

Nessum Communication IC: SC1320A

- Enables IoT applications over short range wireless and existing wired infrastructure-

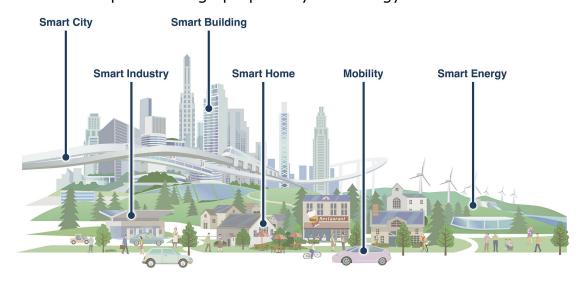


Nessum* is the latest solution for IoT communications. For wired communication, Nessum leverages the installed infrastructure through its support for various types of cables, such as powerline, coaxial, flat and twisted pair; Nessum can also achieve short range wireless data transmission either in air or water. Nessum features reliable data transmission and intelligent device management for smart city, residential, commercial and industrial applications. The SC1320A IC applies Nessum technologies to enable IoT applications efficiently and cost-effectively.

* "nessum" and its logo is a registered trademark or a pending trademark application of Panasonic Holdings Corporation in Japan and in other countries

Features

- Embedded Nessum core conforms to IEEE 1901-2020
- Multihop is supported for extended distance
- Easy applicable for IoT devices since TCP/IP software stack is included and general interfaces such as UART/SPI are implemented.
- Use of advanced manufacturing process leads to a compact package size.
- With a compact power circuit design, the PCB design and BOM costs can be optimized.
- Stable powerline communication is achieved by the combination of high- quality analog and noise reduction techniques.
- Low power consumption through proprietary technology.

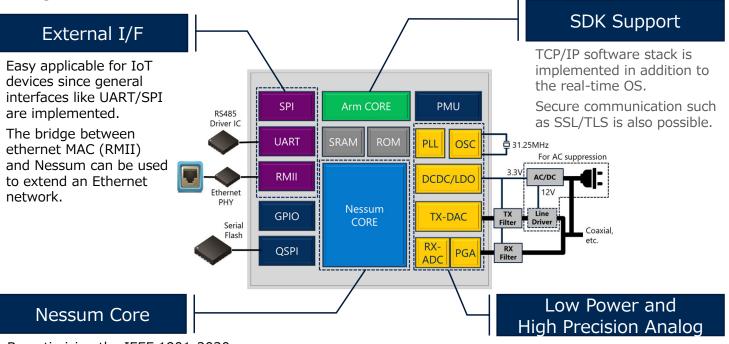


Specifications

Item	Specification	Item	Specification
CPU	Arm® Cortex®-M series	Supply Voltage	3.3V unity
System Clock	125MHz	Package	QFN
Flash	Quad-SPI	Temperature	-40℃ to 85℃
I/F	SPI/ UART/ RMII	Power	200mW (Typ.)

^{*&}quot;Arm" and "Cortex" are trademarks or registered trademarks of Arm Limited (or its subsidiaries) in the EU and/or elsewhere.

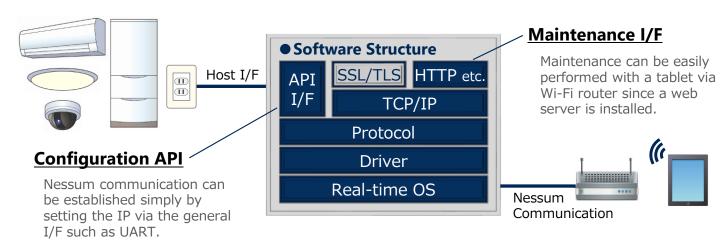
System Structure



By optimizing the IEEE 1901-2020 conforming Nessum core for IoT devices, design area and BOM can be reduced.

Optimized analog techniques for consumer devices contributes to noise reduction in the power line. These techniques also contribute to reduce the implementation area and consumption power.

Solution



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AD04-00143-3E November 2023

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