

PCB Connector Evaluation Kits

SV Microwave is now offering key customers the chance to evaluate our PCB mount RF connectors on a high performance, custom designed evaluation test board. These test coupons allow our customers to measure and characterize the performance of the connector when launched to a matched landing pad. Available footprints accommodate most single port small form factor threaded interfaces from SMA through 1.85 mm and push-on connectors from SMP, SMPM and SMPS series. Contact your local representative today to arrange an evaluation kit or contact SV directly at marketing@svmicro.com.

Each coupon comes with a reference connector in the J2 position and the connector under evaluation in the J1 position. For example, Coupon L (Figure 1) is designed to test our SMPM edge launch connector. Test plots (Figure 2) with gated performance through the max operating frequency are provided.



Figure 1

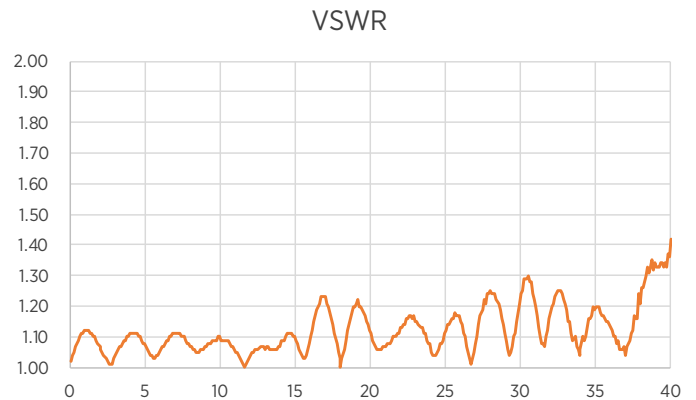


Figure 2

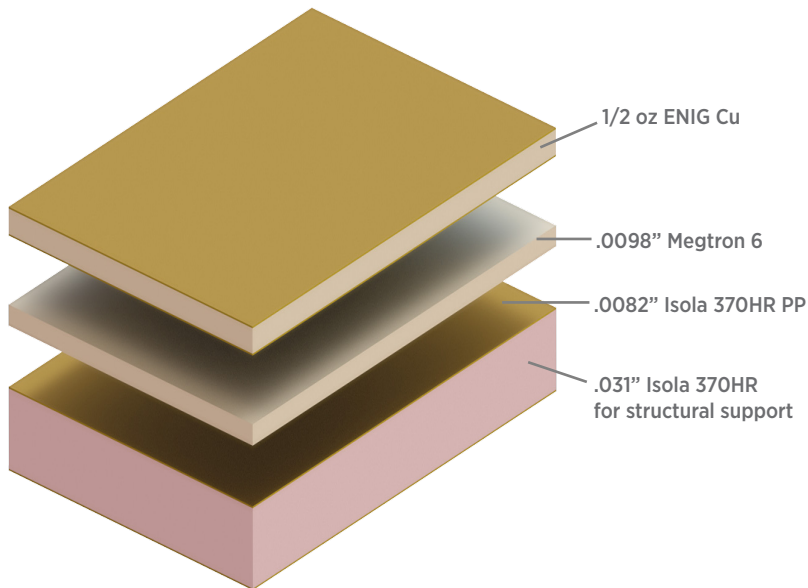


Figure 3

Our evaluation boards use a Megtron 6 core (Figure 3) and are designed to handle operating frequencies up to 67 GHz (depending on connector being measured) with mode free performance. Isola cores are used on lower layers as stiffeners.

Currently all evaluation boards available use microstrip traces (.020" trace width) on layer 1. Each board is serialized and comes with plotted data. For solder-on connectors, we use a 3 mil thick SN63 solder paste and reflow oven with 240 C max temp.

Top View



- (A) Microstrip Trace
- (B) Relief Cut-Outs at corners of mounting grooves to minimize gaps between connector edges and PCB edge
- (C) Footprint and grounding vias optimized for signal integrity

Bottom View



- J1 Connector under characterization
- J2 Reference Connector
- Each board serialized for future reference
- Recorded data retained at SV Microwave and sent to customer

Standard Connector Options with Available Eval Coupons

Image	Sample Connector	Suggested Part Number	Reference Connector
	SMP Surface Mount	1211-40004	Solderless Edge Launch*
	SMP Edge Launch	1211-66138	
	SMPM Surface Mount	3287-6101	
	SMPM Edge Launch	3211-60035	
	SMPS Surface Mount	3811-40023	
	SMPS Edge Launch	3811-40004	
	2.92mm Solderless Edge Launch*	SF1521-60107*	
	2.92mm LiteTouch**	SF1521-60115**	LiteTouch**

*Freq < 26.5 GHz, SF2921-61450 will be used
Freq > 26.5 GHz, SF1521-60107 will be used

**Freq < 26.5 GHz, SF2921-61506 will be used
Freq > 26.5 GHz, SF1521-60115 will be used

Eval boards were designed for performance up to 40 GHz. Configurations are available to 67 GHz on request.