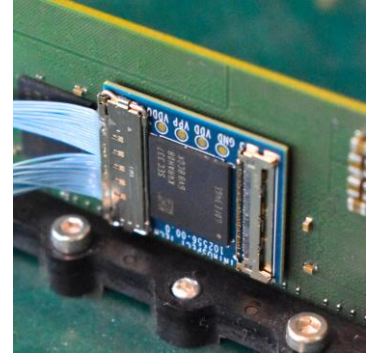


OSCILLOSCOPE PROBING SOLUTIONS

Integrated-Tip Interposer for Memory Devices

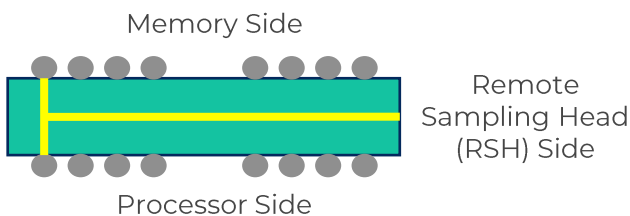
High-impedance, high-bandwidth signal access solution



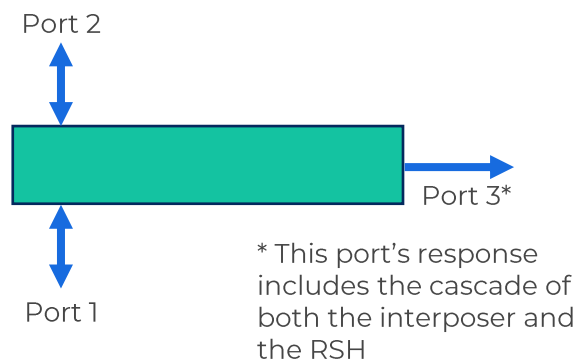
Integrated Tip Under Each Ball in a DDR, LPDDR, or GDDR Memory

Introspect's Integrated-Tip Interposers are designed to enable probing of next-generation memory interfaces running at ultra high transfer rates. Sitting underneath a memory device, the interposers provide a through path for signals between a processor and the memory device, while also generating a copy of the signal for oscilloscope or protocol analyzer probing. By integrating the high-impedance tip inside the interposer, this family of memory interposers creates a high-fidelity copy of the signal under test – in the analog sense – and solves the issue of reflections that often occur in traditional memory interposers.

PHYSICAL CONSTRUCTION



THREE-PORT NETWORK MODEL



Typical Application: Oscilloscope-Based Electrical Compliance

Footprint for memory device

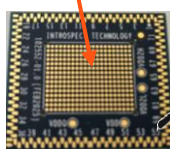


Figure 1: Setup of the integrated-tip interposer with the RSH connected to a high-bandwidth oscilloscope.

Selection of Interposer Packages

NAME	DESCRIPTION	BALLS	PACKAGE TYPE	RISER	NOTES
LP5-315-O	LPDDR5 memory interposer	315	1ch x 16	Yes	Access to all pins for oscilloscope probing
LP5-315-P	LPDDR5 memory interposer	315	1ch x 16	Yes	Compatible with Introspect Protocol Analyzer
LP5-441-O	LPDDR5 memory interposer	441	4ch x 32	Yes	Access to all pins for oscilloscope probing
LP5-441-P	LPDDR5 memory interposer	441	4ch x 32	Yes	Compatible with Introspect Protocol Analyzer
LP5-496-O	LPDDR5 memory interposer	496	4ch x 16	Yes	Access to all pins for oscilloscope probing
LP5-496-P	LPDDR5 memory interposer	496	4ch x 16	Yes	Compatible with Introspect Protocol Analyzer
DDR-78-O	DDR5 memory interposer	78	1ch x 4/x8	Yes	Access to all pins for oscilloscope probing
DDR-78-P	DDR5 memory interposer	78	1ch x 4/x8	Yes	Compatible with Introspect Protocol Analyzer
DDR-RDIMM	Full RDIMM interposer	N/A	228 pin	Yes	Compatible with Introspect Protocol Analyzer
LP6-357-O	LPDDR6 memory interposer	357	TBD	Yes	Coming soon

Typical Performance

