

	Apollo	Apollo2	Apollo3	Apollo4
MCU Frequency	24MHz	48 MHz	48MHz/96MHz	96MHz/192MHz
MCU	32-bit ARM Cortex-M4F	32-bit ARM Cortex-M4F	32-bit ARM Cortex-M4F	32-bit ARM Cortex-M4F
MCU Power Efficiency	35 uA/MHz	10uA/MHz	6uA/MHz	4uA/MHz
NVM	512KB Flash	1MB Flash	1MB Flash	2MB MRAM
SRAM	64KB	256KB	384KB	1.8MB
Voltage	2.2 - 3.8V	1.8 - 3.6V	1.8 - 3.6V	1.71 - 2.2V
ADC	10 bit, 13-channel, up to 800 kSps	14 bit, 15-channel, up to 2.67 MSps	14 bit, 15-channel, up to 2.67 MSps	12 bit, 11-channel, up to 2.8 MSps
UART	1	2	2	4
I/O	I²C /SPI master I²C /SPI slave	I²C /SPI master (6x) I²C /SPI slave	I²C /SPI masters (6x) I²C /SPI slave	I²C /SPI masters (8x) I²C /SPI slave USB FS/HS SDIO v3.0/1x eMMC
MSPI	-	-	Dual/Quad/Octal-SPI Master 48MHz SDR	Dual/Quad/Octal-SPI Master(3x) 96MHz SDR 48MHz DDR
I²S	-	I²S slave for PDM Audio pass-through	I²S slave for PDM Audio pass-through	I²S master/slave(3x) Full-duplex with ASRC
Audio	-	PDM	PDM	4xStereo PDM Stereo LP AMIC
Display	-	-	SPI/QSPI	SPI/QSPI MIPI DSIx2 4-layer Display Controller
Graphics	-	-	-	2D/2.5D GPU
Security	-	-	Secure SPOT	Secure SPOT 2.0
Connectivity	-	-	-	-
RF Sensitivity	-	-	-	-
Rx current	-	-	-	-
Tx current	-	-	-	-
Tx Output Power	-	-	-	-
Packages (mm)	WLCSP: 2.49 x 2.90 x 0.5, 0.4 pitch, 41-pin, 27GPIO	WLCSP: 2.5 x 2.5 x 0.45 0.35 pitch, 49-pin, 34GPIO	WLCSP: 3.37 x 3.25 x 0.45 0.35 pitch, 66-pin, 37GPIO	WLCSP: 3.9 x 3.9, 121-pin, 82 GPIO
		WLCSP(Thin): 2.5 x 2.5 x 0.3 0.35 pitch, 49-pin, 34GPIO With backside coating		
	BGA: 4.5 x 4.5 x 0.8 0.5 pitch, 64-pin, 50GPIO	BGA: 4.5 x 4.5 x 0.8 0.5 pitch, 64-pin, 50GPIO		BGA: 5 x 5 x 0.8 0.35 pitch, 146-pin, 105GPIO