

Measurement reproducibility in frequency response measurement of GI-POF

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Third-party testing cooperation

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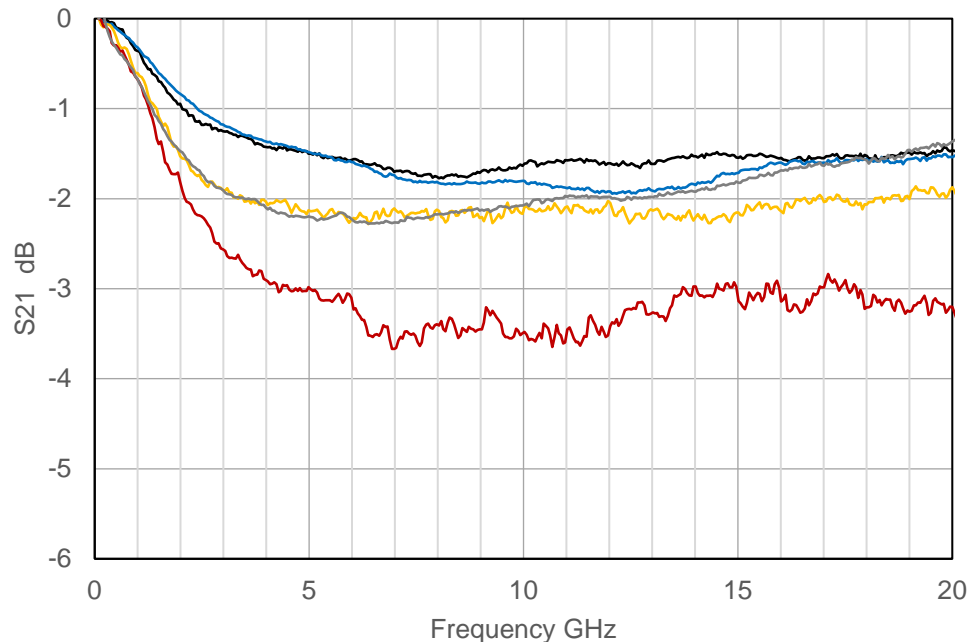
IEEE802.3dh Ad hoc meeting November 1st, 2023

Measurement reproductivity in frequency response measurement @850 nm

I will explain the variation range of the frequency characteristics that was asked in the last Ad hoc meeting on October 18th.

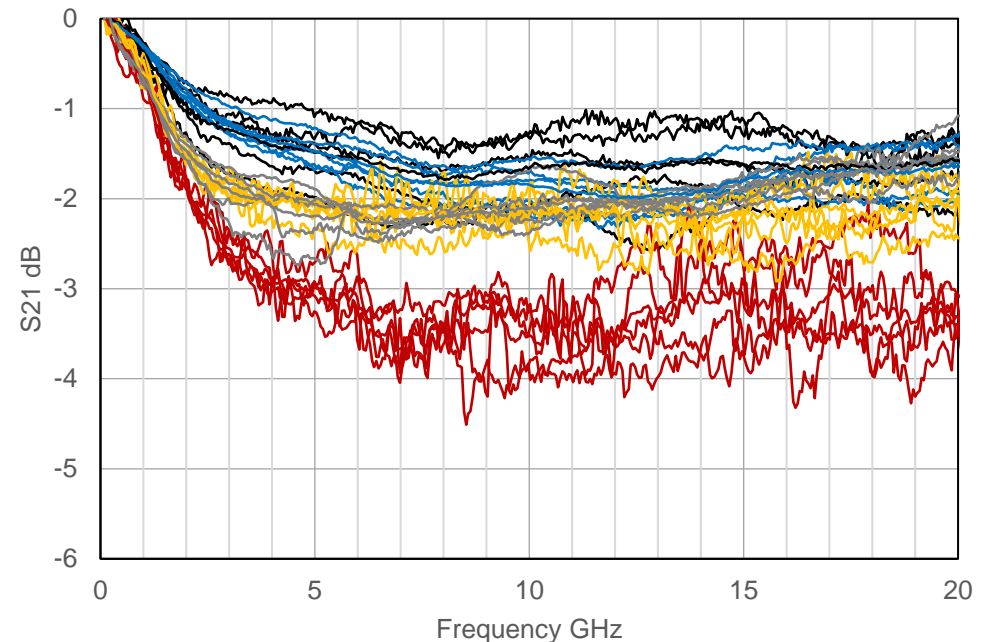
- The left graph shows the average of five measurements presented at the last Ad Hoc.
- The right graph plots the raw data of five measurements of each temperature.

Frequency response of GI-POF at 850nm
Length: 15 m (test fiber: 16 m reference fiber: 1 m)



— 25°C 1st — -40°C — 85°C — 105°C — 25°C 2nd

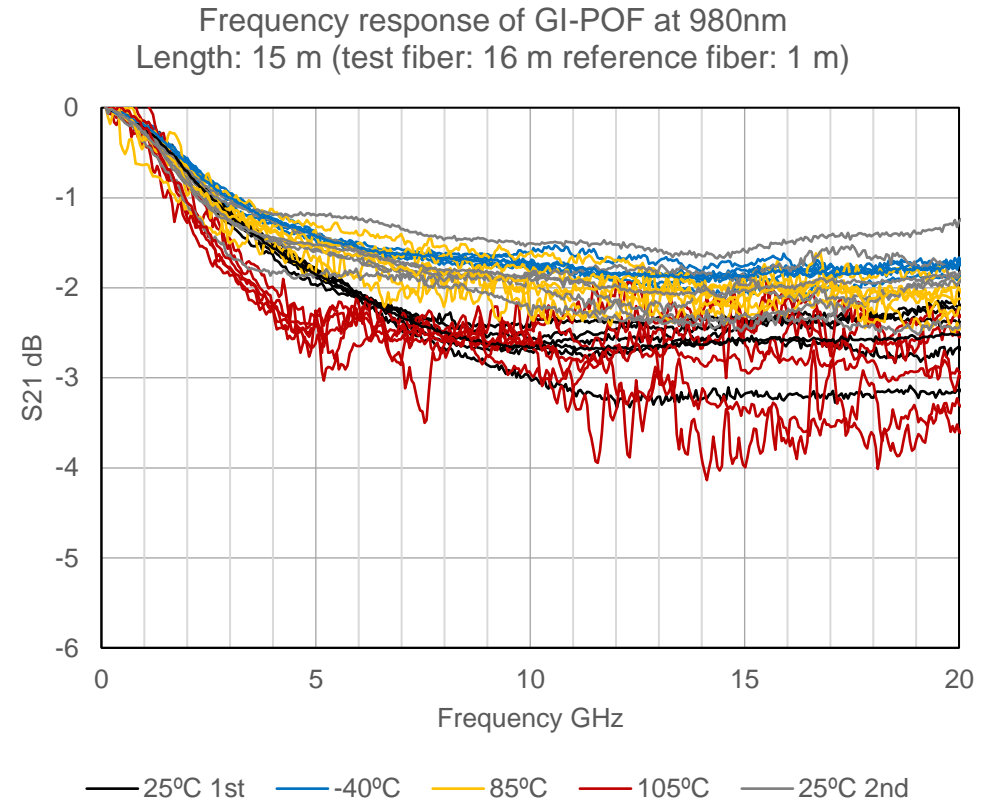
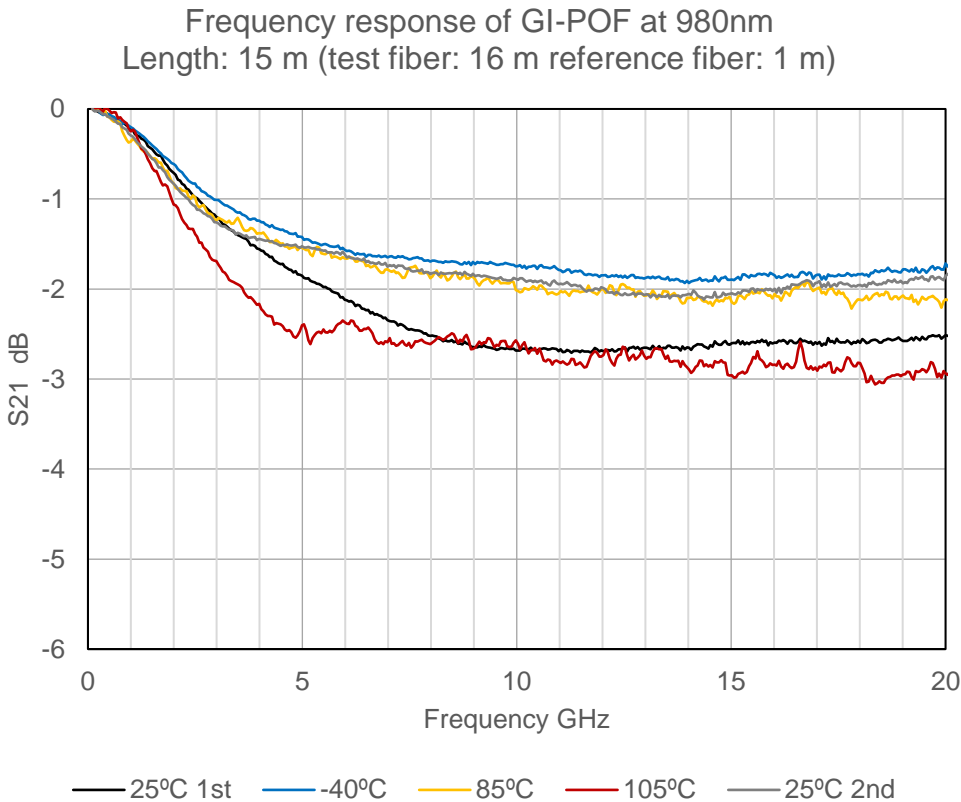
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Measurement reproductivity in frequency response measurement @980 nm

The graphs below show the case at the 980nm wavelength.
The left graph shows average by five measurements, and the right graph shows raw data.



Frequency response at 850 nm and 980 nm show similar variation.

Further study is necessary to determine worst case response, but worst case may not be far away from these results.

I will continue to investigate the reason of variation of frequency response measurement.

Thank you for your attention.

