



	Apollo	Apollo2	Apollo4	Apollo2 Blue	Apollo3 Blue	Apollo3 Blue Plus	Apollo4 Blue
<b>MCU Frequency</b>	24 MHz	48 MHz	96 MHz 192 MHz TurboSPOT	48 MHz	48 MHz 96 MHz TurboSPOT	48 MHz 96 MHz TurboSPOT	96 MHz 192 MHz TurboSPOT
<b>MCU</b>	32-bit Arm Cortex-M4F	32-bit Arm Cortex-M4F	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
<b>MCU Power Efficiency</b>	34 µA/MHz	10 µA/MHz < 3 µA Deep Sleep Mode	< 3 µA/MHz	10 µA/MHz < 3 µA Deep Sleep Mode	< 6 µA/MHz < 1 µA Deep Sleep Mode	< 6 µA/MHz < 1 µA Deep Sleep Mode	< 3 µA/MHz
<b>NVM</b>	512KB Flash	1MB Flash	2MB MRAM	1MB Flash	1MB Flash	2MB Flash	2MB MRAM
<b>SRAM</b>	64KB	256KB	1.8MB	256KB	384KB	768KB	1.8MB
<b>Voltage</b>	2.2-3.8 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
<b>ADC</b>	10-bit, 13-channel, up to 800 kSps 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
<b>UART</b>	1	2	4	2	2	2	4
<b>I/O</b>	I <sup>2</sup> C/SPI master (2x) I <sup>2</sup> C/SPI slave	I <sup>2</sup> C/SPI master (6x) I <sup>2</sup> C/SPI slave	I <sup>2</sup> C/SPI master (8x) I <sup>2</sup> C/SPI slave USB FS/HS SDIO v3.0/1x eMMC	I <sup>2</sup> C/SPI master (4x) I <sup>2</sup> C/SPI slave	I <sup>2</sup> C/SPI master (6x) I <sup>2</sup> C/SPI slave	I <sup>2</sup> C master (6x) I <sup>2</sup> C/SPI slave	I <sup>2</sup> C/SPI master (7x) I <sup>2</sup> C/SPI slave USB FS/HS SDIO v3.0/1x eMMC
<b>MSPI</b>	--	--	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
<b>I<sup>2</sup>S</b>	--	I <sup>2</sup> S slave for PDM Audio Pass-through	I <sup>2</sup> S master/slave (2x) full-duplex with ASRC	I <sup>2</sup> S slave for PDM Audio Pass-through	I <sup>2</sup> S slave for PDM Audio Pass-through	I <sup>2</sup> S slave for PDM Audio Pass-through	I <sup>2</sup> S master/slave (2x) full-duplex with ASRC
<b>Audio</b>	--	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
<b>Display</b>	--	--	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
<b>Graphics</b>	--	--	2D/2.5D GPU	--	--	--	2D/2.5D GPU
<b>Security</b>	--	--	SecureSPOT 2.0	AES 128-bit Encryption	SecureSPOT	SecureSPOT	SecureSPOT 2.0
<b>Connectivity</b>	--	--	--	BLE 5	BLE 5	BLE 5	BLE 5
<b>RF Sensitivity</b>	--	--	--	-95 dBm	-94 dBm	-94 dBm	-97 dBm
<b>Rx Current</b>	--	--	--	3.5 mA	3 mA	3 mA	3 mA
<b>Tx Current</b>	--	--	--	5 mA @ 0 dBm	3 mA @ 0 dBm	3 mA @ 0 dBm	3 mA @ 0dBm
<b>Tx Output Power</b>	--	--	-20 dBm to +6.8 dBm	-40 dBm to +5 dBm	-20 dBm to +4 dBm	-20 dBm to +4 dBm	-20 dBm to +6.8 dBm
<b>Packages</b>	<ul style="list-style-type: none"> <li>4.5 mm x 4.5 mm, 64-pin BGA with 50 GPIO</li> <li>2.49 mm x 2.90 mm, 41-pin WLCSP with 27 GPIO</li> </ul>	<ul style="list-style-type: none"> <li>4.5 mm x 4.5 mm, 64-pin BGA with 50 GPIO</li> <li>2.5 mm x 2.5 mm, 49-pin WLCSP with 34 GPIO</li> <li>2.5 mm x 2.5 mm, 49-pin WLCSP with 300um with backside coating (Thin)</li> </ul>	<ul style="list-style-type: none"> <li>5 mm x 5 mm, 146-pin BGA with 105 GPIO</li> <li>3.9 mm x 3.9 mm, 121-pin WLCSP with 82 GPIO</li> </ul>	4 mm x 4 mm x 0.9mm, 64-pin LGA with up to 31 GPIO	<ul style="list-style-type: none"> <li>4.5 mm x 4.5 mm, 81-pin BGA with 50 GPIO</li> <li>3.25 mm x 3.37 mm, 66-pin WLCSP with 37 GPIO</li> <li>3.25 mm x 3.37 mm, 66-pin WLCSP 300um with backside coating (Thin)</li> </ul>	5.3 mm x 5.3 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
<b>Ordering Information</b>	<ul style="list-style-type: none"> <li>APOLLO512-KBR (BGA)</li> <li>APOLLO512-KCR (WLCSP)</li> <li>AMAP1EVB (EVB)</li> </ul>	<ul style="list-style-type: none"> <li>AMAPH1KK-KBR (BGA)</li> <li>AMAPH1KK-KCR (WLCSP)</li> <li>AMAPH1KK-KCR-TB (Thin)</li> <li>AMAPHEVB (EVB)</li> </ul>	<ul style="list-style-type: none"> <li>AMAP42KK-KBR (BGA)</li> <li>AMAP42KK-KCR (WLCSP)</li> </ul>	<ul style="list-style-type: none"> <li>AMA2B1KK-KLR</li> <li>AMA2BEVB (EVB)</li> </ul>	<ul style="list-style-type: none"> <li>AMA3B1KK-KBR-B0 (BGA)</li> <li>AMA3B1KK-KCR-B0 (WLCSP)</li> <li>AMAP31KK-KCR (WLCSP, non-BLE)</li> <li>AMA3B1KK-KCR-TB (Thin)</li> <li>AMA3BEVB (EVB)</li> </ul>	<ul style="list-style-type: none"> <li>AMA3B2KK-KBR</li> <li>AMA3B2EVB (EVB)</li> </ul>	AMA4B2KK-KBR