



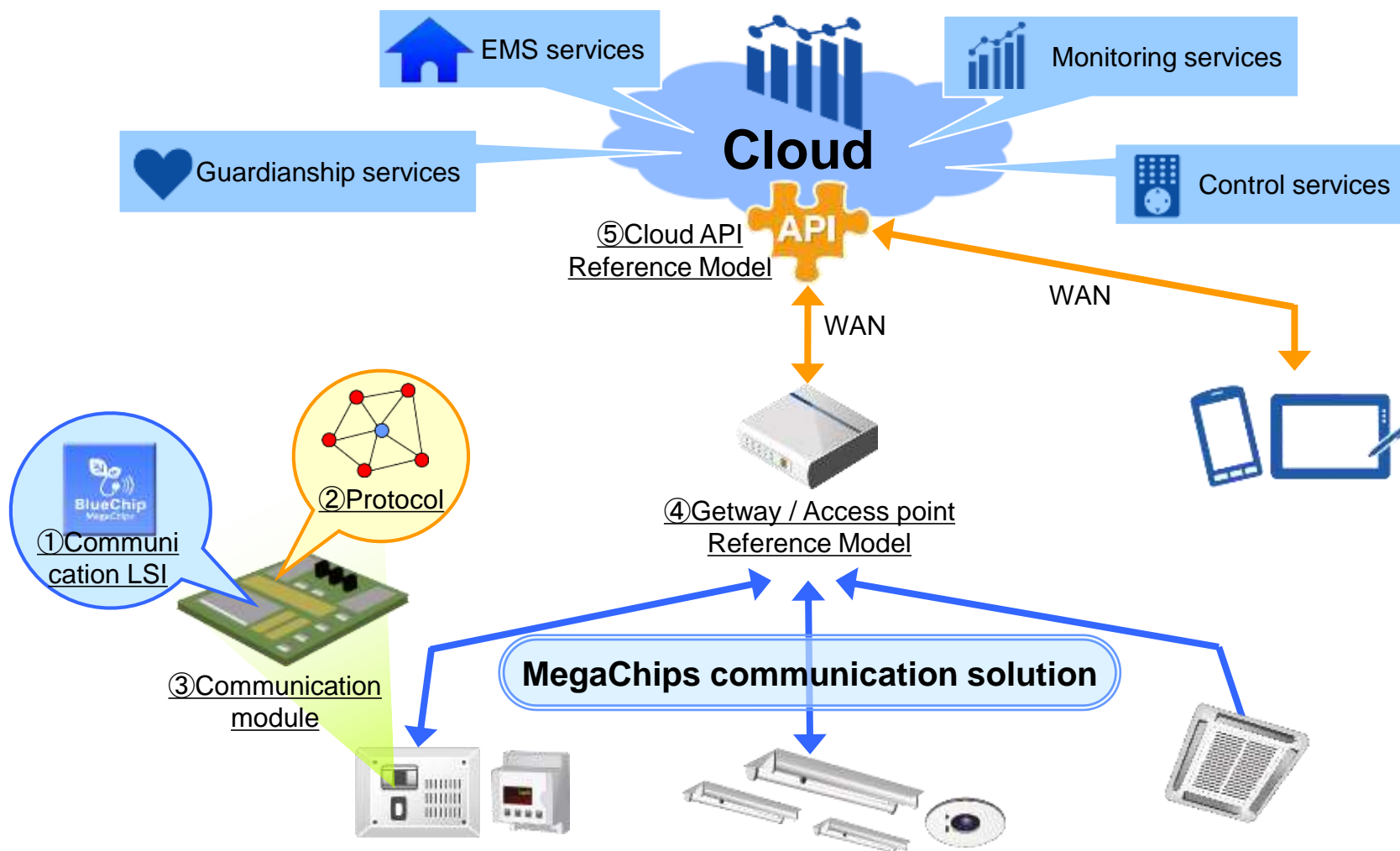
SubGHz Wireless Communication Solution **BlueChip Wireless**

Oct. 2014

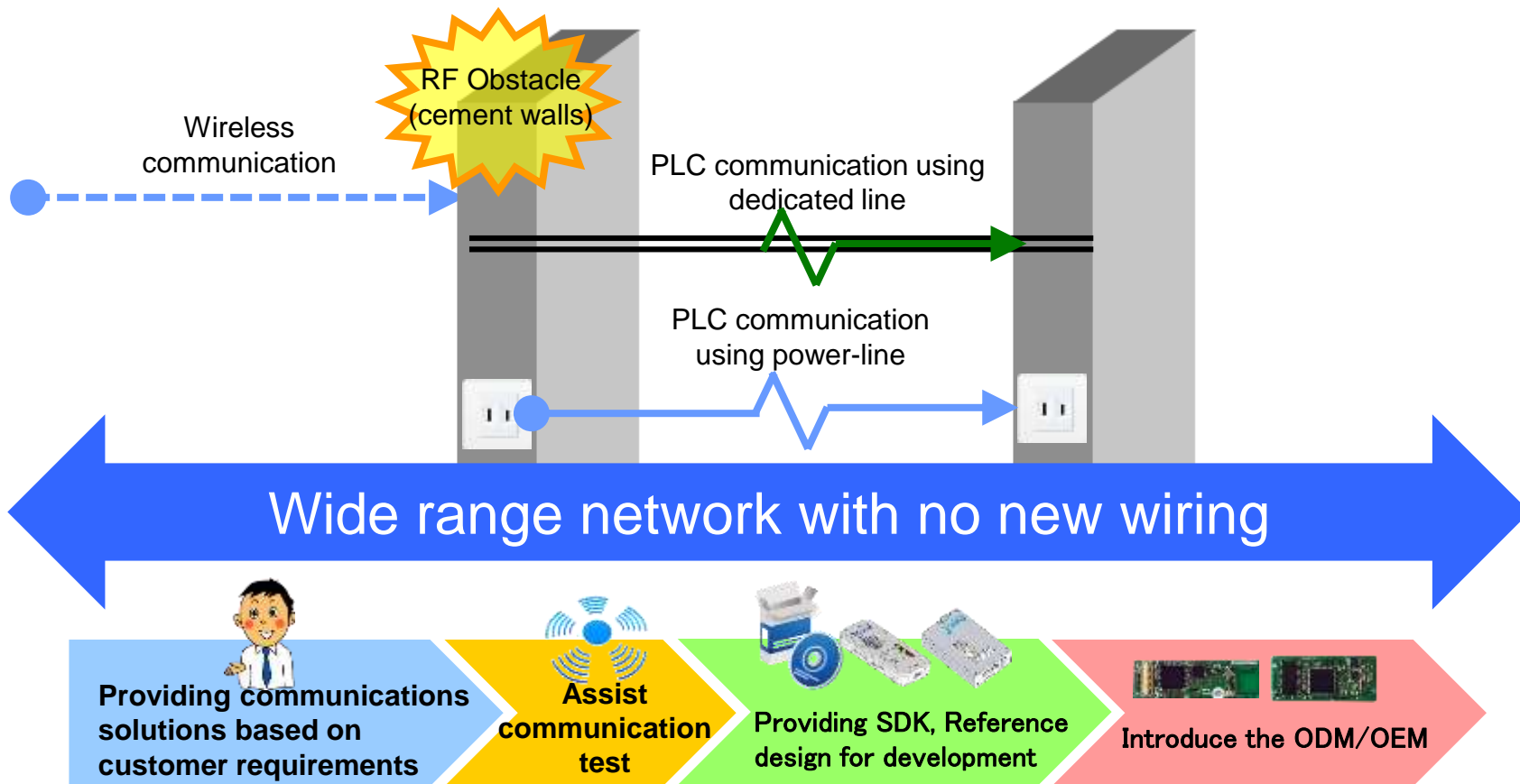
MegaChips Corporation

MegaChips communication solution

Providing seamless communication across wide range of networks, addressing a variety of applications



■ MegaChips communication solution features:

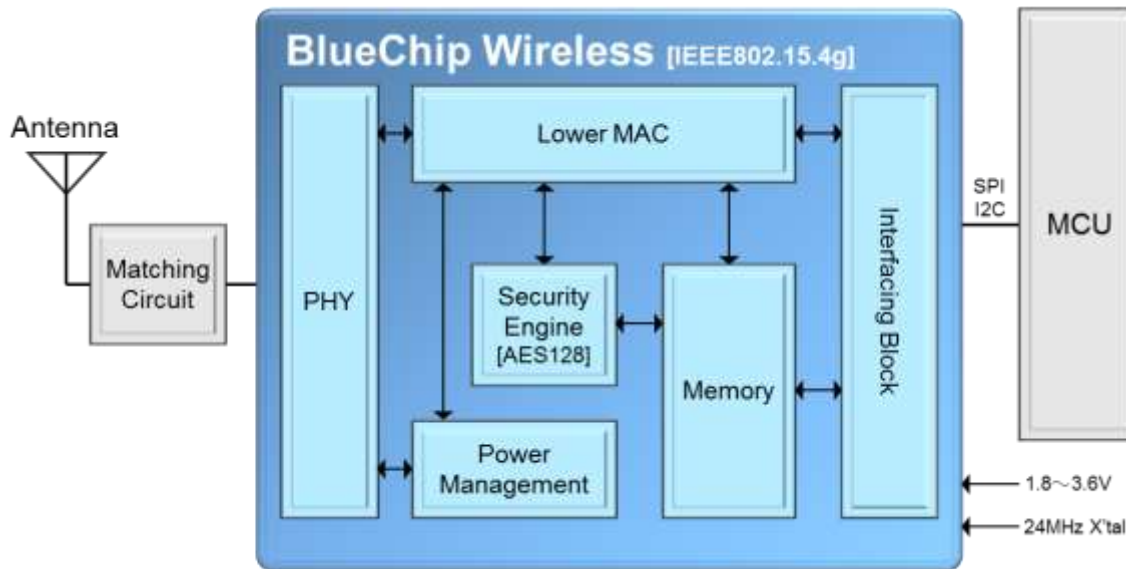


- Optimized Hybrid Communication system combining Wireless and PLC communication LSIs.
- Provide flexibility in addressing various custom projects.



BlueChip Wireless

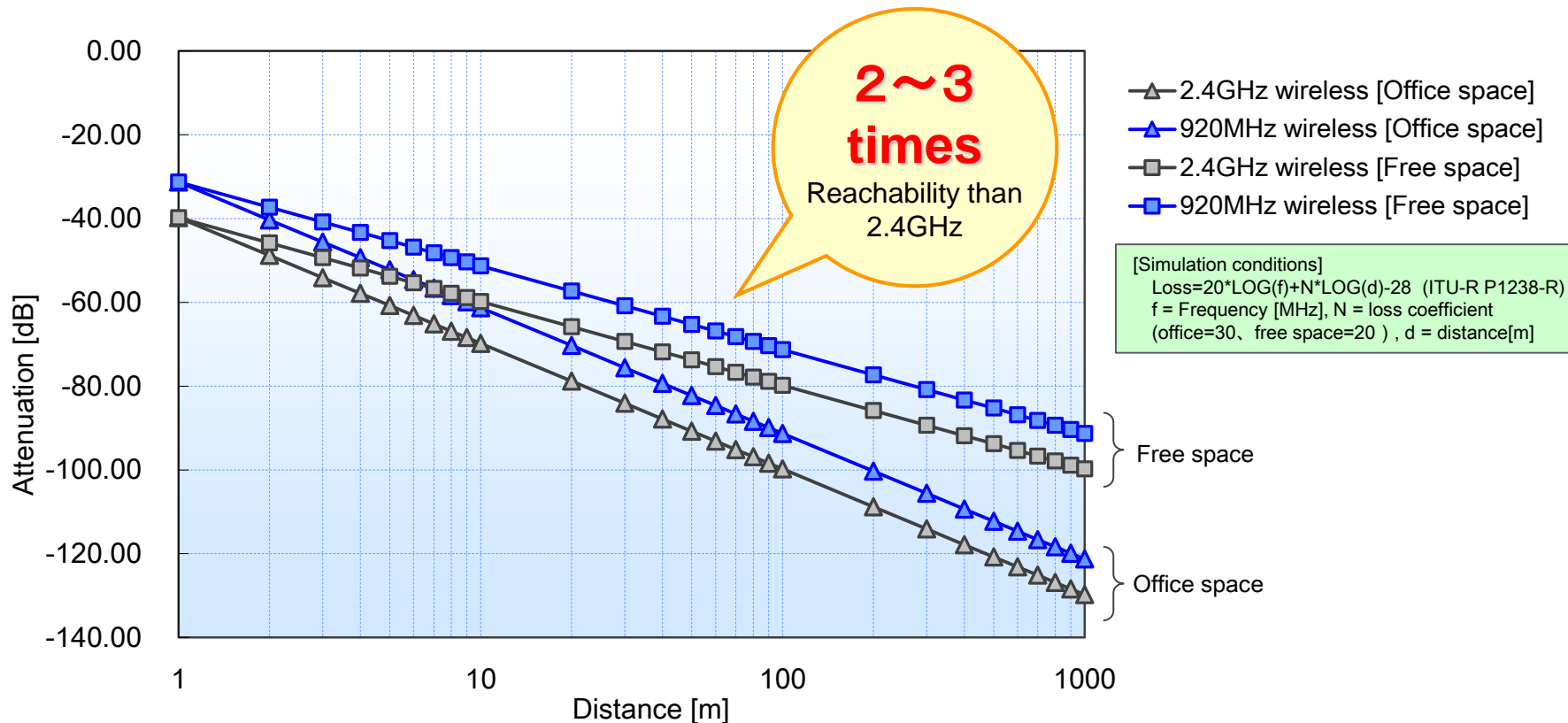
[IEEE802.15.4g Sub-GHz Wireless Communication LSI]



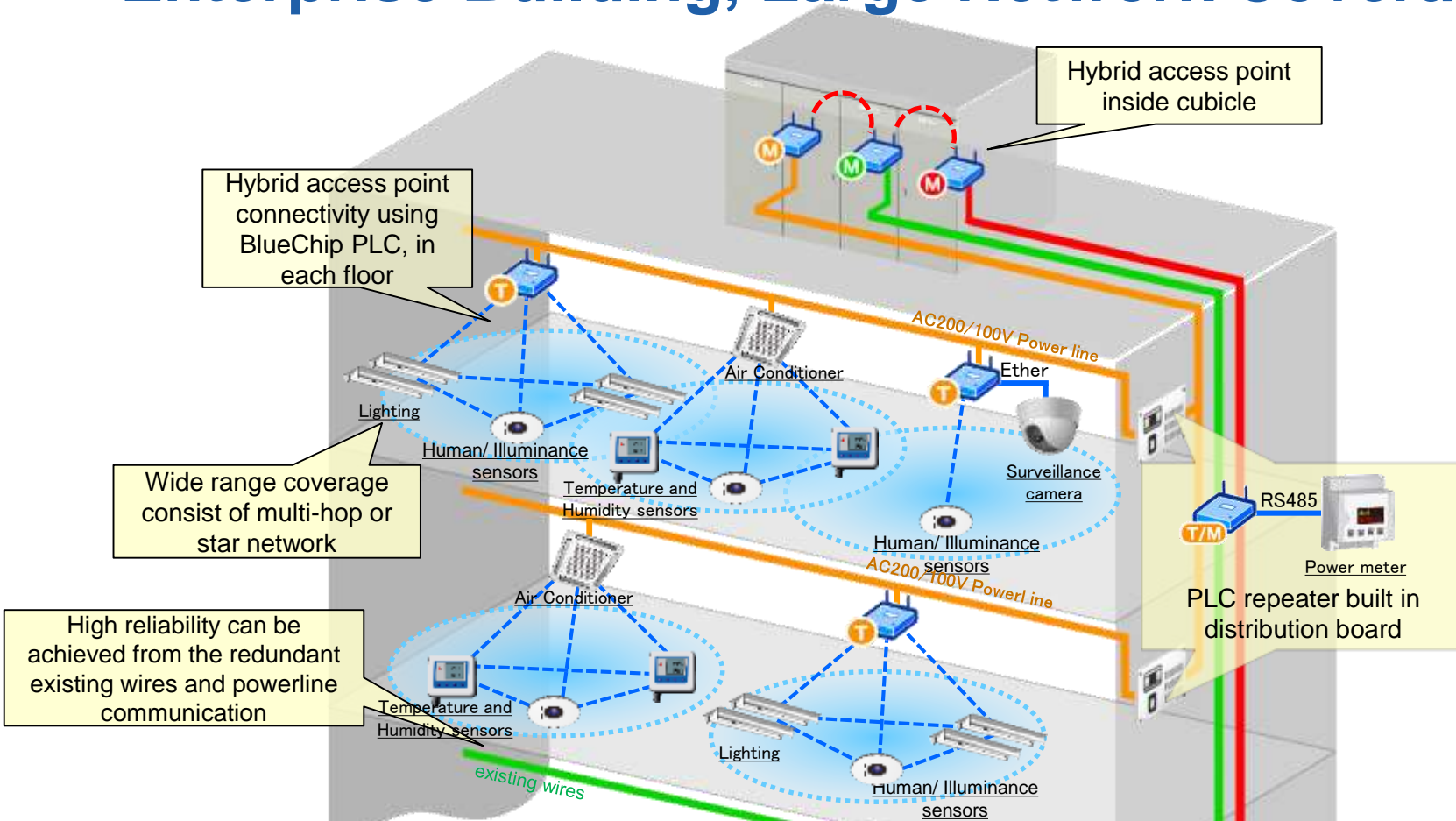
- IEEE802.15.4g compliant, low power Sub-GHz Wireless Communication LSI. Ideal for HEMS consumer electronics and Worldwide Smart Metering Applications (AMR/AMI).
- Using 920MHz band, a platinum band with lowest radio interference. Superior to 2.4GHz band in penetrating RF obstacle.
- Ideal for long range and low power consumption.

■ 920MHz wireless communication features:

- Lower radio interference, longer reach and better RF penetration compared to 2.4GHz band used in Wireless LAN or ZigBee.
- High throughput and multi-hop capability compared to 430MHz band low power radio.
- Ideal for Smart Metering, HEMS, BEMS and a variety of Smart Home Applications.

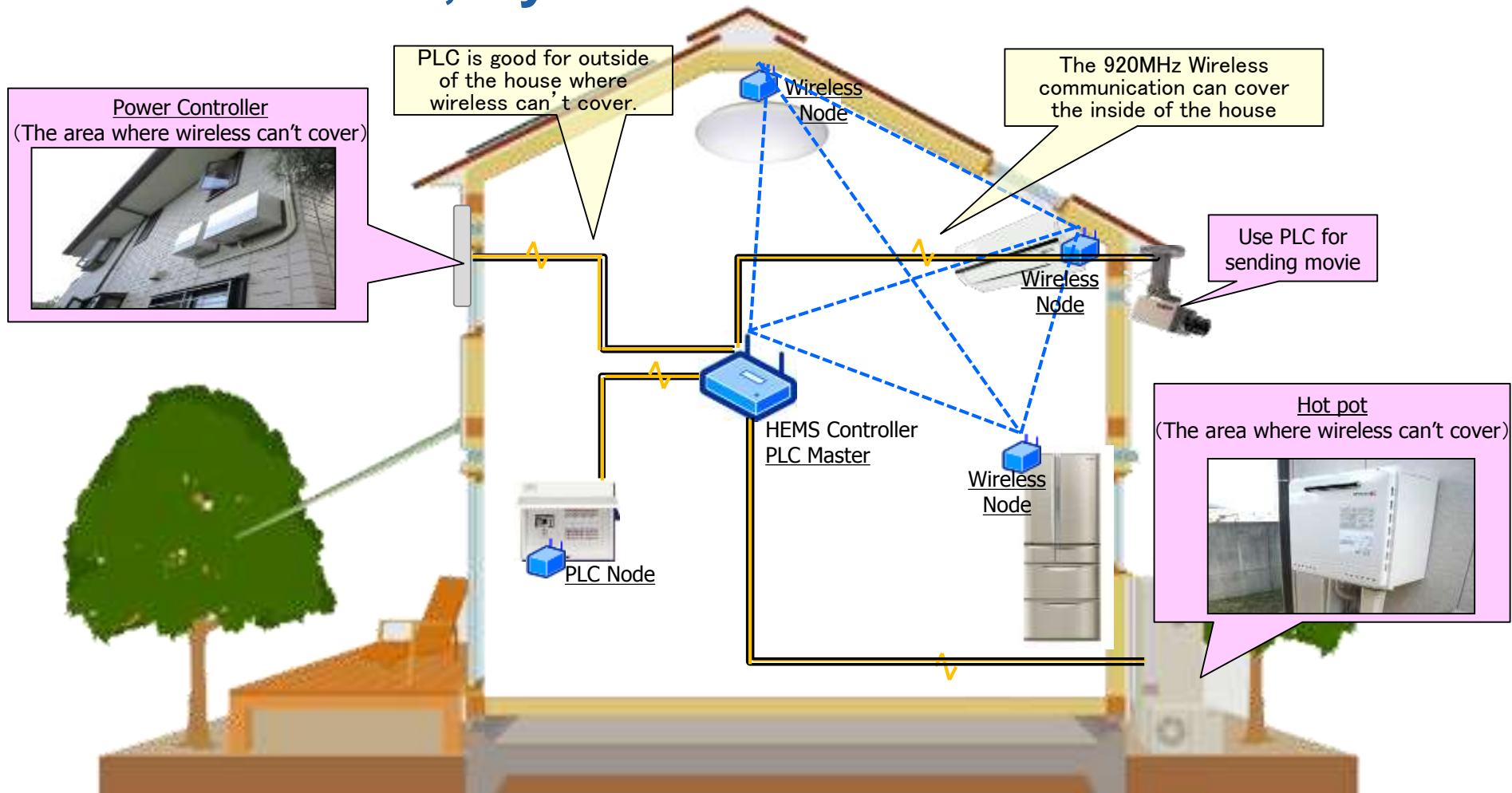


Enterprise Building, Large Network Coverage



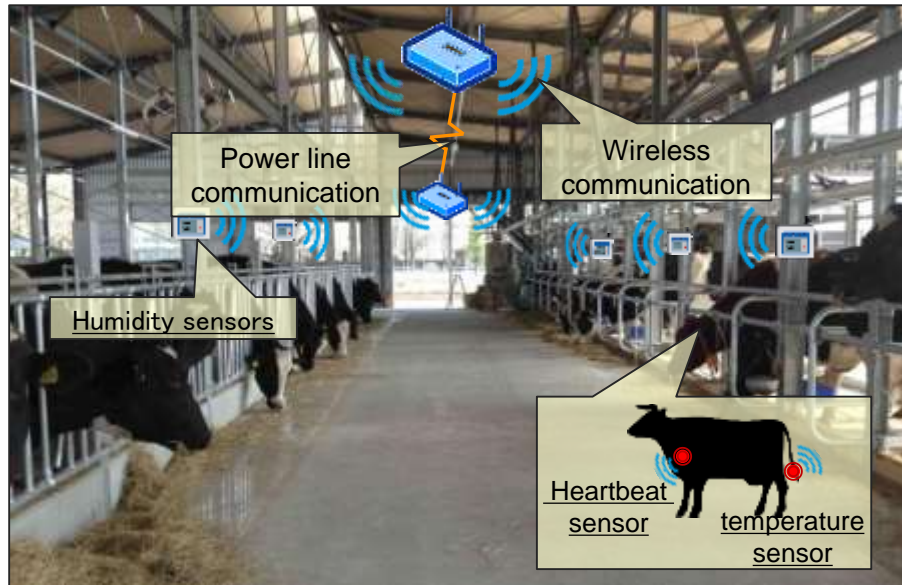
- Using power-line, complete network coverage is achieved throughout the building, with no new wiring.
- Using for lighting, Air conditioner control system, sensor monitoring, surveillance camera and reducing cost on the communications wiring.

Smart home, Hybrid communication effectiveness

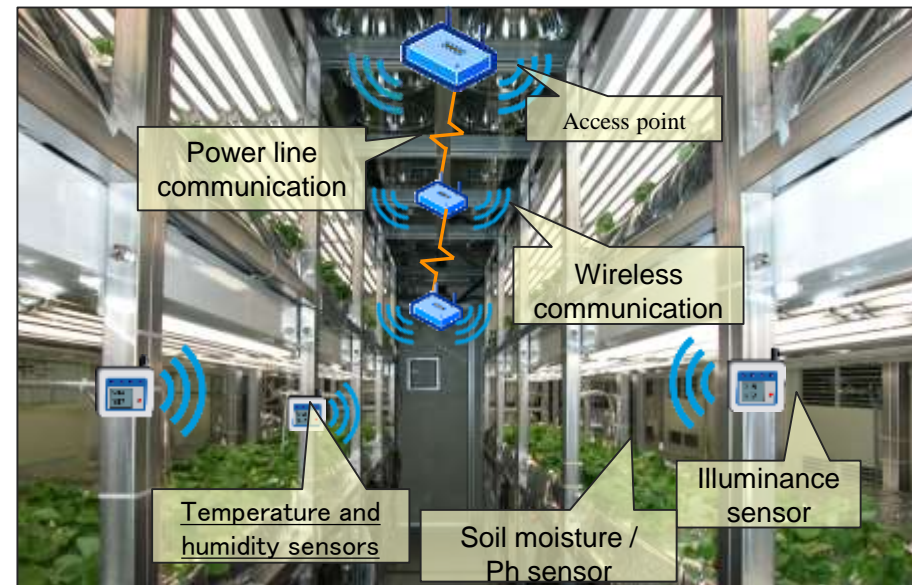


- BlueChip PLC (HD-PLC) is ideal for security camera, hot pot and power controller applications located outside the house.
- BlueChip PLC (HD-PLC) provides stable communication to hard to reach areas by Wireless.

■ Livestock / Agriculture ICT market



Monitoring indoor environment, health / disease management



Monitoring environment / cultivation automated of plant factory

- Monitoring fine-grained environment and health, disease of the Plant and livestock. Livestock / agriculture ICT to enhance the productivity has been attracting attention abroad.
- Hybrid communication can be expected to reduce system cost introduction to the existing facilities.

■ BlueChip Wireless SDK



【Contents】

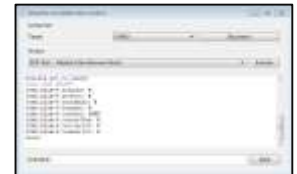
- BlueChip Wireless SDK source code
 - BlueChip Wireless Driver
 - IEEE802.15.4 MAC
 - Peripheral Driver (SPI, UART, I2C, ADC, PWM)
 - Sniffer
 - PHY/MAC Test command
 - Sample firmware

- Tool chain (Compiler, Libraries)
- Documents
- Communication Evaluation tool
 - PER test tool

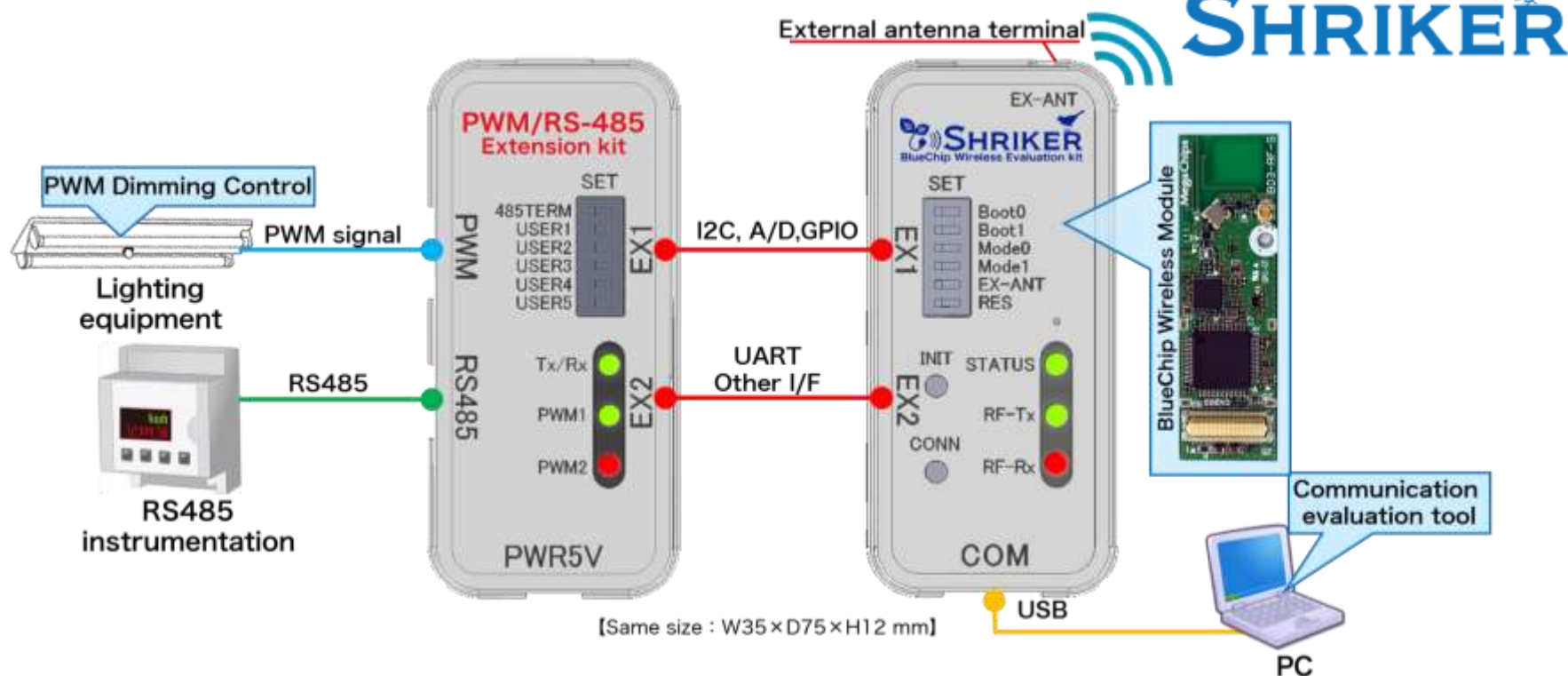
A wide variety of radio parameters can be easily changed such as wireless channel, and transmission power, for testing PER of physical layer/MAC layer, the number of retransmissions, such as CRC error measurement.

 - Packet analyzer

A packet analyzer can be used to analyze the wireless packets on the network.



BlueChip Wireless communication evaluation Kit



- This evaluation kit enables easy software development as well as debug.
- The USB port provides a simple means of communicating with the device, and optionally can be used to provide power.
- Shriker has an expansion interface unit that can be used for RS485 communications as well as a PWM output that can be used to regulate power to other devices.

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