



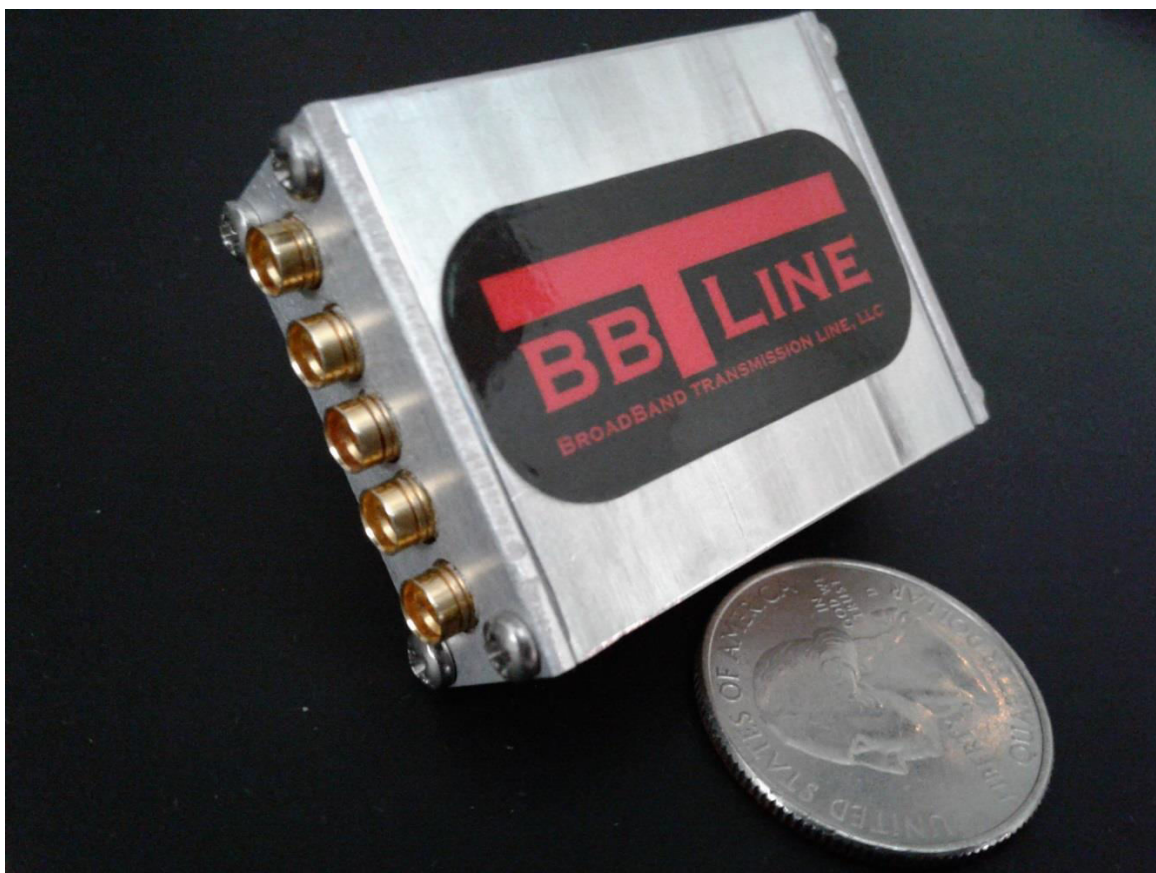
BroadBand 4-Way RF Splitter/Combiner, [SMP-Connectors](#)

Features:

- BroadBand 0.5 to 6 GHz Operation
- Low Loss (1.7 dB at 6 GHz)
- Excellent Amplitude/Phase Balance (+/- 0.15 dB, +/- 2.5°)
- RoHs Compliant
- High Power (20 watts as splitter)

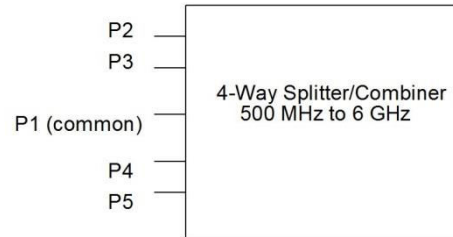
Datasheet Model Number = [BBTLine_4Way_SMP_Conn](#)

Description: Shown below is a patented (U.S. Patent 9,570,792) broadband 4-way RF Splitter/Combiner with SMP Smooth-Bore Connectors. This RF splitter is not a typical Wilkinson-style device, but a design which yields a more compact splitter/combiner with excellent low loss RF characteristics and high power handling capability.



RF Specifications:

Port Definition:



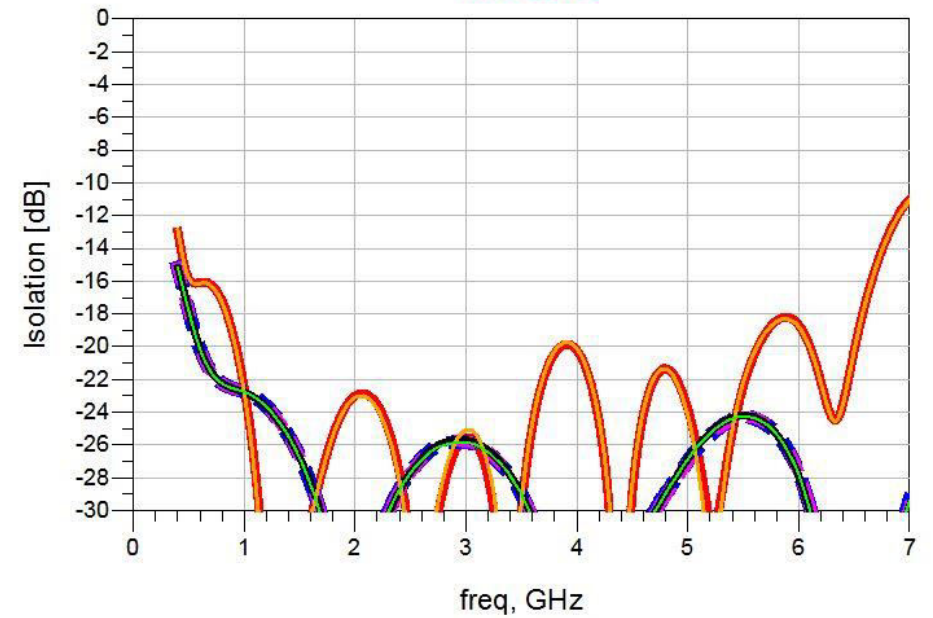
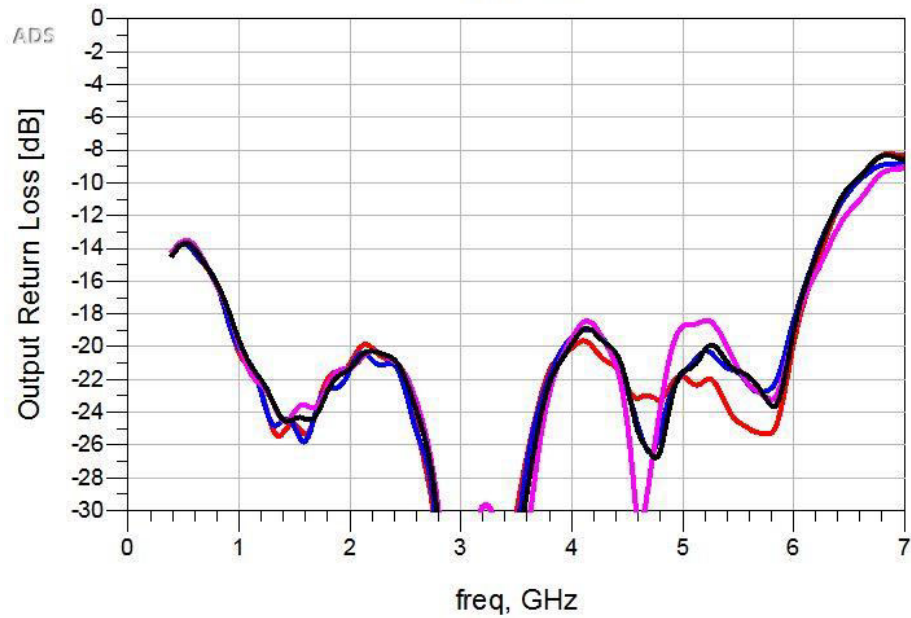
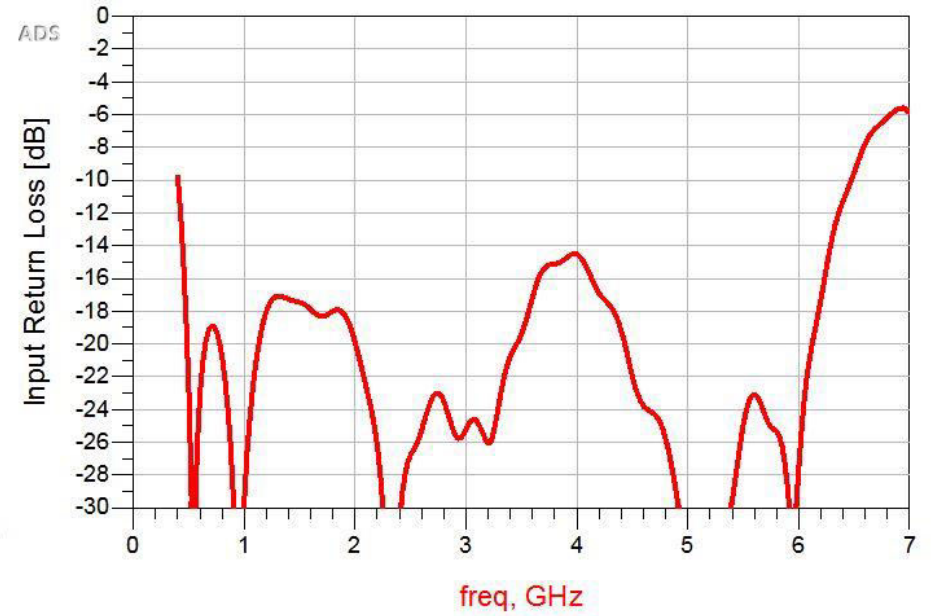
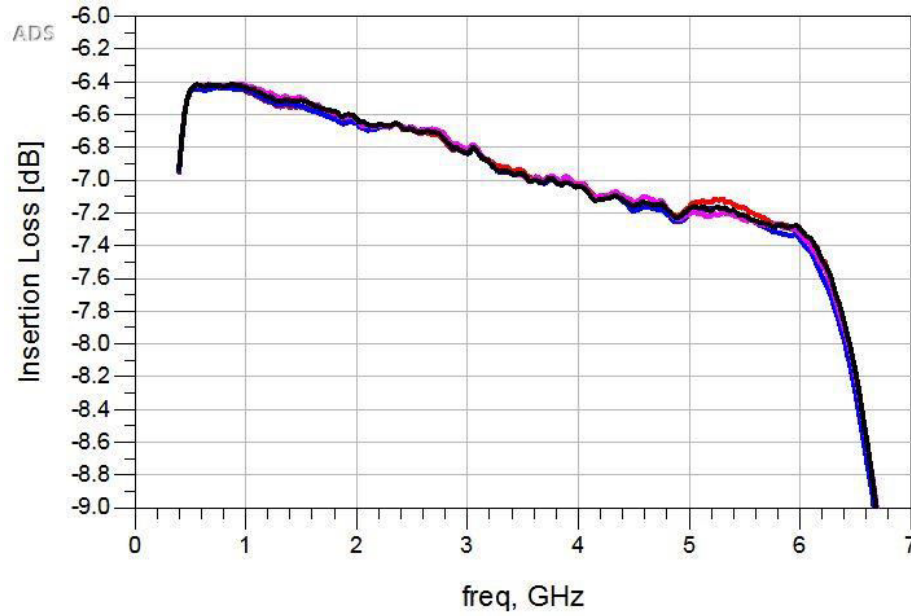
For Isolation Specification:

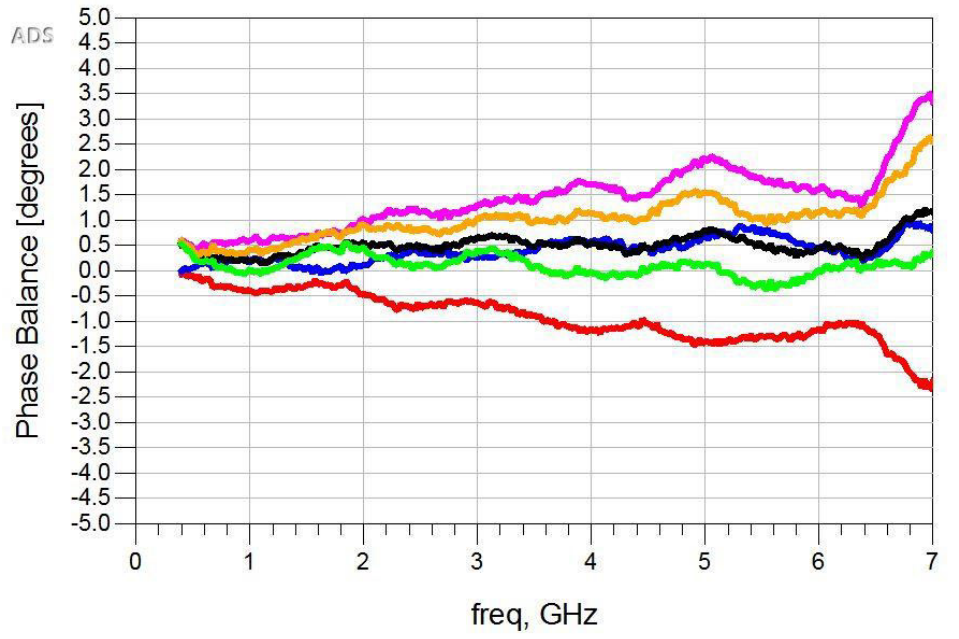
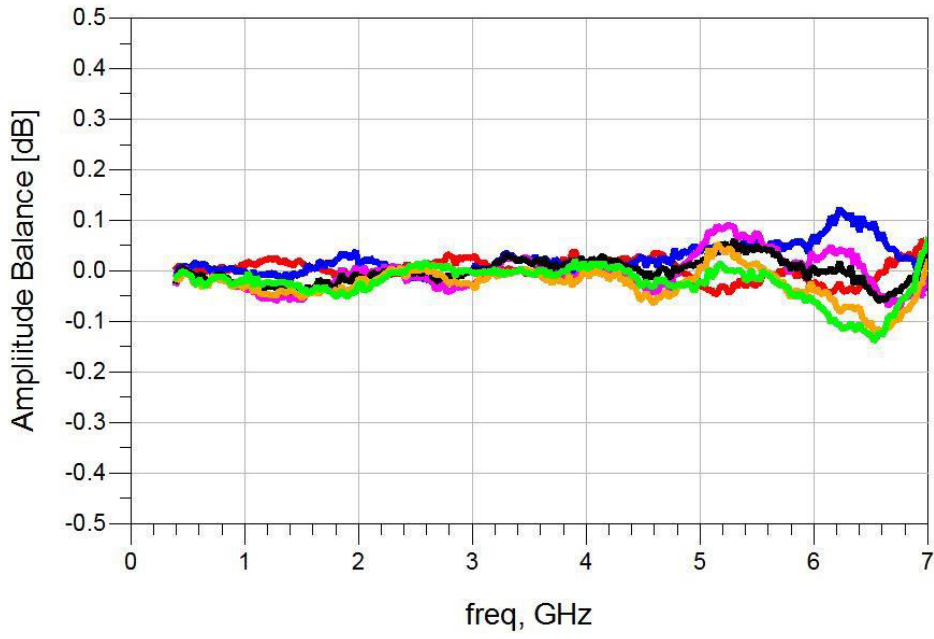
"Near" Ports are P2/P3 and P4/P5
All other combinations are "Far" Ports

Specifications (at Room Temperature):	
Frequency Range [GHz]	0.5 to 6
Insertion Loss [dB]	< 1.7
Near Port Isolation [dB] (1 to 6 GHz)	> 18
Near Port Isolation [dB] (0.5 to < 1 GHz)	> 15
Far Port Isolation [dB] (1 to 6 GHz)	> 22
Far Port Isolation [dB] (0.5 to < 1 GHz)	> 17
Input (Common Port) Return Loss [dB]	< -14
Output Return Loss [dB] (0.5 to < 1 GHz)	< -13
Output Return Loss [dB] (1 to 6 GHz)	< -16
Maximum Power as Splitter [Watts]	> 20*
Maximum Power as Combiner [mWatts]	= 50 **
Phase Unbalance [degrees]	+/- 2.5
Amplitude Unbalance [dB]	+/- 0.15
* maximum test setup power capability at CW frequency of 3.55 GHz	
** 0201 isolation resistor limitation when combining perfectly anti-phase signals	

Typical Device RF Performance:

Insertion Loss shown below includes ideal 4-way split loss of -6.0 dB.





Mechanical Dimensions (all dimensions are +/- 5 mils):

