SMARC 2.2

Powered by
Qualcomm Dragonwing

UNLOCKING THE POWER OF SMARC 2.2 WITH QUALCOMM DRAGONWING™ QCS6490 AND QCS8550: A NEW ERA IN COMPACT EDGE COMPUTING

The rapid evolution of embedded systems and edge computing has paved the way for more powerful, compact, and efficient solutions across industries such as IoT, industrial automation, robotics, and AI-powered devices. With the release of SMARC (Smart Mobility Architecture) 2.2, combined with the advanced Qualcomm Dragonwing™ QCS6490 and QCS8550. platforms, developers now have access to an incredibly robust toolkit to drive next-generation devices. These compact solutions provide both high performance and energy efficiency, making them ideal for a wide range of edge applications.

What is SMARC 2.2?

SMARC 2.2 is the latest iteration of the open-standard modular computing architecture designed for embedded and edge devices. It defines a compact, flexible form factor and provides an efficient, scalable platform for deploying powerful computing systems in small, space-constrained environments. Building on SMARC 2.1, the 2.2 specification introduces enhanced features such as:

- **Support for Higher Bandwidth Interfaces:** Including PCIe Gen 4 and faster memory options for improved data throughput.
- **Advanced Power Management:** Enhanced mechanisms for thermal efficiency and energy optimization.
- **Expanded Connectivity Options:** Support for advanced wireless technologies, including 5G and Wi-Fi 7.
- **Improved Graphics Support:** Enabling richer multimedia experiences for AI-driven and visually intensive applications. The SMARC standard continues to be widely adopted due to its balance of performance and flexibility.

It allows for integration of a variety of processors, making it ideal for both high-performance applications and low-power embedded systems.

SMARC 2.2 + Qualcomm Dragonwing™: A Perfect Match for Edge Computing

The combination of SMARC 2.2 with Qualcomm Dragonwing™ QCS6490 and QCS8550. chipsets delivers several advantages to developers and businesses seeking to deploy high-performance edge computing solutions. Here are a few reasons why this combination is a game-changer:

Compact Design: SMARC 2.2's small form factor allows these powerful Dragonwing™ processors to be embedded into space-constrained environments without sacrificing performance. This makes it ideal for edge devices deployed in rugged conditions where size and weight matter.

Modular and Scalable: The SMARC standard provides scalability, allowing manufacturers to tailor their solutions to specific application needs. Whether you need high-level processing power (Dragonwing™ QCS8550) or more moderate performance (Dragonwing™ QCS6490), SMARC offers the flexibility to integrate the right solution for your requirements.

Enhanced Connectivity: Both Dragonwing™ processors feature advanced connectivity options like 5G and Wi-Fi 6/7, ensuring that devices powered by SMARC 2.2 can stay connected, transfer data quickly, and operate in real-time, even in remote locations.

Energy Efficiency: Qualcomm's energy-efficient processors mean that edge devices powered by SMARC 2.2 can operate for longer periods on battery power or consume less energy when plugged in, making them suitable for industries such as smart cities, healthcare, and autonomous vehicles.
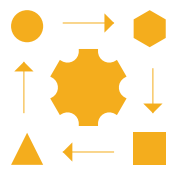
Future-Proof Design: SMARC 2.2 and Qualcomm's advanced technologies ensure compatibility with future advancements in both hardware and software, providing developers with confidence in long-term solution viability.

Conclusion

The integration of SMARC 2.2 with Qualcomm Dragonwing™ QCS6490 and QCS8550. chipsets marks a significant milestone in the development of compact edge computing solutions. These powerful, energy-efficient processors enable a wide range of applications requiring both high performance and small form factors, while the SMARC 2.2 standard ensures flexibility and scalability in deployment.

Sysgration, as a leading provider of embedded systems and solutions, further enhances this integration by offering tailored designs and support, ensuring seamless deployment and optimal performance. Whether you're working on industrial IoT, robotics, or AI-driven devices, this combination of cutting-edge technologies and Sysgration's expertise provides everything you need to take your edge computing solutions to the next level.