

Logic & Pulser Probes

DIGITAL TERMS

CLOCK—A pulse waveform used to synchronize the timing of digital or switching circuits.

COMPARATIVE TESTING—Evaluation of a component by comparing its performance to that of a properly functioning component.

DIGITAL SIGNAL—A discrete signal that assumes one of two states: high or low.

TTL—Transistor logic defines a type of digital circuit. It is characterized by a high digital signal state above 2.4 VDC, and low digital states below 0.8 VDC. Operating voltage is typically 5 VDC.

CMOS—Complementary Metal Oxide Semiconductor defines another type of digital circuit. It is characterized by a variable operating voltage of 3 to 18 V, and logic levels proportional to that operating voltage (typically 1.5 V low and 3.5 V high @ 5 V supply).

CMOS circuits are characterized by high noise immunity.

IN-CIRCUIT TESTING—Evaluating the functioning of a component without removing the component from the circuit in which it is being used.

Specifications

	model
	DP-31A
Pulse Repetition Rate	0.5 pps/400 pps
Pulse width at 100 mA load	10ms
Output Current	Pulser mode-100mA sink/source square wave mode-5 mA sink/source
Operating Supply Voltage Range	5-15 V
Sync Input Impedance	1 MΩ
Sync Input Protection	+120 V/30 sec.
Power Supply Protection	+25 V/15 sec.
Output Protection	+35 V/15 sec.
Operating Temperature	32° to 122°F (0-50°C) < 80% R.H./
Storage Temperature	-4° to 149°F (-20° to +65°C), < 80% RH
Dimensions	0.7 x 0.7 x 8.2" (18 x 18 x 210mm)
Weight	1.4 oz. (40g)

One Year Warranty

Specifications

	DP-21	models
		DP-52
INPUT CHARACTERISTICS		
Frequency response	DC to 20MHz	DC to 50MHz
Minimum detectable pulse width	30nS	10nS
LOGIC THRESHOLD		
TTL Logic 1 threshold (Red LED)	2.3V +0.2V	3.0V +0.25V
TTL Logic 0 threshold (Green LED)	0.8V +0.2V	0.75V +0.25V
TTL CMOS 1 threshold (Red LED)	70% Vcc +10%	40% Vcc +5%
TTL CMOS 0 threshold (Green LED)	30% Vcc +10%	15% Vcc +5%
PULSING	Yellow LED	Both Red and Green
INPUT OVERLOAD PROTECTION	+220Vac/DC (15 sec.)	+70Vac/DC (15 sec.)
INPUT IMPEDANCE	1MΩ	120kΩ
GENERAL		
Power supply protection	+20V	
Operating supply voltage	4 to 18V	
Storage temperature	-4° to 149°F (-20° to 65°C) <80% RH	
Operating temperature	32° to 122°F (0-50°C) <80% RH	
Dimensions (HxWxD)	0.7 x 0.7 x 8.2" (18 x 18 x 20mm)	
Weight	1.6oz. (45g)	

One Year Warranty

Model DP-21

20 MHz Logic Probe

- Tests TTL, and CMOS
- Displays pulse presence and logic states
- Memory mode "freezes" pulse display
- Catches pulses to 30ns or pulse trains to 20MHz
- 1 MΩ input impedance



DP-21

Model DP-52

50 MHz Logic Probe

- Tests TTL and CMOS
- Displays DC to 50 MHz
- Detects 10ns pulse width
- Overload protected



DP-52

Model DP-31A

Pulser Probe

- For TTL, and CMOS
- Produces 10mS pulse signal at 100mA
- External square wave terminal
- Sync input point



DP-31A