DIPLEXER DPX-0R5

Available in either a connectorized or miniature surface mount package (0.240 inch x 0.150 inch), the DPX-0R5 is a low cost, high performance diplexer. The unique design offers high pass/low pass signal routing/multiplexing with excellent isolation. Passband insertion loss is less than 1.2 dB with rejection typically exceeding 25 dB. Besides being ideal for transmitter/receiver applications, the DPX-0R5 can also be used as an excellent non-reflective low pass (or high pass) filter for systems requiring broadband 50Ω impedance match (such as mixers).

Features

- Low Insertion Loss
- Superior Repeatability
- Low Profile Miniaturized, Reflow Solderable Package Option
- User defined cross over frequencies available

Electrical Specifications – Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

Parameter	Frequency Range (GHz)	Min	Typ	Max
Cross Over Frequency	0.5		±5 %	
Low Pass Filter				
Pass Band Insertion Loss (dB)	DC to 0.36		0.6	1.2
Stop Band Rejection (dB)	0.7 to 5		20	
	5 to 8	20	28	
Pass Band Return Loss (dB)	DC to 0.36		18	
High Pass Filter				
Pass Band Insertion Loss (dB)	0.7 - 8		0.6	1.2
Stop Band Rejection (dB)	<0.22	25	30	
	<0.36		18	
Pass Band Return Loss (dB)	0.7 - 8		15	
Common Port Return Loss (dB)	DC to .36		18	
	0.7 to 8		15	
Isolation (dB)	<0.36	14	24	
	0.7 - 8	14	22	
RF Power (W)				1

Part Number Options

Package Style(s)[1]	Example	S-Parameters[2]
DPX (Surface Mount)	DPX-0R5-1	DPX-0R5.S3P
DPXN (Connectorized)	DPXN-0R5	

[1]For surface mount package, specify port configuration by adding –1 or –2 suffix to model number. Default is –2 configuration when not specified.
[2]S-Parameters include test fixture.

215 Vineyard Court, Morgan Hill, CA 95037 | Ph: 408.778.4200 | Fax 408.778.4300 | info@markimicrowave.com

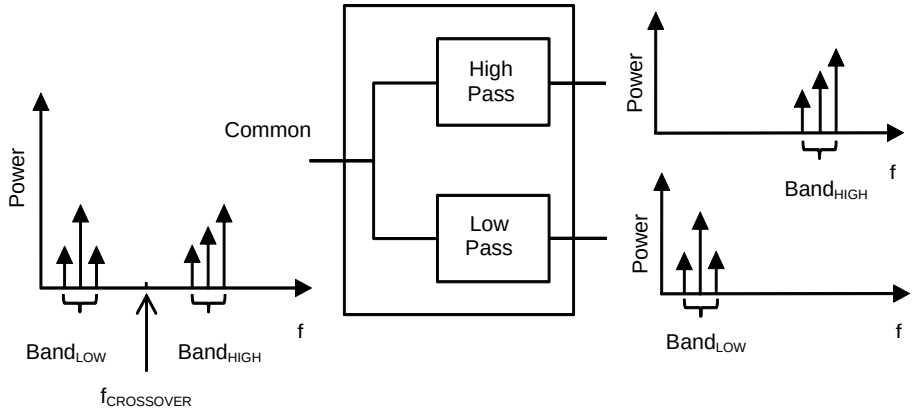

Fig. 1. Schematic Diagram

Typical Performance

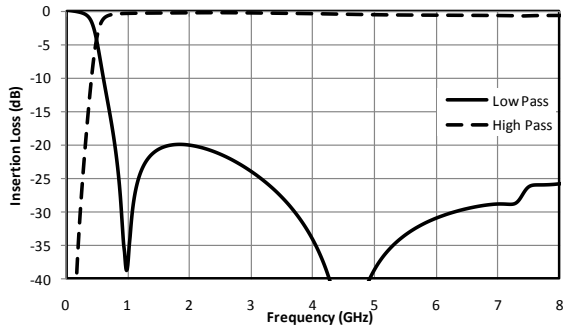

Fig. 2. Insertion loss.

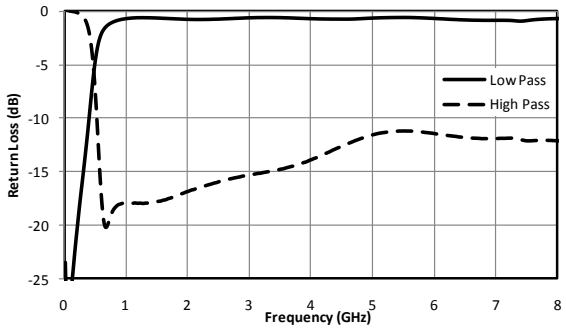

Fig. 3. Return loss.

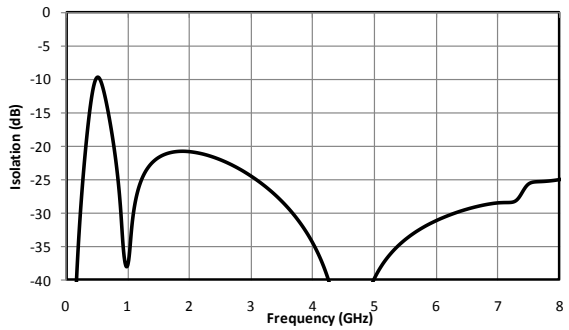

Fig. 4. Isolation.

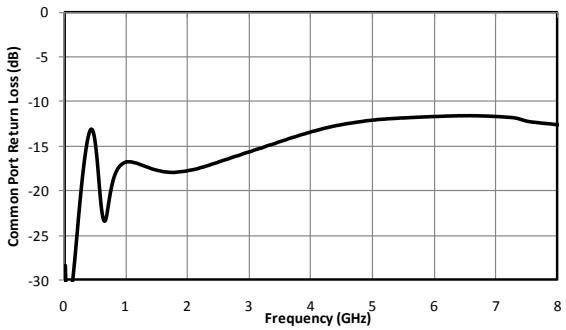

Fig. 5. Common port return loss.

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.

215 Vineyard Court, Morgan Hill, CA 95037 | Ph: 408.778.4200 | Fax 408.778.4300 | info@markimicrowave.com