

## ArcticEdge/iMX6

Connect Tech's ArcticEdge/iMX6 will twist your ARM beyond the average development board. ArcticEdge's low-power, high performance design and extended temperature range make it a practical choice for taking your application from the developer's desk into the field.

The i.MX6Q 800MHz Cortex-A9 processor gives the reliability needed for long life critical applications.

Product Name: ArcticEdge/iMX6 Part Number: ELG001



## **FEATURES**

✓ HDMI and LVDS Display Outputs

✓ i.MX6 Quad Core 800MHz ARM Cortex-A9 Processor

✓ Linux and Android BSP's Available

✓ Extended Temperature Range -40° C to +85° C

## **Connect Tech Inc.**

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Processor         CPU Model         Freescale LMX 6           CPU Cenology         Cortex A9           CPU Clock Speed         800MHz           Instruction Cache         328K per Core           Data Cache         328K per Core           Data Cache         328K per Core           Data Cache         328K per Core           OpenCL, 2D acceleration with 4 shaders (up to 200MT/s), OpenCL, 2D accelerator and OpenVG**1.1 hardware acceleration           - OpenGL ES 2.0 3D accelerator and OpenVG**1.1 hardware acceleration           - Full 1080p encode/decode supporting multiple high resolution video inputs/outputs simultaneously           - Hardware Accelerators: VPU – Video Processing Unit, IPUV3H - Image Processing Unit (OpenGL ES 2.0) version 4 GPU2Dv2 - 2D Graphics Processing Unit (IDEN) GPU504 - 3D Graphics Processing Unit (IDEN) GPU504 - 3D Graphics Processing Unit (IDEN) GPU504 - 3D Graphics Processing Unit (IDEN)           Operating System Support         Linux and Android, Image and Source download available through Connect Tech's Development Certer           Memory         DBR3 Speed         1066 (S33MH2)           Gapatites         168, Z68 option           Bus Width         64-bit           Gigabit Ethernet         1           Audio         1           Memory         2           USB OTG / Client         1           RS-232 Ports         2 <th>Specifications</th> <th></th> <th></th>	Specifications			
OpenCL, 2D accelerator and OpenVG™ 1.1 hardware acceleration         - Full 1080p encode/decode supporting multiple high resolution         video inputs/outputs simultaneously         + Hardware Accelerators: VPU - Video Processing Unit,         IPUV3H - Image Processing Unit version 3H (2 IPUs)         GFUDV2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU2DV2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU2DV2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU2DV2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU2DV2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU2DV2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU2DV2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU2DV2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU3Dv4 - 3D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU3Dv2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU3Dv2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU3Dv2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU3Dv2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU3Dv2 - 2D Graphics Processing Unit (GenGL ES 2.0) version 4         GPU3Dv2 - 2D Graphics Processing Unit (W/ headphone amplification)         USB Host       4 (2 x Dual stacked Type-x onnector, 2 x rugged latching header) <t< th=""><th></th><th>CPU Technology CPU Cores CPU Clock Speed Instruction Cache Data Cache Unified I/D L2 Cache</th><th>Cortex A9 4 800MHz 32KB per Core 32KB per Core 1MB shared by Cores</th></t<>		CPU Technology CPU Cores CPU Clock Speed Instruction Cache Data Cache Unified I/D L2 Cache	Cortex A9 4 800MHz 32KB per Core 32KB per Core 1MB shared by Cores	
Operating System Support     Connect Tech's Development Center       Memory     DDR3       Speed     1066 (533MHz)       Capacities     1GB, 2GB option       Bus Width     64-bit       Gigabit Ethernet     1       Audio     1 x Output (w/ headphone amplification)       USB Host     4 (2x Dual stacked Type-A connector, 2x rugged latching header)       USB OTG / Client     1       RS-232 Ports     2       Micro SD     2       Wireless     Integrated Bluetooth* 2.1 + EDR Class 1.5 & Bluetooth* 4.0 BLE       Boot loader     u-boot ships -n internal 32Mbit SPI Flash       Input Power     +5V only       Power Consumption     Typical <5W       Form Factor     72 x 100 mm (PicoITX)	Graphics	<ul> <li>OpenCL, 2D accelerator and OpenVG<sup>™</sup> 1.1 hardware acceleration</li> <li>Full 1080p encode/decode supporting multiple high resolution video inputs/outputs simultaneously</li> <li>Hardware Accelerators: VPU - Video Processing Unit, IPUv3H - Image Processing Unit version 3H (2 IPUs)</li> <li>GPU3Dv4 - 3D Graphics Processing Unit (OpenGL ES 2.0) version 4</li> <li>GPU2Dv2 - 2D Graphics Processing Unit (BitBlt)</li> <li>GPUVG - OpenVG 1.1 Graphics Processing Unit</li> <li>ASRC - Asynchronous Sample Rate Converter</li> <li>Primary Display: HDMI 1.4 / TMDS</li> </ul>		
Speed       1066 (533MHz)         Capacities       1058, 2GB option         Bus Width       64-bit         Gigabit Ethernet       1         Audio       1         Memory       1 × 0utput (w/ headphone amplification)         USB Host       4 (2 x Dual stacked Type-A connector, 2 x rugged latching header)         USB OTG / Client       4 (2 x Dual stacked Type-A connector, 2 x rugged latching header)         Micro SD       2         Micro SD       2         Mireless       Integrated Bluetooth* 2.1 + EBR Class 1.5 & Bluetooth* 4.0 BLE         Input Power      boot ships internal 32Mbit SPI Flash         Input Power Consumption      boot ships internal 32Mbit SPI Flash         Form Factor       72 × 100 mm (PicoITX)	Operating System Support			
Audio1 x Output (w/ headphone amplification)USB Host4 (2 x Dual stacked Type-A connector, 2 x rugged latching header)USB OTG / Client1RS-232 Ports2Micro SD2WirelessIntegrated WiFI IEEE 802.11 b/g/n Integrated Bluetooth* 2.1 + EDR Class 1.5 & Bluetooth* 4.0 BLEBoot loaderu-boot ships on internal 32Mbit SPI FlashInput PowerTypical <5W	Memory	Speed Capacities	1066 (533MHz) 1GB, 2GB option	
Audio(w/ headphone amplification)USB Host4 (2 x Dual stacked Type-A connector, 2 x rugged latching header)USB OTG / Client1RS-232 Ports2Micro SD2WirelessIntegrated WiFi IEEE 802.11 b/g/n Integrated Bluetooth* 2.1 + EDR Class 1.5 & Bluetooth* 4.0 BLEBoot loaderu-boot ships on internal 32Mbit SPI FlashInput PowerForm FactorForm Factor72 x 100 mm (PicoITX)	Gigabit Ethernet	1		
USB OTG / Client     1       RS-232 Ports     2       Micro SD     2       Wireless     Integrated WiFi IEEE 802.11 b/g/n Integrated Bluetooth* 2.1 + EDR Class 1.5 & Bluetooth* 4.0 BLE       Boot loader     u-boot ships on internal 32Mbit SPI Flash       Input Power     +5V only       Power Consumption     Typical <5W       Form Factor     72 x 100 mm (PicoITX)	Audio			
RS-232 Ports     2       Micro SD     2       Wireless     Integrated Bluetooth* 2.1 + EDR Class 1.5 & Bluetooth* 4.0 BLE       Boot loader     u-boot ships on internal 32Mbit SPI Flash       Input Power     +5V only       Power Consumption     Typical <5W	USB Host	4 (2 x Dual stacked Type-A connector, 2 x rugged latching header)		
Micro SD     2       Wireless     Integrated WiFi IEEE 802.11 b/g/n Integrated Bluetooth* 2.1 + EDR Class 1.5 & Bluetooth* 4.0 BLE       Boot loader     u-boot ships on internal 32Mbit SPI Flash       Input Power	USB OTG / Client		1	
Wireless     Integrated WiFi IEEE 802.11 b/g/n Integrated Bluetooth® 2.1+EDR Class 1.5 & Bluetooth® 4.0 BLE       Boot loader     u-boot ships on internal 32Mbit SPI Flash       Input Power     +5V only       Power Consumption     Typical <5W	RS-232 Ports	2		
Wireless     Integrated Bluetooth® 2.1+EDR Class 1.5 & Bluetooth® 4.0 BLE       Boot loader     u-boot ships on internal 32Mbit SPI Flash       Input Power	Micro SD	2		
Input Power         +5V only           Power Consumption         Typical <5W	Wireless			
Power Consumption     Typical <5W	Boot loader	u-boot ships	on internal 32Mbit SPI Flash	
Form Factor     72 x 100 mm (PicoITX)	Input Power		+5V only	
	Power Consumption		Typical <5W	
Temperature Range40°C to ++85°C (ArcticEdge uses Freescale Automotive Grade CPII)	Form Factor	72	x 100 mm (PicolTX)	
io cio ros e (neuclage ases necsare nationouve diade el o)	Temperature Range	-40°C to +85°C (ArcticEc	lge uses Freescale Automotive Grade CPU)	

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