Active Voltage Rail Probes
RP2060/RP4060

Key Features

Up to 4 GHz Bandwidth

±60 V Offset Capability

±800 mV Dynamic Range

50 kΩ DC Input Impedance

1.2x Attenuation for low additive noise

MCX terminated cable with wide variety of connections:
- **Solder-in (4 GHz)**
- **Coaxial Cable to U.FL receptacle (3 GHz)**
- **MCX PCB Mount (4 GHz)**
- **Browser (500 MHz)**

ProBus Interface

The RP4060 and RP2060 probes are designed specifically to probe low-impedance DC power/voltage rails. Low attenuation means a low-noise view of small signal variations at high frequency, while the probe's built-in offset of up to ±60V enables compensation for the rail's DC voltage. The probe's high DC input impedance eliminates loading of the low-impedance DC rail.

Large Offset Range
Permits the DC signal to be displayed in the vertical center of the oscilloscope grid with a high-sensitivity gain setting.

Low Attenuation and Noise
The probe attenuation is a nominal 1.2x coupled to the oscilloscope at DC 50 Ω. This keeps additive noise to a minimum, and makes it exceptionally useful with Teledyne LeCroy's 12-bit High Definition oscilloscopes for lowest noise at highest sensitivity gain settings.

High DC Input Impedance
50 kΩ input impedance at DC effectively eliminates probe loading on the DC power/voltage rail and provides for more accurate measurements and signal fidelity.

High Bandwidth
The RP4060 provides 4 GHz of bandwidth, for power integrity characterization of the highest performance computing and embedded systems. The RP2060 provides the same excellent noise and loading performance in a lower-cost 2 GHz probe.

Wide Assortment of Tips and Leads
The RP4060 and RP2060 are supplied standard with solder-in and coaxial cables with MCX and U.FL PCB receptacle mounts. Receptacles or leads can be left connected in circuit for easy connection of different signals. A browser tip is optionally available.

Specifications

Electrical Characteristics	RP2060	RP4060
Bandwidth		
MCX receptacle	2 GHz	4 GHz
Solder-in lead	2 GHz	4 GHz
U.FL cable + receptacle	2 GHz	3 GHz
Browser	500 MHz	
Rise Time (10-90%)	220 ps	110 ps
Input Capacitance	0.1 uF (in series with 50Ω)	
DC Input Resistance	50 kΩ	
Offset Range	±60V	
Attenuation	1.2x	
Input Dynamic Range	±800 mV	
Non-destruct Voltage	±100 V (DC +Peak AC)	
Maximum Non-destruct AC Voltage	50 Ω oscilloscope input limit	
Maximum Safe Input Voltage	For Hand-held use: 60 V DC (referenced to ground) per IEC/EN 61010-031:2015	
Noise (probe only)	110 uVrms	160 uVrms
Oscilloscope Termination	DC 50Ω	

Environmental

Operating Temperature Range	0 to 50 ºC	
Non-operating Temperature Range	-40 to +70 ºC	
Humidity	5% to 80% RH (non-condensing) up to 30 ºC, decreasing linearly to 45% RH at 50 ºC	
Operating Altitude	3000 meters maximum	

Physical

RP2060/RP4060	**Probe:** 38.1 mm W x 15.9mm H x 73mm L (1-1/2" x 5/8" x 2-7/8") **SMA to MCX Cable:** 914mm L (36") **MCX to Solder-in Lead:** 191mm (7-1/2") usable length **MCX to U.FL Plug Coaxial Cable:** 102mm (4") usable length
RP4000-BROWSER	11.9mm W x 9.5mm H x 38mm L (15/32" x 3/8" x 1-1/2") **SMA to SMA Cable:** 1m (39-3/8") usable length

Other

Oscilloscope Interface	Teledyne LeCroy ProBus	
Software Requirements	MAUI 10.2 or higher	MAUI 10.1 or higher
Weight	119 g (0.26 lb)	

Ordering Information

Product Description	Product Code
Power/Voltage Rail Probe 2 GHz, 1.2x, ±60V offset, ±800mV dynamic range	RP2060
Power/Voltage Rail Probe 4 GHz, 1.2x, ±60V offset, ±800mV dynamic range	RP4060

Includes Qty. 1 ProBus compatible probe offset amplifier with 50 kΩ DC input impedance and SMA input connection for provided 0.9m SMA to MCX extension cable. Also supplied are Qty. 3 MCX solder-in leads, Qty. 3 MCX PCB Mounts, Qty. 3 MCX to U.FL coaxial cables, Qty. 5 U.FL PCB Mounts, Qty. 1 MCX to SMA adapter, and soft carrying case. Browser tip sold separately

500 MHz Browser Tip Accessory	RP4000-BROWSER

Includes 0 Ω (1x), 450 Ω (10x) and 950 Ω (20x) tips.

Accessories and Consumables

Qty. 3 MCX 4 GHz solder-in leads	RP4000-MCX-LEAD-SI

Customer Service

Teledyne LeCroy oscilloscopes and probes are designed, built, and tested to ensure high reliability. In the unlikely event you experience difficulties, our digital oscilloscopes are fully warranted for three years and our probes are warranted for one year. This warranty includes:

- No charge for return shipping
- Long-term 7-year support
- Upgrade to latest software at no charge

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