



BroadBand Surface Mount (SMT) 8-Way RF Splitter/Combiner

Features:

- BroadBand 0.5 to 7 GHz Operation
- Low Loss (<2.3 dB at 6 GHz)
- Excellent Amplitude/Phase Balance (+/- 0.3 dB, +/- 5°)
- RoHs Compliant
- High Power (>20 watts as splitter)

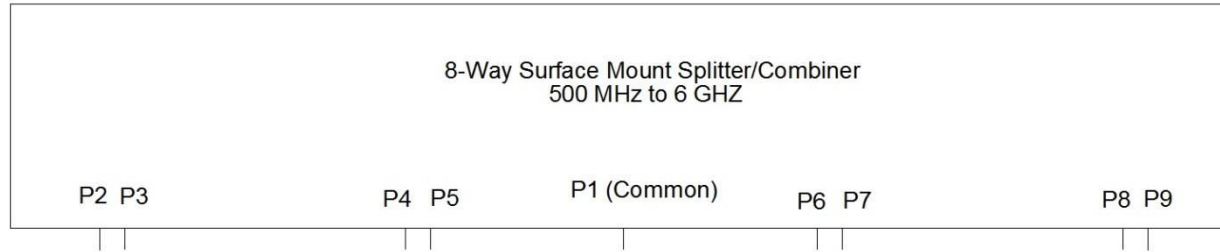
Datasheet Model Number = [BBTLine_8Way_SMT](#)

Description: Shown below is a patented (U.S. Patent 9,570,792) broadband 8-way surface mount (SMT) RF Splitter/Combiner. 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.



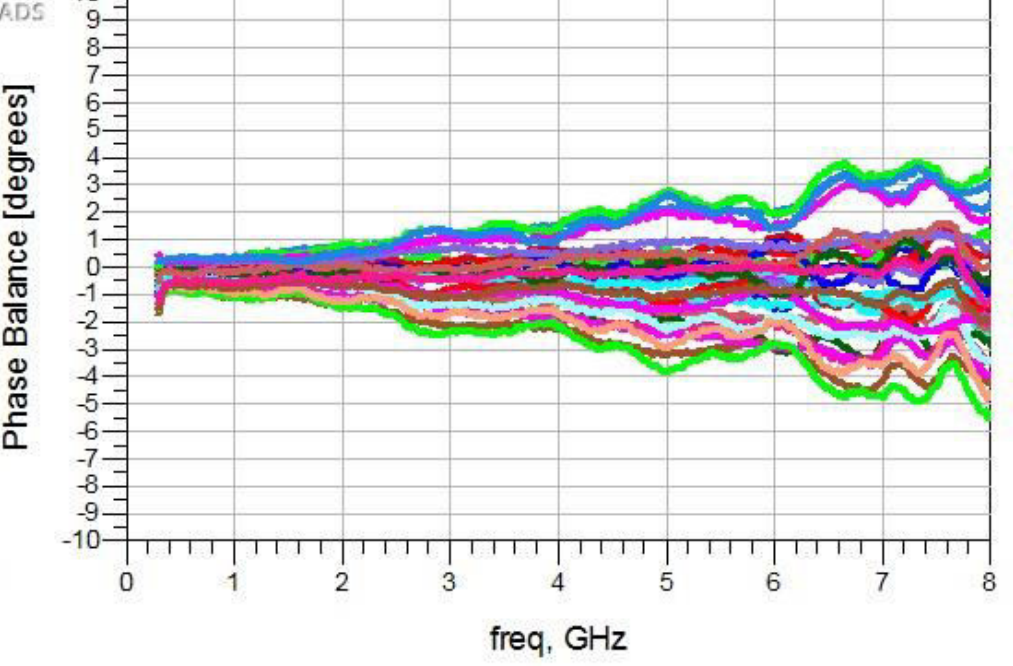
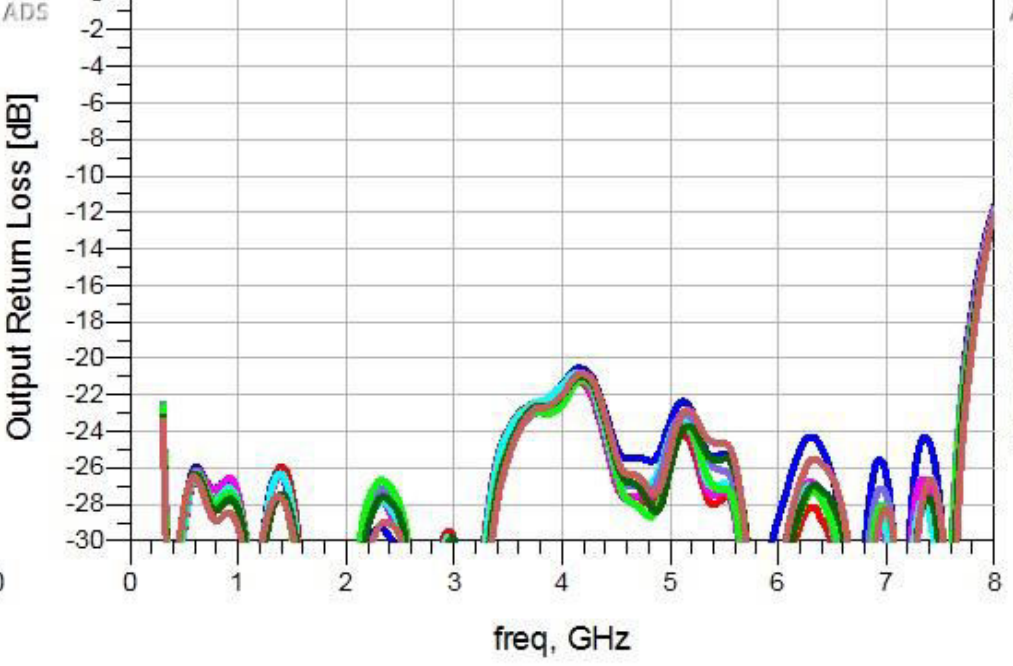
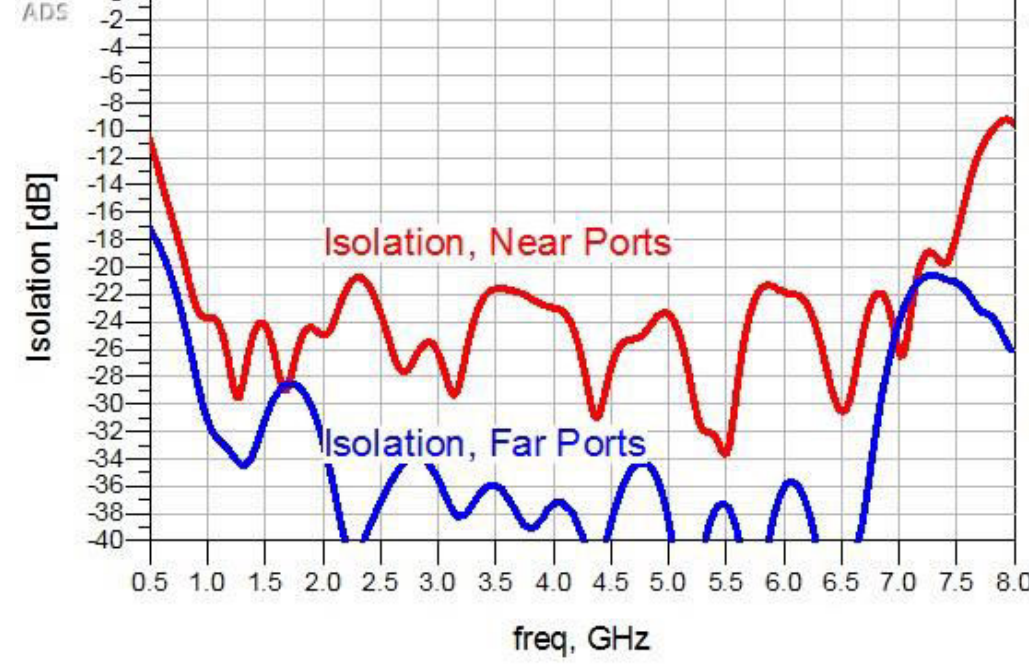
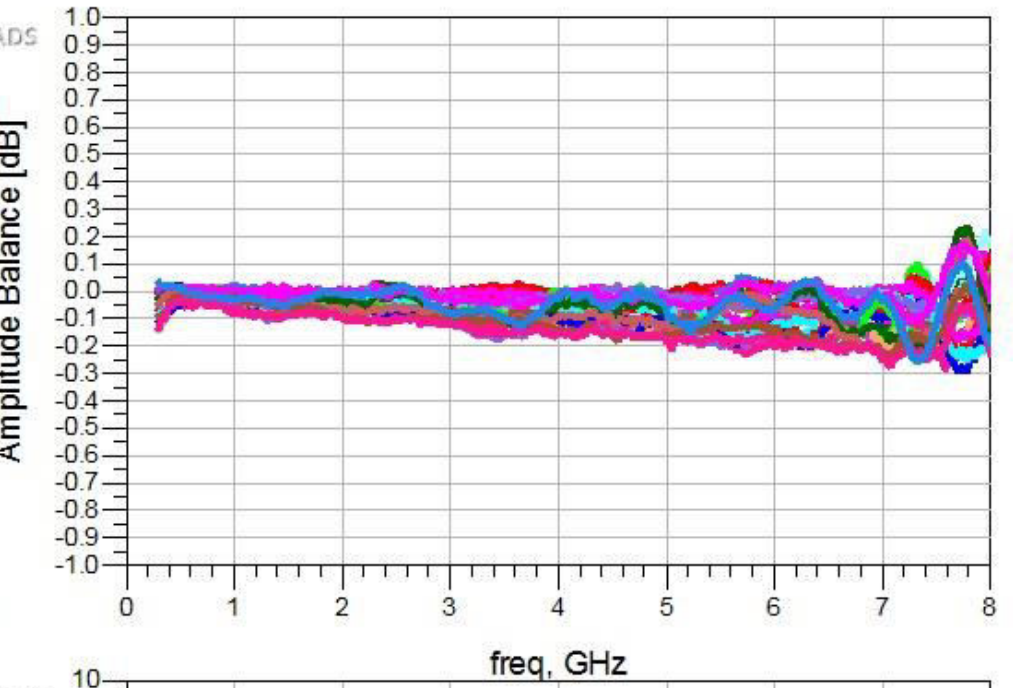
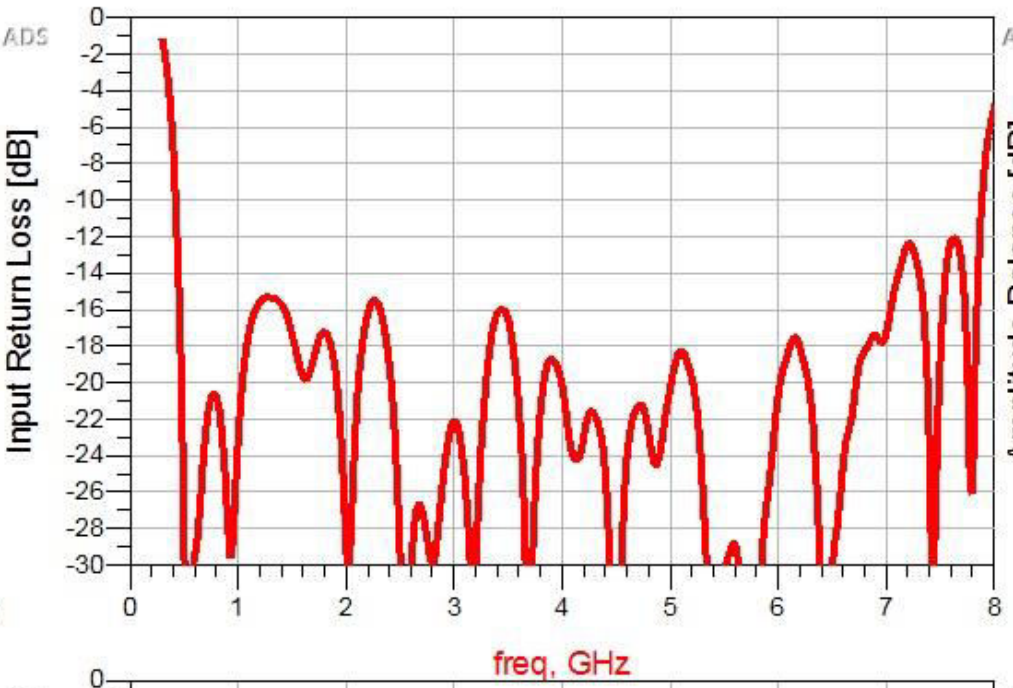
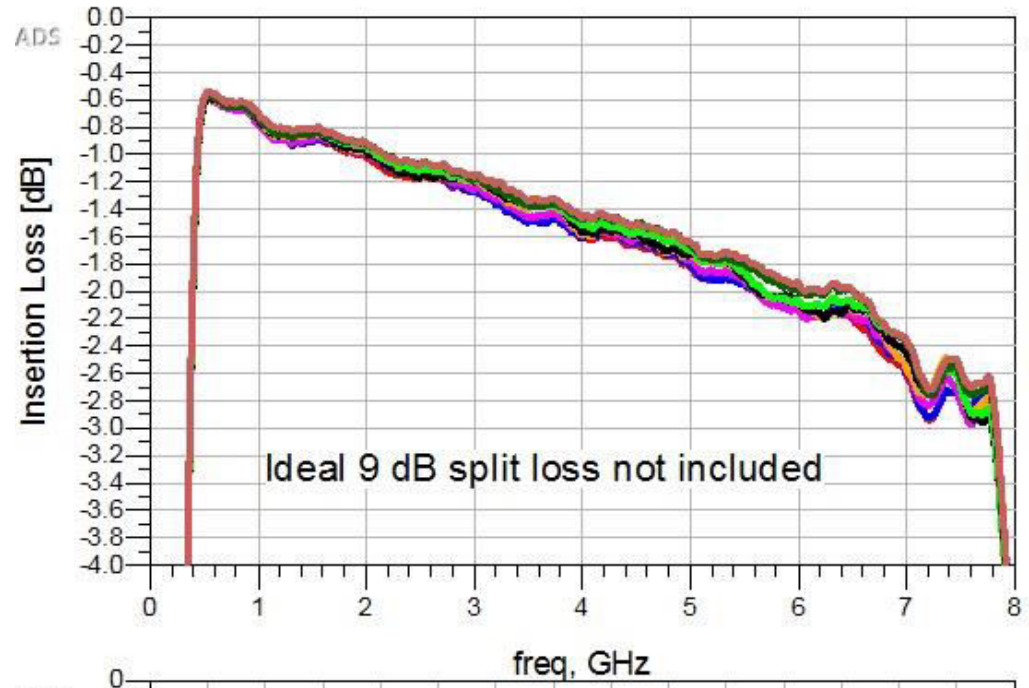
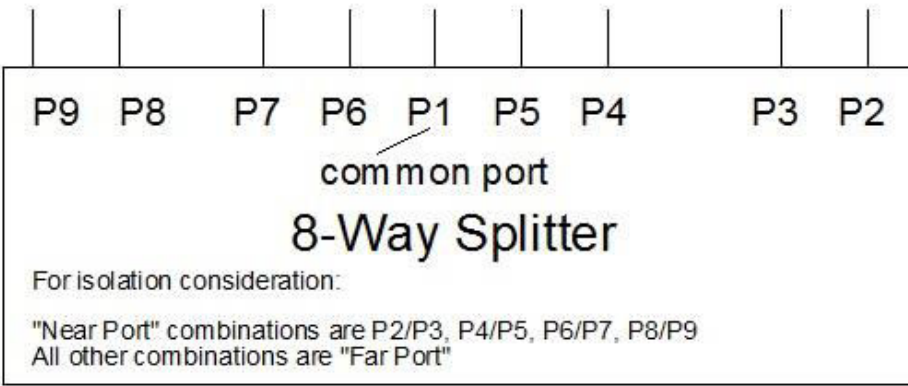
RF Specifications:

RF Port Definition:



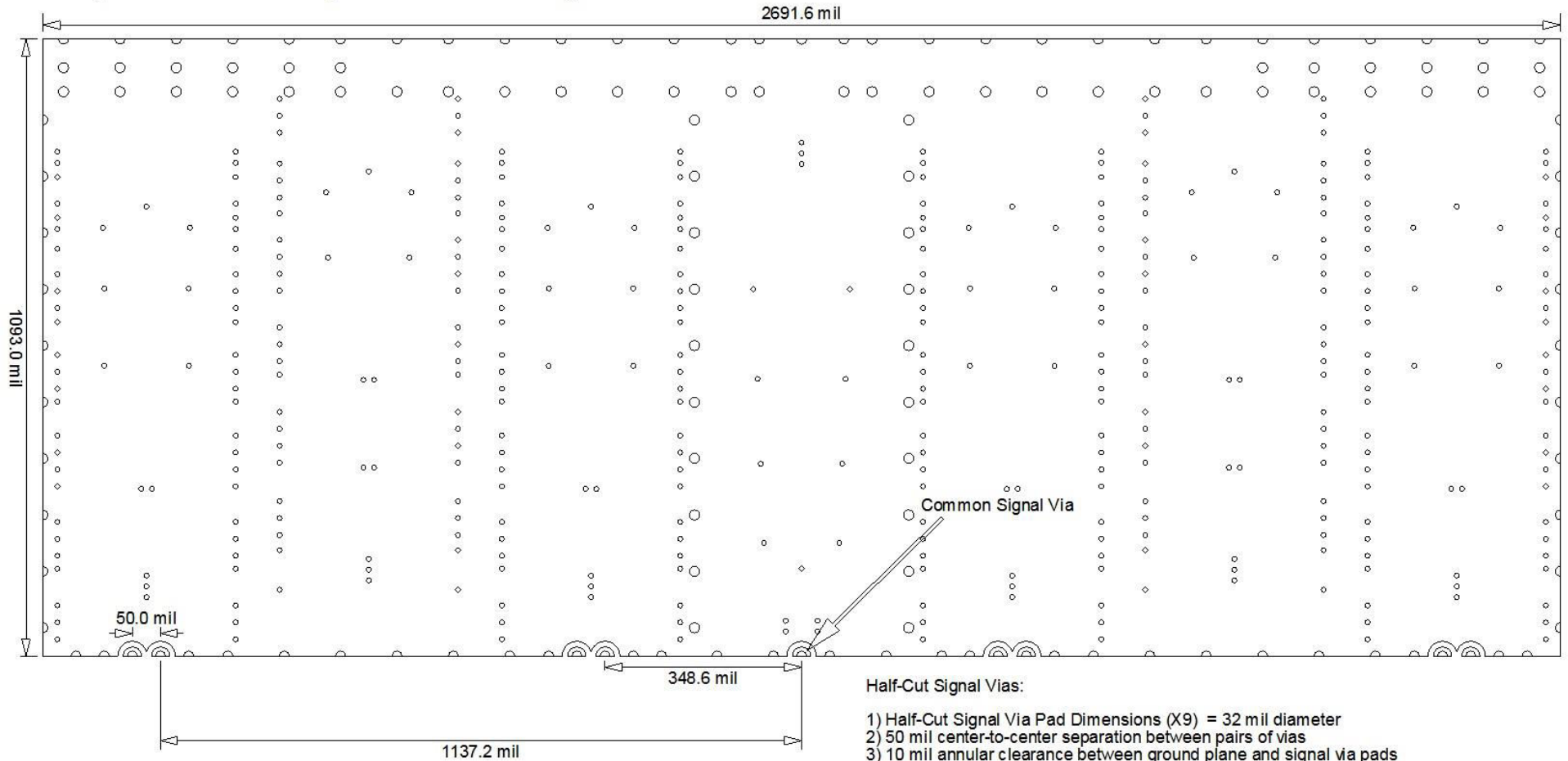
Specifications (at Room Temperature):	
Frequency Range [GHz]	0.5 to 7
Insertion Loss [dB] (6 GHz)	< 2.3
Near Port Isolation [dB] (0.8 to 7 GHz)	> 20
Near Port Isolation [dB] (0.5 to < 0.8 GHz)	> 10
Far Port Isolation [dB] (0.875 to 6.9 GHz)	> 26
Far Port Isolation [dB] (0.5 to < 0.875 GHz)	> 16
Input (Common Port) Return Loss [dB]	< -15
Output Return Loss [dB] (1 to 6 GHz)	< -20
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]	+/- 5
Amplitude Unbalance [dB]	+/- 0.3
* 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:

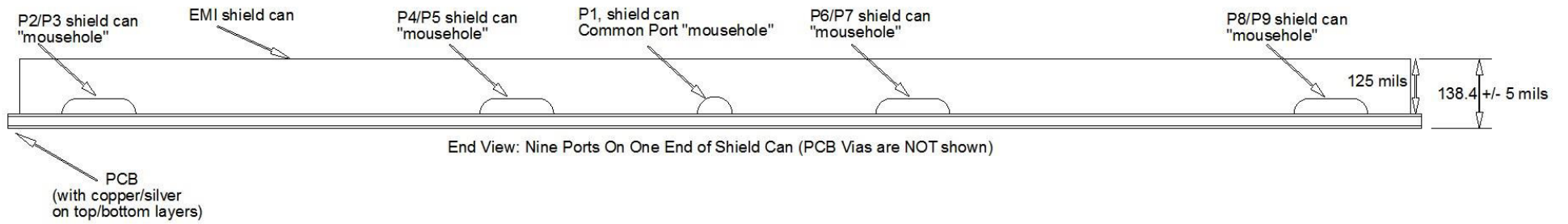


Mechanical Dimensions, Bottom Ground Plane View:

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



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



An Evaluation Board with SMP Connectors is available as shown below:

