

# PANASONIC TOUGHBOOK® FAMILY QUICK REFERENCE GUIDE



	TOUGHBOOK 55	TOUGHBOOK 31	TOUGHBOOK 20	TOUGHBOOK 33	TOUGHPAD FZ-G1	TOUGHPAD FZ-M1	TOUGHBOOK L1	TOUGHBOOK T1	TOUGHBOOK N1	TOUGHPAD FZ-X1
SPECIFICATION	Laptop	Laptop	2-in-1	2-in-1	Tablet	Tablet	Tablet	Handheld	Handheld	Handheld
Operating System	Windows 10 Pro	Windows 10 Pro	Windows 10 Pro	Windows 10 Pro	Windows 10 Pro	Windows 10 Pro	Android 8.1	Android 8.1	Android 8.1	Android 5.1.1
Screen Size and Resolution	14" FHD (touch model) or HD	13.1" XGA	10.1" WUXGA	12.0" QHD	10.1" WUXGA	7" WXGA	7" HD	5" HD	4.7" HD	5" HD
Brightness (nit)	1000 (touch model)	1200	800	1200	800	700	380	420	500	500
Touch Display	Optional Gloved Multi Touch	Gloved Touch	Gloved Multi Touch + Digitizer	Gloved Multi Touch + Digitizer	Gloved Multi Touch + Digitizer	Gloved Multi Touch	Gloved Multi Touch	Gloved Multi Touch	Gloved Multi Touch	Gloved Multi Touch
Cameras	IR Webcam		Rear Cam & IR Webcam	Rear Cam & IR Webcam	Rear Cam & IR Webcam <sup>3</sup>	Rear Cam & Webcam	Rear Cam	Rear Cam	Rear Cam & Webcam	Rear Cam & Webcam
Optical Drive	Optional (DVD or Blu-ray)	•								
CPU	Intel® Core™ i5-8365U (i7 optional)	Intel® Core™ i5-7300U (i7 optional)	Intel® Core™ i5-7Y57	Intel® Core™ i5-7300U (i7 optional)	Intel® Core™ i5-7300U (i7 optional)	Intel® Core™ i5-7Y57	Qualcomm™ MSM8909	Qualcomm™ MSM8909	Qualcomm® SDM660-2	Qualcomm® APQ8064T
Dedicated Graphics	Optional									
Starting Storage Drive	512 GB SSD (optional 2nd SSD Drive)	256 GB SSD	256 GB SSD	256 GB SSD	256 GB SSD	256 GB SSD	16 GB Flash	16 GB Flash	32 GB Flash	32 GB Flash
Memory (RAM)	8-64 GB	16-32 GB	8-16 GB	8-16 GB	8 GB	8 GB	2 GB	2 GB	3 GB	2 GB
Antenna Pass Through	Optional	•	•	•	•	Optional				
Dedicated GPS	Optional	Optional	Optional	Optional	Optional	Optional		•		
Mobile Broadband	Optional 4G LTE-A Multi Carrier (with satellite GPS)	Optional 4G LTE-A Multi Carrier (with satellite GPS)	Optional 4G LTE-A Multi Carrier (with satellite GPS)	Optional 4G LTE-A Multi Carrier (with satellite GPS)	Optional 4G LTE-A Multi Carrier (with satellite GPS)	Optional 4G LTE-A Multi Carrier (with satellite GPS)	Optional 4G LTE AT&T/Verizon	Optional 4G LTE AT&T/Verizon (optional voice)	Optional 4G LTE AT&T/Verizon (optional voice)	Optional 4G LTE AT&T/Verizon (optional voice AT&T only)
P.180 Certified	•	•	•	•	•	•	•	•	•	•
FirstNet™ Certified	•			•						
Hot-swappable Battery	Optional		•	•	Optional	•				•
Battery Life (hours) <sup>1</sup>	Up to 20 (up to 40 with optional 2nd battery)	19.5 (28.5 with optional 2nd battery)	8.5 (17 with optional 2nd battery)	10 (20 with optional battery)	11 (22 with optional battery)	8 (18 with optional battery)	9	12	8 of continuous use (16 with optional battery)	14 (continuous use)
Starting Weight (lbs.)	4.6-4.9	8.6	3.9	6.1 (with Premium Keyboard)	2.4	1.2	0.9	0.5	0.6	0.9
<b>RUGGEDNESS</b>	<b>Semi-Rugged</b>	<b>Fully Rugged</b>	<b>Fully Rugged</b>	<b>Fully Rugged</b>	<b>Fully Rugged</b>	<b>Fully Rugged</b>	<b>Fully Rugged</b>	<b>Fully Rugged</b>	<b>Fully Rugged</b>	<b>Ultra-Rugged</b>
Backlit Keyboard	Color-selectable	White	White	Red	N/A	N/A	N/A	N/A	N/A	N/A
Fanless			•			•	•	•	•	•
Covered Ports	•	•	•	•	•	•	•	•	•	•
Storage Drive Heater	•	•	•	•	•	•				
User-removable Expansion Packs	•									
User-removable Storage	•	•	Optional	Optional			• (SD card)	• (SD card)	• (SD card)	• (SD card)
User-removable Battery	•	•	•	•	•	•	•	•	•	•
Hand Strap/Handle	•	•	•	Optional	Optional	•	Optional	Optional	Optional	Optional
Magnesium Alloy Casing or Chassis	•	•	•	•	•	•			•	•
Spill-resistant Keyboard	•	•	•	•	N/A	N/A	N/A	N/A	N/A	N/A
IP Certified <sup>2</sup>	IP53	IP65	IP65	IP65	IP65	IP65	IP67	IP68	IP68	IP68
MIL-STD-810G Certified <sup>2</sup>	3 ft	5 ft	4 ft (5 ft Tablet only)	4 ft (5 ft Tablet only)	4 ft	5 ft	5 ft	5 ft	7 ft	10 ft

<sup>1</sup> Battery life, unless otherwise stated, is based on MobileMark 2014 at 150 nit and using no cellular mobile broadband.

<sup>2</sup> Tested by a national, independent, third-party lab following MIL-STD-810G Method 516.6 Procedure IV for transit drop and IEC 60529 Sections 13.4, 13.6.2, 14.2.5 and 14.3 for IP.

<sup>3</sup> Not available for models with dedicated GPS or 2nd USB.