

Kite Flexible Sensing Platform

Technical Specifications

Performance	
CPU and Memory	i.MX6Quad cortex A9 processor (1.2 GHz) 4 GB flash 1 GB DDR3 SATA 3 interface 7G Micro SD
Graphics Support	Multi-stream-capable HD video engine with 1080p 60fps decode and 1080p 30fps encode 3D graphics performance with up to 4 shaders at 200 Mt/s w/OpenCL support Separate 2D and/or Vertex acceleration engines for UI support Stereoscopic image sensor support for 3D imaging
Communication	
Network	802.11abgn wireless Bluetooth 4.0 Gigabit Ethernet Digi mesh pro 900Mhz (or 2.4Ghz dependent on region) Optional 3G HSPA+ Quad band modem with GPS (PCIE add-on card)
Connectivity	
Display Output	1 x HDMI (Type A) 2 x LVDS with backlight control and I2C touch interface (Hirose DF14A-20P-1.25H and Molex 53047-1410) 1 x Parallel LCD (24-bit) with backlight control and I2C touch interface (Omron XF2M-4015-1A) 1 x MIPI-DSI with backlight control and I2C touch interface (Omron XF2M-2015-1A)
Audio	1 x Line-In (3.5 mm stereo jack or CUI SJ1-3515-SMT) 1 x Line-In, 1 x Line-Out 1 x Mic-In (Molex 53047-0810) On-board Freescale SGTL5000 audio codec
I/O	8 x analogue GPIO interfaces (3 pin Molex) 8 x digital output (0-5V @ 16mA (max)) On-board I2C SPI and UART interfaces (2.54mm headers)
Interfaces and Cable Entry Ports	5 x RP-SMA Antenna interfaces: 2 in use for Dual band Wi-Fi and Digi mesh, 3 spare for 4G, GPS, Bluetooth, etc. 6 x direct connect cable ports for use with directly connected sensors 1 x power input cable port 1 x Ethernet input cable port

Camera Interfaces	1 x 8-Bit Parallel Camera Interface 1 (Omron XF2M-2015-1A) 1 x 8-Bit Parallel Camera Interface 0 (Molex 53047-1410) 1 x MIPI CSI-2 (Omron XF2M-2415-1A) Compatible with e-con Systems e-CAM50IMX6 module)
USB 2	2 x USB Host (Dual Type A) 1 x USB Host (Molex 53047-0610)
Electrical	
Input Power	Standard input power: 230-240V AC (50 Hz) 802.3at POE option (available on request)
Output Power	5V DC at 2A max 3.5v/9v/12v step up/down options (available on request)
Mechanical	
External Dimensions (H x W x D)	225mm* x 80mm x 109mm** * including external connectors, not including antennae ** includes mounting brackets
IP66	Rated (When all external ports and interfaces are closed)
Environmental Conditions	
Rated Operating Temperature	-10 to +70°C
Relative Humidity	5% - 80%
Maximum Altitude	3,658 meters above sea level
Software	
Core System	Custom Digi Embedded Yocto Linux build SNMP reporting Remote configuration via SSH 15 second boot Easy addition of new features using Yocto Toolchain OS updates via TFTP boot or SD card
NEC Leaf Engine M2M Middleware	Converts local and remote sensor readings to JSON format Presents sensor readings on a RESTFUL API over HTTPS Supports wide range of sensors New sensor plugins can be rapidly developed and deployed