

Market Report: PSiP & PwrSoC – Power Density Goes Mainstream 2017 – 2025



An Anagenesis Market Analysis With Product and Technology Benchmarking by LTC



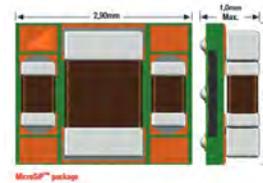
A 2020 market report covering miniature (max. 1" or 25.4 mm) power supplies – their opportunity and progress

Power Supply in a Package (PSiP)

- Growing number of players despite M&A
- Highest level development community support ever
- Outgrown traditional POL market; new ones are surprising
- Improved technology pushes I_{out} and current density envelopes
- Reasonable and stable pricing and margins
- Double-digit growth outpaces most other power management offerings
- GaN adoption is waiting in the wings – Needs key catalysts & accelerators
- Progress exhibited by more diversified integration
- New products are less scattered and more applications driven



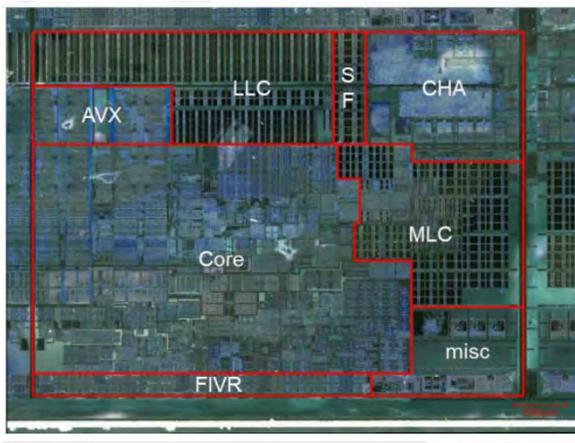
Encapsulated PSiP
Murata 12 A MonoBlock POL
10.5 x 9.0 x 5.6 mm



Miniature open-constructed PSiP
Texas Instruments 6 MHz 600 mA POL MicroSiP™
2.3 mm X 2.9 mm X 1 mm

Modular PwrSoC – Learn about Progress

Commercial Granular PwrSoC



Intel Granular Xeon Processor
with Fully Integrated Voltage Regulator (FIVR)

Power Supply on a Chip (PwrSoC)

- PwrSoC investment and start-ups outpace PSiPs
- More PSiP players are adding resources for better PwrSoC development positioning
- Granular efficiency improvements compel modular versions to seek the same applications
- New global heterogeneous integration community to accelerate PwrSoC
- Intense drive to create cost-competitive integrated power passives
- Key advancement - merchant integrated magnetics now commercially available
- New integration opportunities causing fabs to re-invent themselves
- Most significant barrier is business model despite technical challenges

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Control Method, Semiconductor Switches, Integrated
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Modular & Granular PwrSoCs, L and C based

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The LTEC/Anagenesis Difference



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Anagenesis is the leading analysis team for PSiP and PwrSoC markets since 2007 with in-depth research offering a unique perspective. Moreover, we have the engineering expertise and business relationships to capture the PSiP and PwrSoC customers' viewpoint. Customers say our reports are "deeply impressive" and "have details unavailable anywhere else." Our repeat business and referrals validate high customer satisfaction.



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