

Component-Level Identity Licensing at the Silicon Layer

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What Silicon-Layer Licensing Specifies

Component-level patents apply to specific hardware components rather than to end products that integrate them. A continuity-identity processor IC patent applies to the IC itself: the chip vendor (Qorvo, NXP, Infineon, Microchip, ST, others) that produces the IC is the licensee. End-product manufacturers that integrate the licensed IC don't separately license — their compliance flows through the chip vendor's licensing.

The pattern is well-established in semiconductor IP. ARM licenses its instruction set to chip vendors who pay per-chip royalties; downstream device manufacturers that ship products containing ARM-based chips don't separately license. The licensing occurs at the layer where IP integration produces the value.

Why Chip-Layer Licensing Has Different Economics

End-product licensing requires negotiating with every device manufacturer that integrates the patented technology. The negotiation work scales with the manufacturer base; the per-license value is bounded by the manufacturer's willingness to pay; the enforcement work spans every product line that might infringe.

Chip-layer licensing concentrates the work at a smaller number of high-value vendors. A continuity-identity processor IC integrates into a defined set of chip-vendor products; the licensing relationship is with the chip vendor; per-license value is structured against the chip vendor's volume and margin. The total addressable license value can be higher than end-product licensing despite fewer licensees, because the per-license terms reflect the structural integration position.

How Chip-Layer Licensing Operates

The patent claim is structured against the silicon-block embodiment: the IC's hardware structure, the trust-slope evaluation logic, the hash-chain accumulation circuit, the credentialed-monitoring telemetry. A chip vendor that produces an IC implementing these elements is the licensee.

Enforcement is technically straightforward. Reverse engineering of competing chip products against the patent claim is well-established practice in semiconductor IP enforcement. The licensing terms typically include audit rights, per-chip royalty rates, and term protection for the chip vendor's product roadmap.

What This Enables for Identity-IP Commercialization

The continuity-identity primitive at the silicon layer reaches the chip vendors who already license identity-related hardware (secure elements, secure microcontrollers, automotive security ICs). Adding continuity-identity to their licensing relationships extends rather than disrupts the existing IP licensing pattern.

Downstream impact is broad. Every device integrating a licensed continuity-identity IC complies through the chip vendor's licensing — automotive ECUs, IoT devices, medical devices, industrial controllers, defense electronics. The patent positions the

primitive at the licensing layer where chip-vendor IP economics produce maximum leverage with minimum enforcement complexity.