

Models with viable SoCs Quick Reference

<b>Brand</b>	<b>Model</b>
Google	Nexus 5X, Nexus 6P, Pixel, Pixel 2, Pixel 2 XL, Pixel 3, Pixel 3 XL
HTC	One M9, 10, U Ultra, U11, U11+, U11 Life, U12+
LG	G4, G5, G6, G7 Fit, G7 One, G7 ThinQ, V10, V20, V30, V30+, V40 ThinQ
Samsung	A7 (2017), A7 (2018), A8 (2018), Galaxy J5 (2017), J5 Pro, Galaxy J6, S6, S6+, S7, S7+, S8, S8+, S9, S9+
Sony	Z3+, Z4, XZ
Not an exhaustive list by any means, not by brand nor models within a represented brand. They all pump out dozens of very similar models	

Viable Snapdragon SoCs

SoC	CPU Clusters		Process	Google	HTC	LG	Samsung	Sony Xperia	Notes
Snapdragon 439	4xA53	4xA53	12nm FinFet						1.95, 1.45
Snapdragon 450	4xA53	4xA53	14nm LPP						Up to 1.8
Snapdragon 625	4xA53	4xA53	14nm LPP						
Snapdragon 626	4xA53	4xA53	14nm LPP						
Snapdragon 630	4xA53	4xA53	14nm LPP						
Snapdragon 632	4xKryo250Gold	4xKryo250Silver	14nm LPP						Kryo250Gold based on A73, Kryo250Silver based on A53
Snapdragon 636	4xKryo260Gold	4xKryo260Silver	14nm LPP						Kryo260Gold based on A73, Kryo260Silver based on A53
Snapdragon 660	4xKryo260Gold	4xKryo260Silver	14nm LPP						Higher clocked Snapdragon 636
Snapdragon 670	2xKryo360Gold	6xKryo360Silver	10nm LPP						Kryo360Gold based on A75, Kryo360Silver based on A55
Snapdragon 675	2xKryo460Gold	6xKryo460Silver	11nm LPP						Kryo460Gold based on A76, Kryo460Silver based on A55
Snapdragon 710	2xKryo360Gold	6xKryo360Silver	10nm LPP						
Snapdragon 808	2xA57	4xA53	20nm	Nexus 5X		G4, V10			
Snapdragon 810	4xA57	4xA53	20nm	Nexus 6P	One M9			Z3+, Z4, Z5	
Snapdragon 820	2xKryo	2xKryo	14nm LPP		10	G5, V20	S7, S7 Edge America version	XZ	Implements ARMv8a but not based on any ARM design
Snapdragon 821	2xKryo	2xKryo	14nm LPP	Pixel	U Ultra	G6, G7 Fit			Higher clocked 820
Snapdragon 835	4xKryo280	4xA53	10nm LPE	Pixel 2, Pixel 2 XL	U11, U11+, U11 Life	G7 One, V30, V30+	S8, S8+ America and East Asia version		Kryo280 is based on A73
Snapdragon 845	4xKryo385Gold	4xKryo385Silver	10nm LPP	Pixel 3, Pixel 3 XL	U12+	G7 ThinQ, V40 ThinQ	S9, S9+ America and East Asia version		Kryo385Gold is based on A75, Kryo385Silver is based on A55
<a href="https://en.wikichip.org/wiki/qualcomm/kryo">https://en.wikichip.org/wiki/qualcomm/kryo</a>									
Not all viable models listed, phone manufacturers have a bad habit of releasing dozens of superficially different models just to complicate things and there are many lesser known brands									

Viable Exynos SoCs

SoC	CPU Clusters		Process	Samsung	Notes
Exynos 7420	4xA57	4xA53	14nm LPE	S6, S6 Edge, S6 Edge+	
Exynos 7870	4xA53	4xA53	14nm LPP	Galaxy J5 (2017), J5 Pro, Galaxy J6	Not the 2016 J5
Exynos 7880	4xA53	4xA53	14nm LPP	A7 (2017)	Not the 2015 tablet or 2016 phone
Exynos 7885	2xA73	6xA53	14nm LPP	A7 (2018), A8 (2018)	Not the 2015 A7/A8 or the 2016 A7. Unknown if the A53 is a true 6 core, 3+3 or 4+2
Exynos 8890	4xM1	4xA53	14nm LPP	S7, S7 Edge Global version	<a href="https://en.wikichip.org/wiki/samsung/microarchitectures/m1">https://en.wikichip.org/wiki/samsung/microarchitectures/m1</a>
Exynos 8895	4xM2	4xA53	10nm LPE	S8, S8+ Global version	<a href="https://en.wikichip.org/wiki/samsung/microarchitectures/m2">https://en.wikichip.org/wiki/samsung/microarchitectures/m2</a>
Exynos 9810	4xM3	4xA55	10nm LPP	S9, S9+ Global version	<a href="https://en.wikichip.org/wiki/samsung/microarchitectures/m3">https://en.wikichip.org/wiki/samsung/microarchitectures/m3</a>
<a href="https://en.wikichip.org/wiki/qualcomm/kryo">https://en.wikichip.org/wiki/qualcomm/kryo</a>					
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Viable Kirin SoCs

SoC	CPU Clusters			Process	Huawei	Notes
Kirin 650	4xA53	4xA53		16nm FinFet+		2.0 primary cluster clock
Kirin 655	4xA53	4xA53		16nm FinFet+	Honor 6X	Higher clocked 650 (2.12 primary cluster)
Kirin 658	4xA53	4xA53		16nm FinFet+		Higher clocked 650 (2.35 primary cluster)
Kirin 659	4xA53	4xA53		16nm FinFet+	Honor 7X	Higher clocked 650 (2.36 primary cluster)
Kirin 710	4xA73	4xA53		12nm FinFet	Honor 8X	
Kirin 950	4xA72	4xA53		16nm FinFet+	Mate 8, Honor 8	
Kirin 955	4xA72	4xA53		16nm FinFet+	P9, P9 Lite, P9+	Higher clocked 950
Kirin 960	4xA73	4xA53		16nm FFC	Mate 9, Honor 8 Pro, Honor 9, P10, P10 Lite, P10+	
Kirin 970	4xA73	4xA53		10nm TSMC	Mate 10, Mate 10 Pro, Mate 10 PD, P20, P20 Pro	
Kirin 980	2xA76	2xA76	4xA55	7nm TSMC	Mate 20, Mate 20 Pro, Mate 20 RS PD, Mate 20 X	Cluster clocks 2.6, 1.92, 1.8 respectively
<a href="https://en.wikichip.org/wiki/qualcomm/kryo">https://en.wikichip.org/wiki/qualcomm/kryo</a>						
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Viable Helios SoCs

SoC	CPU Clusters			Process	Sony Xperia	Notes
Helio X20 M	2xA72	4xA53	4xA53	20nm		2.0, 1.85, 1.4 GHz respectively
Helio X20	2xA72	4xA53	4xA53	20nm		2.1, 1.85, 1.4 GHz respectively
Helio X23	2xA72	4xA53	4xA53	20nm		2.3, 1.85, 1.4 GHz respectively
Helio X25	2xA72	4xA53	4xA53	20nm		2.5, 2.0, 1.55 GHz respectively
Helio X27	2xA72	4xA53	4xA53	20nm		2.6, 2.0, 1.6 GHz respectively
Helio X30	2xA73	4xA53	4xA35	10nm		2.5, 2.2, 1.9 GHz respectively
P20	4xA53	4xA53		16nm	XA1, XA1+, XA1 Ultra	
P22	4xA53	4xA53		12nm		
P23	4xA53	4xA53		16nm		
P25	4xA53	4xA53		16nm		
P30	4xA53	4xA53		16nm		
P60	4xA73	4xA53		12nm		
P70	4xA73	4xA53		12nm		
P90	4xA75	4xA55		12nm		
<a href="https://en.wikichip.org/wiki/mediatek/helio">https://en.wikichip.org/wiki/mediatek/helio</a>						
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