Optical Wireless Communication (OWC) offers mobile high-speed data communications at light speed. OWC-based systems use unregulated optical spectrum. As light does not pass through walls, indoor deployment is seamless. Choose your scenario, easy to install, deployment and interference-free operation making existing wireless systems a possibility.

OWC is well suited for numerous use cases like Industrial Wireless, Mobile Phone, and Backhauling and Indoor Li-Fi.

Range of Products

- Industrial Wireless
  - Light source: any high power LED
  - Tamper proof: deployment for network densification
  - High robustness due to optical communication
  - Immunity to Wi-Fi interference
  - Low latency (≤ 2 μs)
  - Universal interface (Thermal Interface)
- Mobile Phone and Backhauling
  - Infra-red (IR) based
  - 99.999% availability due to no satellite fading
  - 500 Mbps over 130 μm peak data rate up to 1 Gbps
  - No active electronic needed
  - Universal interface for easy network integration
- Indoor Li-Fi
  - Use of standard illumination LED
  - No interference with existing Wi-Fi networks
  - Multi-user access possible
  - Peak data rate ≥ 1 Mbps
  - Small form factor

CONTACT

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About Industrial Wireless

For "Industry 4.0," where flexible manufacturing aims at personalized products, reliable wireless communication with low latency and minimal latency (OWC) is a solution that meets the demands of the industry. OWC uses light instead of radio, is robust against electromagnetic interference, does not generate heat, is difficult to jam from the outside and is inherently secure. Spatial diversity and coordinated networking will make OWC robust and reduce latency. As a result, OWC is well suited for dense deployment in future factories.

Fraunhofer HHI offers tailored OWC solutions and provides high-speed OWC links for industrial environments.

Facts

+ Light source: any high-power LED
+ Randomized approach for network dimensioning
+ High robustness due to dynamic node adaptation
+ Immunity to EM interference
+ Low latency (< 2 ms)
+ Universal field Ethernet interface