

Q: SI-9001 Phase shift check on 20KHz Frequency

Conclusion:

Based on evaluation, the phase shift response of SI-9001 on frequencies from 100Hz to 20KHz on both 1/10 & 1/100 attenuation have a minimal shift from input to output frequencies. It is only about a maximum of 0.42 degree & minimum of -0.285 degree phase shift.

The equipment used to measure the phase shift is 8bit oscilloscope which have a digitizing error of 0.390%. The measured phase shift is already very close to the equipment digitizing error. This means that the phase shift from 100Hz to 20KHz frequencies is negligible. Please see below data for more details.