

FIXED ATTENUATORS

41, 43 Series DC to 60 GHz*



Anritsu offers two series of fixed attenuators:

- The Gold Line (Series 41) for precision measurement applications covering DC to 60 GHz*
- The Silver Line (Series 43) for use in systems and OEM equipment covering DC to 40 GHz

Both series offer fixed attenuation values of 3, 6, 10, or 20 dB with models that span frequency range of DC to 26.5 GHz, 40 GHz, or 60 GHz*

Features

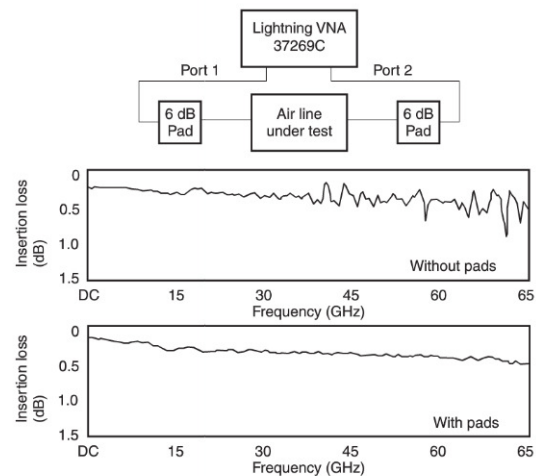
- 3, 6, 10, or 20 dB Attenuation up to 60 GHz*
- Low SWR, 1.28 Up to 40 GHz
- SMA, 3.5 mm, and 2.4 mm compatibility
- Rugged and reliable K Connector® and V Connector®

Advanced performance and reliability

Anritsu attenuators define the standard for fixed attenuator performance and reliability. Performance, however, is not their only distinguishing feature. Attenuators that use the K Connector® offer a vast improvement in reliability, compared to attenuators with SMA connectors. Attenuators that use the V Connector® can be connected directly to 2.4 mm devices.

For applications in metrology and calibration laboratories where precise characterization is essential, the Gold Line models are available in sets consisting of 3, 6, 10, and 20 dB units. Each is provided with attenuation and SWR calibration data. Calibration data is also optionally available for individual units, each of which is serialized.

*Usable to 70 GHz



Improved Measurement Accuracy

The reliability of the attenuator connectors is affected by insertion force, outer conductor mating area, and mating alignment. The K Connector® is used because it has excellent performance in all of these areas. For example, a typical female SMA, 3.5 mm center conductor requires up to 27N** of insertion force compared to 2.2N** for the K Connector®. In addition, the K Connector® outer conductor is four times thicker than SMA, resulting in a conservative order-of-magnitude improvement in the number of reliable connections.

To avoid a major cause of connector failure, the K Connector® male pin is deliberately made shorter than the SMA pin. Therefore, the outer housing is properly aligned prior to center conductor mating, preventing destructive alignment.

Gold Line - improved measurement accuracy

Adding Gold Line attenuators to your attenuation measurement setup will improve your measurement accuracy. In the test setup shown, the insertion loss of an air line was measured, first without and then with matching 6 dB pads. The difference in the accuracy of the two measurements is striking. By attenuating reflections and re-reflections that occur at the input and output of the air line, the pads reduce mismatch errors and allow the system to measure more accurately the actual insertion loss.

Silver Line - improved system reliability

Fixed attenuators used in systems or OEM equipment must be small, lightweight, economical, and reliable under severe environmental conditions. The Silver Line meets these requirements. K Connectors ensure well-seated, low-reflection connections that provide consistent operation year after year.

The Series 43 (Silver Line) attenuator's small size, 8 mm dia. x 28.8 mm length, and light weight, 8g make them an attractive choice for miniaturized, lightweight systems.

**Force is measured in Newtons (N).