11000-SERIES PLUG-INS

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11000 -Series Plug-Ins

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- **Differential (11A33)**
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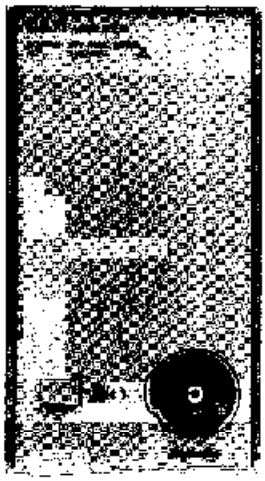
- **Up to 500-MHz Bandwidth (With 11302)**
- **Up to 1-GHz Bandwidth (With 11402)**
- **1-mV/Div Deflection Factor**
- **Calibrated Offset With Fast Overdrive Recovery**
- **Switchable Input Impedances**

Wide bandwidth, unsurpassed accuracy, clean response, low noise, and calibrated dc offset with fast overdrive recovery characterize the amplifier plug-in units available for use with the Tektronix 11000-Series Plug-in Oscilloscopes. The 11A71 provides 1-GHz bandwidth in the 11402 digitizing mainframe and up to 500-MHz bandwidth in the 11302A and 11401 mainframes. The 11000-Series Maximum Bandwidth Matrix at the start of this section shows the bandwidth of each of the amplifier plug-in units in each of the four 11000-Series mainframes.

Control of the 11000-Series plug-ins is accomplished through the mainframe controls, either manually or over the IEEE-488 or RS-232C bus. The only control on the amplifier plug-ins is a single pushbutton for each channel. This button is used only to turn the display of the associated channel on and off; it has no effect on the availability of the input signal to the triggering system.

Each of the input channels on all amplifier plug-ins uses the new TEKPROBE™ interface. This interface allows the mainframe to supply power to active probes, to sense the type (and, with some probes, the serial number) of the probe, to supply offset voltage to probes so equipped, to detect activation of the probe's ID pushbutton, and to provide other communication between probe and oscilloscope as appropriate to the type of probe. A serial data line in the TEKPROBE™ interface provides the means for a high level of communication with current and future special-purpose probes.



11A71 Amplifier

11A71

- **DC to 1 GHz Bandwidth (In 11402)**
- **Single Trace**
- **10-mV to 1-V/Div Calibrated Deflection Factors**
- **±10-Div Offset**
- **50-Ω Input Impedance**

The single-channel 11A71 is the highest bandwidth amplifier currently available for the Tektronix 11000-Series mainframes. It provides 1-GHz bandwidth in the 11402 digitizing mainframe and 500-MHz bandwidth in the 11401 digitizing mainframe and 11302 analog mainframe.

DC offset can be set to 40 steps per division over a range of ±10 div at all sensitivities.

CHARACTERISTICS

Number of Channels—One.

Bandwidth—All Deflection Factors

11301A	11302A	11401/11402
400 MHz	500 MHz	500 MHz/1 GHz

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

Accuracy—
ΔVolts dc accuracy:
With 11301/11302: ±(0.9% +0.05 div).
With 11401/11402: ±(0.7% +0.03 div).
DC Balance: ±0.2 div.

Input Impedance—50 Ω ±2%; VSWR ≤1.45:1 @ 10 mV/div, DC to 1 GHz.
VSWR ≤1.25: @ 20 mV/div. to 1 V/div., dc to 1 GHz.

Input Coupling Modes—AC, DC, OFF.

Offset Range—±10 divisions, 0.025 division resolution, all deflection factors.

Max Input Voltage—50-Ω input automatically disconnects when the signal exceeds safe limits. Manual reset.

Typical Noise (RMS)—0.01 div.

ORDERING INFORMATION

11A71 Single-Channel Vertical Amplifier **$2,700**
Includes: Operator manual supplement.
Option 26—Includes one P6231 probe. **+$410**

OPTIONAL ACCESSORIES

Service Manual—
Order 070-6787-00. **$50**
Recommended Probe—P6231 10X 1.5 GHz active probe. See other recommended probes on page 282. **$410**
Optical to Electrical Converters—
P6701 **$1,900**
P6702 **$2,095**
Spatial Input Head—
P6751 **$310**
See Signal Acquisition section for complete description.

11000 SERIES SCOPE/PLUG-IN MAXIMUM BANDWIDTH MATRIX

Scope/Plug-in	11A71	11A52	11A32	11A34	11A33
11401A/	500 MHz	500 MHz	350 MHz	300 MHz	150 MHz
11402A	1 GHz	600 MHz	400 MHz	300 MHz	150 MHz
11601	1 GHz	600 MHz	400 MHz	300 MHz	150 MHz
11602	1 GHz	600 MHz	400 MHz	300 MHz	150 MHz