

## 7mm Beadless Air Lines

### Model Series 2653S

#### Features

- ▶ DC to 18.0 GHz
- ▶ Virtually Reflectionless
- ▶ LPC7 Connectors

#### Description

Maury 2653 series reference air lines are high precision, extremely low reflection, 7mm coaxial air lines equipped with beadless LPC7 connectors<sup>1</sup> and self-aligning, spring-loaded pins on the center conductors for an accurately aligned, tightly-toleranced interface.

#### Specifications

Frequency Range ..... DC to 18.0 GHz  
 VSWR ..... >56 dB return loss<sup>2</sup>  
 Nominal Impedance ..... 50 ohms  
 Accuracy of Electrical Length ..... ±0.004cm

#### Available Models

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
2563S15	14.983	(2n + 1) 0.50
2563S20	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.

#### 7mm Beadless Air Line Kits

Sets of 2653S air lines are also supplied as kits; 2653K2 is a set of 6 air lines with 1 each 2653S3, 2653S5, 2653S6, 2653S7.5, 2653S10, and 2653S15. 2653K3 adds 1 each 2653S20, and 2653S30 to those in 2653K2 for a total of 8. Both kits are supplied in attractive, foam-lined wooden cases.

## 7mm Bead Supported Air Lines

### Model Series 2603

#### Features

- ▶ DC to 18.0 GHz
- ▶ Virtually Reflectionless
- ▶ Precision 7mm Connectors

#### Description

Maury 2603 precision air lines are coaxial air line sections with 7mm connectors<sup>3</sup> manufactured to extremely close tolerances to provide an accurate 50 ohm impedance standard. The air lines are fabricated from copper alloys with a gold-flash protective coating (except those over 15cm which have silver-layered stainless steel center conductors to eliminate sag). The center conductors are supported by a low-loss dielectric bead.

#### Specifications

Frequency Range ..... DC to 18.0 GHz  
 VSWR ..... <1.004 + 0.003f (GHz)  
 Characteristic Impedance ..... 50 + 0.12 ohms  
 Accuracy of Electrical Length ..... ±0.004cm

#### Available Models

MODEL	ELECTRICAL LENGTH (cm)	ODD $\lambda/4$ FREQUENCY (GHz)*
2603A	29.979	(2n + 1) 0.25
2603B	19.986	(2n + 1) 0.375
2603C	14.990	(2n + 1) 0.50
2603D	9.993	(2n + 1) 0.75
2603E	7.495	(2n + 1) 1.00
2603F	5.996	(2n + 1) 1.25
2603G	4.997	(2n + 1) 1.50

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

#### 7mm Bead Supported Air Line Kits

Sets of 2603 air lines are also supplied as kits; 2603K is a set of 6 airlines consisting of 1 each 2603A, 2603B, 2603C, 2603D, 2603E, and 2603G. 2603L is a set of 7 air lines consisting of all those included in 2603K plus 1 each 2603F. Both kits are supplied in attractive, foam-lined wooden cases.

<sup>1</sup> LPC7 is a beadless connector that mates with standard precision 7mm connectors.

<sup>2</sup> See Maury data sheet 2X-210 (Fig. 1) for typical return loss data.

<sup>3</sup> Precision 7mm connector per Maury data sheet 5E-060.