



8-Way RF Splitter - Version 1 - Surface Mount - Broadband

Splitter Features:

- **BroadBand - 0.5 GHz to 7 GHz**
- **Low Loss - Less Than 2.6 dB at 6 GHz**
- **Excellent Amplitude/Phase Balance - 0.4 dB/7 Degrees at 6 GHz**
- **High Power - Greater Than 20 Watts As A Splitter**
- **RoHs Compliant**

Part Number:

- **BBTLine_8Way_V1_SMT**

Version 1 has all nine ports on one side of the device

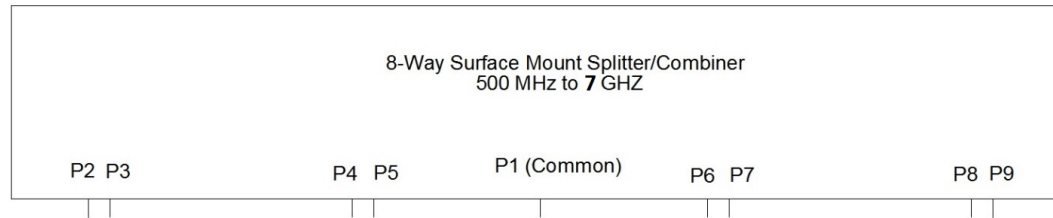
Description:

Shown below is a Patented (U.S. Patent 9,570,792) Broadband 8-Way Surface Mount (SMT) RF Splitter. This RF splitter is not a typical Wilkinson-style device, but a design which yields a more compact Power Divider with excellent low loss RF characteristics and High Power-Handling capability.



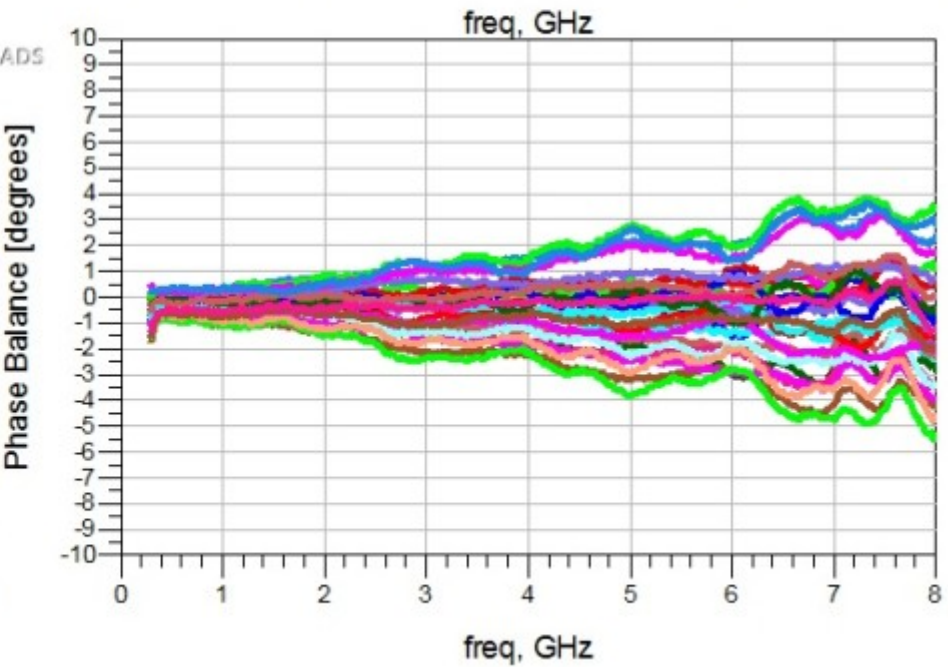
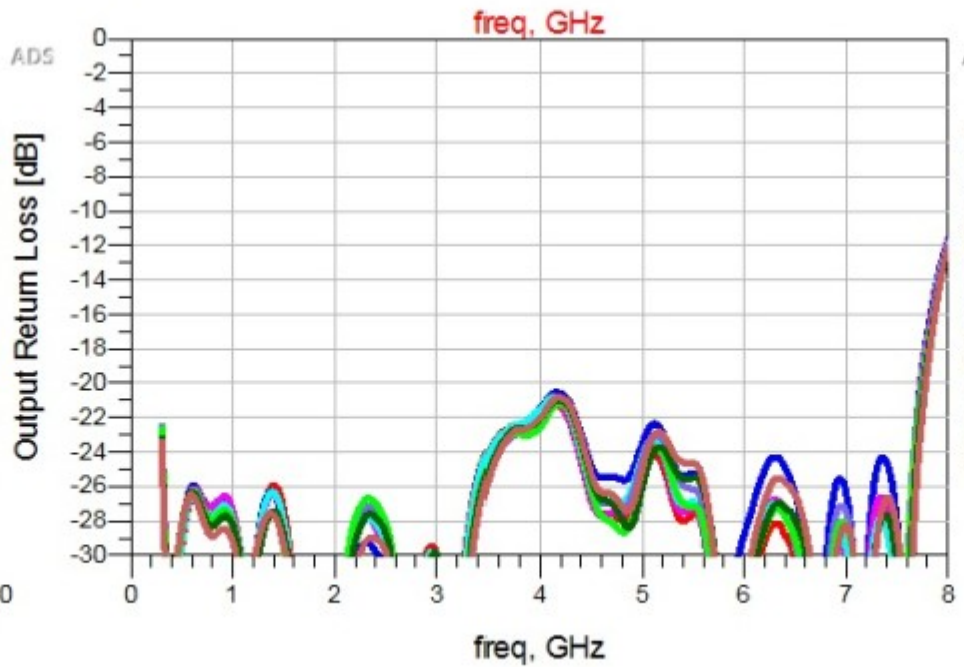
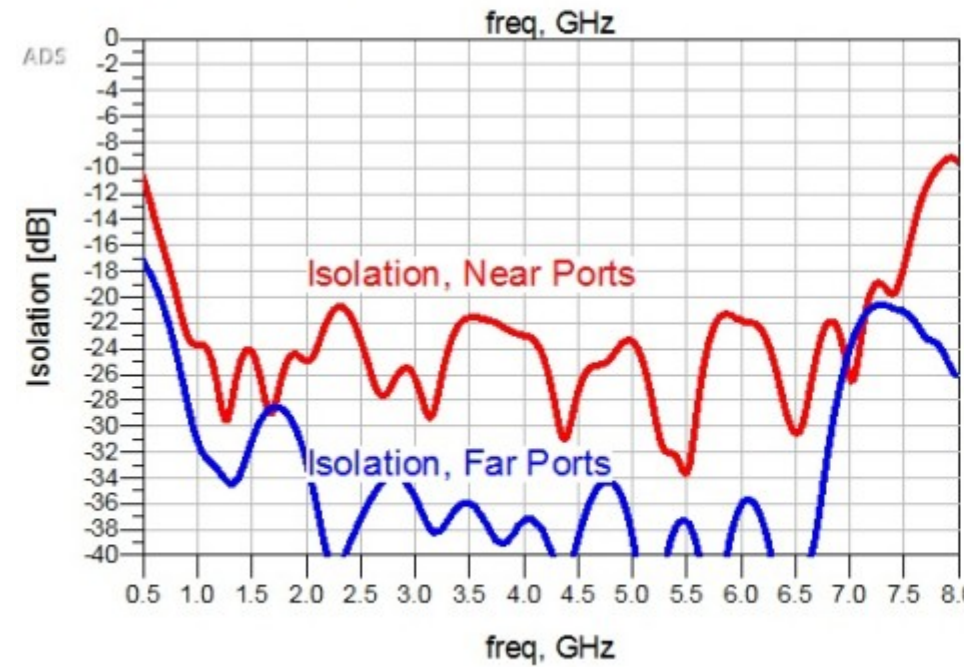
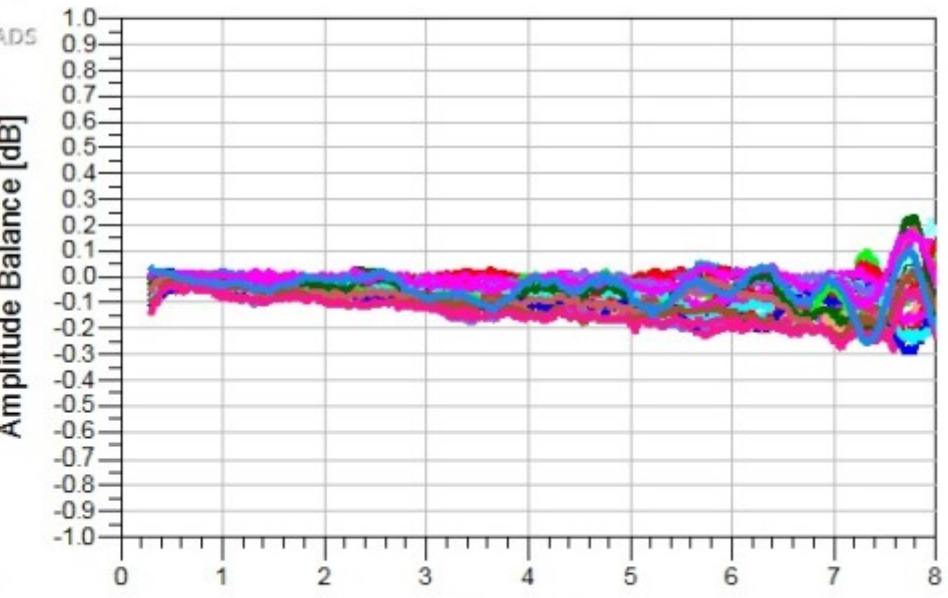
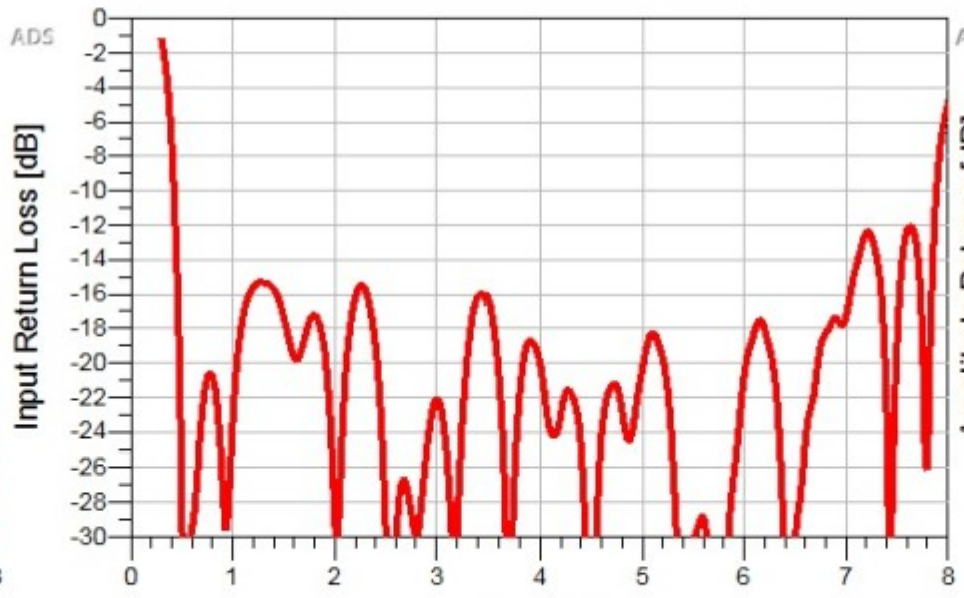
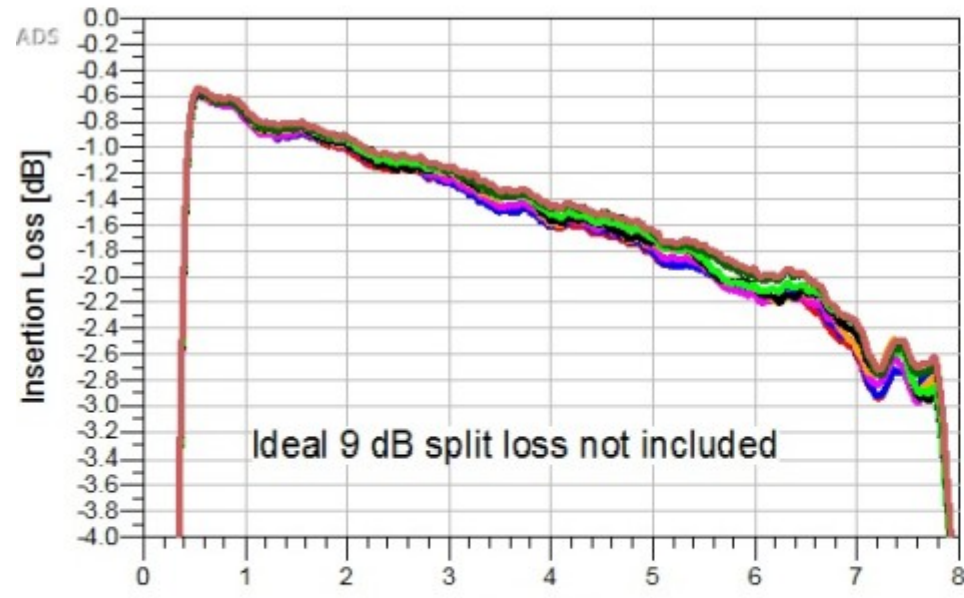
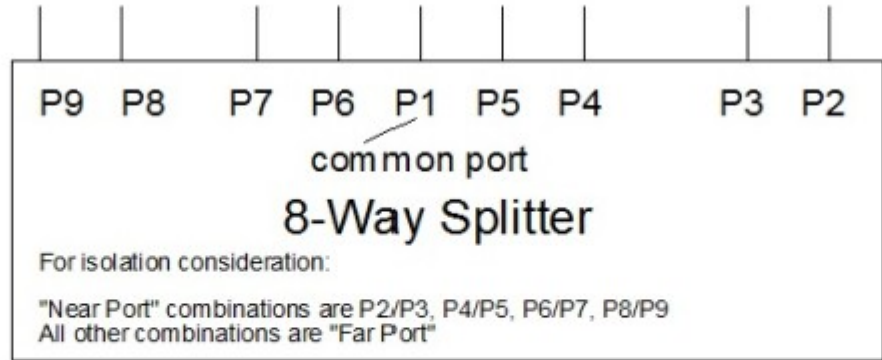
RF Specifications:

RF Port Definition:



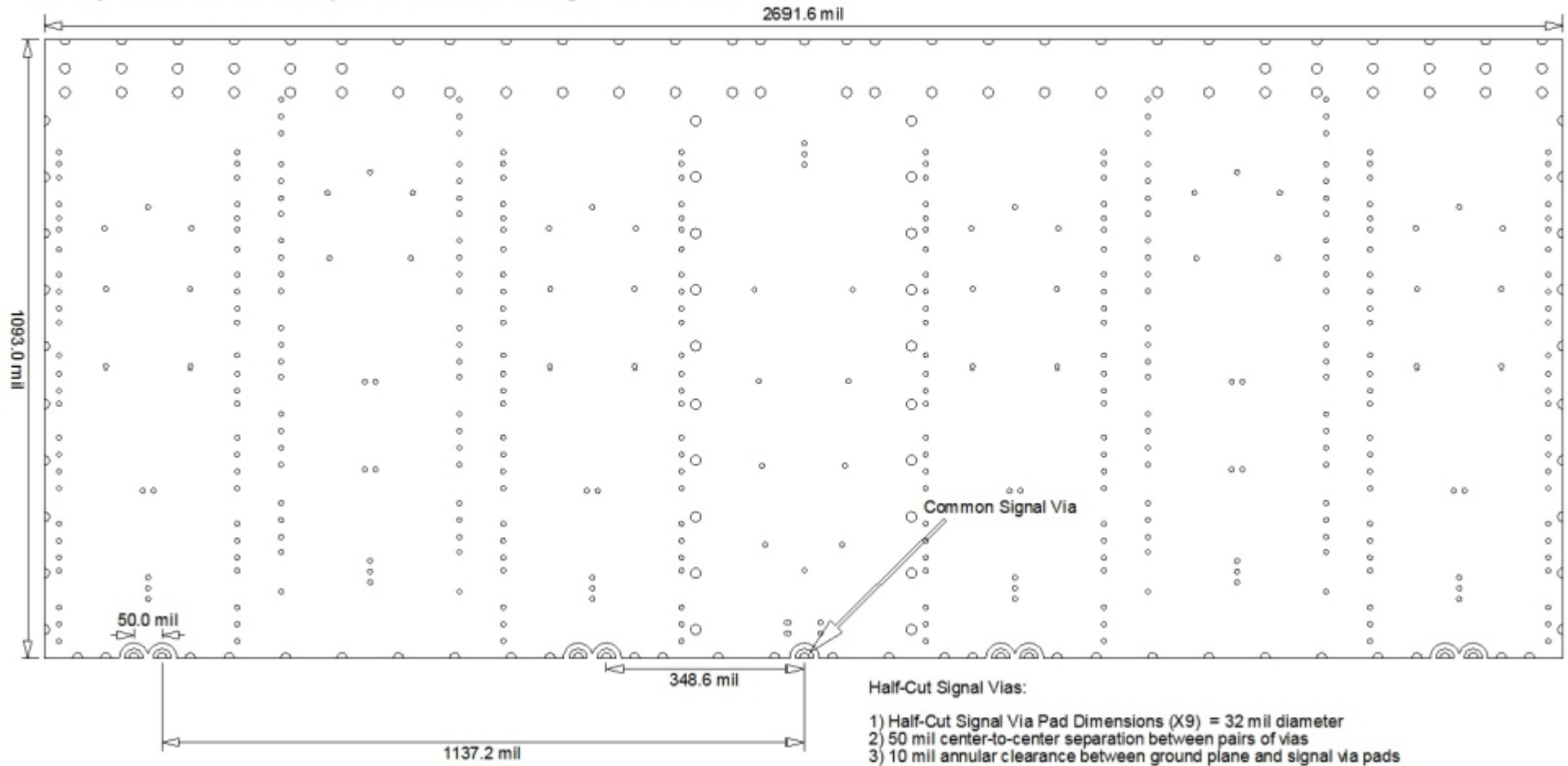
Specifications (at Room Temperature):	
Frequency Range [GHz]	0.5 to 7
Insertion Loss [dB] (@ 6 GHz)	< 2.6
Near Port Isolation [dB] (0.8 to 7 GHz)	> 20
Near Port Isolation [dB] (0.5 to < 0.8 GHz)	> 10
Far Port Isolation [dB] (0.875 to 6.9 GHz)	> 26
Far Port Isolation [dB] (0.5 to < 0.875 GHz)	> 16
Input (Common Port) Return Loss [dB]	< -14
Output Return Loss [dB] (1 to 6 GHz)	< -18
Maximum Power as Splitter [Watts]	> 20*
Maximum Power as Combiner [mWatts], Anti-Phase Signals	= 50 **
Maximum Power as Combiner [Watts], In-Phase Signals	> 20*
Phase Unbalance [degrees @ 6 GHz]	+/- 7
Amplitude Unbalance [dB @ 6 GHz]	+/- 0.4
* 20 watts is NOT a device limitation but a test setup limitation	
** internal 0201 isolation resistor limitation when combining perfectly anti-phase signals	
Operating Temperature Range: -55 to 125 degrees C	
Mass: < 6 grams	

Typical Device RF Performance:

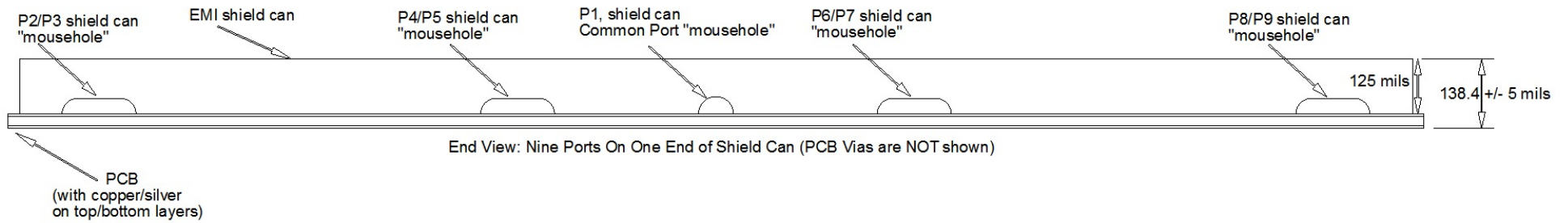


Mechanical Dimensions, Bottom Ground Plane View:

8-Way Surface Mount Splitter/Combiner Signal Via Locations:



Mechanical Dimensions, End View (PCB board vias are not shown):



An Evaluation Board with Male SMP Smooth-Bore Connectors is available as shown below:

