

# PANASONIC TOUGHBOOK® FAMILY QUICK REFERENCE GUIDE



	TOUGHBOOK FZ-Q2	TOUGHBOOK 54	TOUGHBOOK FZ-G1	TOUGHBOOK FZ-M1	TOUGHBOOK FZ-A2	TOUGHBOOK FZ-B2	TOUGHBOOK 20	TOUGHBOOK 33	TOUGHBOOK 31	TOUGHBOOK FZ-N1	TOUGHBOOK FZ-X1
FORM FACTOR	2-in-1	Laptop	Tablet	Tablet	Tablet	Tablet	2-in-1	2-in-1	Laptop	Handheld	Handheld
Operating System	Windows 10 Pro (optional Windows 7 Professional downgrade)	Windows 10 Pro <sup>4</sup>	Windows 10 Pro (optional Windows 7 Professional downgrade)	Windows 10 Pro (optional Windows 7 Professional downgrade)	Android 6.0.1	Android 6.0.1	Windows 10 Pro <sup>4</sup>	Windows 10 Pro (optional Windows 7 Professional downgrade)	Windows 10 Pro (optional Windows 7 Professional downgrade)	Android 6.0.1	Android 5.1.1
Screen Size and Resolution	12.5" HD	14" HD/FHD (varies by model)	10.1" WUXGA	7" WXGA	10.1" WUXGA	7" WXGA	10.1" WUXGA	12.0" QHD	13.1" XGA	4.7" HD	5" HD
Brightness (nit)	350	1000 (touch model)	800	500	800	500	800	1200	1200	500	500
Touch Display	Multi Touch	Optional Gloved Multi Touch	Gloved Multi Touch + Digitizer	Gloved Multi Touch	Gloved Multi Touch	Gloved Multi Touch	Gloved Multi Touch + Digitizer	Gloved Multi Touch + Digitizer	Gloved Touch	Gloved Multi Touch	Gloved Multi Touch
Cameras	Rear Cam & Webcam	Webcam	Rear Cam & Webcam	Rear Cam & Webcam	Rear Cam & Webcam	Rear Cam & Webcam	Rear Cam & IR Webcam	Rear Cam & IR Webcam (i5-7300U models)		Rear Cam & Webcam	Rear Cam & Webcam
DVD Drive		Optional							Optional		
CPU	Intel® Core™ m5-6Y57	Intel® Core™ i5-7300U (i7 optional)	Intel® Core™ i5-6300U (i7 optional)	Intel® Core™ m5-6Y57	Intel® Atom™ x5-Z8550	Intel® Atom™ x5-Z8550	Intel® Core™ i5-7Y57	Intel® Core™ i5-6300U, i5-7300U (i7 optional)	Intel® Core™ i5-5300U (i7 optional)	Qualcomm® MSM8974AB	Qualcomm® APQ8064T
Dedicated Graphics		• (Performance model)									
Base Drive	128 GB SSD	256 GB SSD (500 GB HDD Lite model)	256 GB SSD	256 GB SSD	32 GB Flash	32 GB Flash	256 GB SSD	256 GB SSD	500 GB HDD (7200rpm)	16 GB Flash	32 GB Flash
Memory	8 GB	8-32 GB <sup>2</sup> (16-32 GB Performance model)	8 GB	8 GB	4 GB	2 GB	8-16 GB	8-16 GB	4-16 GB	2 GB	2 GB
Weight (lbs.)	2.3	4.2-4.6	2.4	1.2	1.9	1.2	3.9	6.1 (with Premium Keyboard)	7.9	0.6	0.9
Battery Life (hours) <sup>1</sup>	9	Up to 12 (up to 20 with optional 2nd battery)	14 (28 with optional battery)	9 (16 with optional battery)	9	8 (16 with optional battery)	8.5 (17 with optional 2nd battery)	10 (20 with optional battery)	18 (27 with optional 2nd battery)	8 of continuous use (16 with optional battery)	14 (continuous use)
Hot-swappable Battery		Optional	Optional	•	•	•	•	•	•		•
RUGGEDNESS	Semi-Rugged	Semi-Rugged	Fully Rugged	Fully Rugged	Fully Rugged	Fully Rugged	Fully Rugged	Fully Rugged	Fully Rugged	Fully Rugged	Ultra-Rugged
Backlit Keyboard	White	Red	N/A	N/A	N/A	N/A	White	Red	White	N/A	N/A
Fanless	•			•	•	•	•			•	•
Covered Ports	•	•	•	•	•	•	•	•	•	•	•
Storage Drive Heater	Optional	•	•	•	•	•	•	•	•	•	
User-removable Battery		•	•	•	•	•	•	•	•	•	•
Hand Strap/Handle	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>3</sup>	IP5x	IP51	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP67	IP68
MIL-STD-810G Certified <sup>3</sup>	2.5 ft (Tablet only)	3 ft	4 ft	5 ft	5 ft	5 ft	4 ft (5 ft Tablet only)	4 ft (5 ft Tablet only)	5 ft	6 ft	10 ft
WIRELESS											
Antenna Pass Through		Optional <sup>2</sup>	•	Optional	Optional	Optional	•	•	•		
Dedicated GPS		Optional <sup>2</sup>	Optional	Optional	Optional	Optional	Optional	Optional	Optional	•	•
Mobile Broadband	Optional 4G LTE Multi Carrier (with satellite GPS)	Optional 4G LTE-A Multi Carrier (with satellite GPS)	Optional 4G LTE Multi Carrier (with satellite GPS)	Optional 4G LTE Multi Carrier (with satellite GPS)	Optional 4G LTE Multi Carrier (with satellite GPS)	Optional 4G LTE Multi Carrier (with satellite GPS)	Optional 4G LTE-A Multi Carrier (with satellite GPS)	Optional 4G LTE-Advanced Multi Carrier (with satellite GPS)	Optional 4G LTE Multi Carrier (with satellite GPS)	4G LTE AT&T/Verizon	4G LTE AT&T/Verizon
Wi-Fi	•	•	•	•	•	•	•	•	•	•	•
Bluetooth®	•	•	•	•	•	•	•	•	•	•	•

<sup>1</sup> Battery life, unless otherwise stated, is based on MobileMark 2007. Toughbook 20, 33 and 54 are based on MobileMark 2014.  
<sup>2</sup> Not available on Lite model.  
<sup>3</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 IP65.  
<sup>4</sup> Windows 7 (downgrade from 10) is also still available on previous mark.

