

Testing

DLI has precision measurement capability up to 67GHz with multiple vector network analyzers. All filters are coplanar RF probed with either 450 or 750 micron pitch probes. The pitch choice is dependent on the device's operating frequency and mounting option.

Custom fixturing for each device is typically employed. The fixturing will match the channel width and cover height of the cavity in which the filter will be placed. These housing dimensions are also taken into account during the design phase. This allows

for continuity between filter modeling, measured data, and actual use environments.

Fixturing is not as critical in the case that DLI provides a filter with an integral cover. The housing dimensions are set by the type of cover that is employed [sheet metal or PWB].

DLI also has auto-probe capabilities for plate level testing. This allows for rapid RF probing for high volumes of filters.

RF test station and Network Analyzer



Testing Notes

The graph below is a demonstration of the importance of proper grounding and channelization of filters. Typically chip and wire filters attached directly to a ground plane with conductive epoxy are capable of the highest rejections. This is the case for the filter data presented below.

Complete channelization and shielding was employed and better than 100dB of attenuation was measured.

Sample filter epoxy mounted to shim in connectorized, shielded housing

