



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.

Solution



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

- Signal Integrity Engineer

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 subject to change without notice US Patent Numbers 6,787,709, 6,909,056, 7,126,062, 7,556,503, 8,926,342. © Ardent Concepts 2016 Revision 4/2016



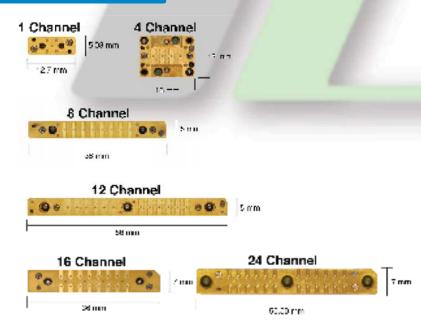
Specifications

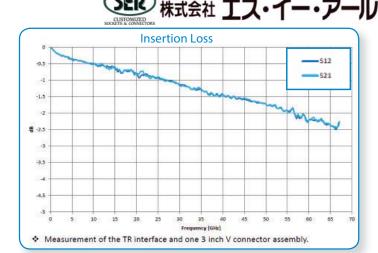
| Electrical Specifications | | |
|-----------------------------|--|--|
| Frequency Range | DC to 70 GHz | |
| Return Loss ¹ | -18 dB through 70 GHz | |
| Insertion Loss ² | -1.5 dB through 40 GHz, -3 dB through 70 GHz | |
| Crosstalk | -70 dB through 70 GHz | |
| Impedance ¹ | 50 Ω +/- 2.5 Ω | |
| Phase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

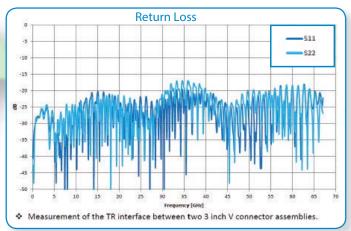
Notes: ¹Largely a function of PCB design. ²Measurement includes 3" of cable. ³Consult factory for additional cable options.

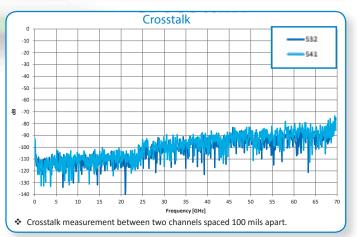
Footprints





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