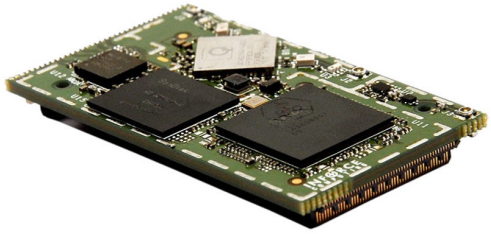


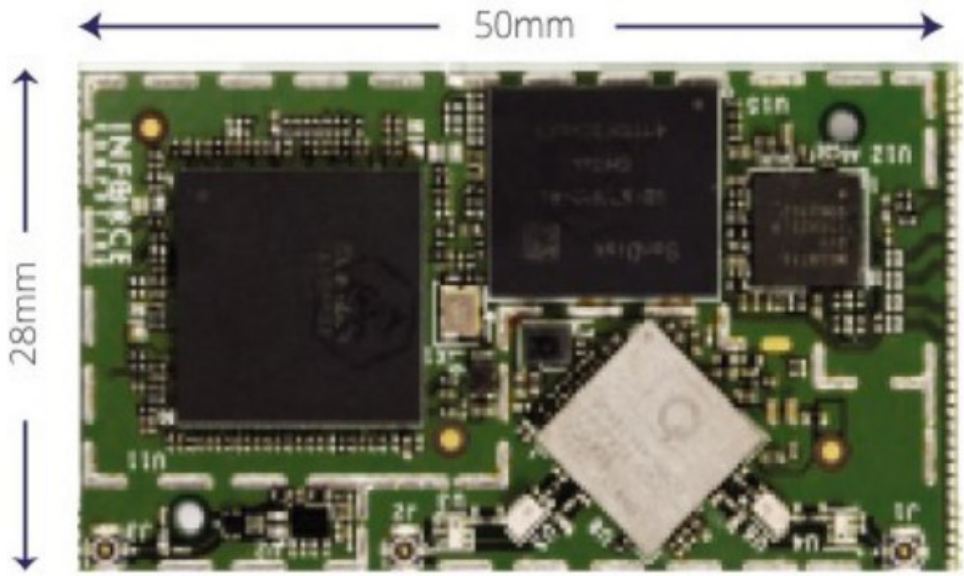
INFORCE COMPUTING 6401 Micro SoM Processor Based Tiny System Instruction Manual

Qualomm® Snapdragon™ 600 Processor-based Tiny System on Module
Inforce 6401™ Mic Cro SoM

Contents

6401 Micro SoM Processor Based Tiny System

High Performance Module for space, weight and power (SWaP) constrained embedded applications



The high performance Inforce 6401 Micro SOM is based on Qualcomm's® powerful, well proven and long lifecycle Snapdragon™ 600 processor (APQ8064) for embedded applications. The plug and play Inforce 6401 Micro SOM comes in an ultra small form factor of 28mm x50mm.
The Inforce 6401 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 EMI shielding for better RF noise protection for applications that require it.

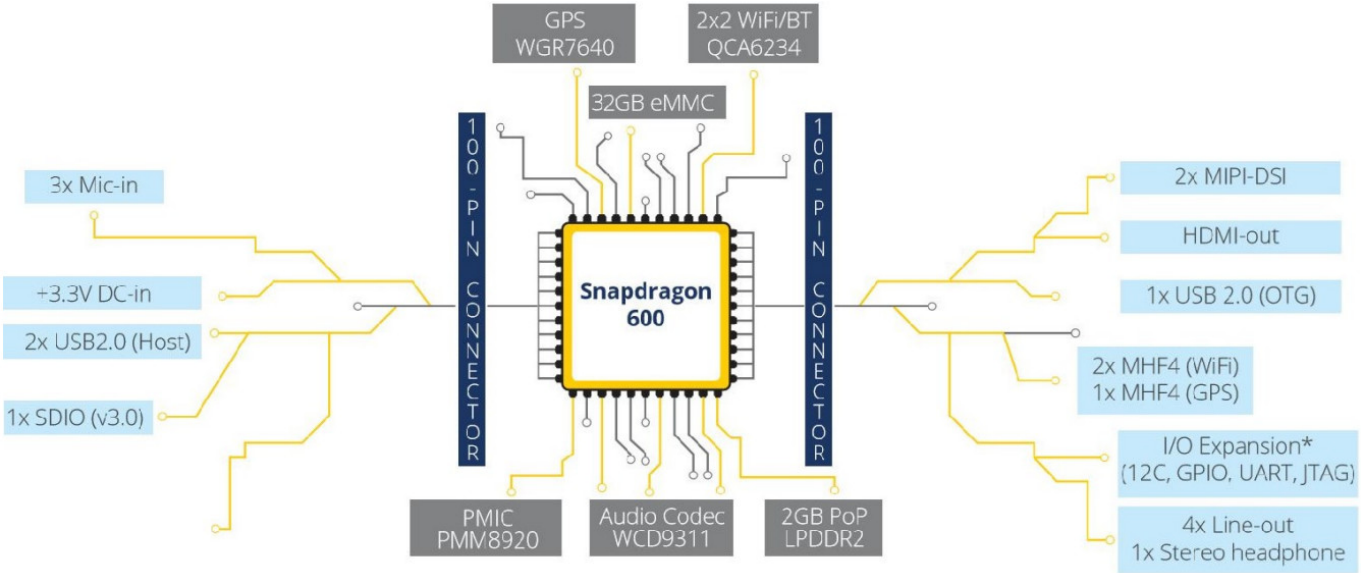
Storage, Multimedia, and Connectivity

- 32GB eMMC v4.4.1/4.5 (support up to 64GB) NAND flash
- 2 GB LPDDR2 PoP memory
- 1 x µSD Card Interface
- 1080p HD video w/H.264 (AVC) capture and playback
- Hi-Fi Audio with 24 bit/192khz playback support.
- Available interface for MIP-DSI flat panel and touch screen display
- Support up to 20 MP camera on MIPI-CSI
- Bluetooth 4.0 and dual stream Wi-Fi
- Onboard GPS/GNSS

Processing ,Power and Performance

- Qualcomm® Snapdragon™ 600 processor (APQ8064 SoC)
- Quad Core Krait™ 300 CPU @ 1.7 GHz each, 2MB L2 cache
- ARM® V7 compliant, VeNum 128 bit SIMD MM coprocessor and TrustZone™ support
- Adreno™ 320 GPU (QXGA/1080p) with support for openGL ES 3.0,openCL, DirectX and Renderscript Compute
- Hexagon™ DSP v4@500MHz for ultra low power audio and computer vision processing
- Image signal processing (ISP) with support for two cameras up to 20MP
- Independent dynamic CPU/GPU clocking and voltage scaling for superior power efficiencies
- On-board PoP DDR RAM, eMMC flash memory, Wi-Fi/BT, audio codec, power management and GPS

Broad Application Space



Flexible and Configurable I/O Interfaces

- HDMI1.4a
- Dual MIPI-DSI (4 lane each) and Touchscreen
- Dual MIPI-CSI (4\2lan
- 2 x USB 2.0 (HOST)
- 1x USB 2.0 (OTG)
- 1x Stereo Headphone out, 4x Lineout, 3x mic in
- SDIO
- Wi-Fi & GPS antenna Connectors
- 1x µSD
- 2 x I2C,SPI, 1x UART,8xGPIO
- SLIMBUS
- GbE

Network Interfaces

- Dual Stream 802.11 n/ac 2.4 GHz/5GHz Wi-Fi
- GPS/GLONASS
- Bluetooth 4.0

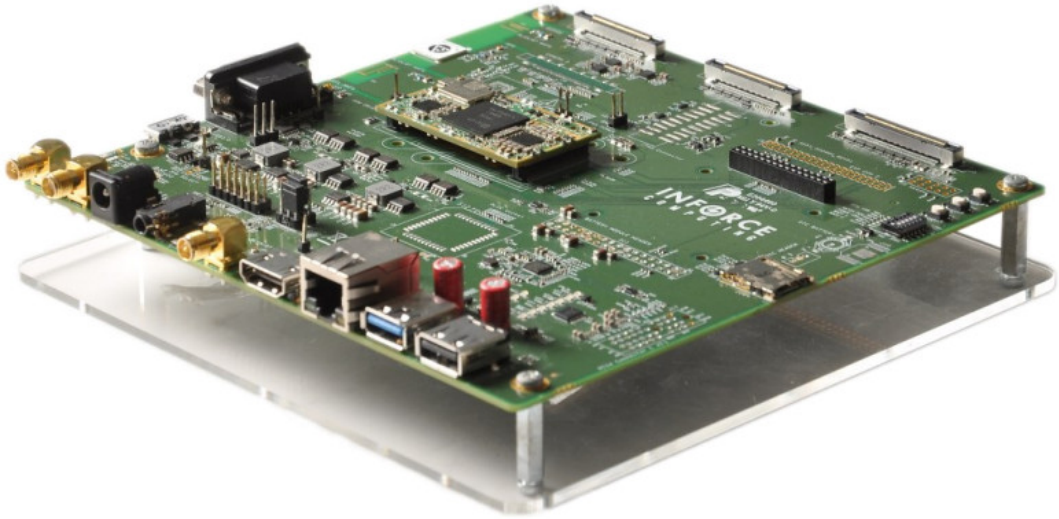
Power, Mechanical and Environment

- Power: +3.3V/6A Input
- Operating Temp: -20°C to 85°C
- Storage Temp: -20°C to 85°C
- Dimensions: 28mm x 50mm
- RoHS and WEEE compliant
- Relative Humidity: 5 to 95% non-condensing

Software Support

- Android Lollipop 5.1 BSP
- Ubuntu Linux (Linaro) BSP

Carrier Board For Inforce 6401 Micro SoM



*Not all interfaces can be used at the same time
A mini-ITX carrier board (170 X170mm) expands the I/O and connectivity of the Inforce 6401 Micro SOM. A full-fledged development platform (Inforce 6401 Development Kit) inclusive of both is available.

Ordering Information

Part Number	Description	Available
IFC6401-01-P1	Micro SOM (Android)	Now
IFC6401-11-P1	Micro SOM (Linux)	Now
SYS6401-06-P1	Mini-ITX Dev. Kit (Android)	Now
SYS6401-16-P1	Mini-ITX Dev. Kit (Linux)	Now

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 silicon, software, and system partners, Inforce is pioneering products with an optimized delivery model for medical imaging, smart office, hands-free computing, and robotics.

Qualcomm snapdragon

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Documents / Resources

	INFORCE COMPUTING 6401 Micro SoM Processor Based Tiny System [pdf] Instruction Manual IFC6401-01-P1, IFC6401-11-P1, SYS6401-06-P1, SYS6401-16-P1, 6401, 6401 Micro SoM Processor Based Tiny System, Micro SoM Processor Based Tiny System, Processor Based Tiny System, Tiny System

References

- Embedded Computing Platforms for the Edge | Penguin Edge