

Keysight Electronics Test and Measurement Kit

Oscilloscope



3380602

Features

Product Range	: InfiniiVision 1000 X-Series
Scope Channels	: 2 Analogue, 1 Ext Trigger
Bandwidth	: 50MHz
Sampling Rate	: 1GSPS
Display Memory Depth	: 200 kpts
Calculated Rise Time	: 7ns
Scope Display Type	: WVGA TFT Colour
Kit Contents	: DSO, 2x N2142A, Standard Secure Erase, Interface Language Support GUI, Power Cord, Cal Certificate
Manufacturer Warranty	: 3 Years

Function Generator



2100020

Features

Signal Generator Type	: Arbitrary, Direct Digital Synthesis (DDS)
No. of Channels	: 1 Channel
Product Range	: AFG-2000 Series
Bandwidth	: 5MHz
Signal Generator Modulation	: AM, FM, FSK
Plug Type	: EU, UK

Specification

0.1 Hz to 5/12/25 MHz with in 0.11 Hz Resolution

Sine, Square, Ramp, Noise and Arbitrary Waveform

20MSa/s Sampling Rate, 10 bit Vertical Resolution and 4k point Memory for Arbitrary Waveform

1% to 99% Adjustable Duty Cycle for Square Waveform

Waveform Parameter Setting Through Numeric Keypad Entry 8t Knob Selection

Amplitude, DC Offset and Other Key Setting Information Shown on the 3.5" LCD Screen Simultaneously

AM/FM/FSK Modulation, Sweep, and Frequency Counter functions (AFG-2100 only)

USB Device Interface for Remote Control and Waveform Editing

PC Arbitrary Waveform Editing Software

Applications

Audio Products Frequency Characteristics Measurement

Pulse Signal as Trigger or Synchronization Signal for Electronic Product Testing

Pulse Noise Simulation

Reference Clock Signal of Electronic

Device

Vibration Signal Simulation

Noise Simulation for Communication System Educational Lab

Keysight Electronics Test and Measurement Kit

Digital Multimeter



1274599

Features

DMM Functions	: AC/DC Current, AC/DC Voltage, Capacitance, Continuity, Diode, Frequency, Resistance
No. of Digits	: 3.5
DMM Response Type	: True RMS
Display Count	: 6000
Range Selection	: Auto, Manual
Voltage Measure DC Max	: 600V
Voltage Measure AC Max	: 600V
Current Measure DC Max	: 10A
Current Measure AC Max	: 10A
Resistance Measure Max	: 40M Ω
Operating temperature	: -10°C to +50°C
Storage temperature	: -40 °C to + 60 °C
Manufacturer Warranty	: 3 Years

Specification

- Resistance, continuity, frequency, capacitance, and diode test
- Measures 10 A (20 A overload for 30 seconds)
- Large white LED backlight to work in poorly lit areas
- Compact ergonomic design for one-handed operation
- Compatible with optional magnetic hanger (ToolPak™)
- True-rms for accurate measurements on non-linear loads
- Min/Max/Average with elapsed time to record signal fluctuations
- CAT III 600 V safety rated

Bench Power Supply



1670781

Features

Power Supply Output Type	: Adjustable
No. of Outputs	: 2 Output
Output Voltage Min	: 0V
Output Voltage Max	: 30V
Output Current Min	: 0A
Output Current Max	: 2A
Power Rating	: 120W
Supply Voltage Min	: 103.5V AC
Supply Voltage Max	: 230V AC
Manufacturer Warranty	: 3 Years
Product Range	: EL-R Series
Plug Type	: EU, UK

Keysight Electronics Test and Measurement Kit

Features

- Provides a Minigrabber output from a Banana Jack.
- Banana plug is capable of vertical and cross stacking.
- Mates to Model 1581 or any standard Banana Jack.

Materials

Conn: 1st End - Minigrabber®

Material: Contact – Beryllium Copper

Spring – Stainless Steel

Finish: Contact – Gold Plated

Insulation: Glass filled nylon. Color matches color of wire.

Marking: "POMONA ELECTRONICS" "MINIGRABBER®"

Wire: 20 AWG, stranding 41 x 36 t.c., PVC insulated 2.21 (.087) O.D.

Marking: "POMONA 3782-*"

Conn: 2nd End – Stacking Banana Plug

Material: Spring – Beryllium Copper

Plug Body – Brass

Finish: Nickel Plated

Insulation: Polypropylene molded to plug body and wire. Colour matches colour of wire.

Ratings

Operating Temperature: +55°C (+131°F) Max.

Operating Voltage: Hand-held testing: 30V AC/60V DC Max.

Hands free testing in controlled voltage environments: 300 WVDC

Current: 5 Amperes Cont.

ORDERING INFORMATION: Model 3782-XX-*

XX = Cable Lengths, Standard Lengths: 12" (305mm), 24" (610mm), 36" (914mm), 48" (1219mm) & 60" (1524mm).

*= Colour, -0 Black, -2 Red, -4 Yellow, -5 Green, -6 Blue

Ordering Example: 3782-60-2 Indicates 60" in length, Colour is Red

Additional lengths and colors can be quoted upon request.

Oscilloscope Probe



2893199

Features

Oscilloscope Probe Function	: Passive
Bandwidth	: 100MHz
Input Voltage Max	: 600V
Test Probe Attenuation	: 1:1, 10:1
For Use With	: Oscilloscopes

BNC to Banana Plug

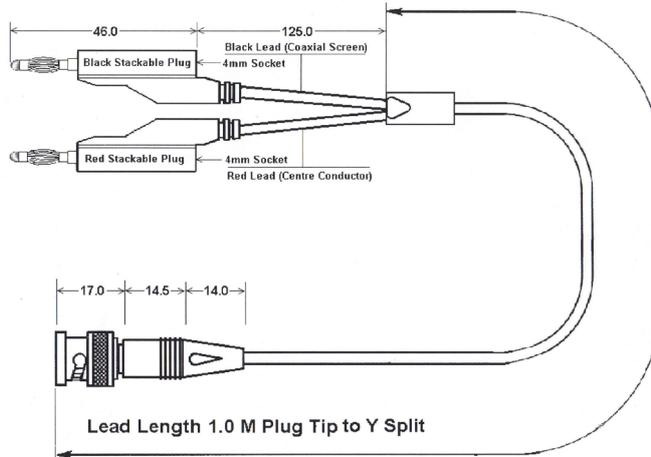


3153514

Features

Test Lead	: BNC Plug to BNC Plug
Plating	: Nickel Plated BNC Plug Gold Pins
Boots	: PVC Moulded Strain Relief Boots
Cable	: RG58 Coaxial Black
Impedance	: 50Ω Characteristic Impedance
4mm Plugs	: PVC Mouldings Nickel Brass Contacts

Keysight Electronics Test and Measurement Kit



BNC to Crocodile

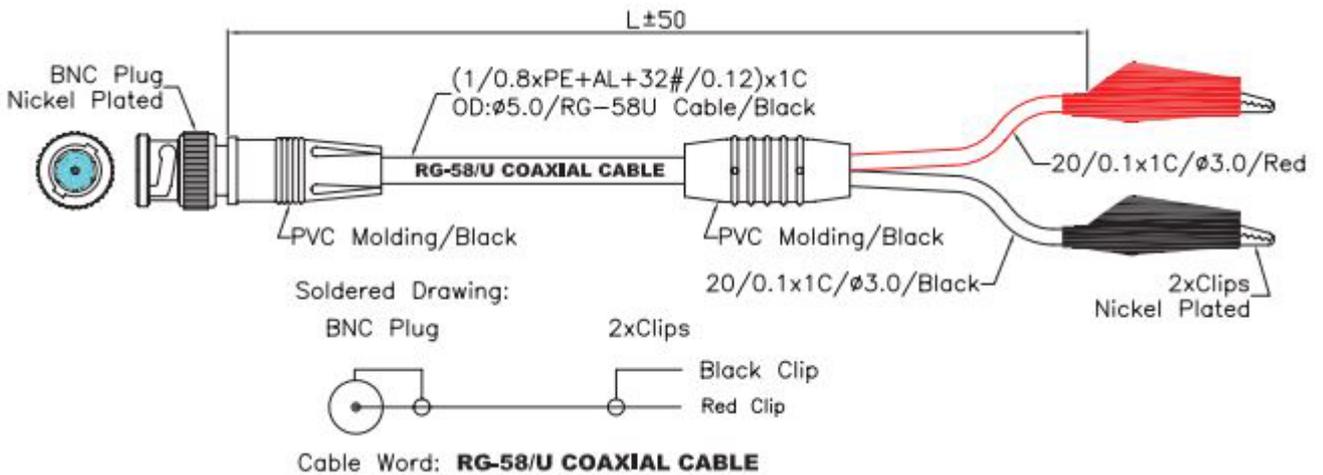


4284227

Features

Test Connector Type A	: BNC Plug
Test Connector Type B	: Crocodile Clips x 2
Insulator Colour	: Black, Red
Lead Length - Metric	: 2m
Lead Length - Imperial	: 6.6ft

Diagram



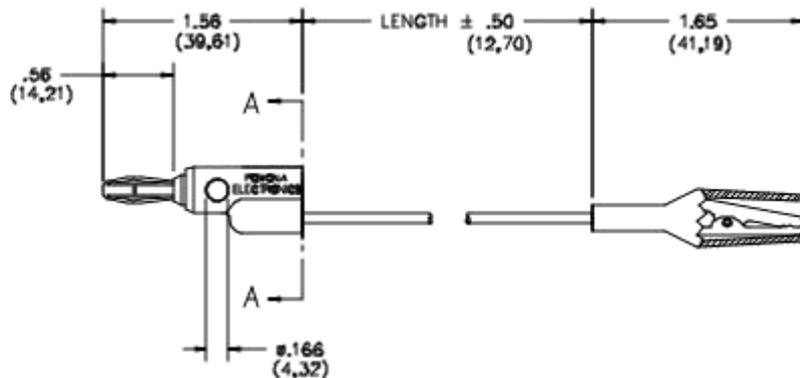
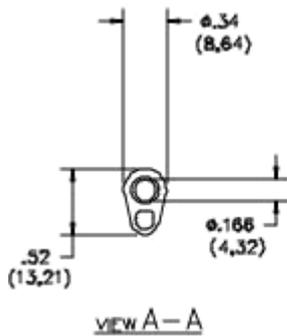
Dimensions : Millimetres

Keysight Electronics Test and Measurement Kit

Crocodile to Banana Red



2406161



Features

Test Connector Type A	: Crocodile Clip
Test Connector Type B	: 4mm Stackable Banana Plug
Voltage Rating	: 60V
Current Rating	: 5A
Insulator Colour	: Red
Lead Length - Metric	: 914mm
Lead Length - Imperial	: 36"
Product Range	: Model 3220 Series

Features

- Provides cross hole for cross stacking, and a jack for vertical stacking.
- Allows an Alligator Clip with leads to be used from a Banana Jack.

Materials

Conn: Insulated Minigator Clip

Material: Steel.

Finish: Nickel plated.

Insulator: Vinyl.

Colour: Matches colour of wire.

Conn: Banana Plug

Material: Spring, Beryllium Copper per QQ-C-533, Alloy 172, Cond. HT. Plug Body, Brass per QQ-B-626, Alloy 360, ½ Hard.

Finish: Nickel plated per QQ-N-290, Class 2, 200/300 microinches.

Insulation: Polypropylene molded to plug body and wire. Colour: Matches colour of wire.

Marking: "POMONA 3220-XX"

Ratings

Operating Temperature: +50° C. (+122° F.) Max.

Operating Voltage: Hand-held testing: 30VAC/60VDC Max.

Current: 5 Amperes

Ordering Information: Model 3220-XX-*

XX = Cable Lengths, Standard Lengths: 4" (102), 12" (305), 18" (475), 24" (610), 36" (914), 48" (1219) & 60" (1524). Additional lengths can be quoted upon request.

*= Colour, -0 Black, -2 Red

Ordering Example: 3220-60-2 Indicates 60" in length, color is Red.

Keysight Electronics Test and Measurement Kit

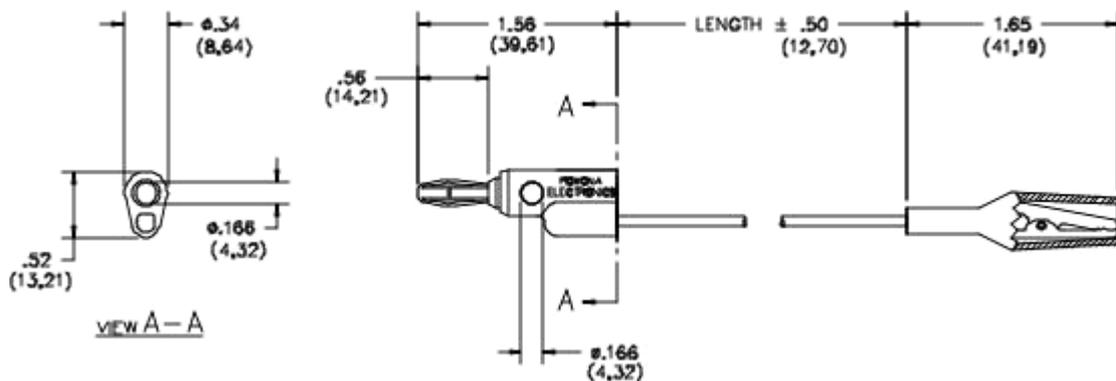
Crocodile to Banana Black



2406158

Features

Test Connector Type A	: Crocodile Clip
Test Connector Type B	: 4mm Stackable Banana Plug
Voltage Rating	: 60V
Current Rating	: 5A
Insulator Colour	: Black
Lead Length - Metric	: 914mm
Lead Length - Imperial	: 36"
Product Range	: Model 3220 Series



Specification

- Provides cross hole for cross stacking, and a jack for vertical stacking.
- Allows an Alligator Clip with leads to be used from a Banana Jack.

Materials

Conn: Insulated Minigator Clip

Material: Steel.

Finish: Nickel plated.

Insulator: Vinyl.

Colour: Matches colour of wire.

Conn: Banana Plug

Material: Spring, Beryllium Copper per QQ-C-533, Alloy 172, Cond. HT. Plug Body, Brass per QQ-B-626, Alloy 360, ½ Hard.

Finish: Nickel plated per QQ-N-290, Class 2, 200/300 microinches.

Insulation: Polypropylene molded to plug body and wire. Colour: Matches colour of wire.

Marking: "POMONA 3220-XX"

Ratings

Operating Temperature: +50° C. (+122° F.) Max.

Operating Voltage: Hand-held testing: 30VAC/60VDC Max.

Current: 5 Amperes

Ordering Information: Model 3220-XX-*

XX = Cable Lengths, Standard Lengths: 4" (102), 12" (305), 18" (475), 24" (610), 36" (914), 48" (1219) & 60" (1524). Additional lengths can be quoted upon request.

*= Colour, -0 Black, -2 Red

Ordering Example: 3220-60-2 Indicates 60" in length, colour is Red.

Keysight Electronics Test and Measurement Kit

Banana to Banana Black



523690

Features

Test Connector Type A	: 4mm Stackable Banana Plug
Test Connector Type B	: 4mm Stackable Banana Plug
Voltage Rating	: 60V
Current Rating	: 16A
Insulator Colour	: Black
Lead Length - Metric	: 250mm
Lead Length - Imperial	: 9.8"

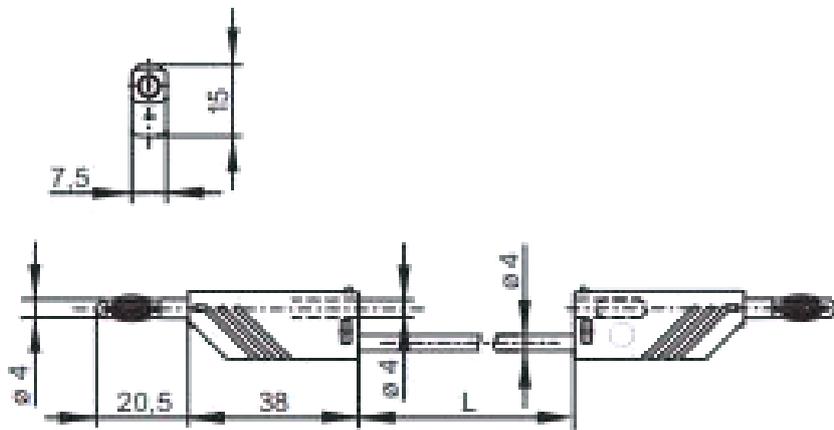
Banana to Banana Red



523689

Features

Test Connector Type A	: 4mm Stackable Banana Plug
Test Connector Type B	: 4mm Stackable Banana Plug
Voltage Rating	: 60V
Current Rating	: 16A
Insulator Colour	: Red
Lead Length - Metric	: 250mm
Lead Length - Imperial	: 9.8"



Keysight Electronics Test and Measurement Kit

Kit Content Description		
Order Code	Description	Quantity
3380602	Oscilloscope	1
2100020	Function Generator	1
1274599	Digital Multimeter	1
1670781	Bench Power Supply	1
3290136	Alligator Clip Test Lead Set	1
2829202	Banana Plug Test Lead Set	2
2893199	Oscilloscope Probe	2
3153514	BNC to Banana Plug	2
4284227	BNC to Crocodile	2
2406161	Crocodile to Banana Red	2
2406158	Crocodile to Banana Black	2
523690	Banana to Banana Black	2
523689	Banana to Banana Red	2

Part Number Table

Description	Part Number
Keysight Electronics Test And Measurement Kit	35421440