

DKT IP Link over Coax (IPLoC) push-on module



IPLoC Top level description

The IPLoC from DKT allows for retrofitting Ethernet connectivity over existing coaxial infrastructures. This is by using MoCA technology. The method to utilize existing infrastructure is by simply inserting an IPLoC device near the router and another IPLoC device near smart TVs. By using a simple self-installable methodology, customers can themselves upgrade their existing in-house coaxial infrastructure. Three IPLoC architectures are available:

- 1) N number of Push-On-IPLoC devices in a point-to-multipoint architecture with shared bandwidth. Typical application is a DIY installation where all the N Push-On-IPLoC devices are located within the premises of the home.
- 2) 1x Cassette-IPLoC + 1x Push-On-IPLoC device in a point-to-point architecture (can be used as point-to-multipoint in the premises). Typical application is service provider driven, where one cassette-IPLoC for each client is installed in a distribution room or node in a star network and one Push-On-IPLoC device is installed by the customer in the premises of an apartment.
- 3) Future: 1x Cassette-IPLoC + N number of Push-On-IPLoC devices in a point-to multipoint architecture, shared bandwidth across multiple premises, based on c.link. Typical application is service provider driven with one cassette-IPLoC serving multiple apartments and this in a series or star network. One Push-On-IPLoC device is installed by the customer in the premises of an apartment.

Product specifications:	
Standard:	IEEE802.3az , 802.1p , MoCA 2.0
Transmission PHY rate:	Up to 400 Mbps PHY rate
LAN port data rate	▶ 156Mbps (50dB att.) >(T/TCP) ▶ 166Mbps (50dB att.) >(UDP)
Frequency band:	CATV frequency: 5MHz-1002MHz Insertion loss : 3dB(Max.) Return loss: 8dB(Min.) MoCA D-Band: 1125-1525MHz(Total 8 channel) Insertion loss: 3dB(Max.) Return loss: 8dB(Min.)
Nodes:	Up to 16 devices
Interface:	10/100/1000 Mbps Ethernet port(RJ-45) X 1 Wall outlet Radio: Male IEC(Plastic / non-functional) Wall outlet: Female IEC Output TV: Male IEC
MoCA RF Output level	D-Band : -9.7dBm Normal. (75 ohm)
LEDs:	3pcs, Power / MoCA / Ethernet
Button:	1pcs, Reset/Reset to Default
Temperature:	0-40°C(Working) / -5-65°C (Storage)
Communication distance:	300feet Max., cable between root node and outlet (RG-59)
OS:	Supports Windows OS , Linux OS, MAC OS
Power supply:	100-240VAC , 50/60Hz Input 5VDC +/-5% , 1A Output
Power consumption:	<5 W
Power saving mode:	ErP Level-V(lot 6)
Dimensions:	95x50x27 mm

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Push-On-IPLoC

The Push-On-IPLoC is the most universal component to enable IP services over existing coaxial infrastructures.

The standard outlet across Europe has architecture with one dedicated TV and one Radio port. This is based on IEC adapters separated by 30mm and sometimes supplemented with a dedicated DOCSIS data port (commonly known as the Multimedia port). The Push-On-IPLoC enables the consumer to remove the connectors from the wall outlet, insert the Push-On-IPLoC and inject IPTV, Internet and telephony (IP traffic in general) services into the existing Cable-TV (DVB-C/T) distribution coaxial network.

Near router (far end to the TV set):

The PDS cable from an available RJ-45 port is simply connected to the RJ-45 port on an IPLoC device. The IPLoC device is inserted into the TV outlet closest to the router. IP services are enabled throughout the coaxial distribution network in the home.

Near the TV / Set-top-box / other IP clients (near end to the TV set):

Simply plug the Push-On-IPLoC into the TV's wall outlet and connect the power. The device auto-negotiates with the other IPLoC devices and establishes an optimized point-to-multipoint network.

Optional WLAN:

A WLAN enabled IPLoC device allows the wireless network in the home to be expanded with new wireless network coverage areas. The philosophy is that multiple smaller WLAN cells will provide better home coverage than a single large cell. The WLAN cells from the WLAN-enabled IPLoC devices will supplement the WLAN cell from the primary wireless router. Connection to devices is established with minimum effort by pressing the Wireless Protected setup button.

