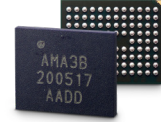
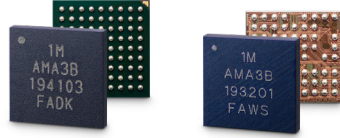


	Apollo	Apollo2	Apollo3	Apollo4 Lite	Apollo4 Plus
<b>SoC Frequency</b>	24 MHz	48 MHz	48 MHz 96 MHz turboSPOT®	96 MHz 192 MHz turboSPOT	96 MHz 192 MHz turboSPOT
<b>SoC</b>	32-bit Arm® Cortex®-M4F	32-bit Arm Cortex-M4F	32-bit Arm Cortex-M4F, DMA	32-bit Arm Cortex-M4F, DMA	32-bit Arm Cortex-M4F, DMA
<b>SoC Power Efficiency</b>	34 µA/MHz	10 µA/MHz	6 µA/MHz	4 µA/MHz	4 µA/MHz
<b>NVM</b>	512KB Flash	1MB Flash	1MB Flash	2MB MRAM	2MB Flash
<b>SRAM</b>	64KB	256KB	384KB	1.4MB	2.75MB
<b>Voltage</b>	2.2-3.8 V	1.755-3.63 V	1.755-3.63 V	1.71-2.2 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	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	12-bit, 11-channel, up to 2.8 MS/s Sampling Rate ADC
<b>UART</b>	1	2	2	4	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 (6x) I <sup>2</sup> C/SPI Slave	I <sup>2</sup> C/SPI Master (8x) I <sup>2</sup> C/SPI Slave SDIO v3.0/eMMC (1x)	I <sup>2</sup> C/SPI Master (8x) I <sup>2</sup> C/SPI Slave USB FS/HS SDIO v3.0/eMMC (1x)
<b>MSPI</b>	--	--	Dual/Quad/Octal-SPI Master 48 MHz SDR ISO7816 Master	Dual/Quad/Octal-SPI Master (2x) QSPI/OSPI/HexSPI 96 MHz SDR 48 MHz DDR	Dual/Quad/Octal-SPI Master (2x) QSPI/OSPI/HexSPI 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 Slave for PDM Audio Pass-through	I <sup>2</sup> S Master/Slave (1x) full-duplex	I <sup>2</sup> S Master/Slave (2x) full-duplex with ASRC
<b>Audio</b>	--	Dual Interface PDM for Mono and Stereo Audio Microphones	Dual Interface PDM for Mono and Stereo Audio Microphones	Stereo PDM Interfaces (1x)	Stereo PDM Interfaces (4x) Low Power Stereo Audio ADC (1x)
<b>Display</b>	--	--	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 with anti-aliasing and dithering	2D/2.5D GPU with anti-aliasing, dithering, and vector graphics
<b>Security</b>	--	--	secureSPOT®	secureSPOT 2.0	secureSPOT 2.0
<b>Connectivity</b>	--	--	--	--	--
<b>RF Sensitivity</b>	--	--	--	--	--
<b>Tx Output Power</b>	--	--	--	--	--
<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, 81-pin BGA with 50 GPIO</li> <li>3.25 mm x 3.37 mm, 66-pin WLCSP with 37 GPIO</li> </ul>	<ul style="list-style-type: none"> <li>5 mm x 5 mm, 146-pin BGA with 84 GPIO</li> </ul>	<ul style="list-style-type: none"> <li>5 mm x 5 mm, 146-pin BGA with 105 GPIO</li> </ul>
<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>AMAP31KK-KBR (BGA)</li> <li>AMAP31KK-KCR (WLCSP)</li> </ul>	<ul style="list-style-type: none"> <li>AMAP42KL-KBR (BGA)</li> <li>AMAP4LEV (EVB)</li> </ul>	<ul style="list-style-type: none"> <li>AMAP42KP-KBR (BGA)</li> <li>AMAP4PEVB (EVB)</li> <li>AMAP4PDISP (Display Kit)</li> </ul>



	Apollo3 Blue	Apollo3 Blue Plus	Apollo4 Blue Lite	Apollo4 Blue Plus
<b>SoC Frequency</b>	48 MHz 96 MHz turboSPOT	48 MHz 96 MHz turboSPOT	96 MHz 192 MHz turboSPOT	96 MHz 192 MHz turboSPOT
<b>SoC</b>	32-bit Arm Cortex-M4F, DMA, Arm® Cortex®-M0 for Bluetooth Low Energy	32-bit Arm Cortex-M4F, DMA, Arm Cortex-M0 for Bluetooth Low Energy	32-bit Arm Cortex-M4F, DMA, Arm Cortex-M0 for Bluetooth Low Energy	32-bit Arm Cortex-M4F, DMA, Arm Cortex-M0 for Bluetooth Low Energy
<b>SoC Power Efficiency</b>	6 µA/MHz	6 µA/MHz	4 µA/MHz	4 µA/MHz
<b>NVM</b>	1MB Flash	2MB Flash	2MB MRAM	2MB MRAM
<b>SRAM</b>	384KB	768KB	1.4MB	2.75MB
<b>Voltage</b>	1.755-3.63 V	1.755-3.63 V	1.71-2.2 V	1.71-2.2 V
<b>ADC</b>	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	12-bit, 11-channel, up to 2.8 MS/s Sampling Rate ADC
<b>UART</b>	2	2	4	4
<b>I/O</b>	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 SDIO v3.0/eMMC (1x)	I <sup>2</sup> C/SPI Master (7x) I <sup>2</sup> C/SPI Slave USB FS/HS SDIO v3.0/eMMC (1x)
<b>MSPI</b>	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 (2x) QSPI/OSPI/HexSPI 96 MHz SDR 48 MHz DDR	Dual/Quad/Octal-SPI Master (2x) QSPI/OSPI/HexSPI (KXR package only) 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 Slave for PDM Audio Pass-through	I <sup>2</sup> S Master/Slave full-duplex	I <sup>2</sup> S Master/Slave (2x) full-duplex with ASRC
<b>Audio</b>	Dual Interface PDM for Mono and Stereo Audio Microphones	Dual Interface PDM for Mono and Stereo Audio Microphones	Stereo PDM (1x)	Stereo PDM (4x) LP Analog Microphone with PGA (1x)
<b>Display</b>	SPI 3-wire/4-wire	SPI 3-wire/4-wire Dual/QuadSPI	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 with anti-aliasing and dithering	2D/2.5D GPU with anti-aliasing, dithering, and vector graphics
<b>Security</b>	secureSPOT	secureSPOT	secureSPOT 2.0	secureSPOT 2.0
<b>Connectivity</b>	Bluetooth® Low Energy 5	Bluetooth Low Energy 5	Bluetooth Low Energy 5.1	Bluetooth Low Energy 5.1
<b>RF Sensitivity</b>	-93 dBm	-93 dBm	-95 dBm	-95 dBm
<b>Tx Output Power</b>	Up to +3 dBm	Up to +3 dBm	Up to +6 dBm	Up to +6 dBm
<b>Packages</b>	<ul style="list-style-type: none"> <li>5 mm x 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>	<ul style="list-style-type: none"> <li>5.3 mm x 4.3 mm x 0.8 mm, 108-pin BGA with 74 GPIO</li> </ul>	<ul style="list-style-type: none"> <li>4.7 mm x 4.7 mm, 131-pin BGA with 75 GPIO</li> </ul>	<ul style="list-style-type: none"> <li>4.7 mm x 4.7 mm, 131-pin BGA with 81 GPIO</li> </ul>
<b>Ordering Information</b>	<ul style="list-style-type: none"> <li>AMA3B1KK-KBR-B0 (BGA)</li> <li>AMA3B1KK-KCR-B0 (WLCSP)</li> <li>AMA3B1KK-KCR-TB (Thin)</li> <li>AMA3BEVB (EVB)</li> </ul>	<ul style="list-style-type: none"> <li>AMA3B2KK-KBR (BGA)</li> <li>AMA3B2EV (EVB)</li> </ul>	<ul style="list-style-type: none"> <li>AMA4B2KL-KXR (BGA)</li> <li>AMA4BLEVB (EVB)</li> </ul>	<ul style="list-style-type: none"> <li>AMA4B2KP-KXR (BGA)</li> <li>AMA4B2KP-KBR (BGA)</li> <li>AMA4BP (EVB)</li> <li>AMA4BPX (EVB)</li> </ul>