Device Solutions Ltd Product Information

Opal Development Kit

Product Name	Opal Development Kit
Web Page	Devicesolutions.net/OpalDevKit
Part Numbers	OPALKIT-V V | Version | 1.0: First production release
Overview (45 Words)	The Opal Development Kit (ODK) is the ideal platform for prototyping new i.MX53 designs. It includes all the features of the Freescale Quick-Start Board, and adds Wi-Fi, GPS, Digital and Analog I/O and FlexCAN so you can put your prototype together in hours, not days.
Short Description (77 Words)	The Opal Development Kit (ODK) is the ideal platform for prototyping new i.MX53 designs. It includes all the features of the Freescale Quick-Start Board, and adds Wi-Fi, GPS, Digital and Analog I/O and FlexCAN so you can put your prototype together in hours, not days. **Other highlights include:** • Multiple display support including VGA, LVDS and 7” LCD with touch-screen • Push-wire I/O connection to CAN Bus (transceivers on-board), Digital I/O and Analog inputs • Easy serial debug connection via USB
Long Description	The Opal Development Kit (ODK) is the ideal platform for prototyping new i.MX53 designs. It includes all the features of the Freescale Quick-Start Board, and adds Wi-Fi, GPS, Digital and Analog I/O and FlexCAN so you can put your prototype together in hours, not days. **Multiple Display Support** The Opal Development Kit includes support for: • Analog VGA • 2 x LVDS panels. Directly connect the Freescale 10.1" display with capacitive touch • Datavision 7" LCD with touch available from Device Solutions

	Wireless ready The ODK has wireless connectivity covered with sockets for Summit Data 802.11bgn Wi-Fi + Bluetooth modules, and XBee modules for Zigbee and generic RF support. **Directly connect to Digital I/O, Analog and CAN Bus** The ODK includes push-in wire connectors so you don't have to create your own interface boards - just connect up and start writing code! **Easy Serial Debug** The ODK includes a USB to Serial chip on-board, so you have access to the serial-port **High-accuracy GPS** A Wi2wi GPS module with patch antenna makes developing location aware applications simple. **All the other features you need** The ODK also includes 10/100 Ethernet, USB Host and Device ports, serial ports, SD card (2) and an on-board accelerometer. **Design Ready** Moving from prototype to product is quick & easy. The Opal Development Kit uses the production-ready Opal CPU module removing the need to make changes to your software to support your final hardware.
Applications	• Human Machine Interface (HMI) • Medical Devices • Factory Automation • Building and Home Automation • Automotive Displays • Point-of-Sale Kiosks • Retail Displays
Technical Specifications	**User Interface** • VGA • LVDS x 2 (compatible with Freescale 10.1" display) • 7" Datavision 800x480 TFT with touch-screen • Audio codec with HP audio out and Microphone input **Connectivity** • 10/100 Ethernet • Summit Data module socket for 802.11bgn/Bluetooth • 4-port USB 2 Host Ports • USB function (micro-AB connector) • XBee module socket • Wi2wi GPS module and antenna • Serial debug via RS232-to-USB (mini-B connector)

	Storage • SD card • Micro-SD card • SATA (7-pin connector) **Industrial I/O (push-wire connectors)** • 2 CAN ports • 4 Digital Inputs • 4 Digital Outputs • 3 ADC Inputs **Configuration and Expansion** • 2 User Buttons • 2 User LEDs • 20-pin JTAG Connector • Boot configuration switches (set boot from NAND, SD card or USB) • Expansion connector with USB, Serial SPI, I2C, PWM and OneWire • Battery Connector
Product Images	https://dl.dropbox.com/u/4284897/ProductPhotos/OpalImages.zip This includes high-resolutions images of: • Opal CPU Module (Top, Bottom and block diagram) • Opal Development Kit (Top, Bottom and block diagram)