

Gore's "UHD" Interconnect System For Cascade Microtech Pyramid™ Probe Applications

Objective

GORE's "UHD" (Ultra High Density) INTERCONNECT SYSTEM provides increased packaging density (0.120" signal centers), at high data rates (6 GHz + capable), with fast rise time performance (20% / 80% ~ = 55pS). The interconnect system consists of PCB mounted interposers / headers and low-loss coaxial assemblies which can be ganged together in multi-position housings.

PCB Mounted Interposers/Headers

The PCB header is comprised of a single interposer or multiple interposers ganged using a multi-position header (1x4 and 1x8). Signal spacing within each header is 0.120". Headers can be stacked "side-to-side" or "end-to-end" as shown in the figures on the back of this page.

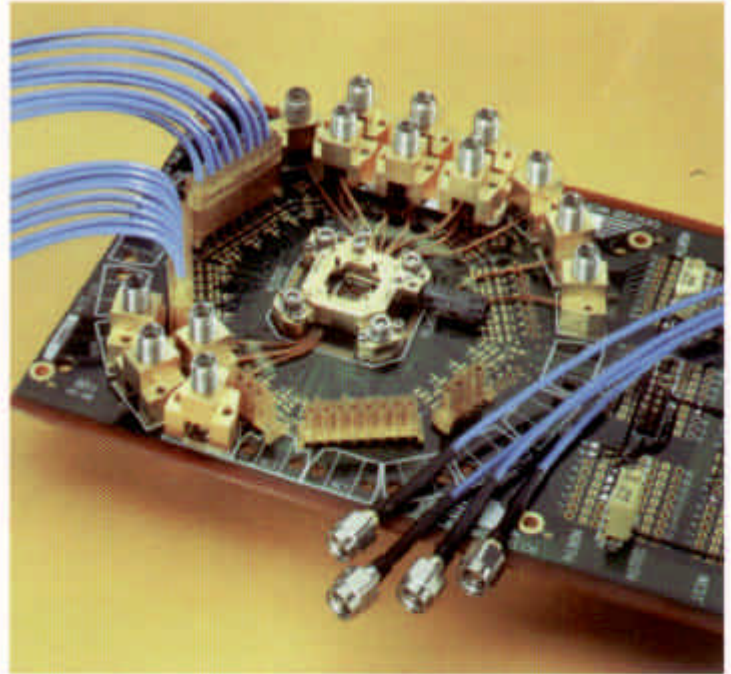
Coaxial Assemblies/Housings

The interconnect coaxial assemblies come standard at a length of 48" but can be manufactured to your desired length and can consist of either "UHD to UHD" or "UHD to SMA-P (Pin)" assemblies using 50 ±1.0 ohm or 50 ±0.5 ohm low-loss coaxial cable.

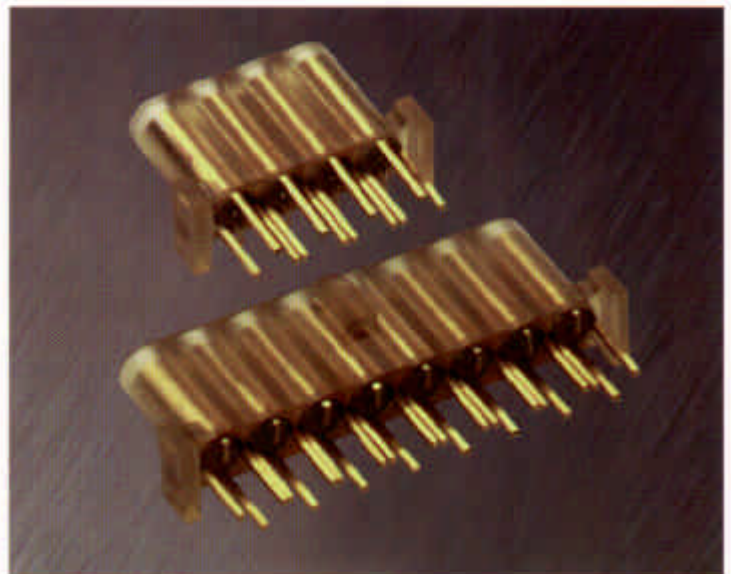
Typical insertion loss is 0.90 dB per foot or less through 6 GHz for the ±1.0 ohm version and 0.75 dB per foot or less through 6 GHz for the ±0.5 ohm version. The assemblies are available as single lines or ganged into housings (1x4 and 1x8) which accommodate the "UHD" connectors. Assemblies are also time matched within ±25ps (See table on back for part numbers and configurations).

Special Configurations

While the "UHD-UHD" and "UHD-SMA-P" assemblies provide for the majority of the applications, and are certainly the most cost effective solutions, other alternatives to the "SMA-P" will be entertained in conjunction with the UHD connector ("UHD to MCX", "UHD to MMCX", etc.). Please contact your local Cascade Microtech representative for part numbers and pricing. When inquiring about special configurations please be sure to carefully define the connector in question as well as your expected performance specifications. Actual electrical performance may vary considerably from that stated above and displayed on the back of this page for the "UHD to SMA-P" and "UHD to UHD" constructions based on the performance of the alternative connector chosen.

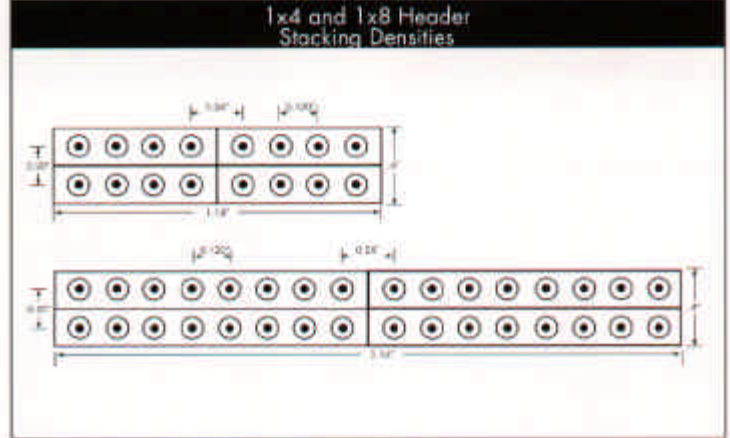
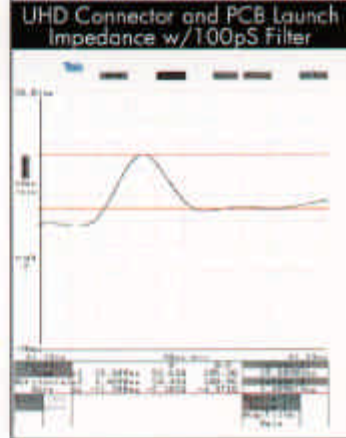
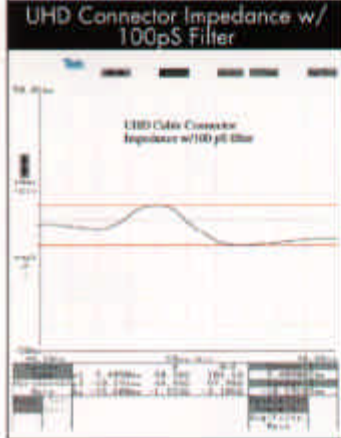
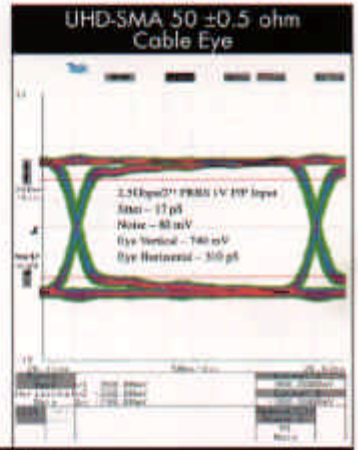
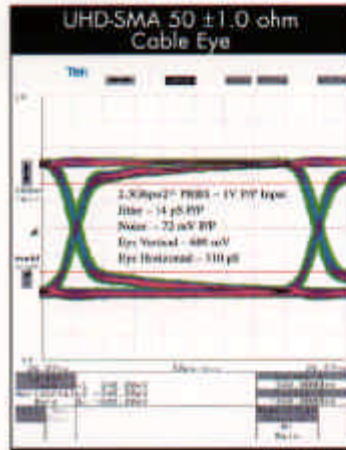
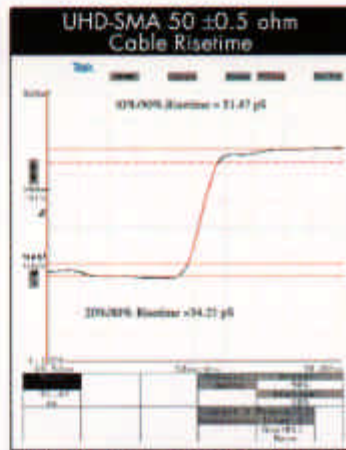
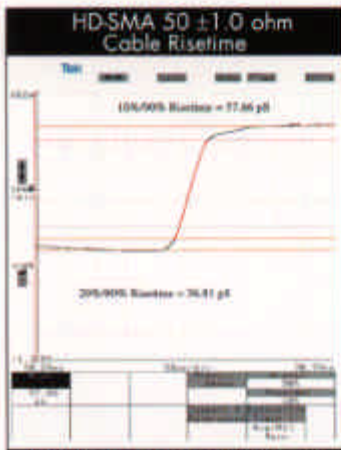


Pyramid Probe Card



1 x 4 and 1 x 8 UHD Surface Mount Headers





UHD Configurations and Part Numbers

- HFN1071 1x1 Surface Mount Interposer (thru via grounds)
- HFN1074-C-K 1x4 Surface Mount Header (thru via grounds)
- HFN1074-G-K 1x8 Surface Mount Header (thru via grounds)
- HFN1080-C 1x4 Housings to Gang UHD Cables
- HFN1080-G 1x8 Housings to Gang UHD Cables
- HFN1058-X-L 1x1 UHD to UHD Ass'y
- HFN1066-X-L 1x1 SMA-P to UHD Ass'y

- HFN1082-C-L 1x4 Ganged UHD to UHD - 50±1 ohm Cbl.
- HFN1082-G-L 1x8 Ganged UHD to UHD - 50±1 ohm Cbl.
- HFN1083-C-L 1x4 Ganged UHD to UHD - 50±.5ohm Cbl.
- HFN1083-G-L 1x8 Ganged UHD to UHD - 50±.5ohm Cbl.
- HFN1084-C-L 1x4 Ganged UHD to SMA - 50±1ohm Cbl.
- HFN1084-G-L 1x8 Ganged UHD to SMA - 50±1ohm Cbl.
- HFN1085-C-L 1x4 Ganged UHD to SMA - 50±.5ohm Cbl.
- HFN1085-G-L 1x8 Ganged UHD to SMA - 50±.5ohm Cbl.

* = length of Assembly 'X' = Cable Type (A= 50 ±/1 ohm; B = 50 ±/0.5 ohm)
 'C' = selection of signal pins vs. key 'K' = Solder Key 'A' = Away from Key

