

Broadband Frequency/Distribution Amplifier HP E1750A
Pulse Distribution Amplifier HP E1752A

- Precision clock and 1 pps timing pulse distribution
- Broadband distribution of sinewave signal and pulse trains
- High port-to-port isolation to minimize system crosstalk
- Visual channel-status indicators for fast and easy input and identification of individual input and output channel health
- Built-in AGC for better phase stability and quick setup (no level adjustments)



Module Size-Slots	C-1
Message- or Register-based	RB
HP Foundations Supported	1-5, 13-16
VXI plug&play Frameworks Supported	None

System Frequency Distribution

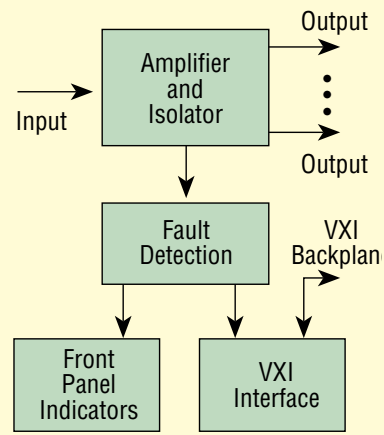
These distribution amplifiers provide up to six buffered outputs for distributing standard clock and other signals in laboratory, factory, and general ATE environments, where key requirements are:

- Broadband sinewave or pulse buffering/distribution
- Distribution of precise clock frequencies
- Distribution of precise 1 pps timing pulses
- High isolation/low crosstalk between output channels
- No level adjustments
- Preservation of input phase and frequency characteristics with changing environment (temperature, humidity, etc.)
- Channel fault alarm

SPECIFICATIONS

Input Ranges	HP E1750A	HP E1752A
Frequency min	100 kHz	1 pps ⁽¹⁾
Frequency max	10 MHz	10 Mpps ⁽²⁾
Level, min	+7 dBm	(3)
Level, max	+19 dBm	(3)
Damage	+27 dBm	-9V, +14 V
Impedance	50 Ω	50 Ω

(1) May be used with lower pulse repetition rates, with restrictions on duty cycle and fault alarm operation (see manual)
 (2) Mpps = million pulses per second
 (3) Logic LO: ≤0.8 V
 Logic HI: ≥2.0 V



HP E1750A/E1752A Block Diagram

E1750A Outputs, 50 Ω Load	
Level	+13 dBm ±1 dB
Phase noise	<-145 dBc ^(4,5)
Harmonic distortion	<-45 dBc ⁽⁶⁾
Spurious phase modulation	<-80 dBc ⁽⁷⁾
Port-to-Port Isolation (open/short loads)	
phase modulation	<-100 dBc
phase change, peak	<±0.0012°

(4) Measured 1 kHz from carrier, 1 Hz bw
 (5) <-142 dBc for 5 MHz, ≤Frequency in ≤10 MHz
 (6) <-40 dBc for 5 MHz, ≤Frequency in ≤10 MHz
 (7) Discrete sidebands, 10 Hz to 50 kHz

HP E1752A Outputs, 50 Ω Load	
<i>The output pulse (a TTL signal into 50 Ω) will be a replica of the input pulse, governed by the characteristics outlined under Input Ranges, with the following restrictions:</i>	
Rise/fall time	<5 ns
Pulse amplitude	>3.5 V, typical
Propagation Delay	22 ns, typical
Jitter	<1 ns rms

Power Requirements

See the Module Power and Cooling Information Table in Appendix A-1.

For More Information

HP E1750A/E1752A Brochure
 HP Pub no. 5091-7546 EUS

Ordering Information

Broadband Distribution Amplifier.....HP E1750A
Pulse Distribution Amplifier.....HP E1752A

