

### Single Board Computers (SBCs)

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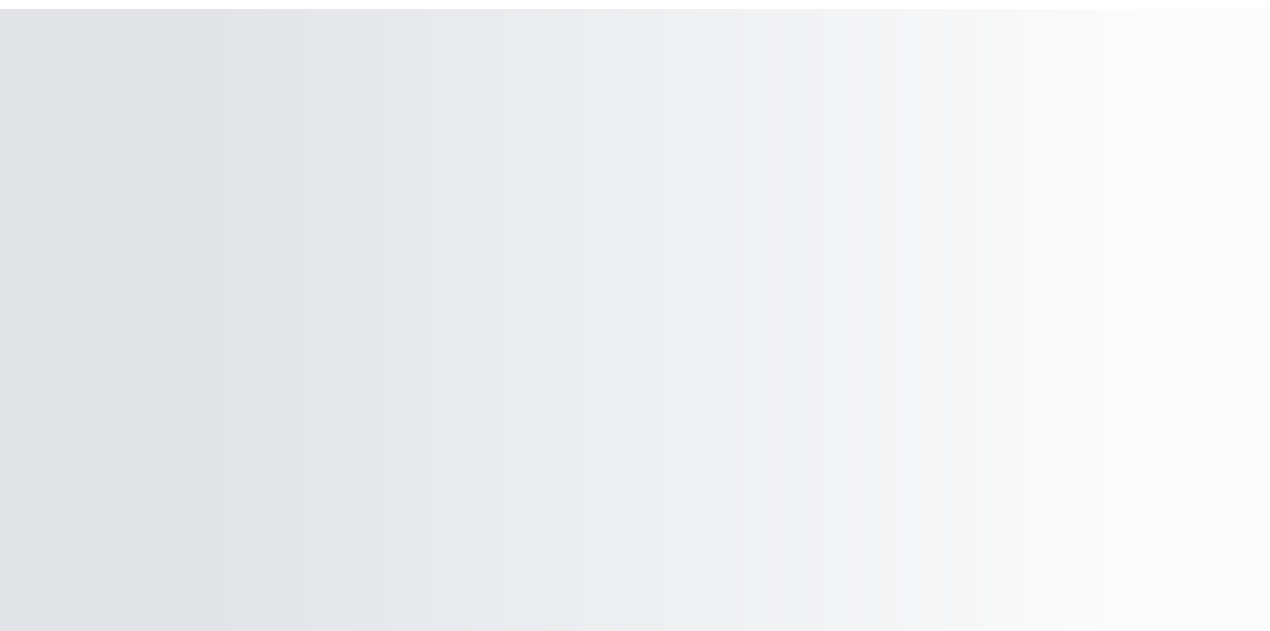
- [Rugged Single Board Computers](#)
- [Wide Temperature Single Board Computers](#)
- [Standard Temperature Single Board Computers](#)
- [Single Board Computer Peripherals](#)

EMAC can provide software Board Support Packages (BSPs) for our Single Board Computers (SBCs) using your choice of compatible Embedded Operating Systems. Integration of the single board computer into an enclosure, adding memory, CPU, Wireless (WiFi, Bluetooth or Mesh), storage solution & loading an OS, in most cases is free with the purchase of the Single Board Computer and related components. Additionally EMAC has LCD- Panel Kits with Touchscreen options, allowing our Single Board Computer Solutions to utilize an LCD for video output and a touchscreen replacement of a mouse for input. The LCD Panel Kit with the Touchscreen option in conjunction with the Flash Disk, makes for a Solid State Embedded computer system that is ideal for rugged, wide temperature, and low downtime environments. If you cannot find exactly what you need from our large Off-The-Shelf selection, EMAC can potentially customize any hardware or software component, and additionally offer driver development and software application programming, providing you with the perfect fit for their SBC application needs. EMAC can provide Enclosures, I/O Modules, Peripherals, Memory, and Operating Systems for most of our x86 and ARM SBCs to make them into fully embedded systems. EMAC supports and can install the following Embedded Operating Systems on Hard Drive or Flash Disk: Embedded Linux, Xenomi Development Framework, ROMDOS, Windows CE, and Windows Embedded Standard, Windows 10 IoT or Windows 10 IoT Core.

Need help in making a selection?

 [For an EMAC authored article on selecting an SBC click here.](#)

 [EMAC single board controller interfacing guidelines.](#)



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486 x86 Single Board Computers

| PRODUCT #                | CPU                                         | Memory                     | Serial Ports                                          | Disk Interfaces    | Video        | Bus        | Dim.                           | Other IO                                           |
|--------------------------|---------------------------------------------|----------------------------|-------------------------------------------------------|--------------------|--------------|------------|--------------------------------|----------------------------------------------------|
| <a href="#">VSX-6124</a> | Vortex86SX<br>Fanless, 300 MHz              | 128 MB<br>DDR2<br>On-Board | 3x RS-232, 1x RS-232/422/485, 1x Parallel SPP/EPP/ECP | 1x EIDE (UDMA 100) | CRT/LCD 32MB | 1x PC/104  | 7.24" ×4.8" Half Size ISA Card | 10/100 Ethernet, USB 2.0, KB/Mouse, Watchdog, GPIO |
| <a href="#">VSX-6127</a> | Vortex86SX<br>486 class<br>Fanless, 300 MHz | 128MB<br>DDR2<br>On-board  | 7x RS-232, 1x RS-232/422/485, 1x Parallel SPP/EPP/ECP | 1x EIDE (UDMA 100) | CRT/LCD 32MB | 1x PC/104+ | 4.01" ×5.67" Half EBX          | 10/100 Ethernet, USB 2.0, KB/Mouse, Watchdog, GPIO |

| PRODUCT #                        | CPU                                   | Memory                    | Serial Ports                                          | Disk Interfaces      | Video             | Bus                   | Dim.                    | Other IO                                                                      |
|----------------------------------|---------------------------------------|---------------------------|-------------------------------------------------------|----------------------|-------------------|-----------------------|-------------------------|-------------------------------------------------------------------------------|
| <a href="#"><u>VSX-6153</u></a>  | Vortex86SX 486 class Fanless, 300 MHz | up to 256MB on board DDR2 | 4x RS232                                              | IDE or Compact Flash | VGA or LVDS       | PC/104                | 3.54" ×3.77" PC/104     | 10/100 Ethernet, 2x USB2.0, 16x GPIO,                                         |
| <a href="#"><u>VSX-6154</u></a>  | Vortex86SX 486 class Fanless, 300 MHz | 128MB DDR2 On-board       | 3x RS-232, 1x RS-232/422/485, 1x Parallel SPP/EPP/ECP | 1x EIDE (UDMA 100)   | CRT/LCD 32MB      | 1x PC/104             | 3.54" ×3.77" PC/104     | 10/100 Ethernet, USB 2.0, KB/Mouse, Watchdog, GPIO                            |
| <a href="#"><u>VDX3-6755</u></a> | DM&P Vortex86DX3 CPU                  | Up to 2GB DDR3 Onboard    | 3x COM ports, 2x USB 2.0, 1x CAN Optional             | SATA                 | VGA and LVDS      | 1x PC/104             | 3.54" ×3.77" ×1" PC/104 | 2x LAN (1x 10/100, 1x GbE), Ps/2 KB/Mouse, Watchdog                           |
| <a href="#"><u>VDX-6350</u></a>  | Vortex86DX Fanless 486 class, 800 MHz | Up to 512MB DDR2 On-board | 3x RS-232, 1x RS-232/422/485, 1x Parallel SPP/EPP/ECP | 1x EIDE (UDMA 100)   | N/A               | PC/104                | 3.54" ×3.77" PC/104     | 10/100 Ethernet, USB 2.0, KB/Mouse, Watchdog, GPIO, PWM                       |
| <a href="#"><u>VDX-6354</u></a>  | Vortex86DX Fanless 486 class, 800 MHz | Up to 512MB DDR2 On-board | 3x RS-232, 1x RS-232/422/485, 1x Parallel SPP/EPP/ECP | 1x EIDE (UDMA 100)   | CRT/LCD 32MB      | 1x PC/104             | 3.54" ×3.77" PC/104     | 10/100 Ethernet, USB 2.0, KB/Mouse, Audio, Watchdog, GPIO, PWM                |
| <a href="#"><u>VDX-6328</u></a>  | Vortex86DX Fanless 486 class, 800 MHz | Up to 512MB DDR2 onboard  | 3x RS-232, 1x RS-232/422/485, 1x Parallel SPP/EPP/ECP | 1x EIDE (UDMA 100)   | CRT/LCD 32MB      | 1x PC/104, 1x PCI-104 | 4.01" ×5.67" Half EBX   | 10/100 Ethernet, USB 2.0, KB/Mouse, Compact Flash, Audio, Watchdog, GPIO, PWM |
| <a href="#"><u>VDX-6353</u></a>  | Vortex86DX Fanless, 800 MHz           | Up to 512MB DDR2 On-board | 3x RS-232, 1x RS-232/422/485                          | 1x EIDE (UDMA 100)   | CRT/LCD LVDS 32MB | 1x PC/104             | 3.54" ×3.77" PC/104     | 10/100 Ethernet, USB 2.0, KB/Mouse, Compact Flash, Audio, Watchdog, GPIO, PWM |

| PRODUCT #                 | CPU                         | Memory                   | Serial Ports                                          | Disk Interfaces                                                    | Video                                        | Bus                          | Dim.                           | Other IO                                                     |
|---------------------------|-----------------------------|--------------------------|-------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------|------------------------------|--------------------------------|--------------------------------------------------------------|
| <a href="#">VDX-6324</a>  | Vortex86DX Fanless, 800 MHz | Up to 512MB DDR2 onboard | 3x RS-232, 1x RS-232/422/485, 1x Parallel SPP/EPP/ECP | 1x EIDE (UDMA 100)                                                 | CRT/LCD 32MB                                 | 1x PC/104                    | 7.24" ×4.8" Half Size ISA Card | 10/100 Ethernet, USB 2.0, KB/Mouse, Watchdog, GPIO, PWM      |
| <a href="#">VDX2-6518</a> | DM&P Vortex86DX2 SoC 800MHz | 1GB DDR2 Onboard         | 3x RS-232 Ports, 1x RS-232/422/485 Port               | 4MB SPI Flash Disk Onboard and 512MB eMMC or SD Card Slot (Option) | VGA, LVDS                                    | N/A                          | 3.94" ×2.6" Pico-ITX           | Ethernet, 8x GPIO, 2x USB2.0, KB/Mouse, Audio, Watchdog, LPT |
| <a href="#">VDX2-6524</a> | DM&P Vortex86DX2 SoC 800MHz | Up to 1GB DDR2 Onboard   | 4x RS-232/485 Ports                                   | 1x SATA 7P, Compact flash                                          | VGA, TTL & LVDS (Optional Touchscreen)       | ISA Slot Card and PC/104 Bus | 7.24" ×4.8" Half Size ISA Card | 2x Ethernet, 16x GPIO/PWM, 4x USB, eMMC Flash,               |
| <a href="#">VDX2-6526</a> | DM&P Vortex86DX2 SoC 800MHz | Up to 1GB DDR2 On-board  | 4x RS-232/485 Ports                                   | 1x SATA 7P Connector                                               | VGA/TFT/LVDS with Touch Screen Optional      | 3.5" SBC                     | 4.01" ×5.67" 3.5 SBC           | GPIO, 5x USB 2.0 Ports                                       |
| <a href="#">VDX2-6554</a> | Vortex86DX2 DM&P SoC 800MHz | Up to 1GB DDR2 On-board  | 4x RS-232/485 Ports                                   | 1x SATA 7P                                                         | VGA, TFT & LVDS with Touch Screen (Optional) | PC/104                       | 3.54" ×3.77" PC/104            | 10/100 Ethernet, 16x GPIO, 2x USB2, PWM                      |

### Single-Core SBCs

| PRODUCT #                 | CPU                                                                                     | Memory              | Serial Ports                      | Disk Interfaces      | Video | Exp. Bus Type  | Dim.                  | Other IO                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------|---------------------|-----------------------------------|----------------------|-------|----------------|-----------------------|------------------------------------------------------------------------------------------------------|
| <a href="#">DEV-IOT6U</a> | Embedded Linux Development kit Freescale/NXP i.MX6 UltraLite Cortex A7 528Mhz Processor | 128 MB onboard DDR2 | 4x Serial, 3x USB 2.0, 1x USB OTG | 4GB onboard, MicroSD | none  | MikroBUS Click | 3" ×4.75" ×0.75" pitx | Wifi 802.11 b/g/n, Bluetooth, 10/100 BaseT Ethernet, A/D, D/A, SPI, Audio In/Out, MikroBUS Expansion |

| Product #                 | CPU                                              | Memory                                                             | Serial Ports                                                             | Disk Interfaces             | Video                                                                                             | Exp. Bus Type                                                   | Dim.                          | Other IO                                                                                                |
|---------------------------|--------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------|
| <a href="#">IOT-F407C</a> | ST STM32F407IGH6 ARM Cortex-M4                   | 192KB SRAM, up to 1MB of Flash                                     | 4x Serial, 2x CAN 2.0B 2x USB OTG                                        | MicroSD                     | 128x32 Character LCD, with 4 Push Buttons                                                         | 2x 50 pin expansion headers                                     | 2.25" ×3.5" Pico-ITX          | Wireless: WiFi, Bluetooth, 64 GPIO(16x dedicated GPIO), 13x A/D 12-Bit Channels, 2x D/A 12-Bit Channels |
| <a href="#">PFM-540I</a>  | AMD Geode LX800 Fanless, 500 MHz                 | Onboard DDR SDRAM SODIMM Max. 1GB for DDR333 and 512MB for DDR 400 | 2x High Speed COM, 1x RS-232, 1x RS-232/422/485, 1x Parallel SPP/EPP/ECP | FDD, Enhanced IDE (UDMA 33) | AMD Geode LX800 integrated VGA graphic controller with 2d engine.                                 | 1x PC/104                                                       | 3.5" ×3.8" PC/104             | 10/100 Ethernet, KB/Mouse, USB 2.0, Watchdog, CompactFlash                                              |
| <a href="#">PCM-9375</a>  | AMD Geode LX800 Fanless, 500 MHz                 | Up to 1GB DDR SDRAM                                                | 3x RS-232, 1x RS-232/422/485, 4x USB 2.0                                 | Enhanced IDE (UDMA 66) SATA | AMD Geode LX800 integrated VGA graphic controller with 2d engine.                                 | 1x PC/104                                                       | 5.7" ×4" 3.5 SBC              | Dual Ethernet, KB/Mouse, Audio, Optional TV-Out, GPIO, Parallel LPT, Watchdog, CompactFlash             |
| <a href="#">HSB-800I</a>  | AMD LX800, 500 MHz                               | 128MB DDR 400 Memory On-board                                      | 3x RS232, 1x RS232/485, 1x Parallel SPP/EPP/ECP                          | FDD, Enhanced IDE (UDMA 33) | CX5536 CRT/LCD                                                                                    | 1x ISA Bus PC/104                                               | 7.3" ×4.8" Half Size ISA Card | 10/100 Ethernet, KB/Mouse, Audio, IrDA, USB 2.0, Watchdog, GPIO CompactFlash                            |
| <a href="#">PCM-9376</a>  | AMD G-Series Single Core Processor T16R, 615 MHz | Up to 4GB                                                          | 2x RS-232/422/485 with Auto RS-485, 2x RS-232                            | 2x SATA, 1x mSATA           | VGA, LVDS, 18-bit TTL (optional), Optimized shared memory Architecture up to 384 MB system memory | 1x PC/104, 1x Mini PCIe. LPC connector for additional COM ports | 5.7" ×4" Half EBX             | Ethernet, USB, Audio, GPIO, SMBus                                                                       |

| PRODUCT #                 | CPU                                       | Memory                                   | Serial Ports                                          | Disk Interfaces                                                    | Video                                                          | Exp. Bus Type                                                         | Dim.                           | Other IO                                                              |
|---------------------------|-------------------------------------------|------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------------|
| <a href="#">GENE-1350</a> | TI OMAP™ 3503/3530 600 MHz                | Onboard 128/256 MB (Optional) LP DDR RAM | 1x RS-232, 1x RS-232/422/485 (auto flow), 1x TTL UART | Onboard NAND Flash, SD, MicroSD                                    | TTL/LVDS/LCD, Onboard 4-wire Resistive Touch Screen Controller | 2x Mini-Card (with USB interface only), 1x Proprietary Expansion Slot | 5.75" ×4" 3.5 SBC              | 8-bit GPIO, 2x USB 2.0 Host, 1x USB 2.0 Client                        |
| <a href="#">VDX3-6724</a> | DM&P SoC Vortex86DX3 1GHz                 | 2GB onboard DDR3 (1GB optional)          | 4x COM, 4x USB 2.0, 1x USB Hot Swap DOS(Optional)     | SATA, Compactflash                                                 | VGA and LVDS                                                   | ISA, PC/104                                                           | 7.24" ×4.8" Half Size ISA Card | 10/100 LAN, 1x 10/100/1000 GbE LAN, 16 GPIO.                          |
| <a href="#">VAB-600</a>   | WonderMedia WM8950 Cortex-A9 SoC, 800 MHz | 1GB DDR3 SDRAM Onboard                   | 2x RS232 COM, 3x USB 2                                | 4GB eMMCMini-SD card                                               | HDMI, DVO                                                      | Mini-PCIe (USB support)                                               | 3.9" ×2.8" 2.5 P-ITX           | 10/100 Ethernet, 8x GPIO, Audio, SIM card slot, Touch screen, Android |
| <a href="#">VDX2-6518</a> | DM&P Vortex86DX2 SoC 800MHz               | 1GB DDR2 Onboard                         | 3x RS-232 Ports, 1x RS-232/422/485 Port               | 4MB SPI Flash Disk Onboard and 512MB eMMC or SD Card Slot (Option) | VGA, LVDS                                                      | N/A                                                                   | 3.94" ×2.6" Pico-ITX           | Ethernet, 8x GPIO, 2x USB2.0, KB/Mouse, Audio, Watchdog, L            |

Multi-Core SBCs

| PRODUCT #                 | CPU                       | Memory                 | Serial Ports                              | Disk Interfaces | Video              | Exp. Bus Type                          | Dim.                    | Other                                  |
|---------------------------|---------------------------|------------------------|-------------------------------------------|-----------------|--------------------|----------------------------------------|-------------------------|----------------------------------------|
| <a href="#">PICO-BSW1</a> | Quad-Core Atom or Celeron | up to 8GB DDR3L        | 2x COM, 2x USB 3.0                        | mSATA & SATA    | HDMI, LVDS and DDI | Mini Card(Half-size), BIO, I2C & Smbus | 3.94" ×2.84" Pico-ITX   | Gigabit LAN, 4xDIO                     |
| <a href="#">VDX3-6755</a> | DM&P Vortex86DX3 CPU      | Up to 2GB DDR3 Onboard | 3x COM ports, 2x USB 2.0, 1x CAN Optional | SATA            | VGA and LVDS       | 1x PC/104                              | 3.54" ×3.77" ×1" PC/104 | 2x LAN 10/100, GbE), 1x KB/Mo Watchdog |

| PRODUCT #                        | CPU                                                           | Memory                                                  | Serial Ports                                                                  | Disk Interfaces       | Video                     | Exp. Bus Type                        | Dim.                                          | Other                                                                                   |
|----------------------------------|---------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------|---------------------------|--------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------|
| <a href="#"><u>VDX3-6726</u></a> | DM&P SoC<br>Vortex86DX3<br>1GHz                               | 2GB<br>onboard<br>DDR3<br>(1GB<br>optional)             | 4x COM, 4x<br>USB 2.0, 1x<br>USB Hot Swap<br>DOS(Optional)                    | SATA                  | VGA and<br>LVDS           | PC/104                               | 4"<br>×5.75"<br>×1" 3.5<br>Inch<br>SBC        | 10/100<br>LAN, 2<br>10/100/<br>GbE LAN<br>16x GP<br>Parallel<br>LPT po                  |
| <a href="#"><u>VDX3-6724</u></a> | DM&P SoC<br>Vortex86DX3<br>1GHz                               | 2GB<br>onboard<br>DDR3<br>(1GB<br>optional)             | 4x COM, 4x<br>USB 2.0, 1x<br>USB Hot Swap<br>DOS(Optional)                    | SATA,<br>Compactflash | VGA and<br>LVDS           | ISA, PC/104                          | 7.24"<br>×4.8"<br>Half<br>Size<br>ISA<br>Card | 10/100<br>LAN, 1<br>10/100/<br>GbE LAN<br>16x GP                                        |
| <a href="#"><u>RSB-4410</u></a>  | Freescale®<br>i.MX6 Dual or<br>Quad ARM®<br>Cortex™ A9<br>CPU | Up to<br>1GB<br>DDR3<br>Memory,<br>4GB<br>eMMC<br>flash | 3x RS232, 3x<br>USB 2.0 ports                                                 | SD card               | VGA /<br>HDMI /<br>LVDS   | Mini-PCIe with<br>SIM                | 5.75"<br>×4.02"<br>×0.78"<br>3.5<br>SBC       | Gigabit<br>LAN                                                                          |
| <a href="#"><u>AIMB-215</u></a>  | Intel Celeron<br>J1900, N2930<br>or N2807 Quad<br>Core        | 2x<br>SODIMM<br>up to 8GB<br>DDR3L<br>SDRAM             | 6x (5x RS-232,<br>1x RS-<br>232/422/485), 1<br>x USB 3.0, 7x<br>USB 2.0       | 2x SATA,<br>mSATA     | VGA,<br>DP++,<br>LVDS     | PCIex1, 2x<br>Mini-PCIe              | 6.9"<br>×6.9"<br>Mini-<br>ITX                 | 2x GbE<br>LAN, 8<br>GPIO,<br>Audio                                                      |
| <a href="#"><u>RICO-3288</u></a> | Rockchip<br>RK3288 Quad<br>Core                               | 2GB<br>DDR3L<br>Onboard                                 | 2x COM, 3x<br>USB 2.0, 2x<br>USB OTG                                          | MicroSD card          | VGA,<br>LVDS/eDP,<br>HDMI | 1x Mini-PCIe<br>(for 3G/4G<br>modem) | 3.94"<br>×2.84"<br>2.5 P-<br>ITX              | 1x GbE<br>LAN, 8<br>GPIO(4<br>& 4x O                                                    |
| <a href="#"><u>EPIC-BT07</u></a> | Intel Atom<br>E3845, Celeron<br>J1900 Baytrail<br>Processor   | SODIMM<br>up to 8GB<br>DDR3L<br>SDRAM                   | 6x Serial(4x<br>RS232, 2x<br>RS232/422/485),<br>USB 3.0 & 5x<br>USB 2.0 Ports | 1x SATA,<br>mSATA     | VGA,<br>HDMI,<br>LVDS     | Mini-PCIe<br>(Optional<br>PCI/104)   | 4.5"<br>×6.5"<br>EPIC                         | 2x GbE<br>LAN,<br>parallel<br>Port/16<br>DIO, S<br>slot, PS                             |
| <a href="#"><u>MIO-5251</u></a>  | Intel Baytrail<br>ATOM E3800<br>series or<br>Celeron J1900    | SODIMM<br>upto 8GB                                      | 4x COM, 1x<br>USB3.0, 4x<br>USB2.0                                            | mSATA &<br>SATA       | VGA /<br>HDMI /<br>LVDS   | MIO expansion,<br>Mini-PCIe          | 5.7"<br>×4" 3.5<br>Inch<br>SBC                | Dual<br>Gigabit<br>Ethernet<br>COM, 4<br>USB 3.<br>USB 2.<br>PortsSM<br>I2C, 8-<br>GPIO |

|  | PRODUCT #                 | CPU                                                              | Memory                   | Serial Ports                  | Disk Interfaces                                      | Video                                          | Exp. Bus Type                                           | Dim.                          | Other                                                                       |
|--|---------------------------|------------------------------------------------------------------|--------------------------|-------------------------------|------------------------------------------------------|------------------------------------------------|---------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------|
|  | <a href="#">GENE-BT05</a> | Intel BayTrail E3800 series                                      | up to 8GB                | 4x COM, 1x USB3, 3x USB2      | SATA and C-FAST or mSATA                             | VGA, LVDS, HDMI and 4/5/8-wire Resistive Touch | 2x Mini-PCIe                                            | 5.75" ×4" 3.5 SBC             | 2x GgE, GPIO, I2C, RS-485 port, Android                                     |
|  | <a href="#">PCM-3365</a>  | Intel BayTrail E3800 series                                      | Up to 8GB DDR3L SODIMM   | 2x COM, 6x USB 2.0            | 1x SATA & mSATA(optional mini-PCIe or Onboard Flash) | VGA, LVDS, HDMI/DVI                            | 1x PC/104+, 1x Mini PCI Express/mSATA                   | 3.8" ×3.5" ×0.75" PC/104+     | 8-bit GbE, 1x Gigabit Ethernet                                              |
|  | <a href="#">MIO-2263</a>  | Intel® Atom™ E3825 DC or Celeron J1900 QC                        | Up to 8 GB DDR3L         | 1x RS-232 & 1x RS-232/422/485 | SATA & Half-Sized mSATA                              | VGA, HDMI, & LVDS                              | 1x half size mini-PCIe slot / MIOe                      | 3.9" ×2.8" Pico-ITX           | GbE, 8-bit GPIO, COM, RS-485, SATA, USB2, USB 3.0, HS PCI, Mini C, /w mSATA |
|  | <a href="#">SBC-8106</a>  | Intel® Atom™ E3815 / E3826 or E3845 CPU                          | Up to 8GB DDR3L SODIMM   | 2x RS232                      | 1x SATA 2.0 / 1x mSATA shared with mPCIe             | LVDS 24Bit dual channel and Display Port 1.1a  | 1x mPCIe port                                           | 3.94" ×2.84" Pico-ITX         | Gigabit Ethernet, GPIO / RS-485, USB 2.0, USB 3.0 Ports                     |
|  | <a href="#">PCM-9365</a>  | Intel® Atom™ E3825 or Celeron® N2930                             | Up to 4GB DDR3L On-board | 4x RS232 Serial ports         | 1x SATA & 1x mSATA                                   | VGA / LVDS / HDMI                              | PCI-104, 1x Full-size Mini PCIe / 1x Full-size mSATA    | 5.7" ×4" 3.5 SBC              | Dual Gigabit Ethernet, COM, USB 3.0, USB 2.0 PortsSM, I2C, 8-bit GPIO       |
|  | <a href="#">PCI-7032</a>  | Intel® Celeron J1900 (2.0GHz) or N2930 (1.83GHz) Ultra Low Power | Up to 8GB DDR3L SODIMM   | Up to 4x RS-232/422/485       | 2x mSATA 2.0 (300 MB/s)                              | VGA, LVDS & DVI                                | 1x PCIe / PCI 4x 32 bit/33 MHz PCI Masters to Backplane | 7.3" ×4.8" Half Size PCI Card | Dual Gigabit LAN, 1x USB 3.0, USB 2.0, GPIO, I2C                            |
|  | <a href="#">MIO-5271</a>  | Intel Haswell I5 or Celeron                                      | DDR3L SODIMM (upto 8GB)  | 4x COM, 2x USB2, 2x USB3      | mSATA & SATA                                         | VGA, HDMI & LVDS (DP optional)                 | MIOe & 2x Mini-PCIe                                     | 5.7" ×4" 3.5 Inch SBC         | Dual Gigabit Ethernet, MIOe, PortsSM, I2C, 8-bit GPIO                       |

| PRODUCT #                 | CPU                                                                      | Memory                            | Serial Ports                                                          | Disk Interfaces       | Video                          | Exp. Bus Type                                          | Dim.                  | Other                                            |
|---------------------------|--------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------|-----------------------|--------------------------------|--------------------------------------------------------|-----------------------|--------------------------------------------------|
| <a href="#">MIO-5272</a>  | Intel Skylake Family i7/i5/i3 or Celeron*                                | 2x DDR3L SODIMM (up to 16GB)      | 2x COM, 2x USB3.0, 4x USB2.0                                          | mSATA & SATA          | VGA, HDMI & LVDS (DP optional) | mSATA & SATA                                           | 5.7" ×4" 3.5 Inch SBC | Dual Gigabit Ethernet MIOe, PortsSM I2C, 8- GPIO |
| <a href="#">AIMB-230</a>  | Intel 4th gen i3/i5/i7/Celeron Haswell processor (Dual core)             | 2x SODIMM up to 16 GB DDR3L SDRAM | 2x RS232/485/422, 4x USB 3.0, 2x USB 2.0                              | 3x SATA III, 1x mSATA | HDMI, DP++, LVDS, eDP          | Full-sized Mini-PCIe, Half-sized Mini-PCIe(mSATA)      | 6.69" ×6.69" Mini ITX | GbE LAN, 8x GPIO, Audio                          |
| <a href="#">MIO-5373</a>  | Intel Whisky Lake 8th Gen. Core U-series Celeron/i3/i5/i7, Up to 4.4 GHz | DDR4 2400 SODIMMs up to 32GB      | 1x COM, 4x USB 3.2, 2x USB3, CAN                                      | SATA, M.2             | LVDS / HDMI / DP               | MIOe, M.2                                              | 5.7" ×4" 3.5 SBC      | 2x GbE LAN, 1x GPIO, Audio                       |
| <a href="#">EPIC-BDU7</a> | Intel 5th Gen i3, i5 Broadwell (Dual Core)                               | SODIMM up to 8GB DDR3L SDRAM      | 6x Serial ports, (4x RS-232, 2x RS-232/422/485), 2x USB3.0, 4x USB2.0 | 2x SATA & 1x mSATA    | VGA, DP, 2x LVDS               | 2x Mini-PCIe (Optional PCI/104)                        | 4.5" ×6.5" EPIC       | 2x GbE LAN, parallel Port/16 DIO, S slot         |
| <a href="#">PCM-9563</a>  | Intel Celeron N3350                                                      | Up to 8GB DDR3L SODIMM            | 6x COM, 2x USB3, 6x USB2                                              | 2x SATA III, mSATA,   | VGA, LVDS, HDMI, DP, eDP       | mini-PCIe with SIM Card, PCI-104, PCI Slot, M.2 E-key, | 8" ×5.75" Full EBX    | up to 3x GbE LAN, 16x GPIO, LPT/FD               |

### RISC/ARM SBCs

| PRODUCT #                 | CPU                                                            | Memory ROM/ RAM/ EEPROM        | Serial Ports                      | Digital I/O                                        | A/D | D/A | Dim.        | Form     | Other IO                                                                                                 |
|---------------------------|----------------------------------------------------------------|--------------------------------|-----------------------------------|----------------------------------------------------|-----|-----|-------------|----------|----------------------------------------------------------------------------------------------------------|
| <a href="#">DEV-IIOTC</a> | Microcontroller Development Kit ST STM32F407IGH6 ARM Cortex-M4 | 192KB SRAM, up to 1MB of Flash | 4x Serial, 2x CAN 2.0B 2x USB OTG | 16x External Dedicated GPIOs (64x fully allocated) |     |     | 2.25" ×3.5" | Pico-ITX | Wireless: Wifi, Bluetooth, 64x GPIO(16x dedicated GPIO), 13x A/D 12-Bit Channels, 2x D/A 12-Bit Channels |

| PRODUCT #                        | CPU                                                                                              | Memory<br>ROM/<br>RAM/<br>EEPROM             | Serial Ports                      | Digital I/O                                                                                                                                                                           | A/D               | D/A  | Dim.             | Form                    | Other IO                                                                                                               |
|----------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------|------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------|
| <a href="#"><u>DEV-IOT6U</u></a> | Embedded Linux Development kit<br>Freescale/NXP i.MX6 UltraLite<br>Cortex A7<br>528Mhz Processor | 128 MB onboard<br>DDR2                       | 4x Serial, 3x USB 2.0, 1x USB OTG | 8x GPIO                                                                                                                                                                               |                   |      | 3" ×4.75" ×0.75" | pitx                    | Wifi<br>802.11 b/g/n,<br>Bluetooth,<br>10/100 BaseT<br>Ethernet,<br>A/D, D/A, SPI, Audio In/Out,<br>MikroBUS Expansion |
| <a href="#"><u>IPAC-9302</u></a> | Cirrus EP9302 ARM9                                                                               | Up to 32MB Flash, 64MB RAM, EEPROM 256       | 1x RS232, 1x RS-232/422/485       | 16x prog. 3.3V I/O lines, 16x PLD 3.3V in, 8x PLD 3.3V out, 8x PLD HDOC out                                                                                                           | 5 Chan. 12 bit    | none | 3.8" ×3.5"       | iPac                    | 10/100 BaseT, Dual USB 2.0 Host Port, Battery Backed Clock                                                             |
| <a href="#"><u>IPAC-9X25</u></a> | Embedded Atmel ARM9<br>AT91SAM9X25, 400 MHz                                                      | 128 MB of DDR RAM, 16MB of Serial Data Flash | 3x RS232. 1x RS232/422/485        | 20x General Purpose SAM9X25 Digital I/O lines, 16x SPI I/O Expander Based Digital I/O, and 8x High Drive Digital Outputs.<br>***Requires Qty 2 Terminal Boards to utilize all GPIO*** | 7 channel, 10-bit | none | 3.77" ×3.54"     | PC/104 SBC sized module | 2x 10/100 BaseT Ethernet, Dual USB 2.0 Host Port, CAN Port, Battery Backed Clock                                       |

| PRODUCT #                 | CPU                                                 | Memory<br>ROM/<br>RAM/<br>EEPROM                        | Serial Ports                                                                         | Digital I/O                                                         | A/D | D/A | Dim.            | Form               | Other IO                                                                                                                                                            |
|---------------------------|-----------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----|-----|-----------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">IOT-F407C</a> | ST<br>STM32F407IGH6<br>ARM Cortex-M4                | 192KB<br>SRAM,<br>up to<br>1MB of<br>Flash              | 4x Serial, 2x<br>CAN 2.0B 2x<br>USB OTG                                              | 16x<br>External<br>Dedicated<br>GPIOs (64x<br>fully<br>allocated)   |     |     | 2.25"<br>×3.5"  | Pico-<br>ITX       | Wireless:<br>Wifi,<br>Bluetooth,<br>64x<br>GPIO(16x<br>dedicated<br>GPIO),<br>13x A/D<br>12-Bit<br>Channels,<br>2x D/A 12-<br>Bit<br>Channels                       |
| <a href="#">IOT-F407M</a> | STM32F407IGH6<br>ARM Cortex-M4<br>168 MHz           | 192 KB of<br>SRAM,<br>Up to 1M<br>of Flash              | 4x Serial Ports,<br>2x CAN, 2x<br>USB 2.0 FS<br>OTG (1x<br>Internal, 1x<br>External) | 8x External<br>Dedicated<br>GPIOs (up<br>to 64x fully<br>allocated) | 13  | 2   | 4.38"<br>×6.05" | 3.5<br>Inch<br>SBC | 1x 100<br>BaseT<br>Ethernet<br>(POE<br>Optional),<br>Wireless:<br>Wifi,<br>Bluetooth,<br>Cell<br>Modem,<br>LoRa, 16x<br>GPIO (8x<br>External &<br>8x High<br>Drive) |
| <a href="#">GENE-1350</a> | TI OMAP™<br>3503/3530 600<br>MHz                    | Onboard<br>128/256<br>MB<br>(Optional)<br>LP DDR<br>RAM | 1x RS-232, 1x<br>RS-<br>232/422/485<br>(auto flow), 1x<br>TTL UART                   | 8-bit GPIO                                                          |     |     | 5.75"<br>×4"    | 3.5<br>SBC         | 8-bit<br>GPIO, 2x<br>USB 2.0<br>Host, 1x<br>USB 2.0<br>Client                                                                                                       |
| <a href="#">VAB-600</a>   | WonderMedia<br>WM8950 Cortex-<br>A9 SoC, 800<br>MHz | 1GB<br>DDR3<br>SDRAM<br>Onboard                         | 2x RS232<br>COM, 3x USB<br>2                                                         | 8 GPIO (4<br>GPI +4<br>GPO)                                         |     |     | 3.9"<br>×2.8"   | 2.5 P-<br>ITX      | 10/100<br>Ethernet,<br>8x GPIO,<br>Audio,<br>SIM card<br>slot,<br>Touch<br>screen,<br>Android                                                                       |

| PRODUCT #                        | CPU                                               | Memory<br>ROM/<br>RAM/<br>EEPROM                     | Serial Ports                        | Digital I/O                    | A/D            | D/A           | Dim.                | Form         | Other IO                                                                  |
|----------------------------------|---------------------------------------------------|------------------------------------------------------|-------------------------------------|--------------------------------|----------------|---------------|---------------------|--------------|---------------------------------------------------------------------------|
| <a href="#"><u>RSB-4410</u></a>  | Freescale® i.MX6 Dual or Quad ARM® Cortex™ A9 CPU | Up to 1GB DDR3 Memory, 4GB eMMC flash                | 3x RS232, 3x USB 2.0 ports          | N/A                            | N/A            | N/A           | 5.75" ×4.02" ×0.78" | 3.5 SBC      | Gigabit LAN                                                               |
| <a href="#"><u>RSB-4220</u></a>  | TI Sitara AM3352 Cortex A8 1.0GHz                 | 512MB DDR3, 4GB eMMC flash                           | 5x COM, 1x USB 2.0 Host/OTG, 1x CAN | 4x GPI & 4x GPO with isolation | N/A            | N/A           | 5.75" ×4.02"        | 3.5 Inch SBC | 2x Gigabit LAN, 8x GPIO                                                   |
| <a href="#"><u>RICO-3288</u></a> | Rockchip RK3288 Quad Core                         | 2GB DDR3L Onboard                                    | 2x COM, 3x USB 2.0, 2x USB OTG      | 8x GPIO (4x in & 4x Out)       |                |               | 3.94" ×2.84"        | 2.5 P-ITX    | 1x GbE LAN, 8x GPIO(4x in & 4x Out)                                       |
| <a href="#"><u>UPAC-515</u></a>  | Infineon C515C (8051) 8-Bit                       | Up to 128K ROM, 512K RAM, 1K EEPROM, 2K Internal RAM | 1x RS-232, CAN 2.0 B                | 19x TTL level bit prog. I/O    | 8 Chan. 10 bit | 4 Chan. 8 bit | 5.375" ×3.625"      | uPac         | Clock, Backlit LCD Interface, 20 Key Keypad Interface, Battery Backed Ram |
| <a href="#"><u>UPAC-HC16</u></a> | Freescale 68HC16-Z1 (DSP) 16-BIt                  | Up to 512K ROM, 1M RAM, 512 EEPROM                   | 1x RS-232                           | 8x prog. I/O 4x in/4x out      | 8 Chan. 10 bit | 8 Chan. 8 bit | 5.35" ×3.66"        | uPac         | Clock, Backlit LCD Interface, 16 Key Keypad Interface, Battery Backed Ram |

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