



TR Multicoax Series 20/40/70

40 GHz Signals on Consumer Product Test System

Market: Semiconductor
Application: Functional Test

Challenge

A major consumer product company was developing sub-system that required 40GHz+ signals to come off the board and out to instrumentation for functional testing of production units. Test time needed to be short. The high-speed channels created a great challenge with SMA/SMP connectors due to the system's limited space constraints. Also connector wear led to cycling and repeatability issues resulting in false failures.



"We don't have to worry about repeatability issues of soldered components anymore."

- Signal Integrity Engineer

Solution

Ardent recommended a Quick latch, compression mount version of TR which increased first pass yield rates on functional test of the sub-system. This improved repeatability of measurements and proved to be a great solution for high volume testing. This design greatly reduced the cost of the board with no reflow and no wasted parts.

Benefits

- Improved repeatability of measurements
- Time saving solution for high volume testing
- Greatly reduced the cost of the board with no reflow and no wasted parts

More Information

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Specifications

Electrical Specifications

Frequency Range	DC to 70 GHz
Return Loss ¹	-18 dB through 70 GHz
Insertion Loss ²	-1.5 dB through 40 GHz, -3 dB through 70 GHz
Crosstalk	-70 dB through 70 GHz
Impedance ¹	50 Ω +/- 2.5 Ω
Phase Matching	+/- 2 ps standard

Mechanical Specifications

Pitch	2.54 mm
Cables	.047" diameter cables ³
Connectors	SMA, SMK (2.92 mm), or V (1.85 mm)
Cable Length	6"/152 mm, 12"/304 mm, 24"/608 mm
Insertion Life	1,000+ mating cycles
Field Replaceable Interface	Yes
Footprint	Microstrip & Stripline compatible

Notes: ¹Largely a function of PCB design. ²Measurement includes 3" of cable. ³Consult factory for additional cable options.

Footprints

