Agilent X752C,D

Agilent R752DS

Agilent 752 Series

The Agilent 752 series couplers are an essential part of many microwave measurement applications. Attenuation measurements, reflectometer setups, power measurements, source leveling and network analysis are just a few areas in which directional couplers find use.

Agilent's X, P, K, and R band couplers have a conventional multi-hole design featuring greater than 40 dB directivities. The Agilent R752CS,DS and Q, U, V, W 752C,D couplers are designed with "split-block" technology, and provide greater than 33 dB directivity. Split-block designs are used to assure greater precision in machining the ultra-small internal dimensions required by the 26.5 to 110.0 GHz waveguide. The split block units are equipped to interface with the precision circular cover flanges with matching alignment pins common to those applications.

Each coupler is swept-frequency tested to ensure that the main guide SWR and directivity specifications are accurate. Performance characteristics are unaffected by humidity, temperature and time. This makes these units especially useful in microwave "standards" measurements.

Specifications

Agilent model	Frequency range (GHz)	Nominal[1] coupling (dB)	Mean coupling accuracy (dB)	Maximum coupling variation (dB)	Minimum directivity (dB)	Maximum primary line SWR	Maximum auxiliary arm SWR	Maximum primary line power (CW)(Watts)	Waveguide[2] designator EIA MIL-W-85/( )	Flange[2] designator UG-( )/U MIL-F- 3922/	Length ( )mm (in)	Shipping weight kg (lb)
X752C	8.2 to 12.4	10	±0.4	±0.5	40	1.05	1.15	10	WR-90	39	399 (15.69)	1.4 (3)
X752D		20				1.05	1.15	100	1-079	54C-007	399 (15.69)	
P752C	12.4 to 18	10	±0.4	±0.5	40	1.05	1.2	10	WR-62	419	311 (12.25)	0.9 (2)
P752D		20				1.05	1.2	100	1-089	70A-007	311 (12.25)	
K752C	18 to 26.5	10	±0.7	±0.5	40	1.05	1.2	5	WR-42	595	252 (9.94)	0.45 (1)
K752D		20				1.05	1.2	50	1-102	54C-001	252 (9.94)	
R752C	26.5 to 40	10	±0.7	±0.5	40	1.05	1.2	5	WR-28	599	219 (8.63)	0.45 (1)
R752D		20		±0.6		1.05	1.2	50	3-006	54C-003	222 (8.72)	
R752CS	26.5 to 40	10	±0.7	±0.6	40	1.04	1.05	5	WR-28	381	165 (6.5)	0.24 (.5)
R752DS		20				1.04	1.05	50	3-009	67B-005		
Q752C	33 to 50	10	±0.7	±0.7	40	1.05	1.1	5	WR-22	383	140 (5.5)	0.45 (1)
Q752D		20				1.05	1.1	50	3-013	67B-013		
U752C	40 to 60	10	±0.7	±0.7	39	1.06	1.1	5	WR-19	383 (mod)	140 (5.5)	0.45 (1)
U752D		20				1.06	1.1	50	3-014	67B-007		
V752C	50 to 75	10	±1.0	±0.7	36	1.08	1.14	3	WR-15	385	97 (3.81)	0.45 (1)
V752D		20				1.08	1.14	30	3-017	67B-008		
W752C	75 to 110	10	±1.0	±0.7	33	1.08	1.14	2	WR-10	387 (mod)	97 (3.81)	0.45 (1)
W752D		20				1.08	1.14	20	3-023	67B-010		

[1] Nominal coupling, coupling factor, and coupling attenuation are terms that describe the same parameter.
[2] The waveguide/flange designator is provided to determine interface dimensions and generic material of Agilent products.