

TechInsights IoT Connectivity SoC Subscription

Smarter and Faster SoC Designs

Increased accessibility to wireless connectivity, smart devices, and wearables has resulted in a wide scope of communication standards ranging from Wi-Fi, Bluetooth, Near Field Communication (NFC), and Ultra-Wideband (UWB) to new and emerging protocols such as Zigbee, Matter, Thread, Sigfox, and LoRa. However, addressing interoperability issues, optimizing performance, and maximizing reliability and security all while minimizing power consumption and footprint can be challenging due to the broad scope of devices in the market and the rapid pace of technology change.

TechInsights' IoT Connectivity SoC subscription reveals the innovation behind a broad range of cutting-edge connectivity SoCs used in market-leading internet of things (IoT) devices. You can leverage our competitive insights to identify SoC design trends, areas of product differentiation, and new market opportunities. This information can help inform business, design, and product decisions.

Key Features of the IoT Connectivity SoC Subscription

- **Topographical layout analysis** identifies key IC functional blocks using high-resolution imaging to provide more insight into die utilization and costing (sample image shown in Figure 1).
- **Structural analysis** presents the technology node, key feature measurements (e.g., metal/transistor pitches), foundry, and material compositions for transceivers for multiple wireless protocols. This visibility into materials and process technology reveals competitive insight on IoT connectivity SoCs spanning the wearables, routers, and smart home markets.
- **Circuit analysis** details hierarchal block interconnections for leading-edge SoC designs including schematic-to-layout traceability through TechInsights' proprietary CircuitVision software for a granular understanding of competitors' SoC design approaches (sample image shown in Figure 2).
- **Online briefings** presented by our subject matter experts provide trend projections, device comparisons within select wireless protocols, insightful commentary, and thought-provoking perspective to enable a thorough understanding of the current IoT connectivity SoC climate.
- **Upcoming analysis** provides visibility into innovative IoT connectivity SoC devices and parts that are flagged by our subject matter experts and engineering analysts for future analysis to help inform your own roadmap decisions.
- **Self-serve online access** to all previous and current analyses, as well as the features above, via the TechInsights Platform, anytime, anywhere for easy access and sharing of content with other subscribers in your organization.

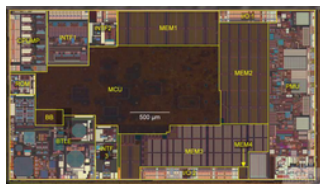


Figure 1: Functional blocks of the PL6600C die annotated at the polysilicon layer.

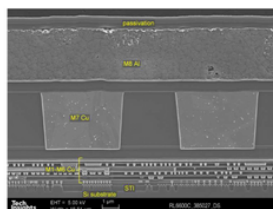


Figure 2: Cross-sectional scanning electron microscope (SEM) showing the general structure of the PL6600C die. This image helps us determine the number of metal interconnect layers in the die.

Why You Need an IoT Connectivity SoC Subscription



Get an accurate pulse of the competitive IoT connectivity landscape with visibility into the latest cutting-edge IoT SoC design approaches across market leaders and upcoming potential disruptors to ensure you stay ahead of the competition.



Understand the impact of disruptive technology and IoT connectivity SoC innovation with insightful perspective and interpretation from our subject matter experts and engineering analysts.



Make business, design, and product decisions with confidence based on high-quality analysis, with unparalleled detail at the microscopic level, from TechInsights' state-of-the-art lab technology.



Save time and costs by extending your organization's productivity with competitive insight across a broad range of IoT connectivity SoCs that would otherwise be cost prohibitive to analyze internally at the same scale.

IoT Connectivity SoC Subscription Overview

Transceiver Floorplan

Provides insight into competitive designs including high-level block identification, high-level process data, and manufacturing costs for leading-edge transceivers in smart home products, wearables, and routers across market leaders and disruptors over major wireless standards such as Bluetooth, Wi-Fi, NFC, UWB, and more.

Transceiver Architecture

Enables a better comparison and understanding of how design constraints and challenges are addressed for leading-edge transceivers in smart home products, wearables, and routers across market leaders and disruptors over major wireless standards such as Bluetooth, Wi-Fi, NFC, UWB, and more. It includes and extends Transceiver Floorplan analyses to identify key functional blocks and the connections between them.

The **IoT Connectivity SoC Comprehensive product offering** includes transceiver floorplan and transceiver architecture analyses. It is targeted towards integrated device manufacturers (IDM), fabless companies, foundries, and product manufacturers.

Why Choose TechInsights?

- We analyze a wide range of IoT connectivity SoCs across multiple protocols for maximizing coverage of the competitive landscape and exposure to different design approaches currently in the market.
- Our coverage of IoT connectivity SoCs spans multiple geographies across China and the rest of the world to provide a global view of the technology landscape.
- Our expertise and visibility into the competitive technology landscape enables us to quickly deliver expert-led analysis on disruptive events with market and technical impact (such as the [Apple H2 BT 5.3 audio SoC](#) and the [Qualcomm FastConnect 7800](#)).
- Our combination of top-tier experts and cutting-edge equipment enables us to maintain and enhance understanding of innovations in today's chips.
- We make substantial investments in laboratory technology, including the Raith CHIPSCANNER for imaging at the 3nm node.
- We can achieve delayering at 3nm and beyond with appropriate sample preparation techniques.
- We have a second-generation ion beam etcher (IBE) to enhance delayering capabilities for chips.

Don't fall behind the competition – get more information and start your free trial at www.techinsights.com

Tech Insights



TechInsights is the information platform for the semiconductor industry. Regarded as the most trusted source of actionable, in depth intelligence related to semiconductor innovation and surrounding markets, TechInsights' content informs decision makers and professionals whose success depends on accurate knowledge of the semiconductor industry—past, present, or future. Over 400 companies and 50,000 users access the TechInsights Platform, the world's largest vertically integrated collection of unmatched reverse engineering, teardown, and market analysis in the semiconductor industry. This collection includes detailed circuit analysis and imagery, process flows, device teardowns, illustrations, costing and pricing information, forecasts, market analysis, and expert commentary. TechInsights' customers include the most successful technology companies who rely on TechInsights' analysis to make informed business, design, and product decisions faster and with greater confidence.

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