



## HIGH ISOLATION POWER COMBINER

**PBR-0003**

### Features

- 300kHz to 3 GHz Power Combiner
- 45 dB Typ Isolation
- Applications: IP3 Measurement and High Isolation Test Set-ups
- [Microwave Power Dividers & Couplers App Note](#)



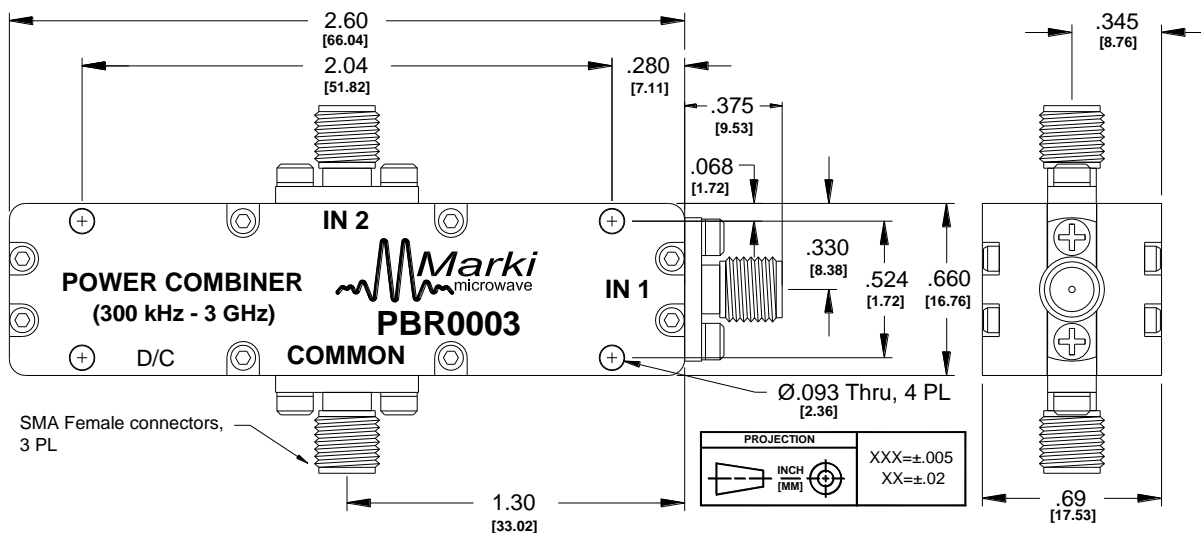
**Electrical Specifications** - Specifications guaranteed from -55 to +100°C, measured in a 50Ω system.

Parameter	Frequency Range	Min	Typ	Max
Nominal Power Splitting (dB)	300 kHz to 3 GHz		6	
Amplitude Balance (dB)		±0.4	±0.8	
Excess Insertion Loss (dB) <sup>1</sup>		1.25	2.5	
Input Port VSWR		1.15	1.45	
Common Port VSWR		1.3	1.7	
Isolation (dB)	10 MHz to 3 GHz	40	45	
	300 kHz to 10 MHz	15	30	
Weight (g)			38	

<sup>1</sup>Excess Insertion Loss = (Input Port to Common Port Insertion Loss) – 6 dB.

Model Number	Description
PBR-0003	300 kHz – 3 GHz Power Combiner with SMA connectors <sup>1</sup>

<sup>1</sup>Default is SMA female connectors. Consult factory for other connector options.



**IP3 measurement using high isolation power combiner**

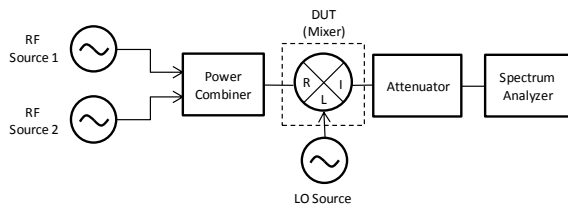


Fig. 1. Mixer IP3 measurement

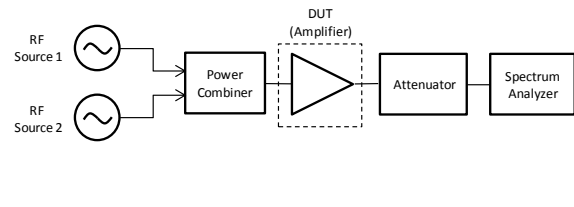


Fig. 2. Amplifier IP3 measurement

**Typical Performance**

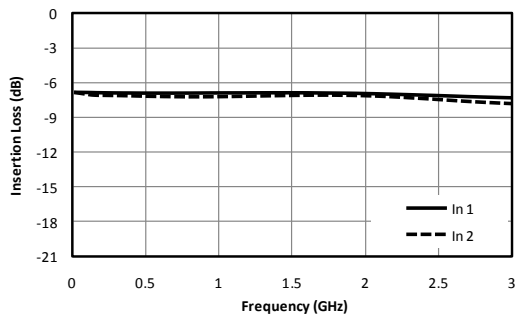


Fig. 3. Input port to common port insertion loss.

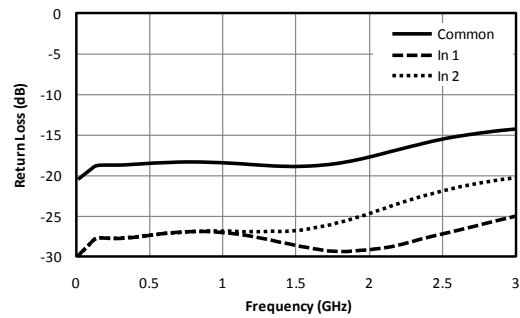


Fig. 4. Return loss for input and common ports.

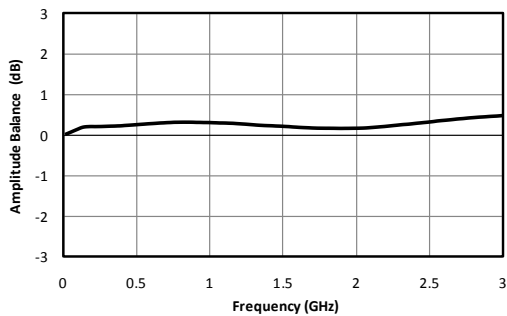


Fig. 5. Amplitude balance between input ports.

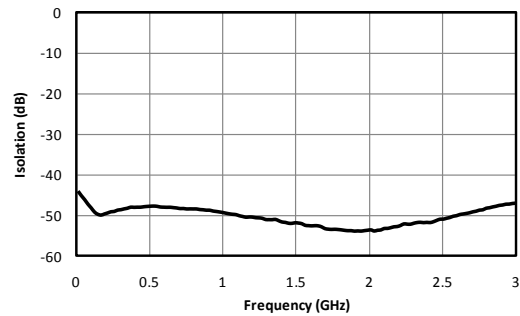


Fig. 6. Isolation between input ports.

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