

**11A72**  
**11A52**

# Plug-in Amplifiers

## High Bandwidth

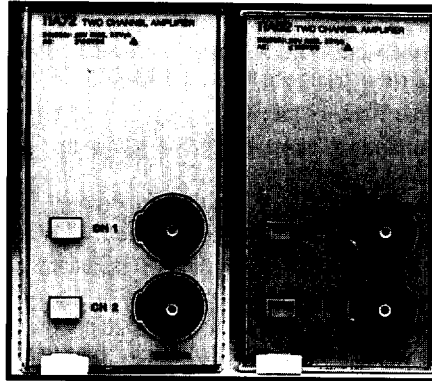
High bandwidth amplifiers combined with active probes preserve critical signal phenomena in research and design.

### 11A72

- 1 GHz
- Two Channels
- 50 Ω Input Impedance
- DC to 1 GHz Bandwidth
- 10 mV to 1 V/Div Calibrated Deflection Factors
- ±25 Division Offset

### 11A52

- 600 MHz
- Two Channels
- 50 Ω Input Impedance
- DC to 600 MHz Bandwidth
- 1 mV to 10 V/Div Calibrated Deflection Factors in 1% Increments
- High-resolution Calibrated DC Offset
- Fast Overdrive Recovery



### 11A72 Two-channel Amplifier Characteristics

**Bandwidth** – 1 GHz.

**Deflection Factor** – 10 mV to 1 V/div in 1-2-5 sequence.

**Accuracy** – ΔVolts DC accuracy: With 11400: ±(0.9% +0.01 div). With DSA 600: ±(1.0% +0.02 div). DC Balance, ±0.1 div. Offset Accuracy, ±(0.4% +0.01 div).

**Offset Range** – ±25 div, 0.025 div resolution.

**Typical Noise (RMS)** – 0.022 div.

**Input Impedance** – 50 Ω ±0.5%; VSWR ≤1.45:1 @10 mV/div, DC to 1 GHz; VSWR ≤1.25:1 for deflection factors ≥ 20 mV/div, DC to 1 GHz.

**Disconnect Threshold** – 5 V RMS typical (DC to 100 MHz).

**Input Coupling Modes** – AC, DC, OFF.

**AC Coupled Low Frequency** – -3 dB point; 1 kHz or less from 50 Ω source.

**Max Input Voltage** – DC Coupled: 25 V pk or 5 V rms. AC Coupled: ±100 V DC additional. Input coupling is set to off when coupled signal exceeds safe limits. Manual reset by selecting either AC or DC coupling.

### 11A52 Two-channel Amplifier Characteristics

**Bandwidth** –

V/div	Bandwidth (MHz)
>10 mV	600
5 to 9.95 mV	400
2 to 4.98 mV	250
1 to 1.99 mV	200

**Calibrated Deflection Factors** – Coarse: 1 mV to 10 V/div in 1-2-5 steps. Fine: between coarse steps in 1% increments of next more sensitive coarse step.

**Accuracy** – ΔVolts DC accuracy: With 11400: ±(0.8% +0.01 div). With DSA 600: ±(0.9% +0.02 div). DC Balance, 1 to 99.5 mV/div: ±(0.2 mV + 0.10 div). Offset Accuracy, 1 to 99.5 mV/div (±1 V range): (0.15% + 0.4 mV).

**Offset Range** – 1 to 99.5 mV/div: ±1 V; Resolution: 25 μV. 100 mV to 0.995 V/div: ±10 V; Resolution: 250 μV. 1 to 10 V/div: ±100 V; Resolution: 2.5 mV.

**Overdrive Recovery** – 1 to 99.5 mV/div: To within ±(0.2% +0.1 div) within 20 ns from ±2 V step.

**Typical Noise (RMS)** – 1 to 1.99 mV/div: 0.087 div. 2 to 4.98 mV/div: 0.04 div. 5 to 9.95 mV/div: 0.02 div. 10 mV to 10 V/div: 0.012 div.

**Input Impedance** – 50 Ω ±0.5%; VSWR: < 1.3:1 DC to 500 MHz.

**Input Coupling Modes** – AC, DC, and OFF.

**AC Coupled Low Frequency** – -3 dB point; 1 kHz or less from 50 Ω source.

**Max Input Voltage** – DC Coupled: 25 V pk or 5 V rms. AC Coupled: ±100 V DC additional. Input coupling is set to off when coupled signal exceeds safe limits. Manual reset by selecting either AC or DC coupling.

## ORDERING INFORMATION

### 11A72

Two-channel Vertical Amplifier ..... **\$4,900**

**Includes:** User Reference (070-7255-00), Service Reference (070-7257-00).

**Opt. 25** – Includes two P6231 Bias-offset Probes. .... **+\$1,598**

**Opt. 27** – Includes two P6204 Active Probes. .... **+\$3,190**

**Opt. 28** – Includes two P6217 Active Probes. .... **+\$7,190**

### 11A52

Two-channel Vertical Amplifier ..... **\$3,700**

**Includes:** User Reference (070-6114-00), Service Reference (070-6786-00).

**Opt. 25** – Includes two P6231 Bias-offset Probes. .... **+\$1,598**

**Opt. 27** – Includes two P6204 Active Probes. .... **+\$3,190**

### RECOMMENDED ACCESSORIES

See page 446 for complete selection information.

#### PROBES

##### Active –

1 GHz, 1.9 pF/10 MΩ, 1.5 m. Order P6204 ..... **\$1,595**

1.5 GHz, 1 pF/1 MΩ, 1.3 m. Order P6245 ..... **\$1,395**

4 GHz, 0.4 pF/100 kΩ, 1 m. Order P6217 ..... **\$3,595**

750 MHz, 2 pF/1 MΩ, 1.5 m. Order P6205 ..... **\$595**

**50 Ω Divider (Zo)** – 3.5 GHz, 1 pF/500 Ω, 10X; 3 GHz, 1.1 pF/5000 Ω, 100X; 1.5 m. Order P6156 with Opt. 25 ..... **\$350**

##### Current –

25 kHz to 1 GHz. Order CT-1 ..... **\$295**

1.2 kHz to 200 MHz. Order CT-2 ..... **\$270**

Product(s) available through your local Tektronix representative (listed in the back of this catalog) or call 1-800-426-2200.



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