



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# 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)	
<b>One Year Warranty</b>		

Specifications		models	
	DP-21	DP-52	
<b>INPUT CHARACTERISTICS</b>			
Frequency response	DC to 20MHz	DC to 50MHz	
Minimum detectable pulse width	30nS	10nS	
<b>LOGIC THRESHOLD</b>			
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%	
<b>PULSING</b>			
INPUT OVERLOAD PROTECTION	+220Vac/DC (15 sec.)	+70Vac/DC (15 sec.)	
INPUT IMPEDANCE	1MΩ	120kΩ	
<b>GENERAL</b>			
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)		
<b>One Year Warranty</b>			

### 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