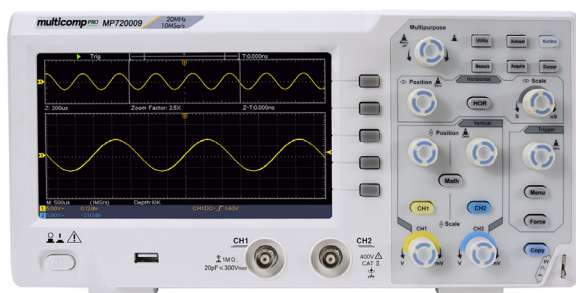# Multicomp Pro Electronics Test and Measurement Kit

multicomp PRO

Dual Channel Digital Storage Oscilloscope

RoHS Compliant

3107568

Features

- Bandwidth : 20MHz - 100MHz
- 2-Channels
- Sample rate : 100MS/s - 1GS/s
- Ultra-thin body
- 7 inch high resolution LCD
- SCPI, and LabVIEW supported

Application

- Electronic circuit debugging
- Education and training
- Circuit testing
- Design and manufacture
- Automobile maintenance and testing

Performance Specifications

Parameters	3107568
Bandwidth	20MHz
Sample Rate	100MS/s
Horizontal Scale (s/div)	5ns/div - 1000s/div, step by 1 - 2 - 5
Rise Time (at input, typical)	≤17.5ns
Channel	2
Display	7″ colour LCD, 800 × 480 pixels
Input Impedance	1MΩ ±2%, in parallel with 20pF ±5pF
Channel Isolation	50Hz : 100 : 1, 10MHz : 40 : 1
Max Input Voltage	400V (PK - PK) (DC+AC, PK - PK)
DC Gain Accuracy	±3%
Record Length	10K
DC Accuracy (average)	Average≥16: ±(3% reading + 0.05 div) for ΔV
Probe Attenuation Factor	1X, 10X, 100X, 1000X
LF Respond (AC, -3dB)	≥10Hz (at input, AC coupling, -3dB)
Sample Rate / Relay Time Accuracy	±100ppm
Interpolation	sin (x) / x
Interval (ΔT) Accuracy (full bandwidth)	Single: ±(1 interval time + 100ppm × reading + 0.6ns), Average>16 : ±(1 interval time + 100ppm × reading + 0.4ns)
Input Coupling	DC, AC and GND
Vertical Resolution (A/D)	8 bits (2 channels simultaneously)
Vertical Sensitivity	5mV/div - 5V/div (at input)
Trigger Type	Edge, Video
Trigger Mode	Auto, Normal, and Single

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Parameters	3107568
Trigger Level	±5 divisions from screen center
Line / Field Frequency (video)	NTSC, PAL and SECAM standard
Cursor Measurement	ΔV, and ΔT between cursors
Automatic Measurement	Vpp, Vavg, RMS, Frequency, Period, Vmax, Vmin, Vtop, Vbase, Width, Overshoot, Pre-shoot, Rise time, Fall time, +Width, -Width, +Duty, -Duty, Delay A→B, Delay A→B, area, cycle area
Waveform Math	+, -, x, ÷, invert, FFT
Waveform Storage	16 waveforms
Lissajous Figure — Bandwidth	Full bandwidth
Lissajous Figure — Phase Difference	±3 degrees
Communication Interface	USB host, USB device
Frequency Counter	Available
Power Consumption	<15W
Fuse	2A, T class, 250V
Dimension (W × H × D)	301mm × 152mm × 70mm
Device Weight	1.1kg
Power Supply	100V to 240V AC, 50/60Hz, CAT II
Power Cord Plug Type	UK / EU
Standard Accessories Included	Power cord, USB cable, CD-Rom.Manual, Probes, Probe Adjust Tool
Optional Accessories Included	Soft bag
Warranty	12 months

Function Generator

3130266

Specifications

Part Number	3130266
Channel	1
Bandwidth	5MHz
Sampling Rate	125MS/s
Vertical Resolution	14 bits
Waveforms	Sine, Square, Pulse, Ramp, Noise, DC, Arbitrary (20 sets inside)
Sweep Modes	Logarithmic, linear

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Part Number	3130266
Frequency Characteristics	
Sine	1µHz to 2MHz
Square	1µHz to 2MHz
Ramp	1µHz to 200kHz
Pulse	1µHz to 2MHz
Arbitrary	1µHz to 1MHz
Resolution	1µHz
Accuracy	Within 90 days ±50ppm
	Within 1 year ±100ppm
	18°C to 28°C
Output Characteristics	
Impedance	50Ω/High Z
Amplitude Range	1mVpp to 10Vpp (50Ω); 2mVpp to 20Vpp (high Z)
DC Offset Range	-5Vpp to 5Vpp (50Ω) (AC+DC); -10Vpp to 10Vpp (high Z) (AC+DC)
Amplitude Resolution	1mV

Bench Power Supply

1670781

Specifications Table

Performance		1670781
Channels		Single Channel Adjustable
AC Input Voltage		230V ±10% / 50Hz, 110V, 220V ±10% / 60Hz
Output Voltage Range		0 - 30V
Output Current Range		0 - 3A
Load Regulation	Voltage	≤0.01% + 2mV
	Current	≤0.1% + 5mA
Line Regulation	Voltage	≤0.01% + 3mV
	Current	≤0.1% + 3mA

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Performance		1670781
Setup Resolution	Voltage	10mV
	Current	1mA
Setup Accuracy (25°C ±5°C)	Voltage	≤0.5% + 20mV
	Current	≤0.5% + 5mA
Ripple (20Hz - 20MHz)	Voltage	≤1m Vrms
	Current	≤3m Arms
Temperature Coefficient	Voltage	≤150ppm + 10mV
	Current	≤150ppm + 5mA
Read Back Accuracy	Voltage	10mV
	Current	1mA
Read Back Temperature Coefficient	Voltage	≤150ppm + 10mV
	Current	≤150ppm + 5mA
Reaction Time (10% Rated load)	Voltage Rise	≤100ms
	Current Drop	≤100ms
Interfaces		-
Accessories		User Manual, Power Cord, UK Plug, Euro Plug, US Plug
Weight		3.6kg
Dimension (W x H x D)		110mm × 156mm × 260mm

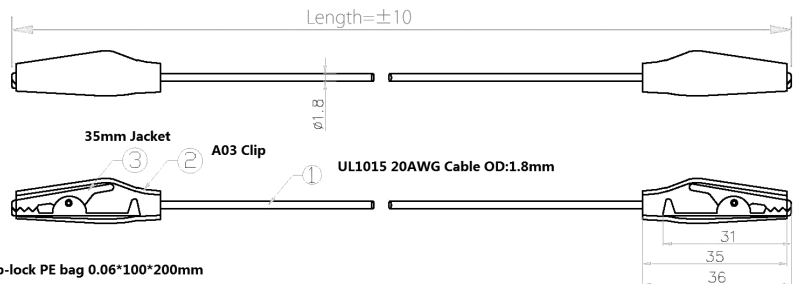## Digital Multimeter

1274599

Aligator Clip test lead set

Diagram

Specification

White/Yellow/Red/Green/Black, 10pcs, each colour 2pcs.

3290136

Length=±10

ø1.8

35mm Jacket

A03 Clip

③ ② ①

UL1015 20AWG Cable OD:1.8mm

Package: 1pc/Zip-lock PE bag 0.06*100*200mm

31
35
36

Dimensions : Millimetres

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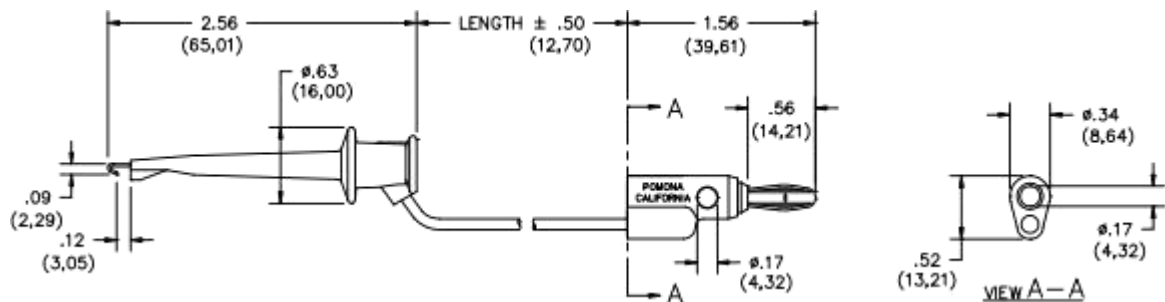Farnell.com/multicomp-pro
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Multicomp Pro Electronics Test and Measurement Kit

Banana Plug Test Lead Set

2829202

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: +55ºC (+131ºF) 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.

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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

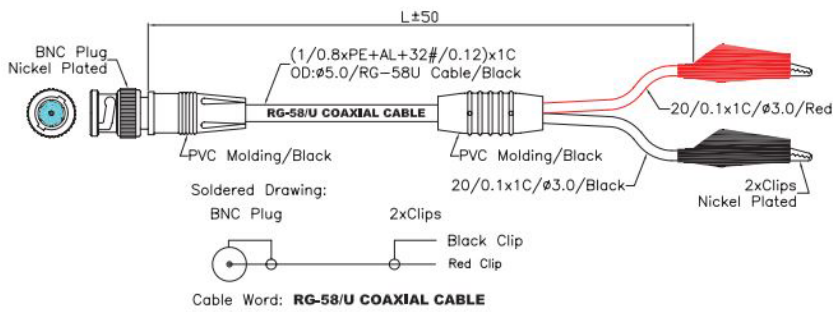|	
Test Lead	: BNC Plug to BNC Plug
Plating	: Nickel Plated BNC Plug Gold Pins
Boots	: PVC Moulded Strain Relief Boots
Cable	: RG58 Coaxial Black
Impedance	: 50Ω Characteristic Impedance
4mm Plugs	: PVC Mouldings Nickel Brass Contacts

46.0   125.0
Black Lead (Coaxial Screen)
Black Stackable Plug   4mm Socket

Red Stackable Plug   4mm Socket
Red Lead (Centre Conductor)

17.0   14.5   14.0

Lead Length 1.0 M Plug Tip to Y Split
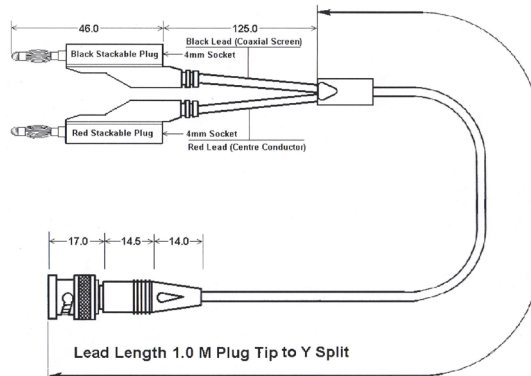
BNC to Crocodile

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

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Crocodile to Banana Red

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

2406161
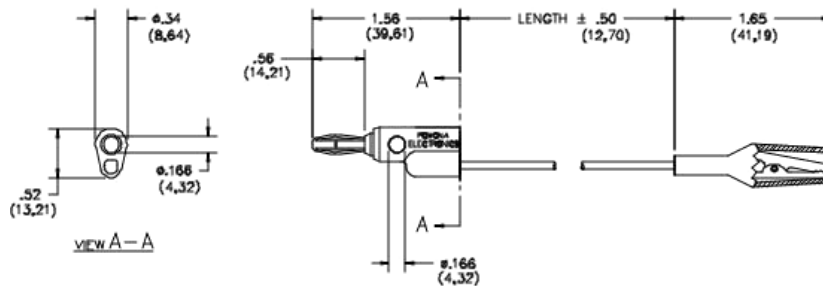
Dimensions : Millimetres

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.

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Insulation: Polypropylene molded to plug body and wire. Colour: Matches colour of wire.
Marking: "POMONA 3220-XX"

Ratings
Operating Temperature: +50º C. (+122º 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.

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

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"

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Ratings

Operating Temperature: +50ºC. (+122ºF.) 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.

Banana to Banana Black

Features

523690

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

Features

523689

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"

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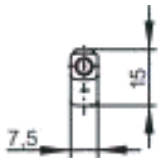
Multicomp Pro Electronics Test and Measurement Kit

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Kit Content Description

Order Code	Description	Qty.
3107568	Oscilloscope	1
3130266	Function Generator	1
3498310	Digital Multimeter	1
2563981	Bench Power Supply	1
3290136	Aligator 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
Multicomp Pro Electronics Test and Measurement Kit	35421427

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