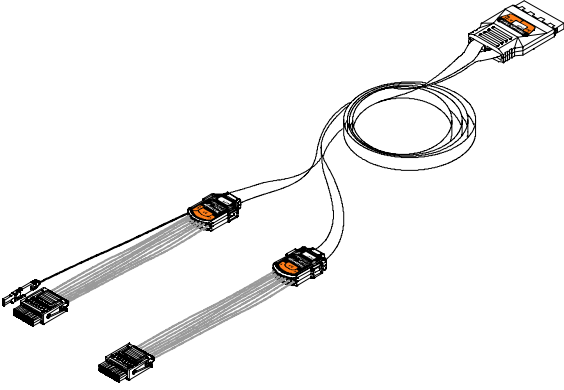


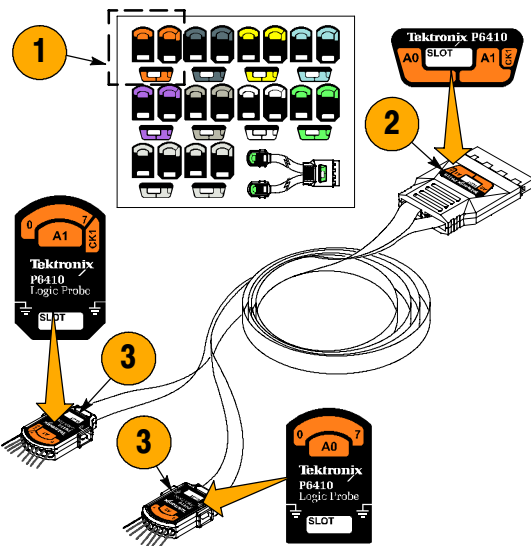
## Product Description

The P6410 logic analyzer probe connects the Tektronix TLA series logic analyzer to your target system. The probe consists of 16 data channels and one clock/data channel. You can connect the probe leads separately to the target system, or together using the groupers. The probe ships with the groupers installed.



### Labeling Your Probe

1. Determine the channel group/color that you will use for the probe and select the appropriate label group from the label sheet.
2. Apply the smallest of the three labels to the module end.
3. Apply the remaining two labels to the DUT ends of the probe, on the sides without the WEEE labels (shown in *Equipment Recycling*). Match the corners of each label to the label detents in the probe heads.



### Specifications

Table 1 lists the electrical and mechanical specifications for the P6410 probe. The electrical specifications apply when the probe is connected between a compatible logic analyzer and a target system.

**Table 1: Electrical and mechanical specifications**

Characteristic	Description
Threshold accuracy	±100 mV
Channel-to-channel-skew	≤1 ns
Input resistance (probe and lead sets)	
Standard lead set	20 KΩ
Reduced bias set	20 KΩ
Input capacitance	
Data	2.0 pF typical
Clock/Qual	2.0 pF typical
Minimum slew rate	0.2 ns
Maximum operating signal	6.5 V <sub>p-p</sub> -3.5 V absolute input voltage min 6.5 V absolute input voltage max
Maximum nondestructive input signal to probe	±15 V
Minimum input pulse-width signal	2 ns
Delay from probe tip to module input connector	7.33 ns
Probe length	1.8 m (6 ft)

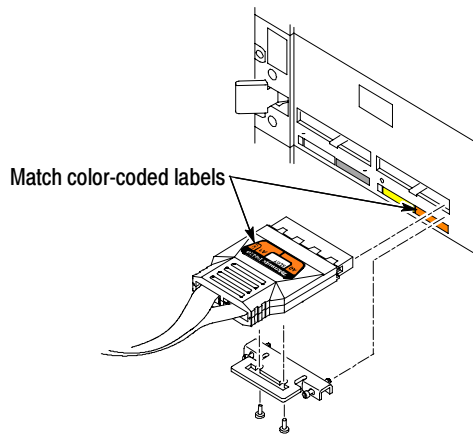
Table 2 shows the environmental specifications for the probe. The probe is designed to meet Tektronix standard 062-2847-00 class 5.

**Table 2: Environmental specifications**

Characteristic	Description
Temperature	
Maximum operating	+50 °C (+122 °F)
Minimum operating	0 °C (+32 °F)
Nonoperating	-55 °C to +75 °C (-67 °F to +167 °F)
Humidity	10 to 95% relative humidity
Altitude	
Operating	4.5 km (15,000 ft) maximum
Nonoperating	15 km (50,000 ft) maximum
Electrostatic Immunity	The probe is not static sensitive

### Connecting the Probe to the Logic Analyzer

Connect the probe (and optionally, the retaining brackets) as shown in the following figure. The retaining brackets and hardware ship with the logic analyzer.

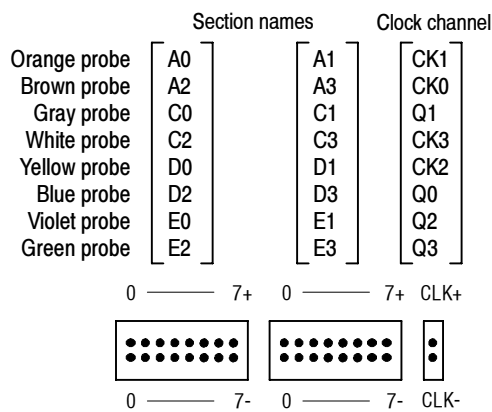


### Connecting the Probe to the Circuit

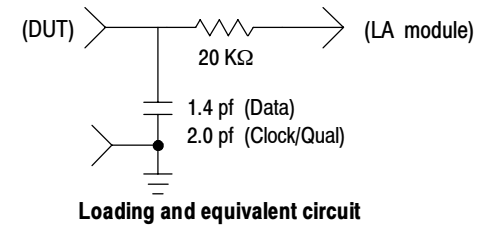
The probe is shipped with the groupers installed so that you can connect to 2x8 rows of 0.025-inch square pins. The clock lead is separate. Refer to the back of these instructions for other connection methods using the accessories that are included with the probe.

### Reference/Probe Connectors

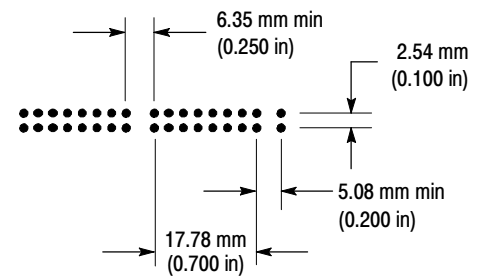
This section provides reference information and specifications for the probe.



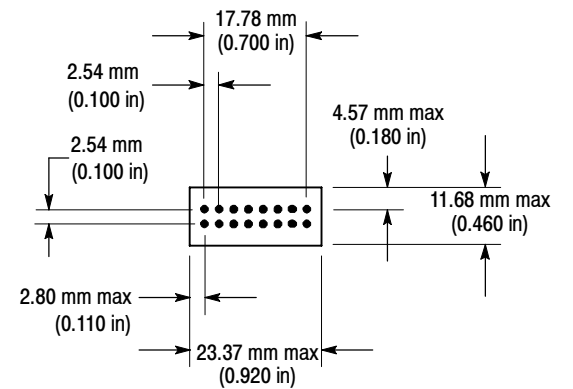
**Grouping footprint (16 Channels plus one clock)**



**Loading and equivalent circuit**



**Pin spacing between 8-channel groups and clock/qual leads**



**8-channel probe footprint with 8-channel grouper attached**

### Standard Accessories

The following standard accessories ship with the probe and are shown on the back of these instructions.

Description	Quantity	Part number
Extension ground tip	20 ea	206-0559-XX
Probe tip	1 set of 10	131-5638-11
IC grabber	20 ea	206-0569-XX
Lead set	8 ea	196-3501-XX
Ground lead set	2 ea	196-3497-XX
Grouper (shipped on probe)	2 ea	352-1115-XX
Label set	1 sheet	335-1770-XX

### Warranty Information


For warranty information, go to [www.tektronix.com/warranty](http://www.tektronix.com/warranty)

### Contacting Tektronix

Tektronix, Inc.  
14200 SW Karl Braun Drive  
PO Box 500  
Beaverton, OR 97077  
USA

For product information, sales, service, and technical support:

- In North America, call 1-800-833-9200.
- Worldwide, visit [www.tektronix.com](http://www.tektronix.com) to find contacts in your area.

 **Equipment Recycling.** This product complies with the European Union's requirements according to Directive 2002/96/EC on waste electrical and electronic equipment (WEEE). For more information about recycling options, check the Support/Service section of the Tektronix Web site ([www.tektronix.com](http://www.tektronix.com)).

## P6410 Logic Analyzer Probe Instructions



