

UFS 4.0

Protocol Analysis & Precision Probing Solutions



PGY-UFS 4.0-PA UFS 4.0 Protocol Analyzer is an industry first UFS 4.0 Protocol Analyzer which is launched after testing with real world UFS 4.0 DUT. The Protocol Analyzer has multiple features to capture and debug communication between host and design under test. It supports instantaneous decoding of the UFS layer, UniPro layer, and MPHY layer with the flexibility to correlate decoded data across these protocol layers.

PGY-UFS 4.0-PA supports PWMG1 to HSG5B data rates. Powerful hardware-based protocol aware trigger capabilities enable the user to capture specific event. User can set trigger on any PACP packets, UniPro packets or UFS packet contents. PGY-UFS 4.0-PA unit has 16GB acquisition memory and can be upgradable upto 64GB. Trigger-in and Trigger -out are supported. The active probes used for probing UFS 4.0 signals are powered from the protocol Analyzer hardware unit. PGY-UFS 4.0-PA is compact, easy to use and portable unit makes it very convenient use in your lab.

UFS 4.0 Protocol Analysis Software



UFS 4.0 Protocol Analysis Software offers analysis UFS 4.0 Protocol packets as specified in the UFS 4.0, MPHY, UniPro and JEDEC specifications. Software is capable decoding live as well offline protocol data. The software also provides Multiview with correlation of data between UFS, UniPro and MPHY layer. Analysis features of the software makes it convenient find any errors in the Protocol event. Search and Filter capabilities makes it convenient to look for specific information.

MPHY Is embedded physical layer interface. There is no connector between the host and device. During the emulation and prototyping stage of the product development host and device are connected using a high frequency bandwidth SMPM Coax cable. In order to probe the MPHY Signals in different development platform, Prodigy Technovations developed different probing solution to access MPHY Signals. Currently Prodigy Technovations providing four different Probing solutions.

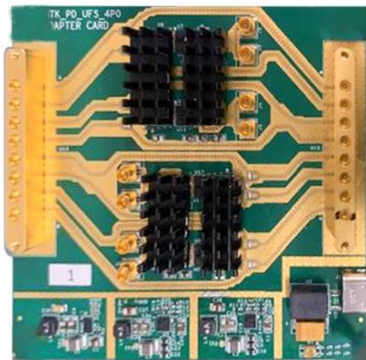
Solder-in UFS 4.0 probe tips



Solder-in probe tips that can be soldered directly to test pads between the UFS host and device. This probe tip has high analog bandwidth to boost the HSG5B (23.32Gbps) signals. Active circuit in probe tip efficiently drives the low power MPHY signal to UFS 4.0 Protocol Analyzer for error free Protocol Analysis at UFS 4.0 speeds.

SMPM Probe tips

Many of the UFS 4.0 development platforms have SMPM connector to access the MPHY Signals. To probe such device, Prodigy Technovations offers SMPM probe tips. SMPM probe tips has mating SMPM connector with DUT. This makes it convenient connect to the DUT and analyze UFS 4.0 Protocol data.

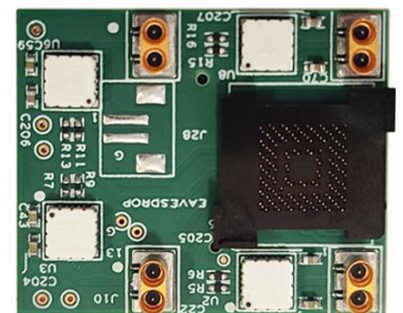


UFS 4.0 Power Divider Interposer

Pre-silicon development platforms such as emulation or prototyping platforms are connected using SMPM coax cables. There is no provision to solder the probe tips to access the MPHY signals. To probe pre-silicon development platforms, Prodigy Technovations offers industry leading UFS 4.0 high bandwidth Power divider interposer. Interposer can be placed between the host and device and to access the MPHY signals for UFS 4.0 Protocol Analysis.

Raised PCB Interposer

In some DUT, UFS device is soldered to BGA pads without access to MPHY Signals. To address this requirement, Prodigy Technovations offers raised PCB interposer. This enables the user to place the device in gripper socket or solder directly to BGA pads in raised PCB interposer. Raised PCB interposer also provides clearance to nearby components so that it can be easily soldered to DUT UFS BGA pads. This interposer has integrated probe to access MPHY signals for UFS 4.0 Protocol Analysis.



Customized Probe tips

Prodigy Technovations also provides efficient high-performance customized probing solutions for UFS 4.0. If existing probing solutions doesn't meet the need, Prodigy can develop custom probing solution. The custom probing solution will ensure signal integrity at HSG5B data rate and easy to use the UFS 4.0 Protocol Analysis Test setup. We collaborate with your company by taking inputs for custom design of the probe tips. This solution is delivered on order basis only.

