## **Qualcomm**<sup>®</sup> snapdragon

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Qualcomm<sup>®</sup> Snapdragon<sup>™</sup>410 Processor Based Tiny System-on-Module

High performance module for space, weight and power (SWaP) constrained embedded applications

<u>50 mm</u>



The versatile Inforce 6301 Micro SOM, is based on Qualcomm's powerful, well-proven, and long lifecycle Snapdragon 410 processor (APQ8016) for embedded applications. The plug-andplay Inforce 6301 Micro SOM comes in an ultra-small form factor of 28mm x 50mm. The Inforce 6301 Micro SOM is pin, electrical, and form-factor compatible across a growing product line of Snapdragon processor based SOMs and shares a common carrier board design for easy migration to new Qualcomm technologies. The compute dense Micro SOM is an ideal platform for a variety of SWaP constrained Android and Linux based embedded applications. Available SKU variants also include support for extended operating temperature range (-30° C to 85°C) with EMI shielding for better RF noise protection.

#### Storage, Multimedia, and Connectivity

- 8GB eMMC v4.5 (support up to 64GB) NAND flash
- 1GB LPDDR3@ 533MHz
- $1x \mu SD$  card interface with support up to HS200.
- H.264 playback and capture @1080p
- H.265 playback @1080p
- Hi-Fi Audio with 24bit/192Khz playback support
- 4-lane MIPI-DSI interface for touch screen displays
- Supports up to a 13MP Camera on MIPI-CSI
- BT4.0 LE and 2.4GHz WiFi
- **On-board GPS/GNSS**

#### **Processing, Power and** Performance

- Oualcomm® Snapdragon<sup>™</sup> 410 processor (APQ8016 SoC)
- Ouad-core ARM® Cortex® A53 64-bit CPU @1.2GHz each, ARMv8-A ISA compliant
- Adreno<sup>™</sup> 306 GPU with support for OpenGL ES 3.0, DirectX, and OpenCL
- Hexagon<sup>™</sup> QDSP6 @700MHz for ultra lowpower audio and computer vision processing
- Integrated ISP with support for 1.5GPs throughput with support for 2 cameras up to 13MP
- Onboard LPDDR3 RAM, eMMC Flash Memory, WiFi/BT, Integrated audio codec, power management and GPS
- Independent dynamic CPU/GPU clocking and voltage scaling for superior power efficiencies



**Broad Application Space** 



\* Not all interfaces can be used at the same time

#### Flexible and Configurable I/O Interfaces

- MIPI-DSI (4-lane)and Touch 6x 4-line BLSPs Screen
  - UART up to 4Mbps

I2C

8× GPIO

- Dual MIPI-CSI (4/2 lane)
- 1× USB 2.0 (Host)
- SDIO
- JTAG

#### **Network Interfaces**

- Dual stream 802.11 b/g/n/ 2.4GHz WiFi •
  - GPS/GLONASS
  - BT 4.0LE

#### Power, Mechanical and Environmental

- Power: +3.3V/5A Input
- Storage Temp: -20 to 80 C

SPI (Master Only)

- Relative Humidity: 5 to 95% non-condensing **RoHS and WEEE compliant**
- Operating Temp: 0 to 70 C

#### Software Support

**Dimensions:** 

50 mm x 28 mm

Choice of Android L / Ubuntu/Debian Linux board support packages (BSP) / OS pre-loaded

### Inforce — Embedded. Connected. Aware.

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#### **Carrier Board for Inforce 6301 Micro SoM**

A small minimal carrier(55mm x 60mm) with I/Os like USB/HDMI/Debug UART/µSDto help create, test, prototype and optimize your products with the shortest turnaround time





#### **Ordering Info**

Part Number	Description	Available
IFC6301-00-P2	Micro SoM (Android)	Now
IFC6301-10-P2	Micro SoM (Linux)	Now
SYS6301-00-P1	Micro SoM based Dev. Kit (Android)	Now
SYS6301-10-P1	Micro SoM based Dev. Kit (Linux)	Now

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> Global Sales & Support Inforce Computing Inc. 48820 Kato Road Ste 600B, Fremont, CA 94538 USA

Phone: (510) 683-9999 | sales@inforcecomputing.com

http://www.inforcecomputing.com