

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



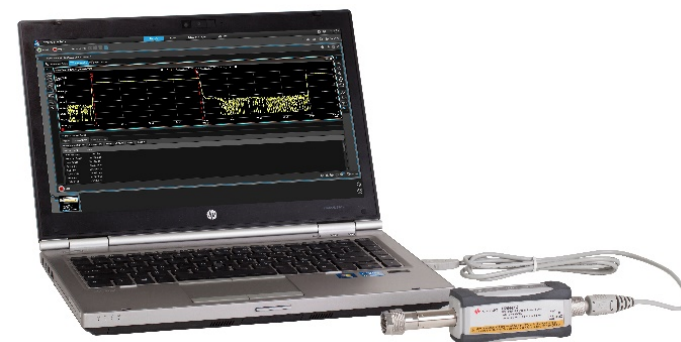
Keysight U2040 & U/L2050/60 X-Series wide dynamic range power sensors offer accurate and repeatable power measurement for any modulated signal. This series comprised of USB and LAN based models – and covers frequency from 10 MHz up to 67 GHz and power dynamic range of -70 to +26 dBm. The U2049XA<sup>1</sup> and L2065/66/67XT<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.

### Key features and benefits

- Frequency range of 10 MHz up to 67 GHz
- USB/LAN connectivity with world's widest dynamic range (-70 to +26 dBm) for small signal measurements in wireless chipset and payload testing
- 5 MHz video bandwidth and single shot real-time capture at 20M samples/sec
- Variable sampling rate up to 1M sample/sec and Long Memory 1M samples data storage
- LAN power sensor with thermal vacuum compliance
- 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
- A BenchVue Power Meters/Sensors App (BV0007B) license is now included with your instrument. The app makes it simple to connect, control instruments, and automate test sequences

### BenchVue Power Meters/Sensors App

- Intuitive software is bundled with each X-Series wide dynamic range power sensors
- 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 sensors, visit:  
[www.keysight.com/find/widedynamicsensor](http://www.keysight.com/find/widedynamicsensor)

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| USB model                                      | LAN model            | Description   | Frequency range              | Power range  | Supported measurements   | Connector type |
|--|----------------------|---|------------------------------|--|--|----------------|
| U2041/51XA                                     | L2051XA              | Wide dynamic range average power sensor   | 10 MHz – 6 GHz               | -70 to +26 dBm   | Average, time-selectivity in average mode  | N-type (male)  |
| U2042/61XA                                     | 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 |                |
| U2043/52XA                                     | L2052XA              | Wide dynamic range average power sensor   | 10 MHz – 18 GHz              | -70 to +26 dBm   | Average, time-selectivity in average mode  | N-type (male)  |
| U2044/62XA                                     | 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 |                |
|  | U2049XA              | Wide dynamic range peak and average power sensor                                |                              | -70 to +20 dBm   |  |                |
| U2054XA  | L2054XA              | Wide dynamic range average power sensor   | 10 MHz – 40 GHz              | -70 to +20 dBm   | Average, time-selectivity in average mode  | 2.92 mm (male) |
| U2064XA  | L2064XA              | Wide dynamic range peak and average power sensor                                |                              |  | Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling |                |
| U2055XA  | L2055XA              | Wide dynamic range average power sensor   | 10 MHz – 50 GHz              | -70 to +20 dBm   | Average, time-selectivity in average mode  | 2.4 mm (male)  |
| U2065XA  | L2065XA              | Wide dynamic range peak and average power sensor                                | 10 MHz – 53 GHz (Option 053) | (10 MHz to 50 GHz)<br>-70 to 0 dBm<br>(> 50 GHz to 53 GHz) <sup>1</sup>  | Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling |                |
| U2056XA  | L2056XA              | Wide dynamic range average power sensor   | 10 MHz – 54 GHz              | -70 to +20 dBm<br>(10 MHz to 50 GHz)   | Average, time-selectivity in average mode  | 1.85 mm (male) |
| U2066XA  | L2066XA              | Wide dynamic range peak and average power sensor                                |                              |  | -70 to +15 dBm<br>(> 50 GHz to 54 GHz)   |                |
| U2057XA  | L2057XA              | Wide dynamic range average power sensor   | 10 MHz – 67 GHz              | -70 to +20 dBm<br>(10 MHz to 50 GHz)   | Average, time-selectivity in average mode  | 1.85 mm (male) |
| U2067XA  | L2067XA              | Wide dynamic range peak and average power sensor                                |                              |  | -70 to +15 dBm<br>(> 50 GHz to 54 GHz)<br>-70 to +10 dBm<br>(> 54 GHz to 67 GHz)                         |                |
| <b>Thermal vacuum compliance power sensors</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<br>(10 MHz to 50 GHz)<br>-70 to 0 dBm<br>(> 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)  |
|  | L2066XT              | Wide dynamic range peak and average power sensor with thermal vacuum compliance | 10 MHz – 54 GHz              | -70 to +20 dBm<br>(10 MHz to 50 GHz)<br>-70 to +15 dBm<br>(> 50 GHz to 54 GHz)   | Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling | 1.85 mm (male) |
|  | L2067XT              | Wide dynamic range peak and average power sensor with thermal vacuum compliance | 10 MHz – 67GHz               | -70 to +20 dBm<br>(10 MHz to 50 GHz)<br>-70 to +15 dBm<br>(> 50 GHz to 54 GHz)<br>-70 to +10 dBm<br>(> 54 GHz to 67 GHz) | Peak, average, peak-to-average, time-gated and free run mode, pulse parameters analysis, pulse profiling | 1.85 mm (male) |

1. Available for Option 053 only.

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### X-Series USB/LAN power sensors options

| Options                          | Description  |
|----------------------------------|--|
| <b>Trigger cable</b>             |  |
| U2032A                           | BNC male to SMB female trigger cable, 50 Ω, 1.5 m  |
| <b>Documentation</b>             |  |
| Option OB1                       | English language Operating and Service Guide   |
| Option OBF                       | English language Programming Guide   |
| Option OBN                       | English language Service Guide   |
| Option ABJ                       | Japanese language Operating and Service Guide  |
| U2041XA-CD <sup>1</sup>          | Documentation Optical Disk (consists of documentation CD-ROM and Keysight Instruments Control DVD) |
| U2053XA-CD <sup>2</sup>          | Documentation Optical Disk (consists of documentation CD-ROM and Keysight Instruments Control DVD) |
| <b>Optional software</b>         |  |
| BV0007B                          | BenchVue Power Meter/Sensor Control and Analysis app license                                       |
| <b>Calibration and test data</b> |  |
| UK6                              | Commercial calibration with test data  |
| A6J                              | ANSI Z540 compliant calibrations and test data   |
| 1A7                              | ISO 17025 compliant calibrations and test data   |

1. Available for U2040 X-Series only.
2. Available for U/L2050/60 X-Series and L2065/66/67XT only.

### U2050/60 X-Series USB power sensors options

| 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/ 3 m/ 5 m |

### U2049 & L2050/60 X-Series LAN power sensors options<sup>1</sup>

| 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/ 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/ 3 m/ 5 m/ 15.2 m/ 30.5 m/ 61 m  |
| <b>Trigger cable</b>  |  |
| U2033A  | TVAC trigger cable BNC Male to SMB female, 50 Ω, 1.5 m (For U2049XA Option TVA and L2065/66/67XT only) |

1. PoE injector is not included. A commercially available 802.3at or 802.3af compliant PoE injector can be used with the LAN power sensors.

### Standard Shipped Items

|   |  |
|---|--|
| U2050/60 X-Series USB power sensors                           | USB cable 5 ft (1.5 m), default cable length<br>BNC male to SMB female trigger cable, 50 Ω, 1.5 m (Quantity: 2)<br>Certificate of calibration  |
| U2049XA & L2050/60 X-Series LAN power sensors                 | LAN cable 5 ft (1.5 m), default cable length<br>BNC male to SMB female trigger cable, 50 Ω, 1.5 m (Quantity: 2)<br>Certificate of calibration  |
| U2049XA (Option TVA) and L2065/66/67XT TVAC LAN power sensors | TVAC LAN cable 5 ft (1.5 m), default cable length<br>TVAC BNC male to SMB female trigger cable, 50 Ω, 1.5 m (Quantity: 2)<br>TVAC sensor bracket<br>Thermal interface material<br>Certificate of calibration |

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