

Specifications and Characteristics

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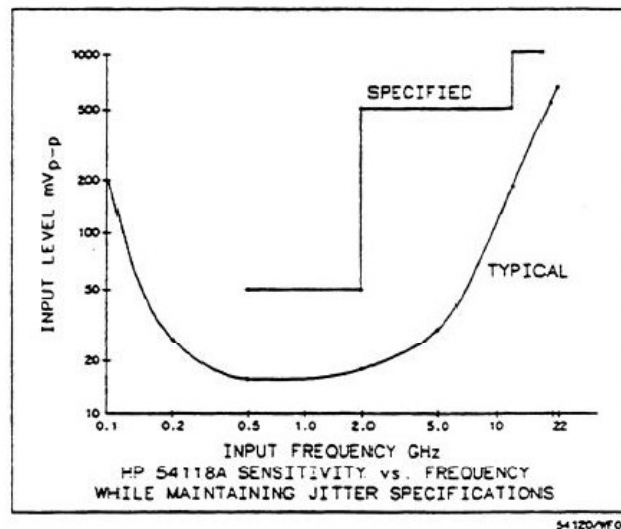
Introduction

This chapter contains a list of specifications for your reference and performance verification reference. Also included are supplemental characteristics which are typical parameters that are included in this manual as additional information.

Specifications

The following specifications are divided into two groups: input and output.

Input Sensitivity 50 mVp-p (− 22 dBm) from 500 MHz to 2 GHz
500 mVp-p (− 2 dBm) from 2 GHz to 12.4 GHz
1 Vp-p (+ 4 dBm) from 12.4 GHz to 18 GHz



% Reflection <5% with 30 ps step

Frequency Coverage 0.5 GHz to 18 GHz

Connector 3.5 mm (male)

Nominal Impedance 50 Ω

Coupling ac

Maximum Safe Input 25 Vdc, 4Vp-p ac (+ 16 dBm)

Trigger Level range 0 V to 2 Vp-p (+ 10 dBm)

Arming Level Range 0 V to 2 Vp-p (+ 10 dBm)

Output **Jitter** (one sigma) specified for the system HP 54120T plus HP54118A
 <3% of input signal period
 i.e. <2.5 ps @ 12.4 GHz
 <1.7 ps @ 18 GHz

Connector 3.5 mm (male)

Nominal Impedance 50 Ω

Coupling ac

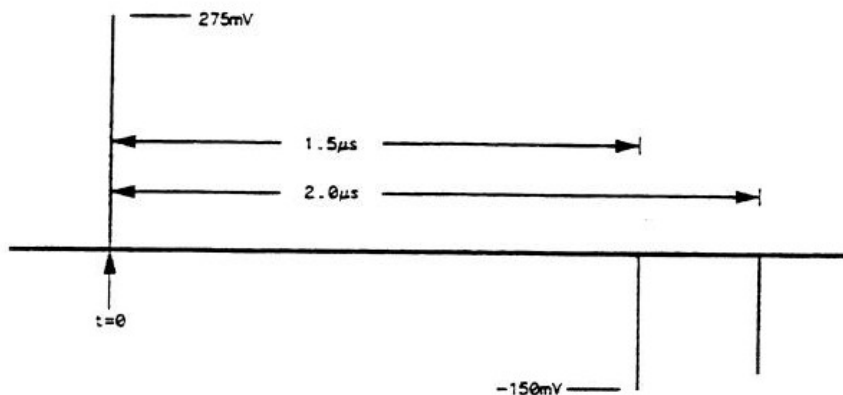
Maximum Safe External Voltage 25 Vdc, 4Vp-p ac (+ 16 dBm)

Holdoff Range 50 μ s to 200 μ s

Characteristics

The following characteristics are divided into four groups: output, power, environmental, and weight.

Input Kickout (at signal input) 300 mV kickout (single pulse)



54120/WF07

Figure 8-1. Typical Kickout Pulse

Output Signal (into 50 Ω) 200 mV positive pulse 5 ns wide

Delay From Trigger Edge 4 ns (approximate)

Error Rate (trigger misfire rate) $\leq 1\%$ of all trigger events

Power Connector SMB snap on coaxial

Voltage +15 Vdc $\pm 5\%$

Current 150 mA maximum, 130 mA typical

Power 2.4 Watts maximum

Environmental **Temperature Operating** + 15° C to + 35° C (+ 59° F to + 95° F)
Temperature Non-operating - 40° C to + 70° C (- 40° F to + 150° F)

Humidity Operating 90% @ 35° C (+ 95° F)
Humidity Non-operating 90% @ 35° C (+ 95° F)

Altitude Operating 4600 metres (15,000 feet)
Altitude Non-operating 15300 metres (50,000 feet)

Vibration Operating 0.3 g random 5 to 500 Hz, 10 min/axis
Vibration Non-operating 2.41 g RMS random 5 to 500 Hz, 10 min/axis
0.75 g RMS sine 5-500 Hz, 5 min/resonance

Weight **Net Weight** 1.8 kg (4 lbs) approximate

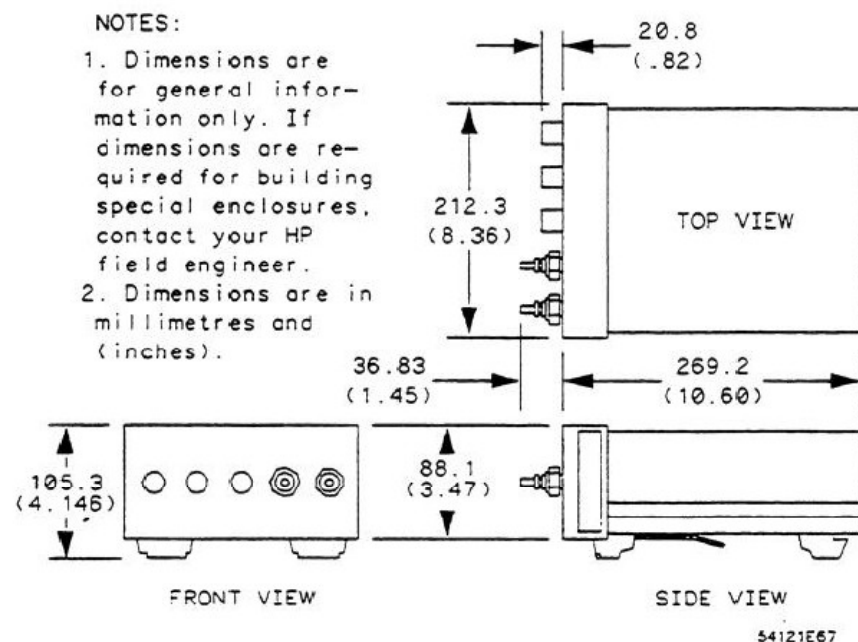


Figure 8-2. HP 54118A's Dimensions