

# 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: ARM1176 x 1  
CPU: S5L8900  
CPU Speed: 400 MHz (412 MHz as of iPhone OS 1.1.2)  
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: 115.5mm x 62.1mm  
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-A8 x 1  
CPU: S5L8930 "A4"  
CPU Speed: 800 MHz  
Instruction Set: ARMv7  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 960x640  
Released: June 21, 2010



### iPhone 4S: CPU Specs

Core Design: ARM Cortex-Ag x 2  
CPU: S5L8940 "A5"  
CPU Speed: 800 MHz  
Instruction Set: ARMv7  
Device Size: 115.2 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: 1136x640  
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: 1.38 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: 1.38 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 x2  
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 & S8003 "A9"  
CPU Speed: 1.85 GHz  
Instruction Set: ARMv8  
Device Size: 123.8 mm x 58.6 mm  
Resolution: 1136x640  
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 Mistral 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

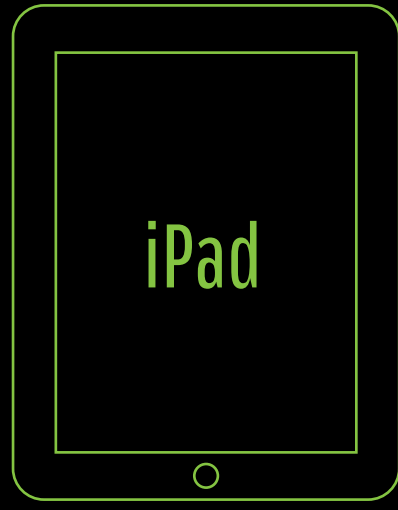
Core Design: Apple Vortex x 2 and Apple Tempest x 4  
CPU: T8020 "A12 Bionic"  
CPU Speed: 2.49 GHz  
Instruction Set: ARMv8.3  
Device Size: 143.6 mm x 70.9 mm  
Resolution: 2436x1125  
Released: September 21, 2018



### 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

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

Core Design: ARM Cortex-Ag x 2  
CPU: S5L8940 "A5"  
CPU Speed: 1 GHz  
Instruction Set: ARMv8-A  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 1024x768  
Released: March 11, 2011



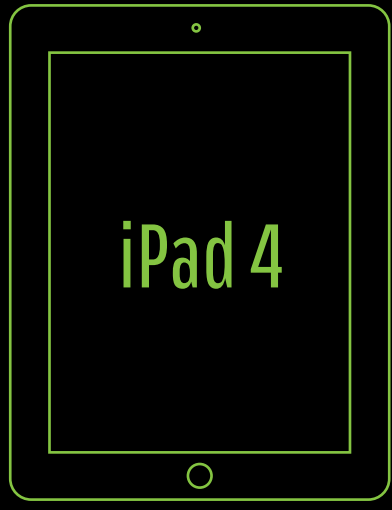
### iPad 3

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: 2056x1536  
Released: March 16, 2012



### iPad Mini

1 GHz dual-core ARM Cortex-Ag  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 1024x768  
Released: November 2, 2012



### iPad 4

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: 2056x1536  
Released: November 12, 2012



### iPad Mini 2

1.4 GHz dual-core Apple Cyclone (underclocked to 1.3 GHz)  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 2048x1536  
Released: November 12, 2013



### iPad Air

Core Design: Apple Cyclone x 2  
CPU: S5L8965 "A7 Rev A"  
CPU Speed: 1.4 GHz  
Instruction Set: ARMv8  
Device Size: 115.2 mm x 58.6 mm  
Resolution: 2056x1536  
Released: November 1, 2013



### iPad Mini 3

1.4 GHz Dual-Core 64-bit Apple A7 w/Apple M7 Motion Co-Processor  
Device Size: 115.5 mm x 62.1 mm  
Resolution: 2056x1536  
Released: October 22, 2014



### iPad Air 2

Core Design: Apple Typhoon x 2  
CPU: T7000 "A8X"  
CPU Speed: 1.5 GHz  
Instruction Set: ARMv8  
Device Size: 123.8 mm x 58.6 mm  
Resolution: 1136x640  
Released: October 22, 2014



### iPad Mini 4

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: 2056x1536  
Released: September 9, 2015



### iPad Pro 12.9"

CPU: S8001 "A9X"  
CPU Speed: 2.24 GHz  
Instruction Set: ARMv8-A  
Device Size: 124.4 mm x 59.2 mm  
Resolution: 2734x2048  
Released: November 11, 2015



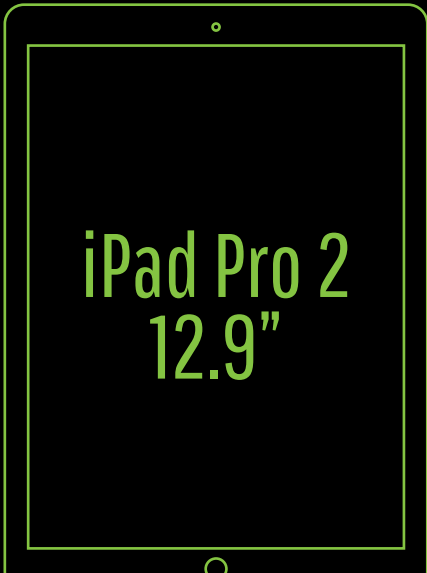
### iPad Pro 9.7"

Core Design: Apple Twister x 2  
CPU: S8001 "A9X"  
CPU Speed: 2.16 GHz  
Instruction Set: ARMv8-A  
Device Size: 124.4 mm x 59.2 mm  
Resolution: 2056x1536  
Released: March 31, 2016



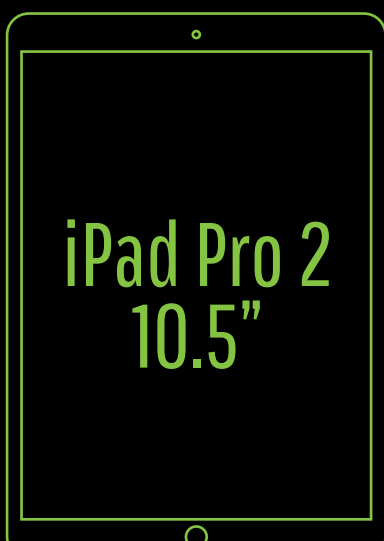
### iPad 5

Core Design: Apple Twister x 2  
CPU: S8000  
CPU Speed: 1.85 GHz  
Instruction Set: ARMv8  
Device Size: 124.4 mm x 59.2 mm  
Resolution: 2056x1536  
Released: March 24, 2017



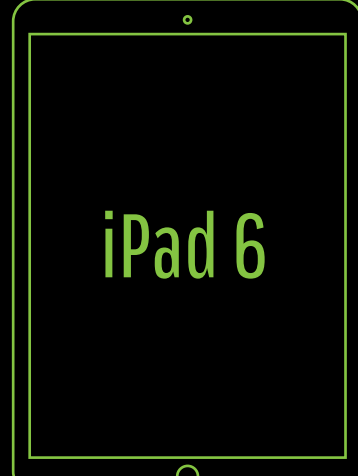
### iPad Pro 2 12.9"

Core Design: Apple Hurricane x 3 & Apple Zephyr x 3  
CPU: T8011 "A10X"  
CPU Speed: 2.38 GHz  
Instruction Set: ARMv8  
Device Size: 124.4 mm x 59.2 mm  
Resolution: 2734x2048  
Released: June 13, 2017



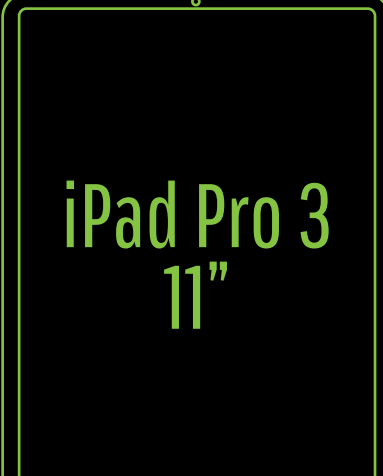
### iPad Pro 2 10.5"

Core Design: Apple Hurricane x 3 & Apple Zephyr x 3  
CPU: T8011 "A10X"  
CPU Speed: 2.38 GHz  
Instruction Set: ARMv8  
Device Size: 124.4 mm x 59.2 mm  
Resolution: 2734x2048  
Released: June 13, 2017



### iPad 6

Core Design: Apple Fusion x 2  
CPU: T8010 "A10"  
CPU Speed: 2.31 GHz  
Instruction Set: ARMv8  
Device Size: 124.4 mm x 59.2 mm  
Resolution: 2056x1536  
Released: March 27, 2018



### iPad Pro 3 11"

Core Design: Apple Vortex x 4 and Apple Tempest x 4  
CPU: T8027 "A12X"  
CPU Speed: 2.49 GHz  
Instruction Set: ARMv8  
Device Size: 123.8 mm x 58.6 mm  
Resolution: 2388x1668  
Released: October 30, 2018



### iPad Pro 3 12.9"

Core Design: Apple Vortex x 4 and Apple Tempest x 4  
CPU: T8027 "A12X"  
CPU Speed: 2.49 GHz  
Instruction Set: ARMv8  
Device Size: 123.8 mm x 58.6 mm  
Resolution: 2732x2048  
Released: October 30, 2018