

COAXIAL AIR LINES

LPC7 (7mm) CONNECTOR

Features

- High Precision
- Extremely Low VSWR
- Accurate Electrical Length



Description

The Maury model 2653S series are high precision, extremely low reflection, 7mm coaxial air lines. Each air line in this series is configured with beadless LPC7 connectors. The LPC7 is a rigid coupling 7mm connector which when mated with a standard 7mm connector, will provide an accurately aligned, tightly tolerated interface. The air line center conductor has self-aligning, spring-loaded pins at each end to provide precise location and ease of connection without the aid of additional tools. Manufactured from Beryllium copper alloy and stainless steel to exacting mechanical dimensions, these air lines are rated at a VSWR of 1.003:1 maximum at 18 GHz.

Specifications

Frequency Range, etc. DC to 18 GHz
 VSWR >56 dB return loss (see **Figure 1**)
 Nominal Impedance 50 ohms
 Accuracy of Electrical Length ± 0.004 cm
 Connector LPC7¹

Applications

- Time Domain Measurements
- Vector Network Analyzer (VNA) Measurements
- Scalar Network Analyzer (SNA) Measurements

Performance Data

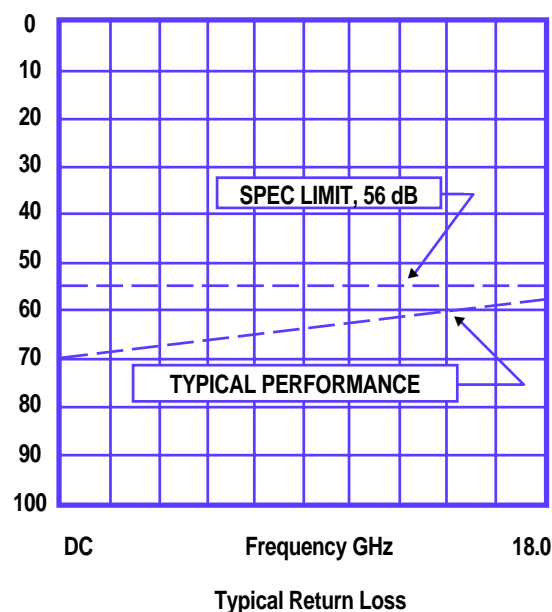


Figure 1

¹ LPC7 connector per Maury data sheet 5E-061.



Chart

Model	Electrical Length (cm)	ODD $\lambda/4$ Frequency GHz*	
2653S3	2.996	(2N + 1)	2.50
2653S4	3.994	(2N + 1)	1.875
2653S5	4.994	(2N + 1)	1.50
2653S6	5.993	(2N + 1)	1.25
2653S7.5	7.493	(2N + 1)	1.00
2653S9.2	9.239	(2N + 1)	0.81
2653S10	9.988	(2N + 1)	0.75
2653S15	14.983	(2N + 1)	0.50
2653S20	19.980	(2N + 1)	0.375
2653S30	29.969	(2N + 1)	0.25

* Frequencies at which the air line is an odd multiple of quarter wavelengths. N is zero or any integer.

Air Line Kits

The 2653S series air lines may also be supplied as kits in an attractive, foam lined wooden case.

Model	Air Line Quantity	Air Line Supplied
2653K2	6	2653S3, 5, 6, 7.5, 10, and 15
2653K3	8	2653S3, 5, 6, 7.5, 10, 15, 20 and 30

Recommended Spare Parts

The Maury models listed below are recommended spare parts for the 2653S series air lines.

Model	Description
2653X4	Protective plastic cap
2684S	Spring loaded pin