What is the difference between SMA and 3.5 mm RF connectors?

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SMA and 3.5 mm RF connectors are very similar and should be mechanically compatible, but do have some electrical differences that may be important for your application.

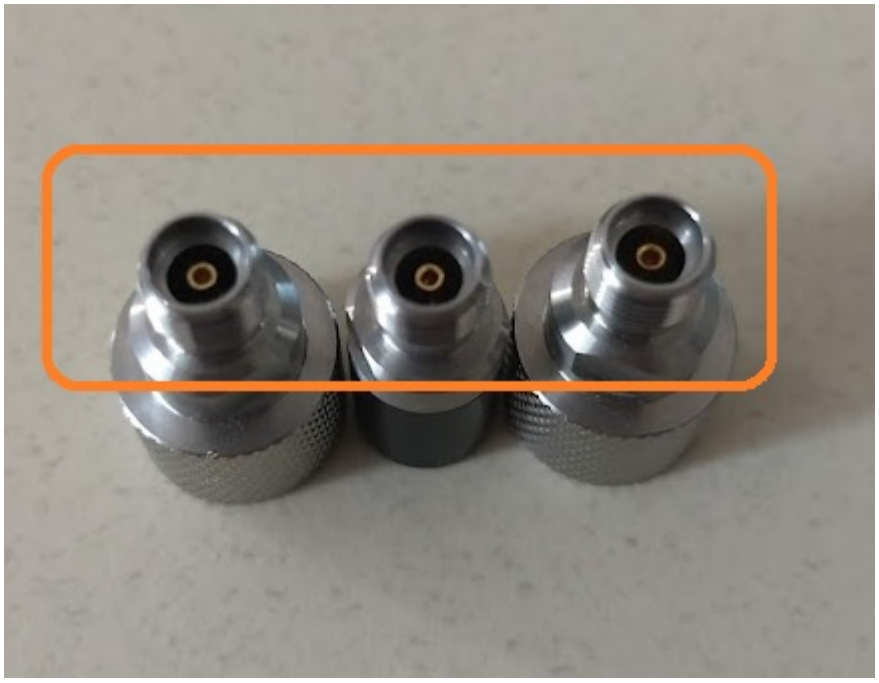
For best performance, use SMAs with SMAs and 3.5 mm connectors with 3.5 mm connectors. If you question the connection integrity, you can use connector gages to verify the proper pin and thread locations.

Proper cleaning of the mating surfaces with a lint-free swab and isopropyl alcohol is recommended as well as using a calibrated torque wrench.

For proper torque values of SIGLENT calibration kits, see the Mechanical Calibration Kit Datasheet

SMA connectors, like those shown below, have a plastic or foam insulator around the center conductor:

3.5 mm connectors have an air insulator:



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