	-	35g
Dimensions	-	16.51 x 26.04 mm

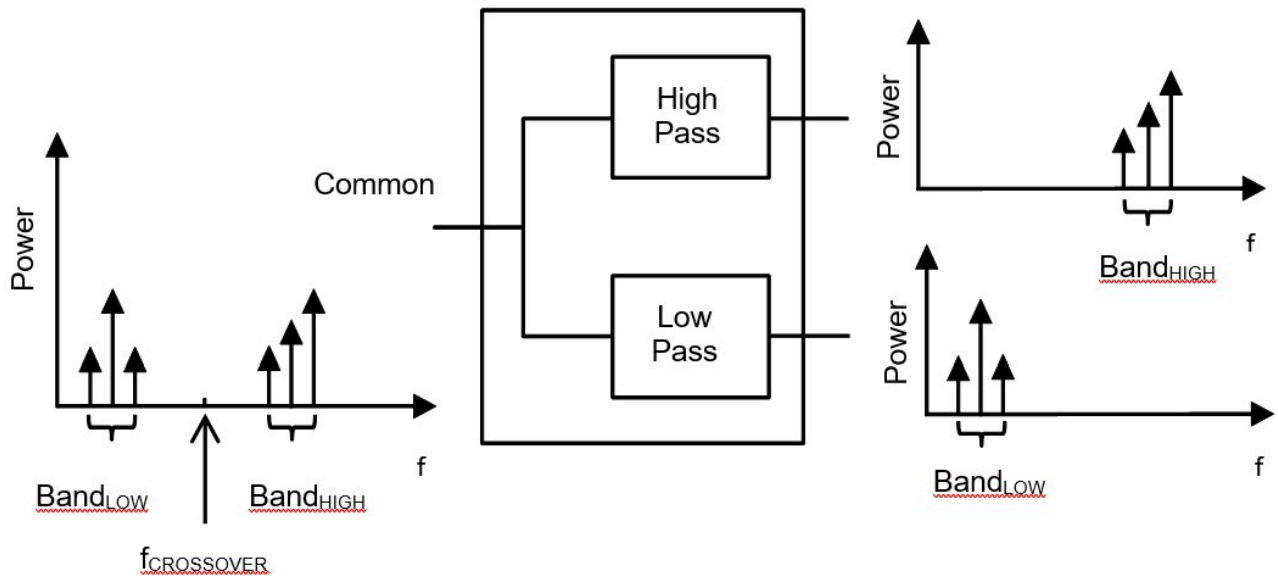
Electrical Specifications

Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Low Frequency Passband	-	-	-	0	-	9.5	GHz
High Frequency Passband	-	-	-	16	-	32	GHz
High Pass Filter, Pass Band Insertion Loss	-	16	32	-	1.5	-	dB
Common Port Return Loss	-	0	8.5	13	17	-	dB
Common Port Return Loss	-	16	32	8	13	-	dB
Isolation	-	0	9.5	25	30	-	dB
Isolation	-	16	32	30	40	-	dB
High Pass Filter, Stop Band Rejection	-	0	9.5	25	30	-	dB
Impedance	-	-	-	-	50	-	Ω
Low Pass Filter, Pass Band Insertion Loss	-	0	9.5	-	1.5	-	dB
Low Pass Filter, Pass Band Return Loss	-	0	8.5	13	17	-	dB
RF Power	-	-	-	-	-	1	W
Low Pass Filter, Stop Band Rejection	-	16	32	30	45	-	dB
High Pass Filter, Pass Band Return Loss	-	18	32	8	13	-	dB

Typical Performance Plots



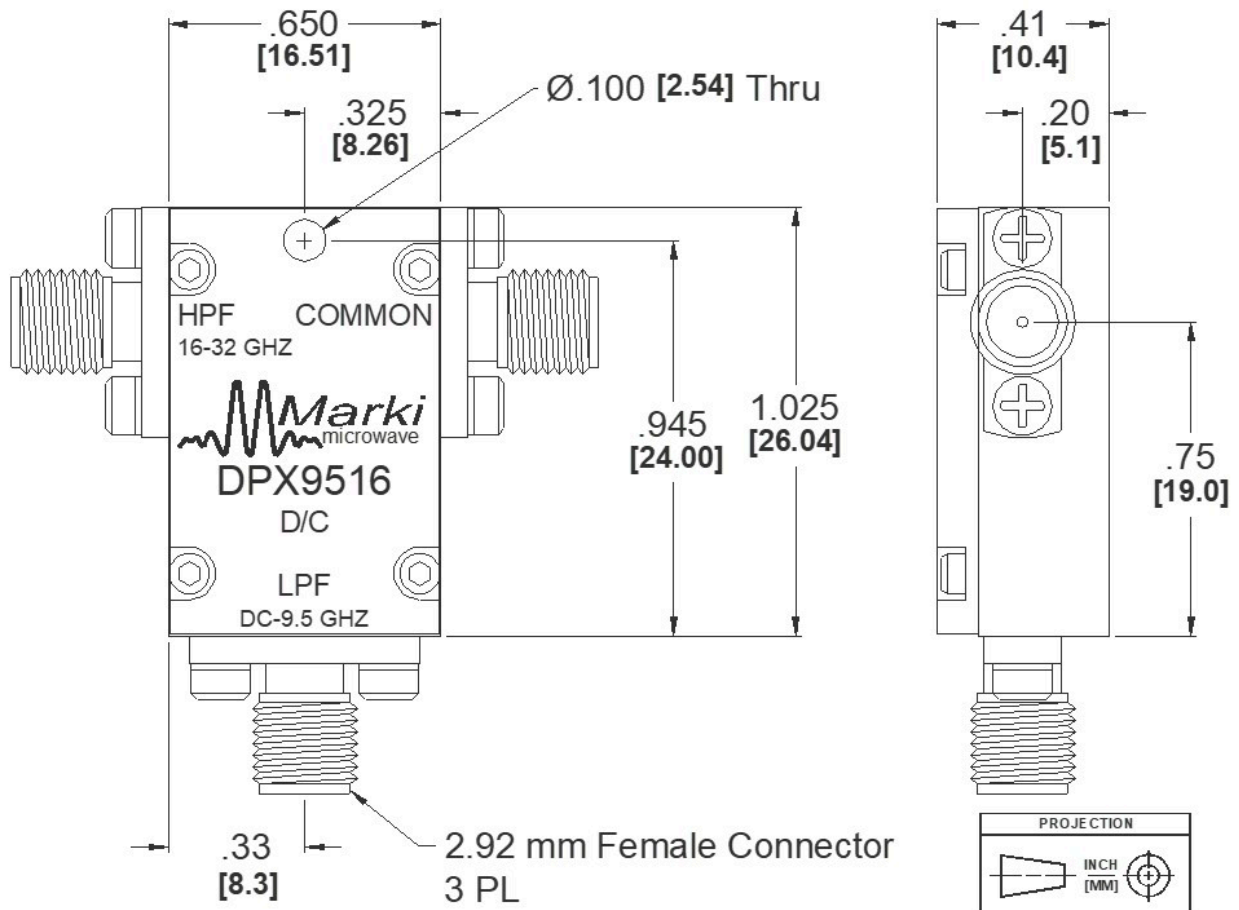
Application Circuit



Mechanical Data

Outline Drawing

Download : [Outline 2D Drawing](#) | [Outline 3D Drawing](#) | [Outline 3D STP](#)



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