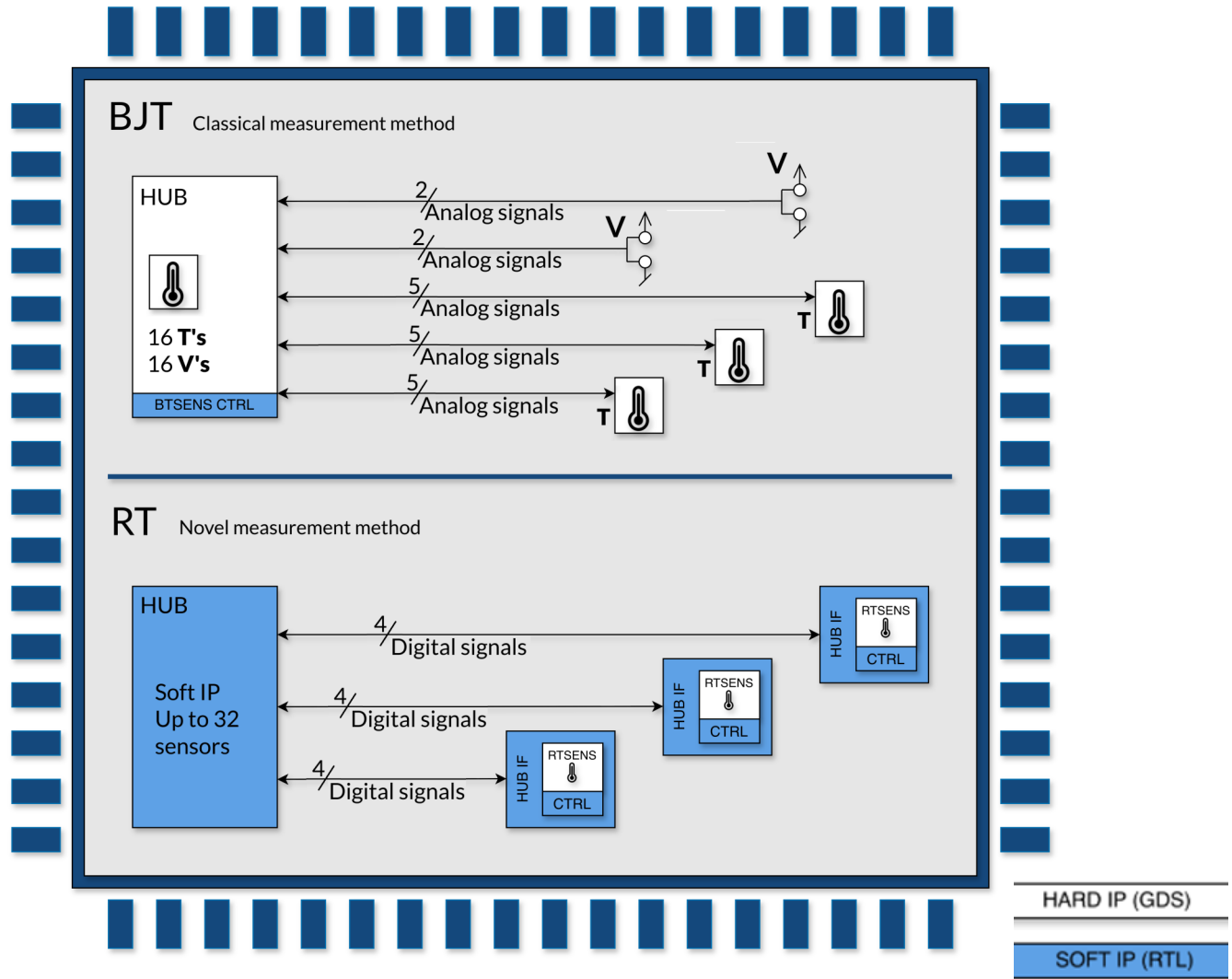


Silicon Creations Voltage/Temperature sensors are fully-integrated allowing monitoring of temperature and supply voltage levels at up to 16 points on the chip. Both BJT-based and resistor-based sensors are available. Our engineers can guide you in understanding the tradeoffs between these two options to select the best solution for your system.



Features

- BJT sensors can be used uncalibrated.
- Resistor ("RT") based sensors require calibration, use easily routed digital signals, not analog.
- Temperature measurement accuracy better than:
 - Calibrated = $\pm 1.2^{\circ}\text{C}$ (2-points), $\pm 2.5^{\circ}\text{C}$ (1-point, BJT), $\pm 5^{\circ}\text{C}$ (1-point, RT)
 - Uncalibrated = $\pm 5.0^{\circ}\text{C}$ (BJT sensors only)
- Supply voltage measurement supports local and remote measurement of supply voltage and VSS differential.
- Supply voltage uncalibrated measurement accuracy $\pm 2.5\%$ up to 2.27M Samples/sec and $\pm 1.5\%$ up to 110k Samples/sec
- RTL controller with APB interface
- Low area and power

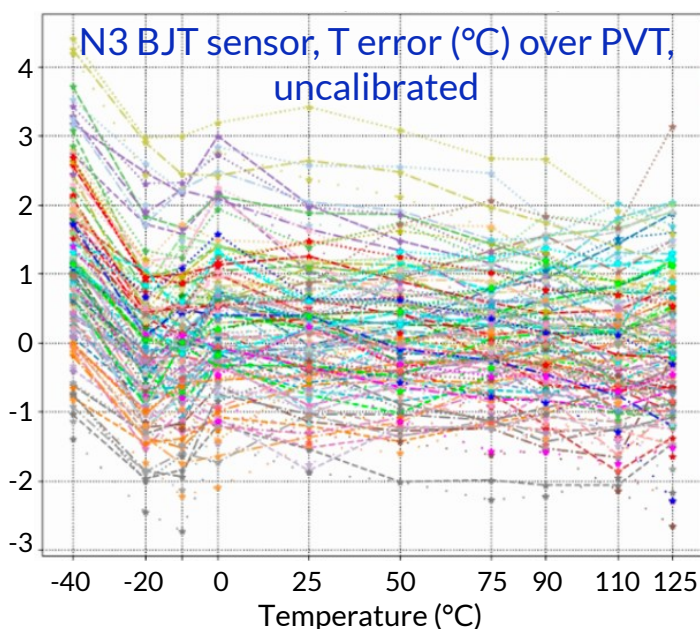
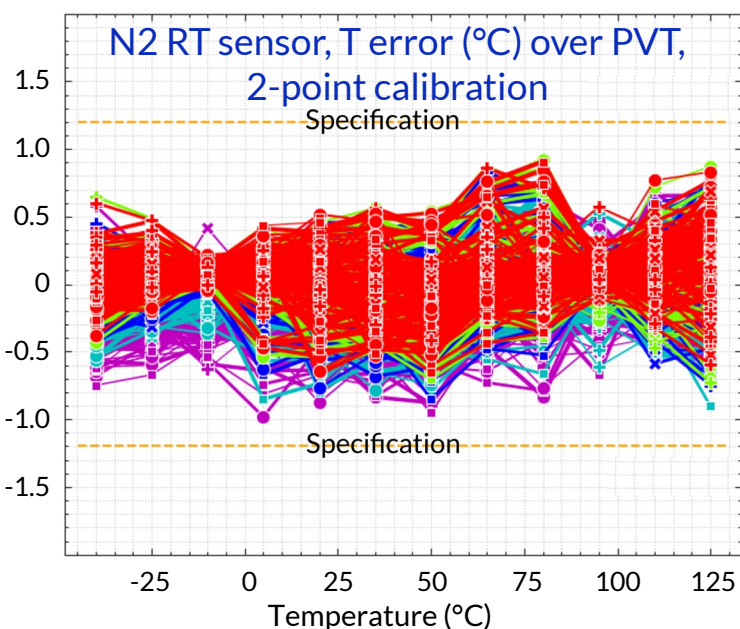
Availability

Both RT and BJT sensors available at TSMC 2n, 3n, 4/5n, 6/7n, 12/16n, 22n, 28n.

Deliverables

- GDSII
- CDL Netlist
- Verilog Model
- Liberty timing models (.lib)
- LEF layout abstract
- RTL wrapper/controller with APB interface
- Comprehensive Application Note
- Industry leading support by IP designers

Predictable and excellent performance



About Silicon Creations

Silicon Creations is focused on providing world class silicon IP for precision and general-purpose timing (PLLs), SerDes, Sensors and high-speed differential I/Os.

Our IPs are in production from 2n to 180n and have an excellent record of first silicon to mass production in over 2,000 chips with more than 550 customers for diverse applications including smart phones, wearables, consumer devices, processors, network devices, AI accelerators, safety critical automotive and medical devices.

Our complete commitment to our customer success and our support will delight you. Silicon Creations was founded in 2006, is ISO9001 certified and has won multiple best-of awards from TSMC and GlobalFoundries. We have development centers in Atlanta in USA plus Krakow and Gdansk in Poland with world-wide sales representation.

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