COAXIAL STUB TUNERS

PRECISION CONNECTORS 7mm, SMA, N AND TNC

Description

Stub tuners are basic laboratory tools used for matching load impedances to provide for maximum power transfer between a generator and a load and introducing a mismatch into an otherwise matched system. Typical applications include power and attenuation measurements, tuned reflectometer systems, and providing a DC return for single ended mixers and detectors.

Stub tuners are impedance transformers that are designed to introduce a variable shunt susceptance into a coaxial transmission line. They consist of two or more short-circuited, variable length lines (stubs) connected at right angles to the primary transmission line. The spacing between the stubs of multiple stub tuners determines the range of impedances that can be matched and the ease of tuning. The stub spacing of Maury double- and triple-stub tuners has been selected for general broadband applications.

Model 2612C2

Model 1819A

Maury produces a comprehensive line of broadband stub tuners designed to satisfy the majority of applications. These tuners are available in double- and triple-stub configurations with frequency ranges extending from 0.2 to 18 GHz and with 7mm, type N[1] and SMA[1] connectors.

STUB TUNER REFERENCE CHART

Type	Frequency Range (GHz)	Connector – Model			Stub Travel		Stub Spacing	
		Type N[2]	7mm[3]	SMA[4]	Inches	(cm)	Inches	(cm)
Double-Stub	0.2 – 0.5	1778G	2612B7	–	30.0	(76.2)	4.6	(11.7)
	0.4 – 1.0	1778A	2612B1	1719A	15.0	(38.1)	4.6	(11.7)
	0.8 – 4.0	1778B	2612B2	1719B	7.5	(19.1)	2.0	(5.1)
	2.0 – 12.0	1778C	2612B3	1719C	3.0	(7.6)	0.75	(1.9)
	2.0 – 18.0	1778E	–	–	3.0	(7.6)	0.5	(1.3)
Triple-Stub	4.0 – 18.0	1778D	2612B4	1719D	1.75	(4.4)	0.5	(1.3)
	0.2 – 0.5	1878G	2612C7	–	30.0	(76.2)	4.6 (11.7) / 2.0	(5.1)
	0.4 – 1.0	1878A	2612C1	1819A	15.0	(38.1)	4.6 (11.7) / 2.0	(5.1)
	0.8 – 4.0	1878B	2612C2	1819B	7.5	(19.1)	1.0 (2.5) / 0.75	(1.9)
	2.0 – 18.0	1878C	2612C3	1819C	3.0	(7.6)	0.75 (1.9) / 0.5	(1.3)
	4.0 – 18.0	1878D	2612C4	1819D	1.75	(4.4)	0.75 (1.9) / 0.5	(1.3)

1 Standard configuration is male/female. Other combinations are available on special order.

2 Precision stainless steel N per Maury data sheet 5E-049.

3 Precision 7mm connector per Maury data sheet 5E-060.

4 Precision stainless steel SMA per MIL-C-39012.

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