Realize Smart Shipping with High-Speed Power Line Communication

PLC Adapter

Power Line Communication

Internet via Outlet Just Plug It In

PLC enables communication using existing power lines, eliminating the need for additional wiring. Simply plug in a PLC adapter to improve onboard internet environments. It's ideal for utilizing ship-wide power lines and improving crew efficiency.

Having trouble setting up a shipboard network?

LAN Cable Installation

- Complicated construction setup at docking
- Hard to wire in some areas (e.g., the boatswain store)
- High costs for cables and their installation

Wi-Fi Deployment

- Signals blocked by the ship's steel hull
- Connection instability
- Wiring work required when relocating

PLC is the Solution!

POINT

Simple & Quick Installation

No large-scale work needed, can be installed anytime.

POINT

Up to 90% Cost Reduction

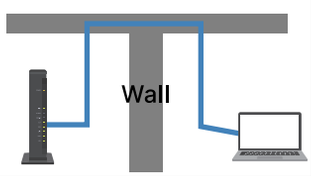
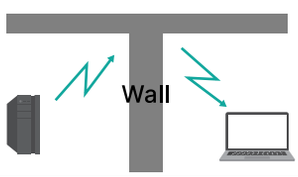
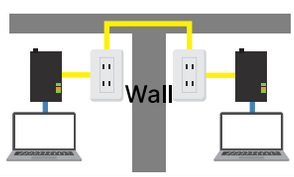
Only the PLC adapter required, reducing 50-90%* of wiring costs compared to LAN cable installation.

*Results of demonstration tests using car carriers and chemical tankers

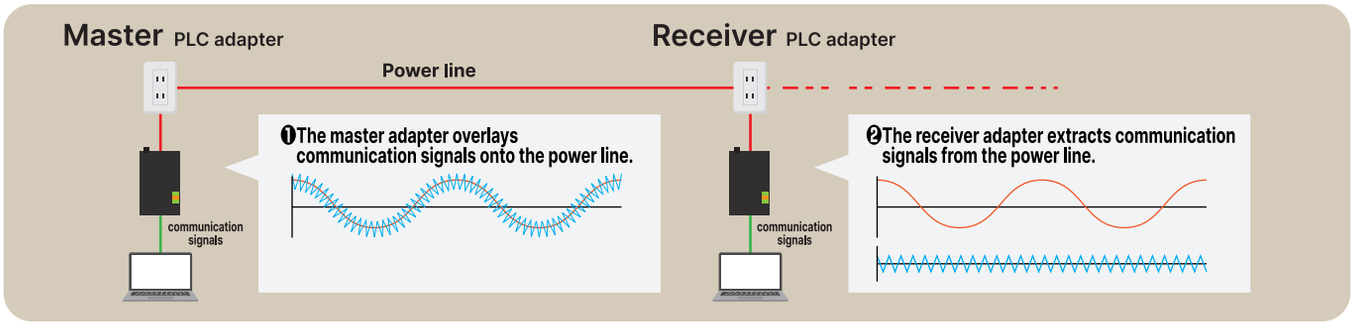
POINT

Stable High-Speed Communication

Transmitting over power lines ensures more consistent speeds than Wi-Fi, which can fluctuate with environmental conditions.

	LAN Cable		Wi-Fi		PLC	
						
Installation Cost	Wiring work required	◎	Only installation	△	Only installation	△
Communication Distance	100m extendable with buffer	○	~100m not suitable if obstacles exist	○	200m~ extendable over 2km with multi-hop	◎
Communication Speed	1~10 Gbps	◎	~650Mbps	○	~100Mbps	△
Security	None	△	Encryption	○	Encryption +Tone Mapping	◎
Relocation / Expansion	Requires new wiring	△	Requires relocation	△	Just plug into outlet	◎

How PLC Works

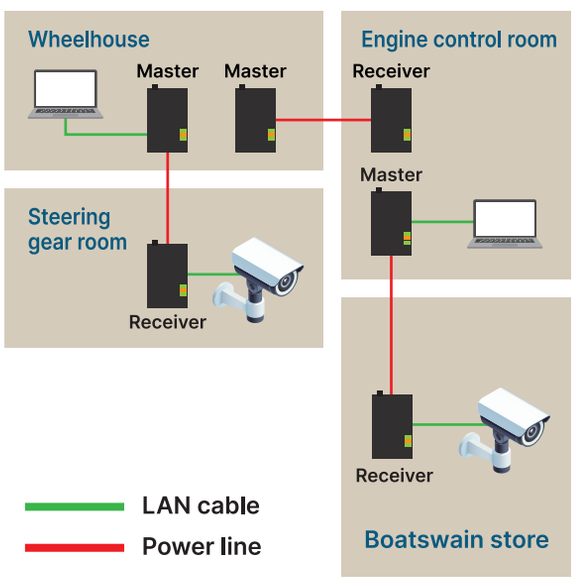


Use Cases of PLC

Just plug it in - works wherever there's an outlet.

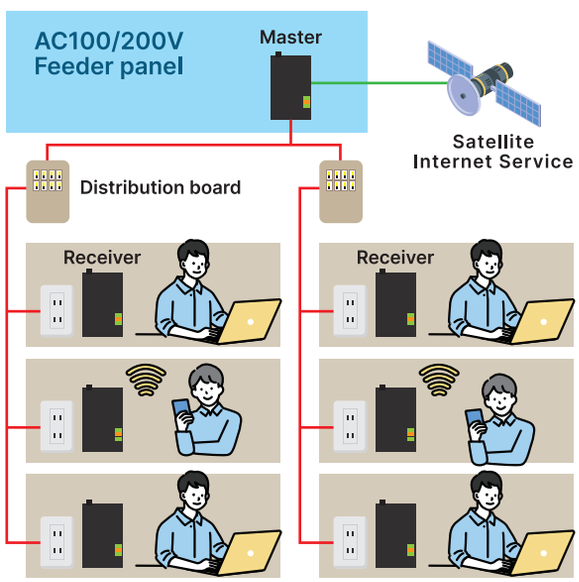
CASE1

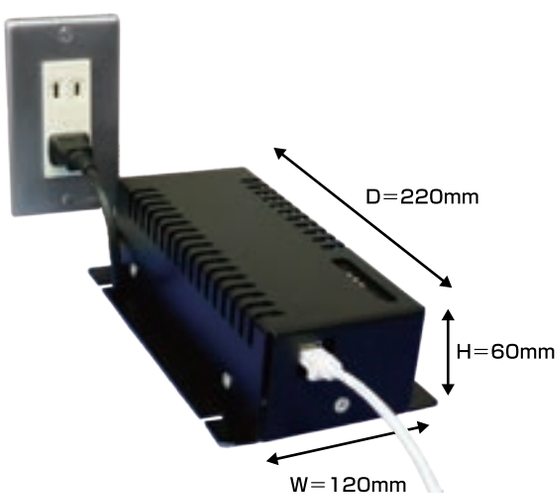
Installing or Expanding Surveillance Cameras
Building a dedicated communication line



CASE2

Using Communication Apps in New Areas
Establishing a network infrastructure





Standard Specifications

Rated Input	AC100V – AC240V 50Hz/60Hz 2.3W
Operating Environment	Temperature −20°C ～ +60°C Humidity 30% ～ 85%
Dimensions	W=120mm D=220mm H=60mm
PLC Standard	IEEE1901-2020 / ITU-T G.9905
Frequency	2MHz ～ 28MHz
Encryption Method	AES128bit
Communication Speed	20Mbps ～ 70Mbps (PHY: 240Mbps)
Communication Distance	200m / 1unit
Ethernet Standard	IEEE802.3 / IEEE802.3U

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