

HIGH PRECISION SPECIAL IMPEDANCE AIR LINES

REFERENCE AIR LINES FOR TDR CALIBRATIONS

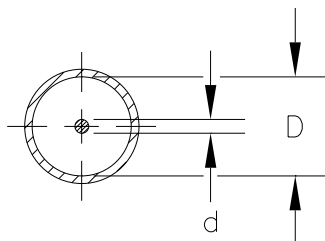
Description

The Maury 2603Q series of reference air lines are precision coaxial air line sections with 7mm connectors. They are designed specifically for applications requiring the calibration or verification of Time Domain Reflectometers (TDRs) and Controlled Impedance Test Systems (CITS). The impedance of the air line is established by the ratio of the outer conductor to the inner conductor along the length (L) of the air line. The 28 ohm air line was designed specifically for calibrating systems used for measurements of the RAMBUS © pcb standard. Exact reference impedance for verifying the accuracy of the test equipment can be established using the specific air line. In addition, the linearity of the equipment can be determined by using a combination of different impedance air lines. The 30cm 75 ohm and 100 ohm air lines' center conductor is supported

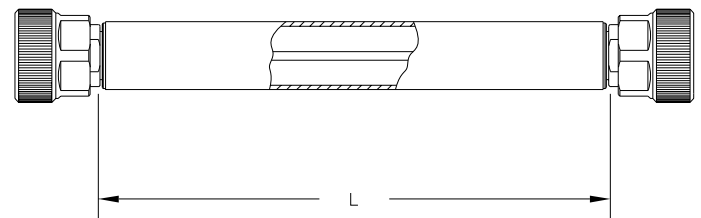


2603Q

by a dielectric bead in the center. The air lines can also be used as an impedance standard for gated measurements on vector network analyzers.



$$Z = 59.939 \ln(D/d)$$



Specifications

Frequency Range DC to 18 GHz
 VSWR $< 1.004 + .003f$ (GHz)
 Impedance see chart
 Impedance Accuracy ± 1 ohm*
 Accuracy of Length (L) ± 0.003 inch
 Connectors 7mm (APC7)

*Based on mechanical dimensions.
 ± 0.3 ohms for 75 ohm and 100 ohm air lines.

Model	Impedance ohms	Length (L)	
		inches	(cm)
2603Q28	28	7.884	(20)
2603Q28A	28	11.799	(30)
2603Q75	75	7.884	(20)
2603Q100	100	7.884	(20)
2603Q75A	75	11.799	(30)
2603Q100A	100	11.799	(30)

Recommended Accessories

Adapters: 7mm to 3.5mm (f) model 8022A1
 7mm to 3.5mm (m) model 8022B1