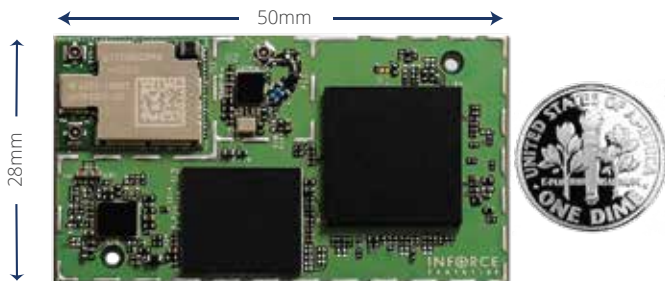




## Inforce 6501<sup>™</sup> Micro SoM

Qualcomm<sup>®</sup> Snapdragon<sup>™</sup> 805 Processor-based Micro System-on-Module

### High performance module in a micro form factor for space constrained Applications



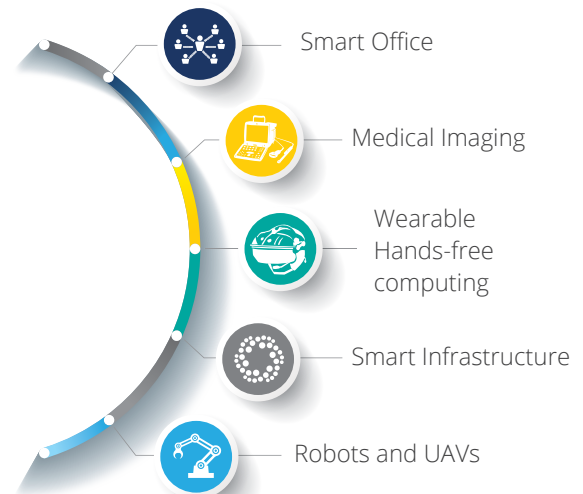
The high performance Inforce 6501 Micro SOM is based on Qualcomm's Snapdragon 805 processor (APQ8084). The Micro SOM packs in a very high compute density in a tiny form-factor that fits Size, Weight, and Power (SWaP) constrained embedded applications. It measures just 28mm x 50mm and weighs less than 8 grams. It supports 4K Ultra HD display, hardware assisted 4K Ultra HD video capture and playback, and up to 55MP cameras. The Inforce 6501 Micro SOM maintains pin, electrical and form-factor compatibility with all Inforce Micro SOMs.

### Storage, Multimedia, and Connectivity

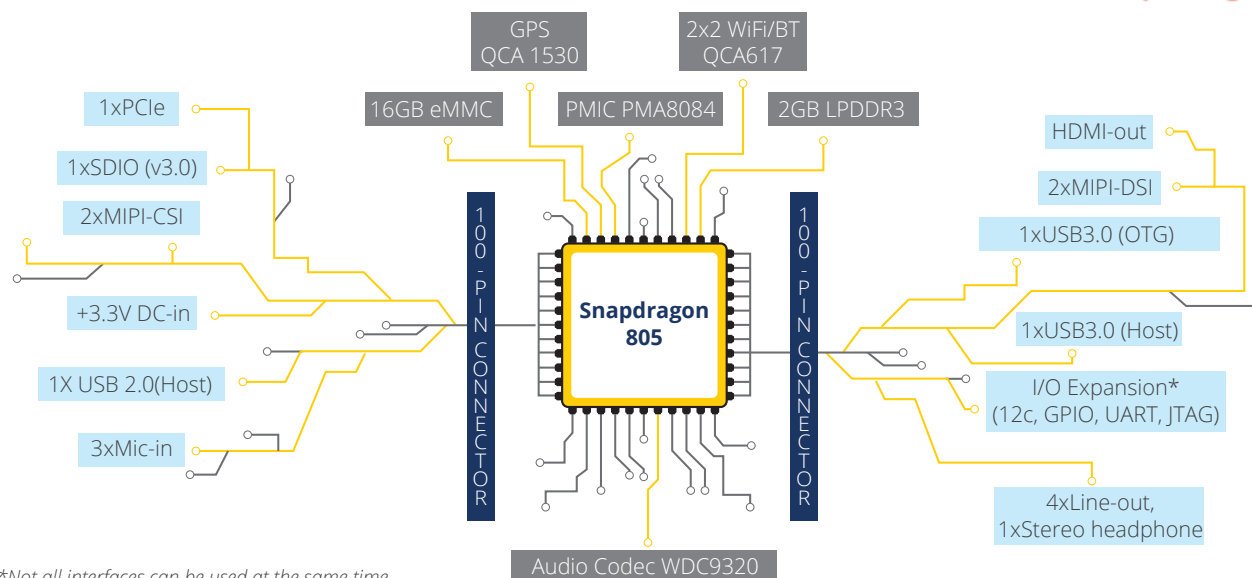
- 16GB eMMC v4.5/5.0 (support up to 64GB) NAND flash
- Up to 3GB PoP LPDDR3 @800MHz 2X64-bit 25.6GB/s memory bus for fast, seamless multitasking
- Supports SDIO v3.0 interface for memory expansion
- 4K Ultra HD video w/ HEVC playback & H.264 capture
- HQV<sup>™</sup> Video Post Processing
- Hi-Fi Audio with 24bit/192Khz playback support
- Support for 3 concurrent displays with MIPI-DSI and HDMI
- Support for 3 cameras over MIPI-CSI
- Bluetooth 4.1, 2x dual-band WiFi, and GPS
- Support for 1x PCIe interface

### Processing, Power and Performance

- Qualcomm<sup>®</sup> Snapdragon<sup>™</sup> 805 APQ8084 SoC
  - Quad-core Krait<sup>™</sup> 450 CPU @2.5GHz each, 2MB L2 cache. ARM<sup>®</sup>v7 compliant
  - Adreno 420 GPU @4.8 Giga Pixels/second; support for OpenGL ES3.1, OpenCL 1.2 Full Profile, plus hardware tessellation, geometry shaders, programmable blending, and low power consumption
  - Hexagon<sup>™</sup> DSP v50 @600MHz for ultra low-power audio and computer vision processing
  - Dual image signal processors (ISP) @1.2GP/s throughput and support for 3 cameras up to 55MP
- Independent dynamic CPU/GPU clocking and voltage scaling for superior power efficiencies
- Ultra low-power always-on sensor engine



**Broad Application Space**



## Flexible and Configurable I/O Interfaces

- HDMI 1.4a
- Dual MIPI-DSI (4-lane) & Touch Screen
- Dual MIPI-CSI (4 lane)
- 1x USB 3.0 (Host)
- 1x USB 3.0 (OTG)
- 1x USB 2.0 (Host)
- 1 x PCIe, 1 x SDC
- WiFi and GPS external antenna connectors
- 1x JTAG
- 1x RS-232
- 2 x 12C, 1 X UART, 8 X GPIOs, Slim Bus
- 1x Stereo headphone out, 4x lineout, 3x mic in

## Network Interfaces

- 802.11 ac 2X 2.4GHz/5GHz WiFi & Bluetooth 4.1
- GPS

## Power, Mechanical, and Environmental

- Power: +3.3V/6A Input
- Operating Temp: 0° C to 70° C
- Storage Temp: -20° C to 80 C
- Relative Humidity: 5 to 95% non-condensing
- RoHS and WEE compliant
- Dimensions: 28mm x 50mm

## Inforce - Embedded. Connected. Aware.

Inforce Computing® is a supplier of application-ready embedded hardware platforms in eco-aware, low-profile footprints, available off-the-shelf to serve growing markets enabled by the next generation of connected devices. At Inforce, we are inspired by the inflection point in mobile and wireless technologies which is spawning innovative devices, content, and services. Together with our silicon, software, and system partners, Inforce is pioneering products with an optimized delivery model for medical imaging, smart office, hands-free computing, robotics, and drones.

## Carrier Board For Inforce 6501 Micro SOM



A mini-ITX carrier board (170X170mm) expands the I/O and connectivity of the Inforce 6501 micro SOM. A full development kit inclusive of both is available.

## Software Support

- Android Lollipop 5-X BSP
- Device drivers for cameras, displays, and peripherals

## Ordering Info

| Part Number   | Description               | Available |
|---------------|---------------------------|-----------|
| IFC6501-00-P3 | Micro SOM (Android)       | Q1 2015   |
| SYS6501-00-P3 | Development Kit (Android) | Q1 2015   |
| IFC6501-10-P3 | Micro SOM (Linux)         | Q1 2015   |
| SYS6501-10-P3 | Development Kit (Linux)   | Q1 2015   |