

Southwest Microwave Unveils Ganged SSBB Multi-Pin Harness for 047 Cable

For over a decade, Southwest Microwave has offered the microwave industry our push-on SSBB Super Mini Board-to-Board product line. Unmatched in electrical performance, SSBB's compact footprint and mechanical stability has proven itself the superior option over legacy sub-miniatures in the market.

But with any established RF interconnect comes configuration expansion. In recent years, Southwest Microwave's SSBB Multi-Pin connectors have taken hold as a viable envelope.

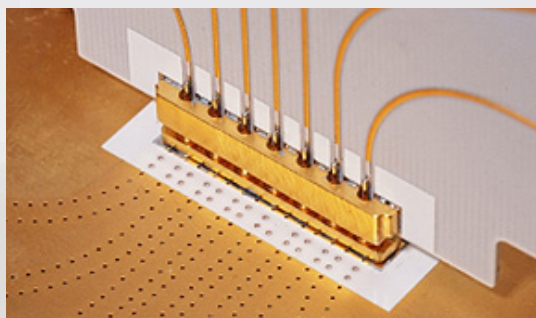


Fig. 1 - SSBB Multi-Pin Board-to-Board

These ganged SSBB units launch both vertically and horizontally up to 110 GHz, housing as many as 8 channels. SSBB's performance is reinforced by allowances in port misalignment up to .010" [.25 mm] axially and $\pm 10^\circ$ radially. Industry-minimum port spacing of .100" [2.54 mm] is further paramount in a compact multi-port package. These principals of performance, repeatability, and density drive Southwest Microwave's success in the sub-miniature arena. However, extending these principals further implores yet another form package – a ganged SSBB Multi-Pin cable harness.

DESIGN KEYPOINTS

At the forefront of any Southwest Microwave design is performance. Without signal integrity, no mechanical endeavor is worthwhile. Beyond performance, a ganged SSBB harness unit must perform the following at minimum:

- Captivate cabled SSBB-047 bullets (54070-001B)
- Mate with ganged SSBB Multi-Pin units (55060-XXXJ & 55061-XXXJ)
- Maintain captivation during mate cycles

However, two additional features ambitiously separate this Southwest Microwave design:

- No hardware – clamp mate
- Serviceable – cable extraction at end use

The design process yielded a truly user-first solution package. Unencumbered by hardware, its rugged clamp mate is tailored to repeatable measurements on the fly.

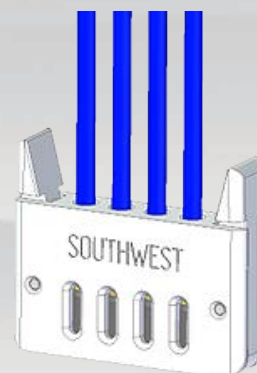


Fig. 2 - SSBB Gang Harness

Configurable up to 8 ports, the harness is compatible with ganged SSBB Multi-Pins, both edge launch and vertical surface mount.

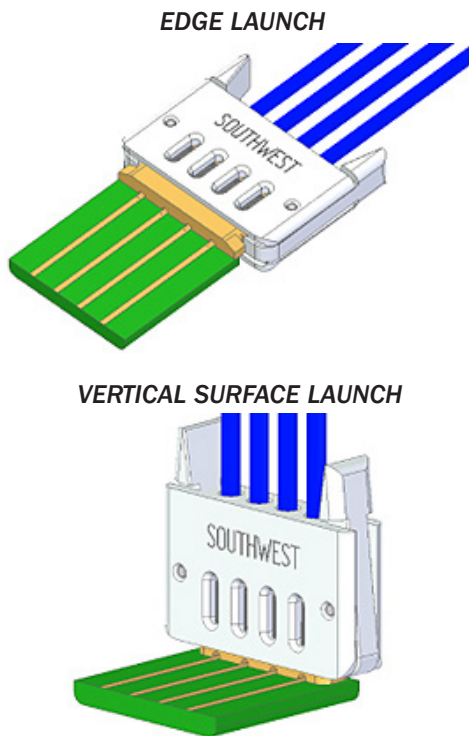


Fig. 3 - Mated Harness

Without hardware, the RF mate is held entirely accountable to the design, rather than installation finesse. Spring loaded lever arms secure the harness block to mating SSBB Multi-Pin units via clamping grooves.

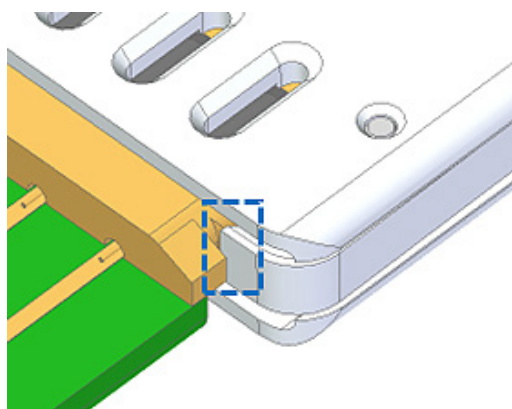


Fig. 4 - Clamping Groove

Serviceability is granted to the user by extraction slots along each port. Release of the retaining piece only requires a common electronics flathead to pry loose. Cables can thus be reconfigured and reworked by the user.

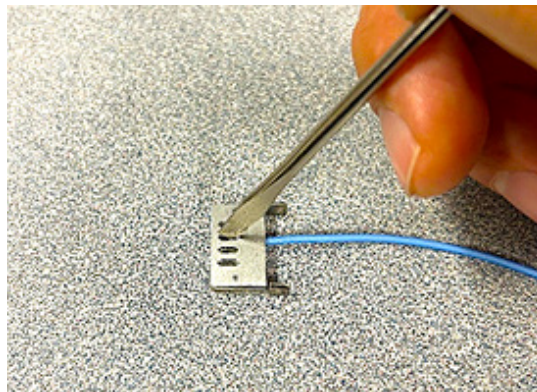


Fig. 5 - Cable Extraction

AN ANTICIPATED ARRIVAL

Without compromise to performance, a rugged, repeatable, and compact gang harness now compliments Southwest Microwave's popular SSBB platform. Customers will especially appreciate its built-in serviceability, with the freedom to reconfigure and rework cables in-house. Striking the proper balance of hands-free and hands-on, Southwest Microwave offers a unique and refreshing addition to the multi-port sub-miniature market.



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