



# iOS CPU Identification Chart

The following chart below is for mobile engineers, forensics teams & exploit engineers tracking embedded processor revisions of Apple iOS devices.

## iPhone



**iPhone 1: CPU Specs**  
Core Design: ARM170 x 1  
CPU: S5L8900  
CPU Speed: 400 MHz (412 MHz as of iPhone OS 11.2)  
Instruction Set: ARMv6  
Device Size: 115 mm x 61 mm  
Resolution: 320 x 480  
Released: June 29, 2007



**iPhone 3G: CPU Specs**  
Core Design: ARM1176 x 1  
CPU: S5L8900  
CPU Speed: 412 MHz  
Instruction Set: ARMv6  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 320 x 480  
Released: July 11, 2008



**iPhone 3GS: CPU Specs**  
Core Design: ARM Cortex-A8 x 1  
CPU: S5L8920  
CPU Speed: 620 MHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 320x480  
Released: June 19, 2009



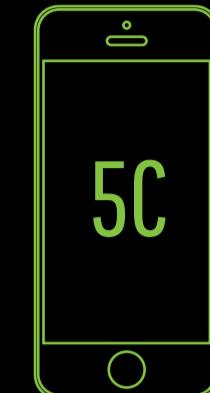
**iPhone 4: CPU Specs**  
Core Design: ARM Cortex-A9 x 1  
CPU: S5L8930 "A4"  
CPU Speed: 800 MHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 640x960  
Released: June 21, 2010



**iPhone 4S: CPU Specs**  
Core Design: ARM Cortex-A9 x 2  
CPU: S5L8950 "A5"  
CPU Speed: 800 MHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 58.6 mm  
Resolution: 960x640  
Released: October 14, 2011



**iPhone 5: CPU Specs**  
Core Design: Swift x 2  
CPU: S5L8950 "A6"  
CPU Speed: 1.2 GHz  
Instruction Set: ARMv7s  
Device Size: 123.8 mm x 58.6 mm  
Resolution: 960x640  
Released: September 21, 2012



**iPhone 5C: CPU Specs**  
Core Design: Swift x 2  
CPU: S5L8950 "A6"  
CPU Speed: 1.2 GHz  
Instruction Set: ARMv7s  
Device Size: 124.4 mm x 59.2 mm  
Resolution: 1136x640  
Released: September 20, 2013



**iPhone 5S: CPU Specs**  
Core Design: Apple Cyclone x 2  
CPU: S5L8960 "A7"  
CPU Speed: 1.3 GHz  
Instruction Set: ARMv8  
Device Size: 123.8 mm x 58.6 mm  
Resolution: 1136x640  
Released: September 20, 2013



**iPhone 6: CPU Specs**  
Core Design: Apple Typhoon x 2  
CPU: T7000 "A8"  
CPU Speed: 1.8 GHz  
Instruction Set: ARMv8  
Device Size: 138.1 mm x 67 mm  
Resolution: 1334x750  
Released: September 19, 2014



**iPhone 6 Plus: CPU Specs**  
Core Design: Apple Typhoon x 2  
CPU: T7000 "A8"  
CPU Speed: 1.8 GHz  
Instruction Set: ARMv8  
Device Size: 158.1 mm x 77.8 mm  
Resolution: 1920x1080  
Released: September 19, 2014



**iPhone 6S: CPU Specs**  
Core Design: Apple Twister x 2  
CPU: S8000 and S8003 "A9"  
CPU Speed: 1.85 GHz  
Instruction Set: ARMv8  
Device Size: 138.3 mm x 67.1 mm  
Resolution: 1334x750  
Released: September 25, 2015



**iPhone 6S Plus: CPU Specs**  
Core Design: Apple Twister x 2  
CPU: S8000 and S8003 "A9"  
CPU Speed: 1.85 GHz  
Instruction Set: ARMv8  
Device Size: 158.2 mm x 77.9 mm  
Resolution: 1920x1080  
Released: September 25, 2015



**iPhone SE: CPU Specs**  
Core Design: Apple Twister x 2  
CPU: S8000 and S8003 "A9"  
CPU Speed: 1.85 GHz  
Instruction Set: ARMv8  
Device Size: 123.8 mm x 58.6 mm  
Resolution: 960x640  
Released: March 31, 2016



**iPhone 7: CPU Specs**  
Core Design: Apple Fusion x 2  
CPU: T8010 "A10"  
CPU Speed: 2.34 GHz  
Instruction Set: ARMv8  
Device Size: 138.3 mm x 67.1 mm  
Resolution: 1334x750  
Released: September 16, 2016



**iPhone 7 Plus: CPU Specs**  
Core Design: Apple Fusion x 2  
CPU: T8010 "A10"  
CPU Speed: 2.34 GHz  
Instruction Set: ARMv8  
Device Size: 158.2 mm x 77.9 mm  
Resolution: 1920x1080  
Released: September 16, 2016



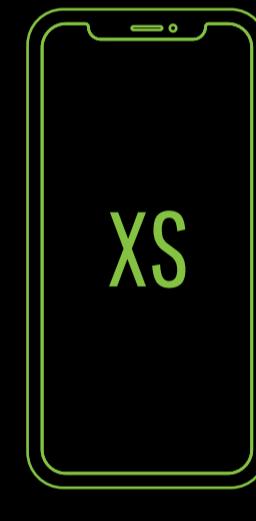
**iPhone 8: CPU Specs**  
Core Design: Apple Monsoon x 2 and Apple Mistral x 4  
CPU: T8015 "A11"  
CPU Speed: 2.39 GHz  
Instruction Set: ARMv8  
Device Size: 138.4 mm x 67.3 mm  
Resolution: 1334x750  
Released: September 22, 2017



**iPhone 8 Plus: CPU Specs**  
Core Design: Apple Monsoon x 2 and Apple Mistral x 4  
CPU: T8015 "A11"  
CPU Speed: 2.39 GHz  
Instruction Set: ARMv8  
Device Size: 158.4 mm x 78.1 mm  
Resolution: 1920x1080  
Released: September 22, 2017



**iPhone X: CPU Specs**  
Core Design: Apple Monsoon x 2 and Apple Tempest x 4  
CPU: T8015 "A11"  
CPU Speed: 2.39 GHz  
Instruction Set: ARMv8  
Device Size: 143.6 mm x 70.9 mm  
Resolution: 2436x1125  
Released: November 3, 2017



**iPhone XS: CPU Specs**  
Core Design: Apple Vortex x 2 and Apple Tempest x 4  
CPU: T8020 "A12 Bionic"  
CPU Speed: 2x 2.5 GHz  
Instruction Set: ARMv8.3  
Device Size: 143.6 mm x 70.9 mm  
Resolution: 2436x1125  
Released: September 21, 2018

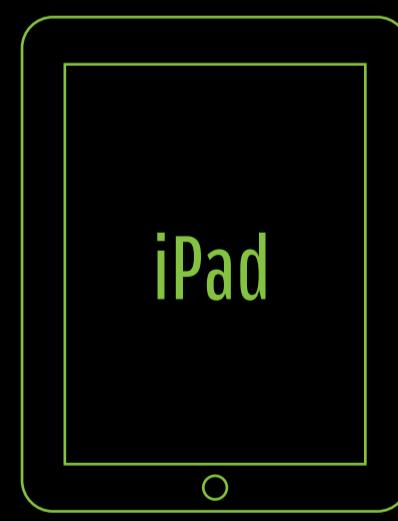


**iPhone XS Max: CPU Specs**  
Core Design: Apple Vortex x 2 and Apple Tempest x 4  
CPU: T8020 "A12 Bionic"  
CPU Speed: 2x 2.5 GHz  
Instruction Set: ARMv8.3  
Device Size: 143.6 mm x 75.7 mm  
Resolution: 2436x1125  
Released: September 21, 2018

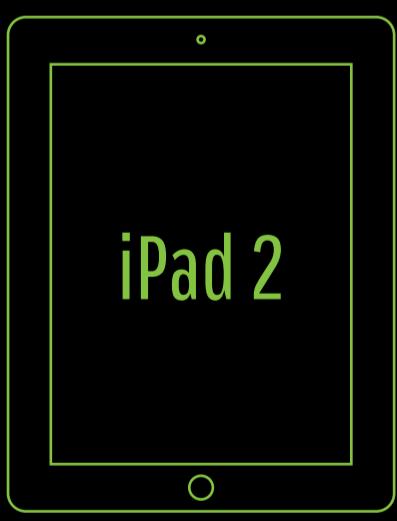


**iPhone XR: CPU Specs**  
Core Design: Apple Vortex x 2 and Apple Tempest x 4  
CPU: T8020 "A12 Bionic"  
CPU Speed: 2x 2.5 GHz  
Instruction Set: ARMv8.3  
Device Size: 150.9 mm x 75.7 mm  
Resolution: 1792x828  
Released: October 26, 2018

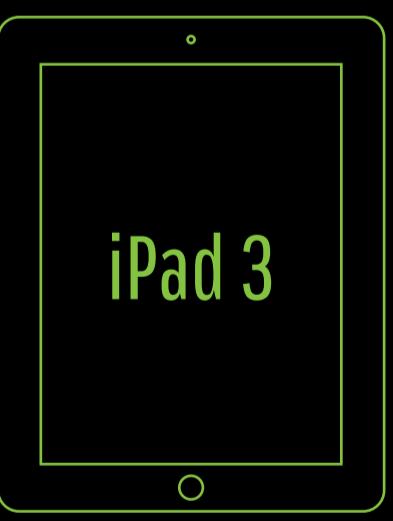
## iPad



**iPad: CPU Specs**  
Core Design: ARM Cortex-A8 x 1  
CPU: S5L8930 "A4"  
CPU Speed: 1 GHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 1024x768  
Released: April 3, 2010



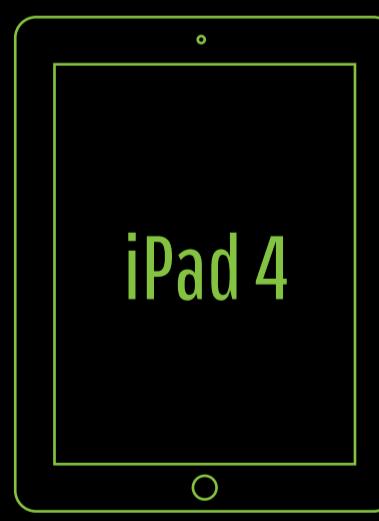
**iPad 2: CPU Specs**  
Core Design: ARM Cortex-A9 x 2  
CPU: S5L8940 "A5"  
CPU Speed: 1 GHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 1024x768  
Released: March 11, 2011



**iPad 3: CPU Specs**  
Core Design: Apple Swift x 2  
CPU: S5L8945 "A5X"  
CPU Speed: 1 GHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 1024x768  
Released: March 16, 2012



**iPad Mini: CPU Specs**  
Core Design: Apple Swift x 2  
CPU: S5L8945 "A5X"  
CPU Speed: 1 GHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 1024x768  
Released: November 2, 2012



**iPad 4: CPU Specs**  
Core Design: Apple Swift x 2  
CPU: S5L8955 "A6X"  
CPU Speed: 1.4 GHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 2048x1366  
Released: November 12, 2012



**iPad Mini 2: CPU Specs**  
Core Design: Apple Swift x 2  
CPU: S5L8955 "A6X" (underclocked to 1.3 GHz)  
CPU Speed: 1.4 GHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 2048x1366  
Released: November 12, 2013



**iPad Air: CPU Specs**  
Core Design: Apple Cyclone x 2 and Apple M7 Motion Co-Processor  
CPU: S5L8965 "A7 Rev A"  
CPU Speed: 1.4 GHz  
Instruction Set: ARMv8  
Device Size: 115.2 mm x 58.6 mm  
Resolution: 2048x1366  
Released: November 1, 2013



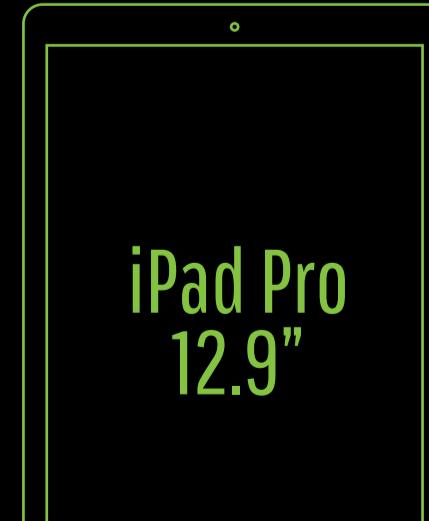
**iPad Mini 3: CPU Specs**  
Core Design: Apple Cyclone x 2 and Apple M7 Motion Co-Processor  
CPU: S5L8965 "A7 Rev A"  
CPU Speed: 1.4 GHz  
Instruction Set: ARMv8  
Device Size: 115.2 mm x 58.6 mm  
Resolution: 2048x1366  
Released: October 22, 2014



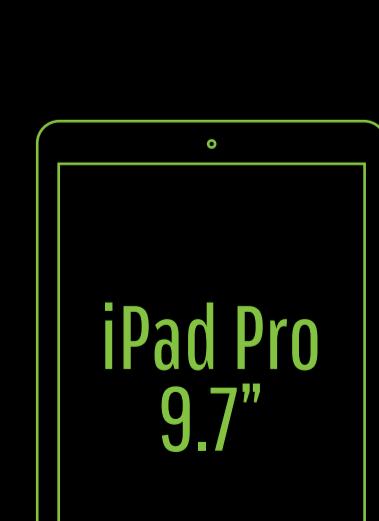
**iPad Air 2: CPU Specs**  
Core Design: Apple Typhoon x 2 and Apple M7 Motion Co-Processor  
CPU: T7000 "A8X"  
CPU Speed: 1.5 GHz  
Instruction Set: ARMv8  
Device Size: 123.8 mm x 58.6 mm  
Resolution: 1024x768  
Released: October 22, 2014



**iPad Mini 4: CPU Specs**  
1.5 GHz Tri-Core 64-bit Apple A8X w/Apple M8 Motion Co-Processor  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 2048x1366  
Released: September 9, 2015



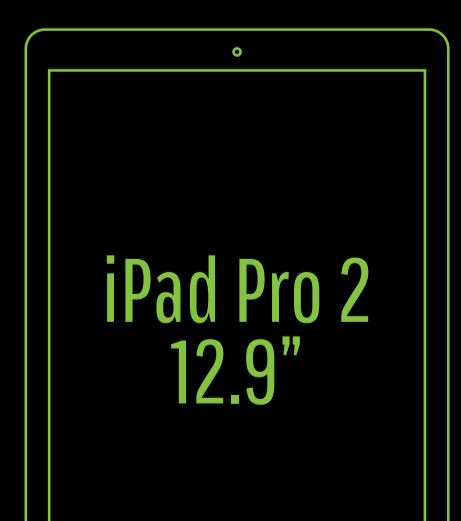
**iPad Pro 12.9": CPU Specs**  
CPU: S8001 "A9X"  
CPU Speed: 2.34 GHz  
Instruction Set: ARMv8-A  
Device Size: 129.5 mm x 59.2 mm  
Resolution: 2734x2048  
Released: November 11, 2015



**iPad Pro 9.7": CPU Specs**  
Core Design: Apple Twister x 2  
CPU: S8001 "A9X"  
CPU Speed: 2.34 GHz  
Instruction Set: ARMv8-A  
Device Size: 124.4 mm x 59.2 mm  
Resolution: 2048x1536  
Released: March 31, 2016



**iPad 5: CPU Specs**  
Core Design: Apple Twister x 2  
CPU: S8001 "A9X"  
CPU Speed: 2.34 GHz  
Instruction Set: ARMv8-A  
Device Size: 124.4 mm x 59.2 mm  
Resolution: 2048x1536  
Released: March 24, 2017



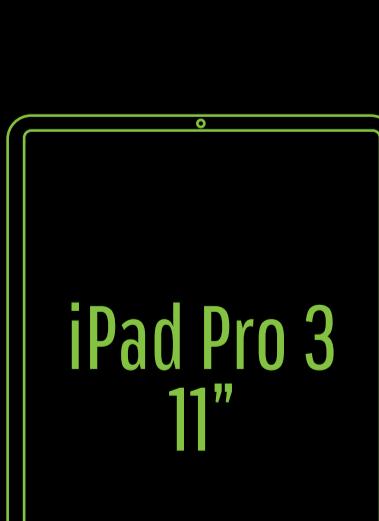
**iPad Pro 12.9": CPU Specs**  
Core Design: Apple Hurricane x 3 & Apple Zephry x 2  
CPU: T8011 "A10X"  
CPU Speed: 2.38 GHz  
Instruction Set: ARMv8  
Device Size: 129.5 mm x 59.2 mm  
Resolution: 2734x2048  
Released: June 13, 2017



**iPad Pro 10.5": CPU Specs**  
Core Design: Apple Hurricane x 3 & Apple Zephry x 2  
CPU: T8011 "A10X"  
CPU Speed: 2.38 GHz  
Instruction Set: ARMv8  
Device Size: 129.5 mm x 59.2 mm  
Resolution: 2734x2048  
Released: June 13, 2017



**iPad 6: CPU Specs**  
Core Design: Apple Fusion x 2  
CPU: T8010 "A10"  
CPU Speed: 2.34 GHz  
Instruction Set: ARMv8  
Device Size: 123.8 mm x 58.6 mm  
Resolution: 2388x1668  
Released: March 27, 2018



**iPad Pro 3 11": CPU Specs**  
Core Design: Apple Vortex x 4 and Apple Tempest x 4  
CPU: T8020 "A12X"  
CPU Speed: 2.49 GHz  
Instruction Set: ARMv8  
Device Size: 129.5 mm x 59.2 mm  
Resolution: 2732x2048  
Released: October 30, 2018



**iPad Pro 3 12.9": CPU Specs**  
Core Design: Apple Vortex x 4 and Apple Tempest x 4  
CPU: T8020 "A12X"  
CPU Speed: 2.49 GHz  
Instruction Set: ARMv8  
Device Size: 129.5 mm x 59.2 mm  
Resolution: 2732x2048  
Released: October 30, 2018