



## TOUGHBOOK L1

- Android™ 8.1 (Oreo™)
- Optional integrated straight-shooting 1D/2D barcode reader configurable for landscape or portrait modes
- Industry standard quad-core processor by Qualcomm®
- Optional multi-carrier 4G LTE data support
- MIL-STD-810G, 5' Drop, All-weather IP65 and IP67 dust and water-resistant design
- 7" HD display with glove and rain mode
- 1 Year warranty with business class support
- Available with P.180 for seamless global connectivity

5-FOOT  
DROP RATING

IP65

IP67

P.180  
GET WORK DONE™

### STYLISH, RUGGED AND CONFIGURABLE THIS PANASONIC TOUGHBOOK TABLET HAS PROFESSIONAL GRADE FEATURES AND ENTERPRISE CAPABILITIES

The Panasonic TOUGHBOOK L1 is a slim and sleek Android OS based 7" tablet that proudly carries the TOUGHBOOK name. Its ability to be used in the enterprise to collect information from workers in retail stores, warehouses, field service, transportation and delivery or many other environments where work must occur belies its mild looking exterior. The TOUGHBOOK L1 has a quad-core processor and an optional straight-shooting barcode reader that can be purchased in a portrait or landscape configuration, used with a stylus pen or connect to multi-carrier 4G LTE and provide the ease of use of the Android OS. Users of this handheld won't miss a beat with its great battery life, glove and rain touch enabled 7" screen, 5 foot drop rating and IP65 and IP67 certification. The TOUGHBOOK L1 is ready to be used by satisfied end users everywhere in your organization.

1.800.662.3537

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**TOUGHBOOK®**

# TOUGHBOOK L1

<b>DURABILITY</b>	<ul style="list-style-type: none"> <li>■ Designed to meet MIL-STD-810G<sup>16</sup></li> <li>■ IP65 and IP67 sealed all-weather design</li> <li>■ 5' drop-resistant and tumble tested (500 tumbles, 3.3ft. 5 rpm)</li> </ul>
<b>SOFTWARE</b>	<ul style="list-style-type: none"> <li>■ Android 8.1 (Oreo)<sup>17</sup></li> </ul>
<b>CPU</b>	<ul style="list-style-type: none"> <li>■ Qualcomm® MSM8909 1.1GHz Quad-Core</li> </ul>
<b>STORAGE &amp; MEMORY</b>	<ul style="list-style-type: none"> <li>■ Memory 2GB<sup>1</sup></li> <li>■ Storage eMMC: 16 GB<sup>1</sup> <ul style="list-style-type: none"> <li>- Additional storage available with optional Storage Card: SD (up to 2 GB), SDHC (up to 32 GB), SDXC (up to 64 GB)<sup>2</sup></li> </ul> </li> </ul>
<b>DISPLAY</b>	<ul style="list-style-type: none"> <li>■ 7" high definition 1280 x 720</li> <li>■ 10-point capacitive multi touch with rain sensing and glove touch modes <ul style="list-style-type: none"> <li>- Optional Passive Stylus</li> <li>- Display with direct bonding</li> <li>- Automatic screen rotation</li> </ul> </li> </ul>
<b>AUDIO</b>	<ul style="list-style-type: none"> <li>■ Integrated microphone (x2)</li> <li>■ Loud volume mono speakers</li> </ul>
<b>KEYBOARD &amp; INPUT</b>	<ul style="list-style-type: none"> <li>■ 10-point gloved multi touch</li> <li>■ 2 buttons (user-definable when using the BCR)</li> <li>■ On-screen QWERTY keyboard</li> </ul>
<b>SENSORS</b>	<ul style="list-style-type: none"> <li>■ Ambient light sensor and acceleration sensors</li> </ul>
<b>CAMERAS</b>	<ul style="list-style-type: none"> <li>■ Full HD 8MP rear camera with LED light</li> </ul>
<b>EXPANSION</b>	<ul style="list-style-type: none"> <li>■ microSDXC (up to 64 GB)<sup>2</sup></li> </ul>
<b>INTERFACE</b>	<ul style="list-style-type: none"> <li>■ Docking connector</li> <li>■ Micro-USB option to be host or client interface 2.0 (x1)<sup>3</sup></li> <li>■ Mini-jack stereo headphone &amp; microphone</li> <li>■ xPak interface</li> </ul>
<b>WIRELESS</b>	<ul style="list-style-type: none"> <li>■ Qualcomm® WCN3660B IEEE802.11 a/b/g/n/d/h/i/r</li> <li>■ Qualcomm® MSM8909 - 4G LTE, HSPA+, UMTS, EDGE, GPRS, GSM</li> <li>■ Certified with Verizon, AT&amp;T and P.180 (Data only)</li> <li>■ Nano SIM card slot (x1)</li> <li>■ Bluetooth® v4.2 Classic Mode LE (class 1)</li> <li>■ GPS GPS/GLONASS CEP50 (±2 to 4 m)</li> <li>■ Near Field Communication (NFC)<sup>18</sup> <ul style="list-style-type: none"> <li>- Type A, Type B, Felica</li> </ul> </li> </ul>
<b>POWER SUPPLY</b> <sup>4,5,6,7,8,9,10,11</sup>	<ul style="list-style-type: none"> <li>■ Standard battery: Li-ion 3.8V, 3,200 mAh</li> <li>■ Standard battery operation <ul style="list-style-type: none"> <li>- Approx. 9 hours based on standard enterprise user profile<sup>9</sup></li> </ul> </li> <li>■ Warm Swap</li> <li>■ Standard battery charging time: <ul style="list-style-type: none"> <li>- Power on or off approx. 2.5 hours<sup>4</sup></li> </ul> </li> <li>■ Micro-USB charging capability sold separately<sup>5</sup></li> </ul>
<b>POWER MANAGEMENT</b> <sup>11</sup>	<ul style="list-style-type: none"> <li>■ Consumption approx. 13W<sup>12,13</sup></li> <li>■ Warm swap battery</li> </ul>
<b>SECURITY FEATURES</b>	<ul style="list-style-type: none"> <li>■ ARM® TrustZone® (Built-in)</li> </ul>
<b>WARRANTY</b>	<ul style="list-style-type: none"> <li>■ 1-year limited warranty, parts and labor</li> </ul>
<b>DIMENSIONS &amp; WEIGHT</b> <sup>14,15</sup>	<ul style="list-style-type: none"> <li>■ 7.6" x 5.2" x 0.5" (without barcode reader section)</li> <li>■ Approx. 0.93 lb. with Standard Battery</li> </ul>

## P.180

GET WORK DONE.™

## KEY FEATURES

- Optional 1D/2D barcode reader (SE4710) with LED light – option for portrait<sup>18</sup> or landscape options in SKU configuration

## ACCESSORIES

■ Single Bay Desktop USB I/O and charge cradle with 5v power supply and AC cord	FZ-VEH1L1AAM
■ 5-Bay Desktop Ethernet I/O and charging cradle with 100W power supply and AC cord	FZ-VEH5L1AAM
■ 5-Bay Desktop charge-only cradle with 100W power supply and AC cord	FZ-VCH5L1AAM
■ 5-Bay battery charger with 100W power supply and AC cord	FZ-VCBT131M
■ Standard Battery 3,200mAh	FZ-VZSUT10U
■ Standard battery 3,200mAh – 10 Pack	FZ-VZSUT1AU
■ USB Charger <sup>5</sup>	FZ-AAE184EM
■ Rotating Portrait (barcode configured) Hand Strap	FZ-VSTL13U
■ Rotating Landscape (barcode configured) Hand Strap	FZ-VSTL12U
■ Rotating Hand Strap (No barcode configuration)	FZ-VSTL11U
■ Passive Stylus Pen	CF-VNP021U
■ Wrist Lanyard with Stylus Loop –3 Pack	FZ-VNTT11U
■ Screen protector films – 10 Pack	FZ-VPFL11U

Please consult your reseller or Panasonic representative before purchasing. Specifications given herein may be changed at any time without prior notice.

- <sup>1</sup> 1 MB = 1,048,576 bytes, 1 GB = 1,073,741,824 bytes
- <sup>2</sup> Operation has been tested and confirmed using the following Panasonic brand memory cards: SD (up to 2 GB), SDHC (up to 32 GB), SDXC (up to 64 GB). Compatibility with other SD devices is not guaranteed.
- <sup>3</sup> Does not guarantee operation of all USB-compatible peripherals.
- <sup>4</sup> 25°C (77°F) environment. Temperature range for charging: 10°C to 35°C (50°F to 95°F) Humidity: 30% to 80% relative humidity.
- <sup>5</sup> The AC adaptor is designed for use with power sources that supply up to 240 V AC.
- <sup>6</sup> Actual performance varies depending on usage conditions, connected peripherals, etc. Typically, operating time is reduced in colder environments.
- <sup>7</sup> Talk time may vary depending on the condition of the mobile network.
- <sup>8</sup> As defined by the JEITA Specification, Working Mode B. (Two times reading in every 10 seconds)
- <sup>9</sup> Enterprise user profile: Barcode usage of 3 scans per minute; WWAN data transfer usage of 90 seconds every 10 minutes; Wi-Fi usage of 30 minutes.
- <sup>10</sup> Charging with optional cradle. Varies depending on usage conditions.
- <sup>11</sup> Need to turn on battery warm swap mode before remove the battery. You can turn on battery warm swap mode by UI operation or FZ-L1 automatically turns into battery warm swap mode when the battery is removed.
- <sup>12</sup> When the battery is fully charged (or not being charged) and the unit is off.
- <sup>13</sup> Powered with optional cradle. Rated power consumption.
- <sup>14</sup> Actual size may vary by unit configuration.
- <sup>15</sup> Average weight. Actual weight may vary by unit configuration.
- <sup>16</sup> Do not expose the skin to this product when using the product in a hot or cold environment. When using the product in hot or cold environments, some peripherals may not perform properly. Confirm the recommended operation environment of the peripherals. Using the product continuously hot environments will shorten the product life. Avoid continuous use in these types of environments. When using the product in cold environments, the product may take longer to start up and battery operation time may be reduced. Even when using the product within the temperature and humidity ranges listed here, using the product continuously in extreme environments will result in product deterioration and will shorten the life of the product.
- <sup>17</sup> Product functionality cannot be guaranteed if the operating system is modified or replaced by the user or a third party.
- <sup>18</sup> No NFC with the portrait barcode scanner.



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