AETHERLINK / POWER-LINE COMMUNICATION

BPLC Module

Broadband power-line communication between compatible smart meters and gateways.



Product visualisation · appearance depends on configuration

Product overview

The AetherLink BPLC Module provides broadband power-line communication over low-voltage networks. It is powered by the host meter and provides a data path between compatible meters and gateways without requiring a separate radio link for that path. The module uses a microcontroller for communications control and supports automatic recovery following network disturbances. It is intended for projects that specify BPLC access networking. The exact PLC implementation, host interface and coupling arrangement must be selected together with the meter and gateway configuration.

Key capabilities

Broadband power-line networking. Uses the low-voltage power network as the communications medium between compatible meters and gateways.

Meter-supplied power. The module is powered directly by its compatible host meter; the permitted supply and load must be agreed for that host.

Automatic recovery. Supports recovery of communications following a network disturbance, once the required operating conditions are restored.

Microcontroller-based control. Integrates processing for the communications functions within the plug-in module.

Application fit

Low-voltage AMI access networks using BPLC between compatible meters and a BPLC-capable gateway.

FUNCTIONAL CHARACTERISTICS / INTEGRATION

Specify the complete configuration.

Match the module to its host and network before selecting the delivered variant.

CHARACTERISTIC	PRODUCT INFORMATION
Communication medium	Low-voltage power line
Communications technology	Broadband power-line communication (BPLC)
Network role	Data exchange between compatible meters and gateways
Power source	Compatible host meter
Processing	Microcontroller-based communications control
Recovery	Automatic communications recovery following network disturbances
Host integration	Plug-in module; interface and coupling arrangement are configuration-dependent

System context

HOST	COMMUNICATIONS PATH	NETWORK ENDPOINT
Compatible meter	BPLC power-line network	Compatible gateway

System context is illustrative. Host application protocols, upstream services and interoperability depend on the complete implementation.

Integration considerations

PLC and gateway implementation. Confirm the BPLC profile, network arrangement and interoperability with the intended gateway.

Host interface and supply. Agree the meter connector, pin assignment, supply limits and coupling arrangement before integration.

Network conditions. Assess the intended low-voltage network and define the required recovery behaviour. Electrical withstand and operation during faults require separate ratings and test evidence.

CONFIGURATION SCOPE Automatic communications recovery does not state a withstand rating or guarantee operation during an electrical fault.

Supply limits, connector details, dimensions, environmental ratings, operating bands and quantitative performance are specified for the selected configuration. Request the applicable integration data from Archai.

Discuss your configuration

Share the host meter, destination market, network technology and integration requirements with Archai.

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