



	Apollo	Apollo2	Apollo3	Apollo4	Apollo2 Blue	Apollo3 Blue	Apollo3 Blue Plus	Apollo4 Blue
MCU Frequency	24 MHz	48 MHz	48 MHz 96 MHz TurboSPOT	96 MHz 192 MHz TurboSPOT	48 MHz	48 MHz 96 MHz TurboSPOT	48 MHz 96 MHz TurboSPOT	96 MHz 192 MHz TurboSPOT
MCU	32-bit Arm Cortex-M4F	32-bit Arm Cortex-M4F	32-bit Arm Cortex-M4F, DMA	32-bit Arm Cortex-M4F, DMA	32-bit Arm Cortex-M4F Dedicated BLE Core	32-bit Arm Cortex-M4F, DMA, Arm Cortex-M0 for BLE	32-bit Arm Cortex-M4F, DMA, Arm Cortex-M0 for BLE	32-bit Arm Cortex-M4F, DMA, Arm Cortex-M0 for BLE
MCU Power Efficiency	34 µA/MHz	10 µA/MHz	6 µA/MHz	3 µA/MHz	10 µA/MHz	6 µA/MHz	6 µA/MHz	3 µA/MHz
NVM	512KB Flash	1MB Flash	1MB Flash	2MB MRAM	1MB Flash	1MB Flash	2MB Flash	2MB MRAM
SRAM	64KB	256KB	384KB	1.8MB	256KB	384KB	768KB	1.8MB
Voltage	2.2-3.8V	1.755-3.63 V	1.755-3.63 V	1.71-2.2 V	1.755-3.63 V	1.755-3.63 V	1.755-3.63 V	1.71-2.2 V
ADC	10-bit, 13-channel, up to 800 kSps Sampling Rate ADC	14-bit, 15-channel, up to 2.67 MS/s Sampling Rate ADC	14-bit, 15-channel, up to 2.67 MS/s Sampling Rate ADC	12-bit, 11-channel, up to 2.8 MS/s Sampling Rate ADC	14-bit, 15-channel, up to 2.67 MS/s Sampling Rate ADC	14-bit, 15-channel, up to 2.67 MS/s Sampling Rate ADC	14-bit, 15-channel, up to 2.67 MS/s Sampling Rate ADC	12-bit, 11-channel, up to 2.8 MS/s Sampling Rate ADC
UART	1	2	2	4	2	2	2	4
I/O	I ² C/SPI master (2x) I ² C/SPI slave	I ² C/SPI master (6x) I ² C/SPI slave	I ² C/SPI master (6x) I ² C/SPI slave	I ² C/SPI master (8x) I ² C/SPI slave USB FS/HS SDIO v3.0/1x eMMC	I ² C/SPI master (4x) I ² C/SPI slave	I ² C/SPI master (6x) I ² C/SPI slave	I ² C master (6x) I ² C/SPI slave	I ² C/SPI master (7x) I ² C/SPI slave USB FS/HS SDIO v3.0/1x eMMC
MSPI	--	--	Dual/Quad/Octal-SPI Master 48 MHz SDR ISO7816 Master	Dual/Quad/Octal-SPI Master (3x) 96 MHz SDR 48 MHz DDR	--	Dual/Quad/Octal-SPI Master 48 MHz SDR ISO7816 Master	Dual/Quad/Octal-SPI Master (3x) 48 MHz SDR ISO7816 Master	Dual/Quad/Octal-SPI Master (3x) 96 MHz SDR 48 MHz DDR
I²S	--	I ² S slave for PDM Audio Pass-through	I ² S slave for PDM Audio Pass-through	I ² S master/slave (2x) full-duplex with ASRC	I ² S slave for PDM Audio Pass-through	I ² S slave for PDM Audio Pass-through	I ² S slave for PDM Audio Pass-through	I ² S master/slave (2x) full-duplex with ASRC
Audio	--	Dual Interface PDM for Mono and Stereo Audio Microphones	Dual Interface PDM for Mono and Stereo Audio Microphones	4x Stereo Digital Microphones 2x LP Analog Microphone with PGA	Dual Interface PDM for Mono and Stereo Audio Microphones	Dual Interface PDM for Mono and Stereo Audio Microphones	Dual Interface PDM for Mono and Stereo Audio Microphones	4x Stereo Digital Microphones 2x LP Analog Microphone with PGA
Display	--	--	SPI 3-wire/4-wire	SPI 3-wire/4-wire Dual/QuadSPI MIPI DSI x2 4-layer Display Controller	--	SPI 3-wire/4-wire	SPI 3-wire/4-wire Dual/QuadSPI	SPI 3-wire/4-wire Dual/QuadSPI MIPI DSI x2 4-layer Display Controller
Graphics	--	--	--	2D/2.5D GPU	--	--	--	2D/2.5D GPU
Security	--	--	SecureSPOT	SecureSPOT 2.0	AES 128-bit Encryption	SecureSPOT	SecureSPOT	SecureSPOT 2.0
Connectivity	--	--	--	--	BLE 5	BLE 5	BLE 5	BLE 5
RF Sensitivity	--	--	--	--	-95 dBm	-94 dBm	-94 dBm	-97 dBm
Rx Current	--	--	--	--	3.5 mA	3 mA	3 mA	3 mA
Tx Current	--	--	--	--	5 mA @ 0 dBm	3 mA @ 0 dBm	3 mA @ 0 dBm	3 mA @ 0dBm
Tx Output Power	--	--	--	--	-40 dBm to +5 dBm	-20 dBm to +4 dBm	-20 dBm to +4 dBm	-20 dBm to +6.8 dBm
Packages	<ul style="list-style-type: none"> 4.5 mm x 4.5 mm, 64-pin BGA with 50 GPIO 2.49 mm x 2.90 mm, 41-pin WLCSP with 27 GPIO 	<ul style="list-style-type: none"> 4.5 mm x 4.5 mm, 64-pin BGA with 50 GPIO 2.5 mm x 2.5 mm, 49-pin WLCSP with 34 GPIO 2.5 mm x 2.5 mm, 49-pin WLCSP with 300um with backside coating (Thin) 	<ul style="list-style-type: none"> 5 mm x 5 mm, 81-pin BGA with 50 GPIO 3.25 mm x 3.37 mm, 66-pin WLCSP with 37 GPIO 	<ul style="list-style-type: none"> 5 mm x 5 mm, 146-pin BGA with 105 GPIO 3.9 mm x 3.9 mm, 121-pin WLCSP with 82 GPIO 	4 mm x 4 mm x 0.9mm, 64-pin LGA with up to 31 GPIO	<ul style="list-style-type: none"> 4.5 mm x 4.5 mm, 81-pin BGA with 50 GPIO 3.25 mm x 3.37 mm, 66-pin WLCSP with 37 GPIO 3.25 mm x 3.37 mm, 66-pin WLCSP 300um with backside coating (Thin) 	5.3 mm x 4.3 mm x 0.8 mm, 108-pin BGA with 74 GPIO	4.7 mm x 4.7 mm, 131-pin SiP BGA with 81 GPIO
Ordering Information	<ul style="list-style-type: none"> APOLLO512-KBR (BGA) APOLLO512-KCR (WLCSP) AMAP1EV (EVB) 	<ul style="list-style-type: none"> AMAPH1KK-KBR (BGA) AMAPH1KK-KCR (WLCSP) AMAPH1KK-KCR-TB (Thin) AMAPHEVB (EVB) 	<ul style="list-style-type: none"> AMAP31KK-KBR (BGA) AMAP31KK-KCR (WLCSP) 	<ul style="list-style-type: none"> AMAP42KK-KBR (BGA) AMAP42KK-KCR (WLCSP) 	<ul style="list-style-type: none"> AMA2B1KK-KLR AMA2BEVB (EVB) 	<ul style="list-style-type: none"> AMA3B1KK-KBR-B0 (BGA) AMA3B1KK-KCR-B0 (WLCSP) AMA3B1KK-KCR-TB (Thin) AMA3BEVB (EVB) 	<ul style="list-style-type: none"> AMA3B2KK-KBR AMA3BEVB (EVB) 	AMA4B2KK-KBR