

TECHNOLOGY TEARDOWN

SECURITY & SURVEILLANCE



Component	Technology	Suppliers	Suggested Products	Development Kits
POWER OVER ETHERNET (PoE)				
Powered Device Interface	IEEE 802.3af (PoE)	Silicon Labs, Silvertel, MPS	Si3402 (Silabs, PoE PD Interf. IC), MP8001 (MPS, 15W PoE PD Interf. IC), Ag9312 (Silvertel, 12V 12W PoE PD module), Ag99xx (Silvertel, Ultra Mini PoE module)	Si3402B-EVB, Si3402B-SO-EVB, EVALAG9312, EVALAG99xxM
PSE Controller	IEEE 802.3af (PoE)	Silicon Labs, Silvertel	Si3454 (Silabs, 4-Port PoE PSE controller IC), Si3459 (Silabs, 8-Port PoE PSE controller IC), Ag6100, Ag6110 (Silvertel, single chan. PSE module), Ag6400 (Silvertel, 4 channel PSE module)	Si3454-KIT, Si3459-KIT, EVALAG6100, EVALAG6400
VIDEO				
Camera Interface	Image Sensor Bridge	Lattice	LIF-MD6000	LIF-MD6000-MLEVN
Camera Solution	Image Signal Processor	Lattice, Realtek	ECP3 (Lattice, HDR-60 Camera Kit), ECP5 (Lattice, Embedded Vision Kit), RTL8197FS (Realtek, Wireless IP camera network SoC 802.11 abgn 2x2)	LFE3-70EA-HDR60-DKN, LF-EVDK1-EVN
Video Encoder	H.264, MPEG-2	Averlogic, Fujitsu	AL582 (Averlogic, H.264 Encoder for streaming), MB86M0x (Fujitsu, H.264 MPEG-2 2K/60i Transcoder), MB86H46 (Fujitsu, H.264 2K/60p Encoder)	AL582C-CMOSDMB-A2, MB86M02-REB-DL
Video Processor	UHD 4K	Averlogic, Lattice	AL361A (Averlogic, UHD 4K2K Dual-channel Video Processor), AL362 (Averlogic, 4K UHD Video Processor for Quad View, Multiple Display and TV Wall), SII9616 (Lattice, 4K video processor/scaler/overlay), SII8784 (Lattice, Analog to HDMI)	AL361A-EVB-A1, AL362B-EVB-A0
Video Switcher	HDMI	Lattice	SII9575 (6 to 2 HDMI video switch), SII9535 (4 to 1 HDMI video switch), SII9533 (3 to 1 HDMI video switch)	CP9575HDMI
Video Transmitter	HDMI	Lattice	SII1136 (4K HDMI Tx), SII9022AYBT (1080p HDMI Tx, smallest for camera connector)	CP9022ACNU
Video Receiver	HDMI	Lattice	SII1127 (1080p dual port receiver)	CP1127
WIRED COMMUNICATION				
Ethernet Controller	10/100M Ethernet, 10/100/1000M Gb Ethernet	Realtek, Silicon Labs	RTL8153 (Realtek, Gb Ethernet USB 3.0, RTL8111H (PCIE Gb Ethernet Controller), RTL8119 (PCIE Gb Ethernet Controller Industrial Grade), CP2201 (Silabs, Gb Ethernet 8-bit parallel)	
Ethernet PHY	10/100M Ethernet, 10/100/1000M Gb Ethernet	Realtek	RTL8211F (Gigabit Ethernet PHY) RTL8201F (Fast Ethernet PHY)	
Ethernet Switch	10/100/1000M Gb Ethernet	Realtek	RTL8363NB-CG (2+1 ports Gigabit Ethernet Switch) RTL8364NB (2+2 ports Gigabit Ethernet Switch)	
Embedded Device Server	10/100M Ethernet	Digi, Lantronix, Multitech	xPico 110 (Lantronix, Secure 10/100M mini SMT module 18 x 31mm), XPort Pro (Lantronix, Secure RJ45 32bit module), Digi Connect ME (Digi, Secure 10/100M RJ45 module)	XPC100200K-02, XPPDK1000-LNX-02, DC-MEKT
External Device Server	10/100M Ethernet, 10/100/1000M Gb Ethernet RS232/422/485	Digi, Lantronix	UDS1100 (Lantronix, 1-port serial to Ethernet PoE optional), ConnectPort LTS 8/16/32 (Digi, 8, 16 or 32 port serial to Gigabit Ethernet, IPv6)	
WIRELESS COMMUNICATION				
WiFi	802.11a, 802.11b, 802.11g, 802.11n, 802.11ac	Silicon Labs, Telit, Digi, Mediatek, Lantronix, Redpine Signals, Realtek, Taiyo Yuden	WGM110 (Silabs, 802.11b/g/n WiFi module), RTL8195AM (Realtek, 802.11b/g/n WiFi IC), CC-WMX (Digi, ConnectCore secure wireless module 802.11a/b/g/n BT 4.2 i.MX6UL)	SLWSTK6120A
Cellular	3G, 4G LTE, Surface mount & Plug-in modules, Modems, Gateways	Telit, Janus, Multitech, Digi, Nimbelinek	LE910 (Telit, SMT 4G LTE CAT 3 module) LE910-V2 (Telit, SMT 4G LTE CAT 4 module)	LTE-IN-A-BOX-ATT, LTE-IN-A-BOX-VERIZON-SM
Antenna	Internal (PCB, Flex, SMD), External antenna	EAD, Ethertronics, Hirschmann Solutions	WTR7270 (EAD, external LTE), LMO7270 (EAD, outdoor LTE MIMO), 1002427 (Ethertronics, embedded GPS ISM stamped metal SMT), 1000146 (Ethertronics, embedded dual band WiFi), 1004112 (Ethertronics, external LTE)	1002427-01, CUSTOM-ANTENNA-KIT
ADDITIONAL COMPONENTS				
Solid State Drives	Compact Flash, PATA/IDE, SATA/eSATA USB, Single Chip/eMMC	Kingston, RunCore, Silicon Motion	SHSS37A (Kingston, HyperX SAVAGE SSD SATA III 2.5", 120, 240, 480 or 960GB), RCE-VI-T (RunCore, Elite VI SATA III 2.5", 64GB to 2TB), SM619G	
Indoor Positioning	802.15.4-2011	DecaWave	DW1000 (Chipset), DWM1000 (Module)	EVK1000, TREK1000