

# HD-PLC™ LSI SC1320A

- Realizing Society 5.0 through high-speed communications using existing power line -



The Socionext HD-PLC™\* LSI (SC1320A) is embedded with the 4th generation of HD-PLC™ core and provides secure wired communication for IoT devices that can be connected by using the existing power line infrastructure. It creates more freedom for innovations while transmitting more data to and from urban areas, homes, and factories to further evolve our society to "Society 5.0".

\*: HD-PLC is a trademark or registered trademark of Panasonic Corporation in Japan and other countries.

## ■ Features

- World's 1st LSI embedded with HD-PLC™ core conforming to IEEE 1901-2020
- Applicable for IoT devices using general interfaces UART/SPI and Ethernet MAC (RMII)
- Available support for protocols like BACnet, Lonworks for industrial applications, including building management
- Low power consumption (around 200mW) using Socionext's solution
- Compact package size with advanced process technology
- Reduction of BOM costs with compact power circuit and PCB design
- Stable powerline communication is achieved using a combination of high-quality analog and noise reduction techniques
- Long-distance communication (up to 10km\*) is realized using the 4th generation of HD-PLC™ core.

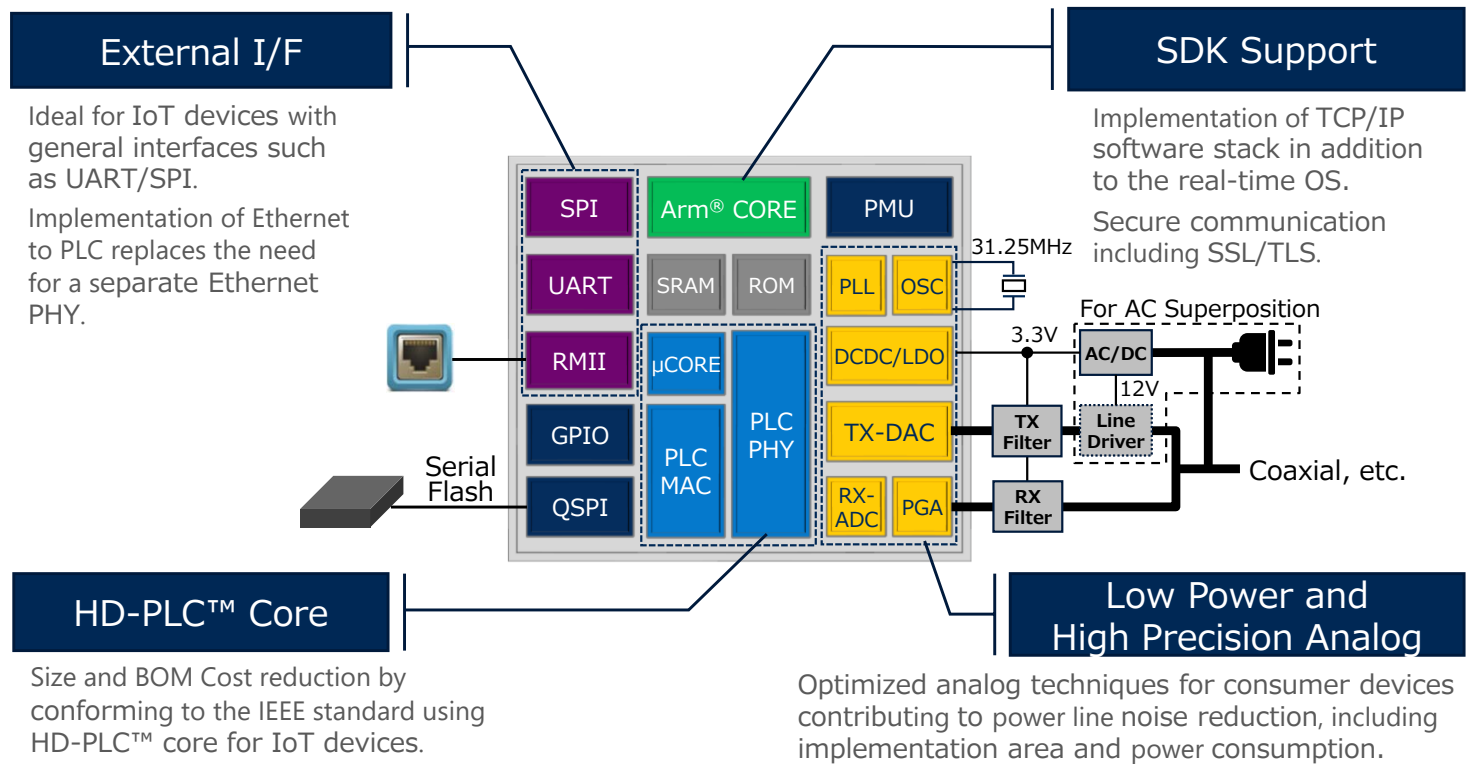


# Specifications

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

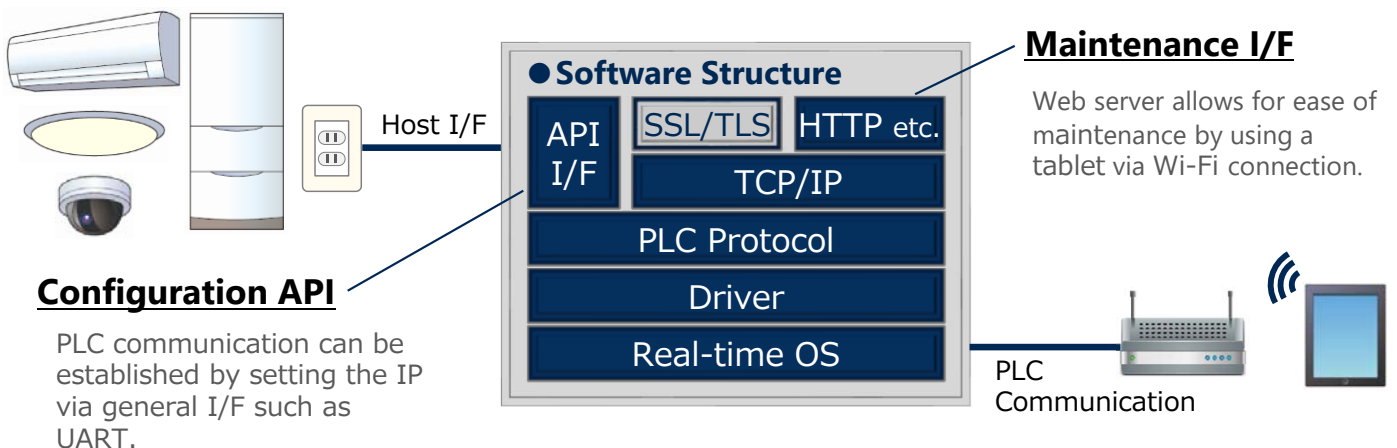
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# System Diagram



[Notes] PMU: Power Management Unit, DCDC/LDO: DC-DC Converter / Low Drop Out, PGA: Programmable Gain Amplifier

# Solution



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