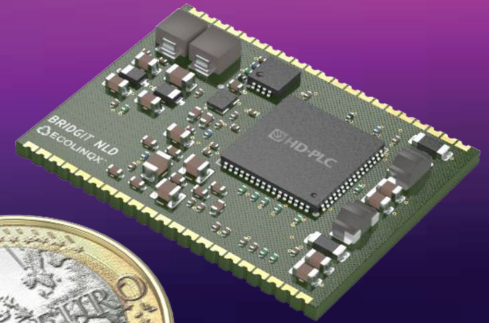
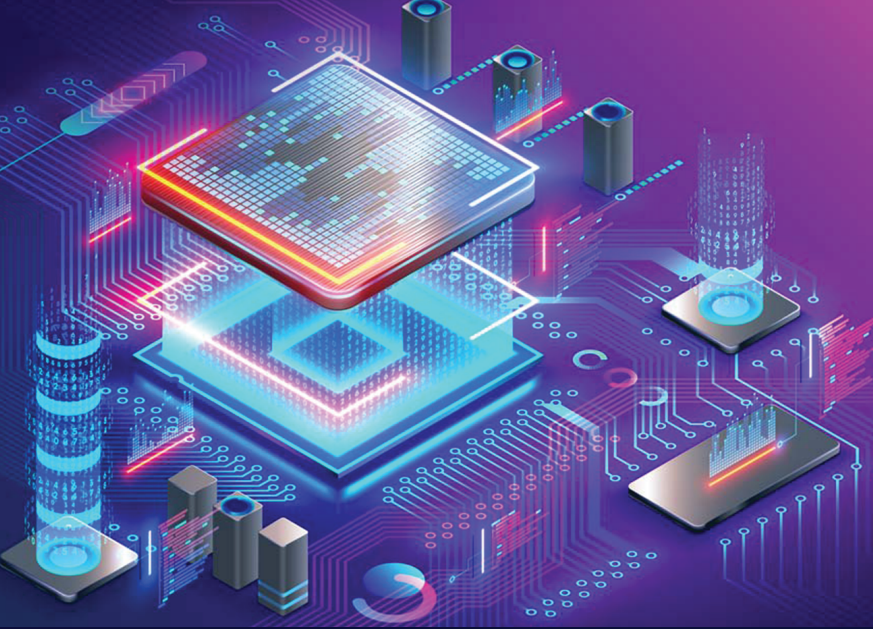


BRIDGIT™



BRIDGIT™ HD-PLC BRAODBAND POWERLINE COMMUNICATION SYSTEM-ON-MODULE

Enabling Next-Generation of Smart IoT Applications for Utilities, Cities, Buildings, and Homes

Accelerate Your HD-PLC Integration

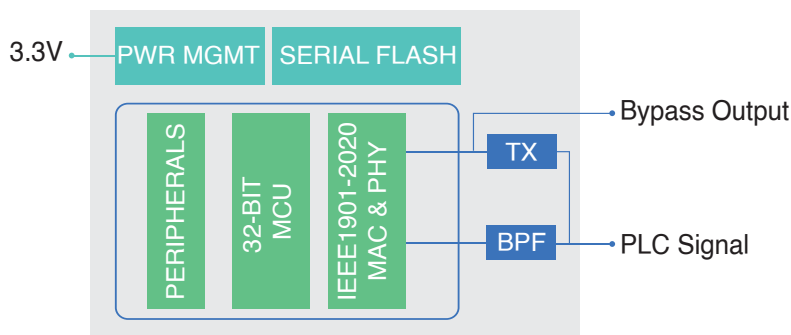
Benefits

- Reduce time-to-market
- Break through both development cost barriers and bandwidth bottlenecks
- Streamline steps needed to bring your design to fruition
- Simplify product life cycle management
- Ensure signal and power integrity and compliance
- Ensure standards compliance and interoperability
- Eliminate the complexities with PLC design, and integration

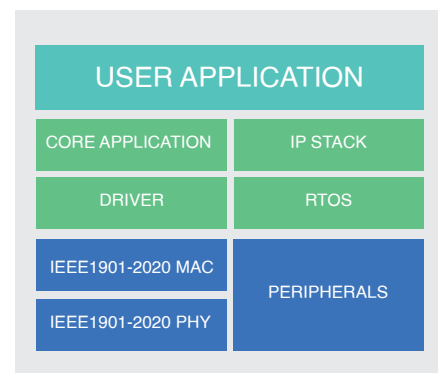
Key Features

- IEEE1901-2020 HD-PLC Compliant
- Configurable frequency band
- PHY speeds up to 500Mbps
- Range of several Kilometers
- Crypto-strong encryption engine
- Industrial operating temperature
- Meets EN50561-1 EMC requirements
- Low-cost Surface-Mount-Technology package

Block Diagram



Software Stack



Product Overview

BRIDGIT™ system-on-module is a state-of-the-art, fully integrated broadband power line communication transceiver designed for your most cost sensitive smart application.

Based on Internationally accepted IEEE1901-2020 and ITU-T G.9905 standards, it uses advanced broadband techniques to achieve the most robust, long-range data communication over any wire subject to high implosive noise, interference, and cable losses.

Specifications:

Frequency band	0.5MHz-56MHz
Compliance	CENELEC, FCC and ARIB
PHY/MAC	IEEE1901-2020 "HD-PLC" compliant
Routing	ITU-T G.9905 "CMSR" compliant
Encryption/Security	AES-128 encryption w/ dynamic key exchange/ Whitelisting
Internet Protocol	IPv6 protocol
Peripherals/Interface	RMII, UART, I2S, I2C, GPIO, PWM, SPI, IrDA, PDM, and Manchester
Supply Voltage	3.3V
Power Consumption	297mW
Module size	20mmX28mm
Operating Temperature	-40°C to +85°C
Cable Types Supported	AC/DC Power lines, Twisted Pair, CAT5, COAX cables

One Design, Two Unique Versions

HOPPER	SPRINTER
Speeds up to 320Mbps (PHY)	Speeds up to 500Mbps (PHY)
Supports up to 1024 nodes	Supports up to 16 nodes
Free Topology / 10-hop MESH / CMSR	Free Toplogy
CSMA/CA	TDM/DVTP
FEC: RS/CC, LDPC	FEC: RS/CC, LDPC
Internet-of-Things/Command, Control, and Monitoring of Remote Devices	HD Video Transmission and Local Area Networks (LAN)

BRIDGIT™ comes in two versions, "Hopper" and "Sprinter". Hopper is designed for long-range communication whereas Sprinter is for high-speed.

Using the same hardware design, customers can change between the two variations by just changing the firmware, giving them a wider range of application choices.

Single Solution for Every IoT Application

BRIDGIT™ supports flexible frequency band using Flexible Channel Wavelet (FCW) Technology.

Users can select between the available channels for optimum throughput and range based on their application and line conditions. In addition, with Hopper range can be extended by repeating up to 10 times.

Applications:

- Smart Metering
- Smart Grid
- Smart Streets
- Building Automation
- Security & Safety
- Video-Entry Systems

MODE	FREQUENCY BAND (MHz)	PHY SPEED (Mbps)*	RANGE (m)*	PACKET/sec*
X 2	4 - 56	500	700	800
X 1	2 - 28	240	1,000	400
X 1/2	1 - 14	120	1,400	200
X 1/4	0.5 - 7	60	2,000	100

* Under ideal conditions.

Order Your Evaluation Kit Today

The BRIDGIT™ Evaluation Kit includes all the hardware, software, and documentation to easily test, configure, and integrate the BRIDGIT™ System-on-Module in your Smart IoT devices.

