

# Nessum Communication IC: SC1320A

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



#### **Overview**

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. Additionally, Nessum excels shortrange wireless data transmission, both in air and water environments. Nessum features reliable data transmission and intelligent device management tailored for smart city, residential, commercial and industrial applications. The SC1320A IC incorporates Nessum technologies, efficient and cost-effective IoT applications.

### 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.
- \* "Nessum" and its logo is a registered trademark or a pending trademark application of Panasonic Holdings Corporation in Japan and in other countries















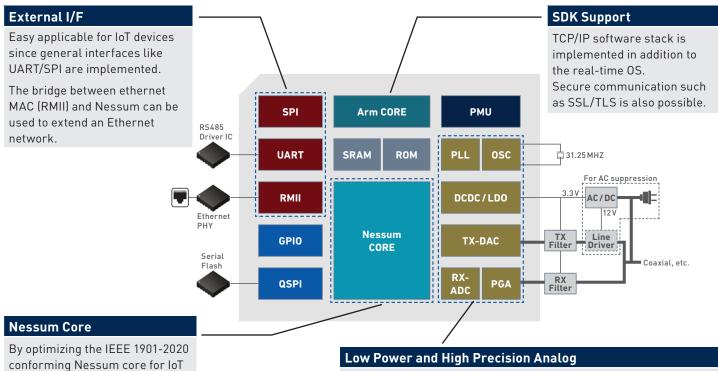
Nessum is the former HD-PLC Solution/Alliance that evolved to a new stage since it is used beyond the power line communication bridging the IoT Gap.

# **Specifications**

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

\* "Arm" and "Cortex" are trademarks or registered trademarks of Arm Limited (or its subsidiaries) in the EU and/or elsewhere.

## System Structure

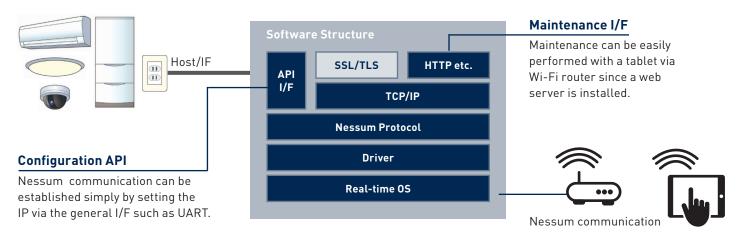


Optimized analog techniques for consumer devices contributes to noise reduction in the power line. These techniques also contribute to reduce the implementation area and consumption power.

## Solution

can be reduced.

devices, design area and BOM



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