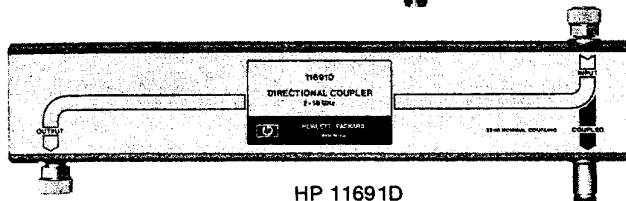
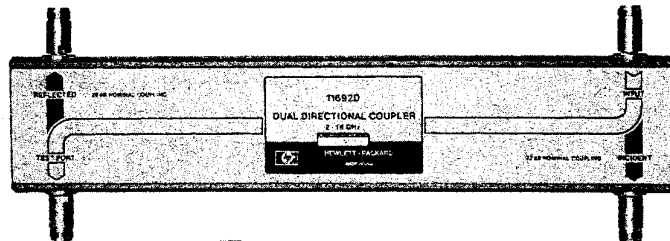


MICROWAVE TEST EQUIPMENT

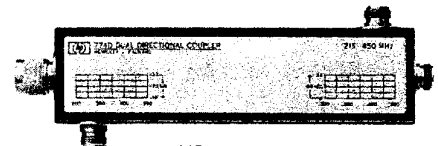
Coaxial Single and Dual-Directional Couplers

Models 770 Series, 11691D, 11692D

- Broadband coverage
- High directivity
- Close tracking



HP 11691D



HP 774D

HP 779D Directional Coupler

The HP 779D spans more than two octaves from 1.7 to 12.4 GHz with excellent directivity. With increased coupling factors (typically 24 dB), the IIP 779 is useful down to 500 MHz. Upper frequency usefulness extends to 18 GHz with directivity reduced to about 15 dB. Various connector options are available.

HP 11691D Directional Coupler

The HP 11691D is an ultra-wide-band single directional coupler covering 2 to 18 GHz with high directivity. It is useful as a power monitoring or leveling coupler, or for making reflection measurements. Couplers are preferred over broadband bridges in reflectometer applications in situations where the power level of the source is limited, or where simultaneous measurement of return loss and insertion loss is desired.

HP 774D-777D Dual-Directional Couplers (octave bands)

The economical HP 774D-777D Couplers cover frequency spreads of more than two-to-one, each centered on one of the important VHF/UHF bands. With their high directivity and a mean coupling accuracy of ± 0.5 dB, these couplers are ideal for reflectometer applications. Furthermore, the close tracking of the auxiliary arms makes these couplers particularly useful for reflectometers driven by sweep oscillators such as the HP 8350B with its appropriate plug-in. Power ratings are 50 W average, 500 W peak.

HP 778D, 11692D Dual-Directional Couplers (multi-octave bands)

These couplers are ideal for swept-frequency reflectometer testing of broadband coaxial components. The HP 778D covers 100 MHz to 2 GHz and the HP 11692D covers 2 to 18 GHz. High directivity and close tracking of the auxiliary arms are featured. Various connector options are available. Both couplers handle 50 W average power. Peak power: HP 778D, 500 W; HP 11692D, 250 W.

HP 779D, 11691D Specifications

HP Model	Frequency Range (GHz)	Mean Output Coupling (dB)	Output Coupling Variation (dB)	Minimum Directivity (dB)	Equivalent ¹ Source Match	Price
779D	1.7-12.4	20 \pm 0.5	\pm 0.75	1.7-4 GHz: 30 4-12.4 GHz: 26	1.2	\$1130
11691D	2-18	22 Nominal	\pm 1.0	2-8 GHz: 30 dB 8-18 GHz: 26 dB	1.2	\$1575

HP 779D Standard connectors
Primary Line N(m) input, N(f) output; auxiliary arm N(f)

Option 010: Primary Line N(f) input, N(m) output; auxiliary output N(f) N/C
Other options: APC-7 on any or all ports Contact HP

HP 11691D Standard connectors
Primary line: APC-7, APC-7; Auxiliary Arm: N(f)

Option 001: All N(f) less \$30
Option 005: All APC-7 add \$25

¹Apparent SWR at the output port of a coupler when used in a closed-loop leveling system.

HP 774D, 775D, 776D, 777D, 778D, 11692D Specifications

HP Model	Frequency Range (GHz)	Nominal Coupling (dB)	Maximum Coupling Variation (dB)	Minimum Directivity (dB)	SWR Primary Line Maximum (50 Ω Nom.)	Price
774D	0.215-0.450	20	\pm 1	40	1.15	\$930
775D ¹	0.450-0.940	20	\pm 1	40	1.15	\$930
776D ¹	0.940-1.90	20	\pm 1	40	1.15	\$930
777D	1.90-4.0	20	\pm 0.4	30	1.2	\$1050
778D	0.10-2.0	20	\pm 1.5	0.1-1 GHz: 36 ² 1-2 GHz: 32	1.1	\$1050
11692D	2.0-18.0	22	\pm 1 incident to test port	2-8 GHz: 30 8-18 GHz: 26 ³	2-12.4 GHz: 1.3 12.4-18 GHz: 1.4	\$2800

HP 774D-777D Standard connectors
Primary Line: N(m), N(f)
Auxiliary Arm: N(f), N(f)

HP 778D Standard connectors
Primary Line: N(m), N(f); Auxiliary Arms: N(f), N(f)

Option 011: Primary Line, APC-7, N(f) add \$25
Option 012: Primary Line, N(m), N(f) N/C

HP 11692D Standard connectors
Primary line: N(f), APC-7; Auxiliary Arms: N(f), N(f)

Option 001: Primary Line, N(f), N(f) less \$15
Option 002: Primary Line, N(f), N(m) less \$15

¹Maximum auxiliary arm tracking: 0.3 dB for HP 776D; 0.5 dB for HP 777D
²30 dB, 0.1 to 2 GHz, input port.
³24 dB with Type N connector on the test port.