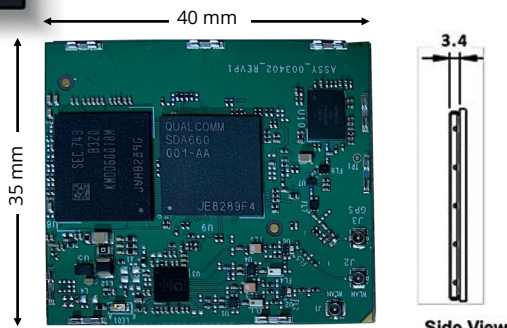




Inforce 6503™ Nano SoM

Qualcomm® Snapdragon™ 660 Processor-based System-on-Module



A compact compute module in an LGA package for rugged Embedded Applications

The Inforce 6503 SoM is a compact compute module in an LGA Package that integrates Qualcomm®Kryo™ 260 CPU, Adreno™ 512 GPU, Hexagon™ 680 DSP and the Spectra™ 160 camera ISP to enable advanced visual computing, enhanced graphics and on-device machine learning capabilities.

These components, coupled with 2x2 802.11ac Wi-Fi, Bluetooth 5.x, Haptics and a full featured USB-C interface with UltraHD display capability, make the Inforce 6503 SoM a perfect fit for rugged applications that obligate sturdy mechanical fitment and need low vertical profiles. Optional SKUs support extended operating temperature range and EMI shielding for better RF noise protection, while also doubling up as a medium for heat spreading and dissipation to improve performance.



Connected Cameras



Machine Learning



Higher performance with Qualcomm Kryo 260 CPU with independent efficiency and power clusters, each designed to optimize for a unique UX



Vector eXtensions (HVX) on Hexagon™ 680 DSP and Adreno™ 512 GPU, to support machine learning and Efficient rendering of advanced 3D graphics



Dual 14-bit Spectra™ 160 ISPs support up to 16MP for simultaneous concurrent cameras



Extended lifecycle; OEM engagement options for BTO and custom variants



Production-ready with volume-conscious pricing



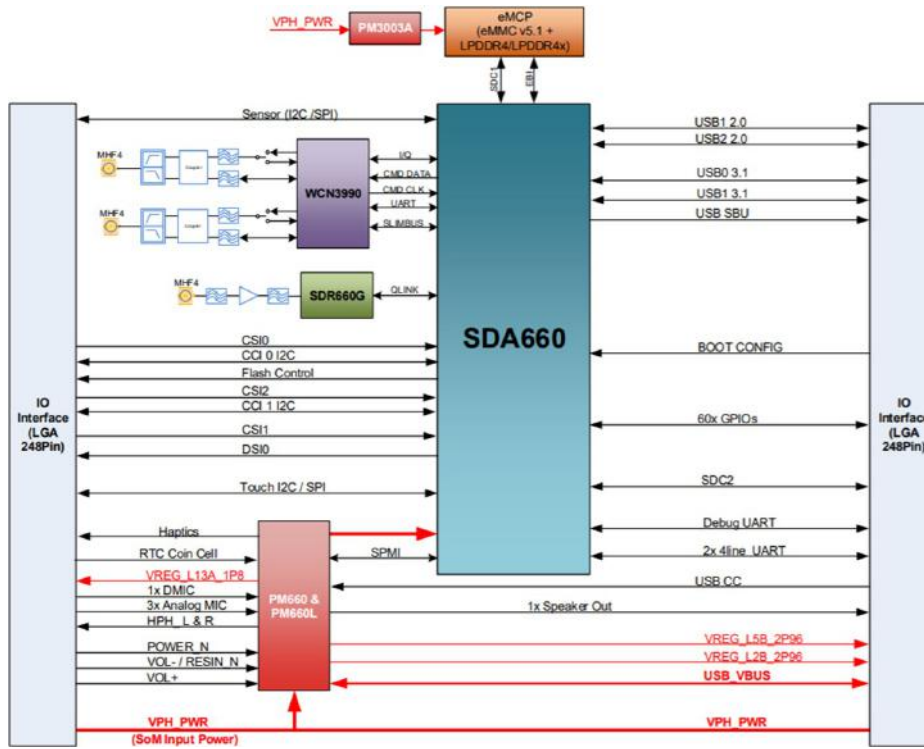
Dedicated Technical Support from Inforce TechWeb



Wearables



Portable Healthcare



Technical Specifications

Processors

- ◆ Custom 64-bit Kryo Octocore ARM® V-8 compliant CPU (SDA660 SoC) @2.2/1.8GHz each
- ◆ Qualcomm® Adreno™ 512 GPU with support for OpenGL ES 3.2, Vulkan and OpenCL
- ◆ Qualcomm® Hexagon™ 680 DSP with dual-HVX512@787MHz for ultra low-power audio processing

Memory/ Storage

- ◆ 3GB LPDDR4 RAM/32GB eMMC (eMCP); SD V3 μSD card
- ◆ 1x USB-C (USB 3.1/Gen2) and 1x USB 2.0 interfaces

Connectivity

- ◆ 802.11n/ac MU-MIMO WiFi and BT/LE 5.x via WCN3990
- ◆ GPS/GLONASS via SDR660G

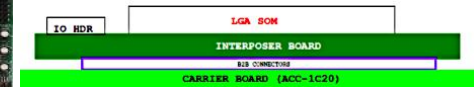
Multimedia

- ◆ DP Alternate Mode on USB-C for 4K-DCI@24fps display
- ◆ Dual 4-lane MIPI-DSI lines with FullHD+ display capability
- ◆ Dual 4-lane MIPI-CSI lines for capture @4K30

Software

- ◆ Android 8+ BSP pre-loaded with Hexagon/SNPE/OpenCV SDKs enabled

Inforce 6503 LGA SoM based Reference Design



- ◆ ACC1C20 - A small but complete carrier that brings out all native interfaces of SDA660 processor and includes a mezzanine card to which the LGA SoM is soldered. This card connects to the carrier through standard 100-pin B2B connectors common to Inforce SoMs.

Other Specifications

- ◆ **Power:** +3.8V/6A Input
- ◆ **Operating Temp:** Commercial Temperatures
- ◆ **Relative Humidity:** 5 to 95% non-condensing
- ◆ RoHS and WEE compliant

Ordering Info

Part Number	Description
◆ IFC6503-00-P1	Micro SoM (Android Oreo OS); Commercial Temp support (0° - 70°C)
◆ SYS6503-00-P1	IFC6503-00-P1 SoM based Reference Design

SMART Wireless 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 SMART, 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, SMART is pioneering products with an optimized delivery model for target markets such as connected cameras, connected displays and connected fitness.



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