

## Terminations (Loads)

### Fixed

#### HP 909 Series

The HP 909 series are fixed low-reflection loads for terminating a 50  $\Omega$  (75  $\Omega$  for HP 909E) coaxial system in its characteristic impedance. Whereas the HP 909A is designed for general purpose applications, the HP 909C,D,E,F series are intended for use as calibration standards. All loads find wide use as accessories for both broadband and narrowband measurement instruments, with models covering dc to 26.5 GHz.



HP 909A



HP 909C



HP 909D



HP 909E



HP 909F

## Terminations (Loads)

### Fixed

#### Specifications

HP Model	Impedance	Frequency Range (GHz)	Maximum SWR	Maximum Power	Connector Type	Length mm (in)	Diameter mm (in)	Shipping Weight kg (lb)	
909A	50 Ω	dc to 18	0 to 4 GHz: 1.05 4 to 12.4 GHz: 1.1 12.4 to 18 GHz: 1.25	2 W avg. 300 W peak	APC-7	51 (2)	23 (0.9)	0.2 (0.5)	
909A Opt. 012	50 Ω	dc to 18	0 to 4 GHz: 1.06 4 to 12.4 GHz: 1.11 12.4 to 18 GHz: 1.30		Opt. 012: N (m)	51 (2)	21 (0.8)		
909A Opt. 013	50 Ω	dc to 18			Opt. 013: N (f)	51 (2)	21 (0.8)		
909C	50 Ω	dc to 2	1.005	1/2 W avg. 100 W peak	APC-7	51 (0.5)	22 (0.9)		
909C Opt. 012	50 Ω	dc to 2	1.01		Opt. 012: N (m)	51 (2)	21 (0.8)		
909C Opt. 013	50 Ω	dc to 2	1.01		Opt. 013: N (f)		17 (0.7)		
909C Opt. 200	50 Ω	dc to 0.2	1.005		Must also order Opt. 012: N (m) or Opt. 013: N (f)		21 (0.8)		
							17 (0.7)		
909C Opt. 201	50 Ω	dc to 0.2	1.01		Must also order Opt. 012: N (m)		21 (0.8)		
909D	50 Ω	dc to 26.5	dc to 3 GHz: 1.02 3 to 6 GHz: 1.036 6 to 26.5 GHz: 1.12	2 W avg. 100 W peak	3.5 mm (m)	23 (0.9)	9 (0.4)		
909D Opt. 011	50 Ω	dc to 26.5			3.5 mm (f)	23 (0.9)	8 (0.3)		
909D Opt. 040	50 Ω	dc to 26.5	dc to 4 GHz: 1.02 4 to 6 GHz: 1.036 6 to 26.5 GHz: 1.12		3.5 mm (m)	23 (0.9)	8 (0.3)		
909E	75 Ω	dc to 3	1.02	1/2 W avg. 100 W peak	N (m)	51 (2)	21 (0.8)		
909E Opt. 011	75 Ω	dc to 3	1.02		N (f)		16 (0.6)		
909E Opt. 201	75 Ω	dc to 0.2	1.01		N (m)		21 (0.8)		
909F	50 Ω	dc to 18	dc to 5 GHz: 1.005 5 to 6 GHz: 1.01 6 to 18 GHz :1.15		APC-7		22 (0.9)		
909F Opt. 012	50 Ω	dc to 18	dc to 2 GHz: 1.007 2 to 3 GHz: 1.01 3 to 6 GHz: 1.02 6 to 18 GHz: 1.15		Opt. 012: N (m)		21 (0.8)		
909F Opt. 013	50 Ω	dc to 18			Opt. 013: N (f)		17 (0.7)		

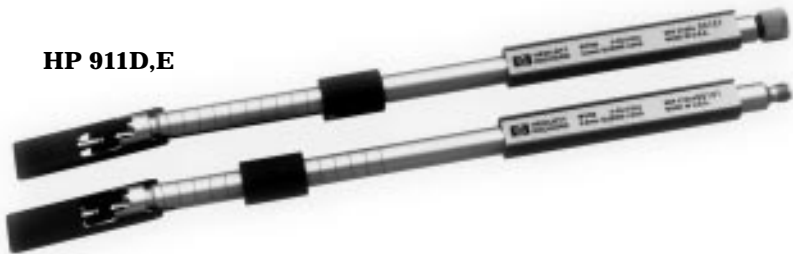
Terminations (Loads)

Sliding

HP 911 Series

The HP 911D,E family of sliding loads represents an advance in calibration and verification of network analyzers. They utilize integral connectors to form a near perfect airline without the discontinuities associated with changeable connectors, which cause reflections. The load element is highly stable, with a reflection coefficient variation of less than 0.00032 as the element location is varied, greatly increasing the integrity of a calibration. A locking mechanism is used to locate and lock the center conductor reference plane to within 0.00005 inch of the outer reference plane.

HP 911D,E



Specifications

HP Model	Frequency Range (GHz)	Load Stability Connector & Airline	Maximum Input Power	Connector Type	Length mm (in)	Shipping Weight kg (lb)
911D	3 to 26.5	1.008	1 W avg. 1 kW peak	3.5 mm (m)	256 (10.1)	0.95 (2)
911E	3 to 26.5	1.008	1 W avg. 1 kW peak	3.5 mm (f)	256 (10.1)	0.95 (2)