

## Application Scope

Kymata provides an advanced solution for indoor and outdoor radio coverage in large logistical and industrial environments.

The Kymata antennas and amplifiers address signal issues effectively and economically, ensuring superior performance. The intuitive web interface and SNMP management offer comprehensive control over industrial wireless networks.

## IPD25D Multiplexer Module

The IPD25D is a passive diplexer designed to couple and decouple signals in the 2.4 GHz and 5 GHz bands on a single Kymata antenna. It supports efficient frequency-domain multiplexing, allowing different wireless bands to share the same infrastructure.

This module is ideal for installations requiring simultaneous 2.4 GHz and 5 GHz coverage, optimizing spectrum use in high-density environments.

## Key Features

- **Dual-Band Operation**  
Operates across both 2.4 GHz and 5 GHz bands, enabling the coupling and decoupling of signals on the same Kymata antenna. This provides seamless wireless connectivity in environments with mixed band requirements.
- **Frequency-Domain Multiplexing**  
Ensures efficient utilization of wireless spectrum by splitting or combining 2.4 GHz and 5 GHz signals, allowing better use of available radio frequencies.
- **Enhanced Network Efficiency**  
Supports the concurrent use of multiple frequency bands, maximizing the potential of each Access Point (AP) and minimizing interference.
- **Passive Design**  
No external power source is required, simplifying installation and minimizing maintenance needs.

## Benefits

- **Optimized Spectrum Utilization**  
By combining and separating signals in different bands, the IPD25D ensures optimal use of the available spectrum, enhancing overall network efficiency.
- **Seamless Integration**  
Designed to integrate effortlessly with existing Kymata antenna configurations, supporting both small-scale and large-scale network deployments.
- **Flexible Wireless Deployments**  
Offers the flexibility to support mixed wireless bands, allowing for scalable and versatile network setups in industrial environments.



## Technical Specifications

Impedance Type	50 $\Omega$
Working Frequency	- 2.4 GHz input: 0.9~2.5 GHz - 5 GHz input: 4.9~5.875 GHz
Insertion Loss	- 2.4 GHz input: 0.75 dB $\pm$ 0.1 dB - 5 GHz input: 1 dB $\pm$ 0.1 dB
Max Power Input	<2 Watt
Rejection on Adjacent Channels	<30 dB
Connector Type	3 x N female
Supported Antenna Models	ANT2L, ANT2C, ANT5L, ANT5C, ANT5MM, ANT5AW Series

## Connection Scheme

