

## U2040/53/63 & L2050/60 X-Series Wide Dynamic Range Power Sensors



Keysight U2040/53/63 & L2050/60 X-Series wide dynamic range power sensors offer accurate and repeatable power measurement for any modulated signal. This series comprised of USB and LAN based models – and covers frequency from 10 MHz up to 53 GHz and power dynamic range of -70 to +26 dBm. The U2049XA<sup>1</sup> and L2065XT<sup>1</sup> are the world's first LAN-based sensor<sup>1</sup> with thermal vacuum (TVAC) option, is suitable for distances up to 100 meters and comes with best-in-class long term drift performance.

### Standard shipped items

- Sensor cable
  - USB cable: 5 ft (1.5 m), default cable length<sup>2</sup>
  - LAN cable: 5 ft (1.5 m), default cable length<sup>3</sup>
- BNC male to SMB female trigger cable, 50 Ω, 1.5 m (Quantity: 2)
- Thermal interface material<sup>4</sup>
- Certificate of calibration

1. Connected to Power over Ethernet (PoE) ports, which can be used to supply the DC power required to power up the sensor and to transfer data.
2. Only applicable to U2040/53/54/55/63/64/65 X-Series
3. Only applicable to U2049 & L2050/60 X-Series
4. Only applicable to U2049XA (Option TVA) & L2065XT

Learn more at: [www.keysight.com](http://www.keysight.com)

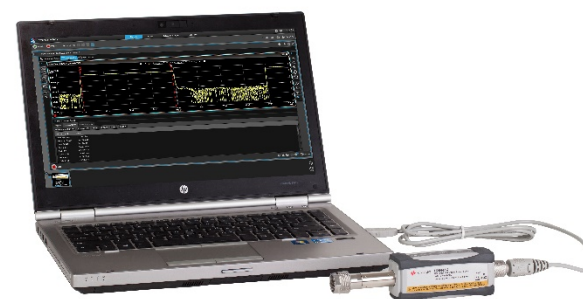
### Key features and benefits

- World's widest dynamic range (-70 to +26 dBm) for small signal measurements in wireless chipset and payload testing
- Super-fast measurement speed (50,000 readings/sec) enables higher manufacturing throughput
- Real-time measurement with zero dead time to ensure every single continuous pulse is measured
- Average mode time selectivity feature allows the sensor to measure average and time selectivity average power measurements across the full 96 dB range
- Internal zero and automatic calibration saves time and reduces measurement uncertainty
- Variable sampling rate up to 1M sample/sec and deep memory up to 1Mbytes.

### BenchVue software

- Intuitive software is bundled with each X-Series wide dynamic range power sensor
- Easy measurement start-up upon connection of hardware and launching of software
- Faster setup with built-in radar and wireless presets

For more information the X-Series wide dynamic range power sensor, visit: [www.keysight.com/find/widedynamicsensor](http://www.keysight.com/find/widedynamicsensor)



## X-Series power sensor comparison table

USB Model	LAN Model	Description	Frequency Range	Power Range	Supported Measurements	Connector Type
U2041XA	L2051XA	Wide dynamic range average power sensor	10 MHz – 6 GHz	-70 to +26 dBm	Average, time-selectivity in average mode	N-type (male)
U2042XA	L2061XA	Wide dynamic range peak and average power sensor			Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling	
U2043XA	L2052XA	Wide dynamic range average power sensor	10 MHz – 18 GHz	-70 to +26 dBm	Average, time-selectivity in average mode	N-type (male)
U2044XA	L2062XA	Wide dynamic range peak and average power sensor			Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling	
U2053XA	L2053XA	Wide dynamic range average power sensor	10 MHz – 33 GHz	-70 to +26 dBm	Average, time-selectivity in average mode	3.5 mm (male)
U2063XA	L2063XA	Wide dynamic range peak and average power sensor			Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling	
U2054XA	U2049XA	Wide dynamic range peak and average power sensor	10 MHz – 33 GHz	-70 to +20 dBm	Average, time-selectivity in average mode	3.5 mm (male)
U2054XA	L2054XA	Wide dynamic range average power sensor	10 MHz – 40 GHz	-70 to +20 dBm	Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling	2.92 mm (male)
U2064XA	L2064XA	Wide dynamic range peak and average power sensor	10 MHz – 50 GHz	-70 to +20 dBm	Average, time-selectivity in average mode	2.4 mm (male)
U2055XA	L2055XA	Wide dynamic range average power sensor	10 MHz – 53 GHz (Option 053)	(10 MHz to 50 GHz) -70 to 0 dBm (> 50 GHz to 53 GHz) <sup>1</sup>	Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling	
<b>Thermal Vacuum Compliance Power Sensor</b>						
	U2049XA (Option TVA)	Wide dynamic range peak and average power sensor with thermal vacuum option	10 MHz – 33 GHz	-70 to +20 dBm	Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling	3.5 mm (male)
	L2065XT	Wide dynamic range peak and average power sensor with thermal vacuum compliance	10 MHz – 53 GHz	-70 to +20 dBm (10 MHz to 50 GHz) -70 to 0 dBm (> 50 GHz to 53 GHz)	Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling	2.4 mm (male)

1. Applicable for Option 053 only

### U2040/53/63 X-Series USB power sensors

Options	Description
<b>Accessories</b>	
U2000A-201	Transit case
U2000A-202	Soft carrying case
U2000A-203	Holster
U2000A-204	Soft carrying pouch
<b>Cables (selectable during sensor purchase)</b>	
U2000A-301/302/303	USB cable 1.5 m/ 3 m/ 5 m
<b>Cables (ordered standalone)</b>	
U2031A/B/C	USB cable 1.5 m 4/ 3 m/ 5 m
U2032A	BNC male to SMB female trigger cable, 50 Ω, 1.5 m

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### U2049 & L2050/60 X-Series LAN power

Options	Description
<b>Accessories</b>	
U2035A	U2049XA sensor casing
U2036A	TVAC sensor bracket (for option TVA only)
<b>Standard LAN cables (selectable during sensor purchase and orderable standalone)</b>	
U2034A/B/C/D/E/F	LAN cable 1.5 m 4/ 3 m/ 5 m/ 15.2 m/ 30.5 m/ 61 m
<b>TVAC LAN cables (selectable during sensor purchase and orderable standalone)</b>	
U2037A/B/C/D/E/F	LAN cable 1.5 m 4/ 3 m/ 5 m/ 15.2 m/ 30.5 m/ 61 m
<b>Trigger cable</b>	
U2032A	BNC male to SMB female trigger cable, 50 Ω, 1.5 m

### For all X-Series models

Options	Description
<b>Calibration and test data</b>	
UK6	Commercial calibration
<b>Optional software</b>	
BV0007B	BenchVue Power Meter/Sensor Control and Analysis app license

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