

# HP 909F Precision Coaxial Termination

## Technical Specifications

### DC to 6 GHz



### Description

HP's 909F family of precision low reflection loads are intended for use as calibration standards.

Tantalum nitride on sapphire thin-film technology is used for exceptional long-term impedance stability. To ensure the best possible wear resistance characteristics, gold-plated beryllium copper has been used for the connector contacts.

### Specifications

*Specifications describe the instruments' warranted performance over the +15 to +35 °C temperature range.*

*Supplemental characteristics as denoted by "typical", "nominal", or "approximate" are provided as information useful in applying the instrument, but are non-warranted performance parameters.*

**Frequency Range:** dc to 6 GHz,  
usable to 18 GHz

**Impedance (nominal):** 50  $\Omega$

**Connector:**

HP 909F, APC-7

Option 012, type-N (m)

Option 013, type-N (f)

**Reflection Coefficient (max):**  
HP 909F

dc to 5 GHz, 0.0025 (1.005 SWR)

5 to 6 GHz, 0.005 (1.01 SWR)

6 to 18 GHz, 0.07 (1.15 SWR)

typical

Option 012

dc to 2 GHz, 0.0035 (1.007 SWR)

2 to 3 GHz, 0.005 (1.01 SWR)

3 to 6 GHz, 0.01 (1.02 SWR)

6 to 18 GHz, 0.07 (1.15 SWR)

typical

Option 013

dc to 2 GHz, 0.0035 (1.007 SWR)

2 to 3 GHz, 0.005 (1.01 SWR)

3 to 6 GHz, 0.01 (1.02 SWR)

6 to 18 GHz, 0.07 (1.15 SWR)

typical

**Power Rating:** 500 mW avg.;

100 W peak, 10  $\mu$ S/pulse

**Weight:** net-60g (2 oz);

shipping-200 g (8 oz)

### Environmental

**Temperature:**

Operating: +15 ° to +35 °C

Non Operating: -55 ° to +75 °C

**Altitude:**

Operating: 15,000 ft

Non Operating: 50,000 ft

**Humidity:** Cycling 5 days,  
+40 °C @ 95% RH

**Vibration:** 0.015", 5-55-5 Hz,  
15 min., 3 axes

**Shock:** 100 g, 1-2 ms, 3 times  
3 planes

**EMC:** Radiation interference is  
within the requirements of MIL-  
STD-461, method RE02, VDE 0871,  
CISPR Publication 11.

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