



## TransSiP Inc.

To Irvine, CA startup, TransSiP has a growing portfolio of the world's first device-level power integrity solutions making impacts on battery life, power and signal integrity in IoT, wearables and 5G devices. The solution is marketed as TransSiP PI and is a seal of assurance for delivering exceptional performance, accuracy, and stability, resulting in dramatically reduced power demands. Simplifying design and providing broadband DC bias noise management, the TransSiP PI enables our customers to develop products rapidly and cost-effectively.

### < About TransSiP, Inc. >

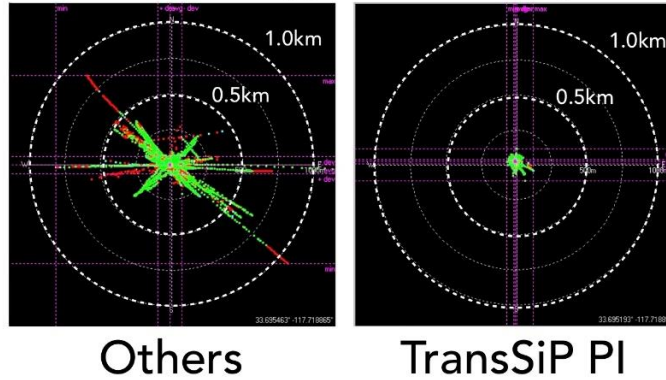
- Company Name: TransSiP Inc.
- Head Office & Laboratories: Irvine, California
- Incorporated: 2014
- URL : <https://transsip.com/>

The new approach pioneered by TransSiP to reduction in supply bias and signal noise in low power systems is proving to have an impact on a range of applications. In the field,

The drive towards lower power and higher performance in recent years has led to reductions in core voltage and increases in supply current requirements in LSI devices such as Memory and SoC. Without the introduction of TransSiP PI technology, noise amplitude decreases the signal-to-noise ratio, degrading signal and supply bias quality. In addition, fluctuations in supply voltage due to IR drop in power distribution networks (PDN) cause both LSI malfunction as well as generating EMI. The result is deterioration of LSI and device performance, and existing workarounds are only partially successful! They are limited to frequency-domain phenomena, occupy board space and increase both BOM complexity and design time. TransSiP PI solves all these problems.

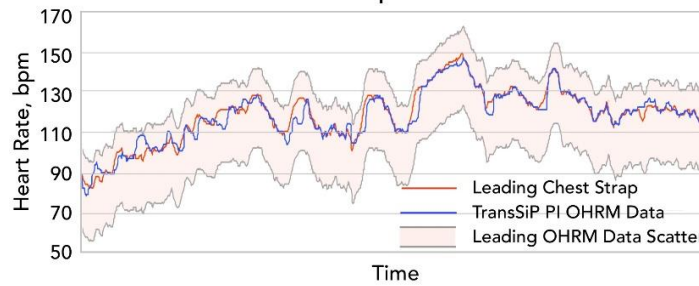
TransSiP PI Technology is enabling-  
dramatic improvements in the accuracy and efficiency of GPS systems

### GPS Waypoint Stability



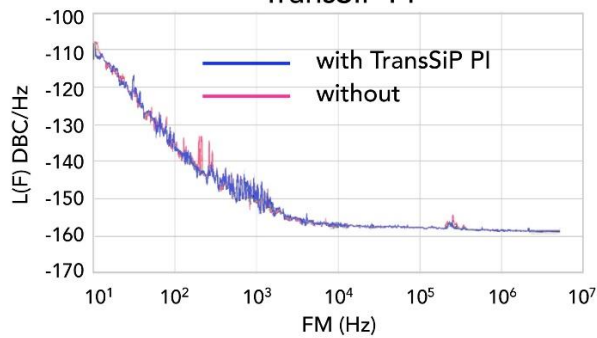
reductions in beat-per-minute variability in optical heart rate monitoring

### Optical and Chest Strap Heart Rate Monitor Comparison



improvements in high frequency oscillator stability

### OCCO Phase Noise With/Without TransSiP PI



sports watches and comparable devices to operate entirely from harvested energy-

### Enabling Thermoelectric Energy Harvesting



and these are only a few of the many possibilities which are opening up with the advent of 5G networks.

By reducing supply bias noise of LDO, Switch Mode Power Supply (SMPS), PMIC, and other critical signal paths and PDN components, TransSiP PI enables-

- Enhanced systems accuracy and stability for wireless connectivity, IoT, sensors, in-vehicle ECUs and connectivity, high-speed systems and digital storages.
- Reductions in processor runtime, for example: reduced time to first fix in GNSS; reduced latency in wireless handshake due to cleaner input signals
- Improved signal Integrity .... accuracy and clarity
- Reduced power consumption and longer battery life
- Simplification of power distribution and management
- Use of highly efficient SMPS to power noise-sensitive applications
- Reduction in PDN complexity and design time
- Reduction in BOM

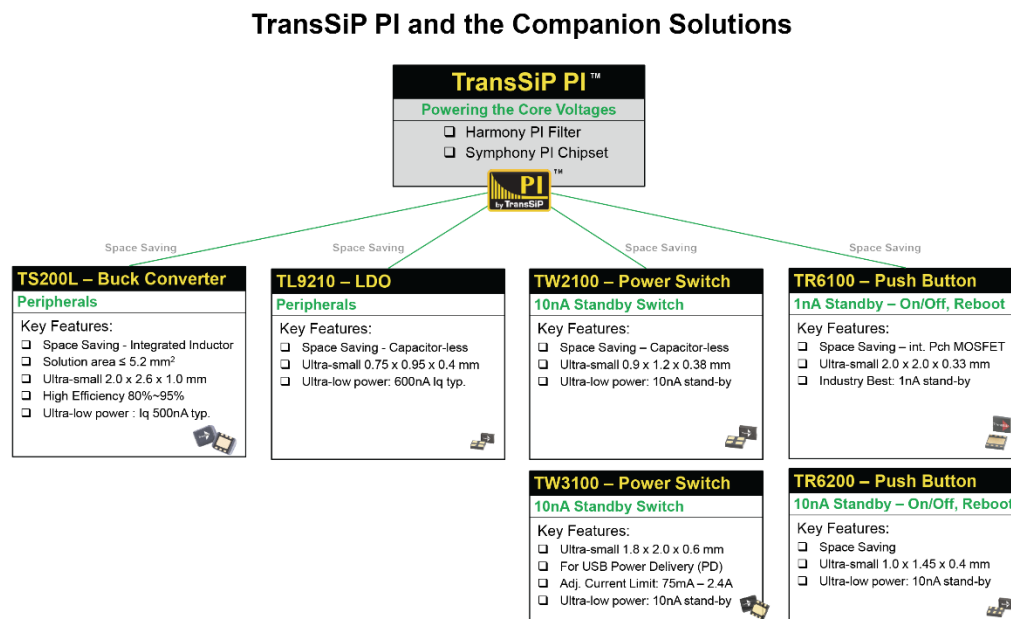
Kanematsu Futuretech Solutions(KFT) provides an evaluation kit for those who want to gain direct experience of the benefits of TransSiP PI solutions.

If you would like to evaluate, please visit "<https://www.kft.kanematsu.co.jp/contacts>", and kindly request us as "TransSiP PI evaluation request" or "TransSiP PI document request".

Application deadline: November 30, 2020

TransSiP PI Solutions Popular Applications  
 Harmony GPS, LTE modules, 5G, Wrist-worn Optical HR,  
 Audio, High End Oscillator etc.  
 Symphony GPS chip and modules etc.

Selection Guide of which to evaluate:



<Product features of TransSiP PI>

- + All-in-one DC-DC solution
- + Iq (quiescent current) ≈ 500nA
- + Small size- <10mm<sup>2</sup> total area
- + Low profile- 0.8mm
- + Eliminates ferrite beads, capacitor ladders
- + Ultra-wideband filtering
- + Bimodal (time domain, frequency domain) noise management

<Recommended use cases> :

- 5G Base Station, Handset
- Audio devices
- Solid State Storage (SSD)
- Personal Emergency Response (PER)
- Optical heart rate monitoring
- GNSS tracker devices
- Digital Single-Lens Reflex camera
- Low power energy harvesting
- Smartwatch, Sports Watch

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KFT can also provide simulators to suppress EMI/EMC in electronic devices such as in-vehicle ECUs. For example, Compliance-Scope™ is a Virtual EMI/EMC laboratory providing designers the powerful opportunity to validate and improve their hardware at an early stage by uploading their design files. The valuable tool also provides diagnosis and suggestions for low-cost fixes at the Printed Circuit Board level. If you are interested, please let us know as well.

•For inquiries relating to this release : <https://www.kft.kanematsu.co.jp/contacts>