

Apple Watch Series 7 & WatchOS 8

PMUG SIG Presentation, Nov 2021

Apple Watch Series 7

- Processor
- Memory
- Display
- Battery
- Charging
- Sensors



Apple Watch Series 7

- Processor - S6 vs S7, same chip, same power, speed, just an updated name
- Memory - 1GB RAM and 32GB storage

	Series 7	6	SE	5	4	3
SiP/Processor	S7 SiP 64-bit dual-core processor	S6 SiP 64-bit dual-core processor	S5 SiP 64-bit dual-core processor	S5 SiP 64-bit dual-core processor	S4 SiP 64-bit dual-core processor	S3 SiP dual-core processor
U1 (ultra wideband)	✓	✓	✗	✗	✗	✗
Storage	32GB	32GB	32GB	32GB	16GB	8GB

Apple Watch Series 7

- Battery - same size, same life
- Charging - Faster charging - requires new higher amp plug and cable, 8 min of charging gives your 8 hours of sleep tracking

	Series 7	6	SE	5	4	3
Battery life	Up to 18 hours	Up to 18 hours	Up to 18 hours	Up to 18 hours	Up to 18 hours	Up to 18 hours
Charging	0-80% in 45 minutes + 8 min charge = 8 hours sleep tracking	0-80% in ~60 minutes	0-80% in ~60 minutes	0-80% in ~60 minutes	0-80% in ~60 minutes	0-80% in ~60 minutes

Apple Watch Series 7

- Display size - 1mm larger physically, bezels reduced = more pixels: 396 x 484
- Display - always on display brighter when arm is down
- All bands for previous series 3-6 fit on Series 7

	Series 7	6	SE	5	4	3
Case size	45/41mm 396 x 484	44/40mm 368 x 448	44/40mm 368 x 448	44/40mm 368 x 448	44/40mm 368 x 448	42/38mm 321 x 390
Display size	50% larger than Series 3 (20% bigger than Series 6 etc.)	30% larger than Series 3	30% larger than Series 3	30% larger than Series 3	30% larger than Series 3	563 sq mm
Always-on display	✓	✓	✗	✓	✗	✗

Apple Watch Series 7

- ❖ Series 1 - Watch
- ❖ Series 2 added GPS
- ❖ Series 3 added:
 - ❖ Cellular
 - ❖ Altimeter
- ❖ Red indicates dropped support

- ❖ Series 4 added:
 - ❖ Fall detection
 - ❖ ECG
 - ❖ Second generation heart sensor
 - ❖ Digital crown with haptics
 - ❖ Larger sized watches

- ❖ Series 5 added:
 - ❖ Always on display
 - ❖ Compass
- ❖ SE (Series 5 based):
 - ❖ Removed ECG
- ❖ Series 6 added:
 - ❖ Blood O2 sensor
 - ❖ U1 Chip

- ❖ Series 7 added:
 - ❖ 20% Larger display
 - ❖ Crack Resistant glass
 - ❖ Faster Charge time
 - ❖ NO NEW sensors

Comparison

Table 1

	Apple Watch Series 7	Apple Watch Series 6	Apple Watch SE	Apple Watch Series 5	Apple Watch Series 3
Size	41mm/45mm	40mm/44mm	40mm/44mm	40mm/44mm	38mm/42mm
Display	Always-on Retina display with nearly 20% more screen area than Series 6	Always-on Retina display	Retina display	Always-on Retina display, 30% larger screen than Series 3	Retina display
Display resolution	352 x 430 (41mm), 396 x 484 (45mm)	324 x 394 (40mm); 368 x 448 (44mm)	324 x 394 (40mm); 368 x 448 (44mm)	324 x 394 (40mm); 368 x 448 (44mm)	272 x 340 (38mm); 312 x 390 (42mm)
Durability	Water resistance; IP6X dust resistance	Water resistance	Water resistance	Water resistance	Water resistance
Sensors	Blood oxygen, electrical heart, third-gen optical heart, compass, always-on altimeter, fall detection, accelerometer, gyroscope, GPS/GNSS, ambient light	Blood oxygen, electrical heart, third-gen optical heart, compass, always-on altimeter, fall detection, accelerometer, gyroscope, GPS/GNSS, ambient light	Second-gen optical heart, compass, always-on altimeter, fall detection, accelerometer, gyroscope, GPS/GNSS, ambient light	Second-gen optical heart, electrical heart, compass, barometric altimeter, fall detection, accelerometer, gyroscope, GPS/GNSS, ambient light	Optical heart, barometric altimeter, accelerometer, gyroscope, GPS/GNSS, ambient light

Comparison

Table 1

Processor	S7	S6	SE	S5	S3
Colors and finishes	Aluminum: midnight, starlight, green, blue red; stainless steel: silver, graphite, gold; titanium: natural, space black	Aluminum: silver, space gray, gold, blue, red; stainless steel: silver, graphite, gold; titanium: natural, space black	Aluminum: space gray, silver, gold	Aluminum: silver, space gray, gold; stainless steel: stainless steel, space black, gold; titanium: natural, space black; ceramic: white	Aluminum: space gray, silver
Battery Life	Up to 18 hours with 33% faster charging than Series 6	Up to 18 hours	Up to 18 hours	Up to 18 hours	Up to 18 hours
Storage	32GB	32GB	32GB	32GB	8GB
Connectivity	Wi-Fi, Bluetooth 5.0, W3 wireless chip, U1 chip, emergency SOS, international emergency calling, optional LTE	Wi-Fi, Bluetooth 5.0, W3 wireless chip, U1 chip, emergency SOS, international emergency calling, optional LTE	Wi-Fi, Bluetooth 5.0, W3 wireless chip, emergency SOS, international emergency calling, optional LTE	Wi-Fi, Bluetooth 5.0, W3 wireless chip, emergency SOS, international emergency calling, optional LTE	Wi-Fi, Bluetooth 4.2, W2 wireless chip, emergency SOS



Apple Watch Series 7



- Current watch models: (Starting at GPS price / GPS + Cellular price)
 - Series 7 - \$399 / 499
 - SE - \$279 / 329
 - Series 3 - GPS only \$199
 - Special models: Nike, Hermes
 -



WatchOS 8

- Works on Apple Watch Series 3, 4, 5, 6, 7 and SE
- Don't know which you have?? On iPhone, open Apple Watch App, tap General/About
- To the right of Model, find 5 digit number and look that up (or tap to get correct number)
- Not all features of OS8 is available on all models of watches

WatchOS 8 New Features

- Breathe App now called Mindfulness
- Respiratory rate now measured during sleep tracking
- Photos App has new highlights and memories
- New Portrait mode photos from the iPhone can be set on the Watch
- Photos can be shared with Messages and Mail on OS 8
- Scribble lets you include emoji in handwritten message

WatchOS 8 New Features

- Watch OS can do multiple timers for the first time
- Tips now available on the Apple Watch
- Music can be shared from Apple Watch over Messages App
- Home App allows control of devices and can make suggestions for other devices
- Access all your security cams in new Camera Room
- Wallet can store digital keys for home, office or hotel
- Wallet will also be able to store your Driver's License in AZ (when TBD)

WatchOS 8 New Features

- Weather includes next hours precipitation
- Find My now shows items (AirTags)
- You can use the Digital Crown to scroll to where you need to correct dictation errors
- Focus fully support and syncs across Monterey and iOS 15
- New Pilates workout
- Enhanced Family Setup features

Is Worth Upgrading to the Series 7???

- If you have an Apple Watch Series 3 or earlier, then a definite YES
- If you have a Series 4, and want Faster charging, 20% larger display, Blood O2, compass, always on display or U1 chip, then yes
- If you have a Series SE, and want Faster charging, 20% larger display, ECG, Blood O2 or U1 chip, then yes
- If you have a Series 5, and want Faster charging, 20% larger display, Blood O2 or U1 chip, then yes
- Series 7 only offers 20% larger display and Faster charging over the Series 6

Is Worth Upgrading to WatchOS 8???

- YES
- Regardless of your current watch (Series 3-6) since you get more than you had with WatchOS 7 for no additional charge!!!
- Little to no effort to upgrade

Questions?

- <https://www.digitaltrends.com/mobile/apple-watch-series-7-vs-apple-watch-series-6/>
- <https://www.forbes.com/sites/forbes-personal-shopper/2021/10/13/apple-watch-series-7-review/?sh=41ca836b4e42>
- <https://www.apple.com/apple-watch-series-7/>
- <https://www.apple.com/watchos/watchos-8/>