

Product Brief

Analog HD Optical Converter

Overview

The Analog HD Optical Converter enables reliable long-distance transmission of analog high-definition video signals over optical fiber. The converter supports multiple analog HD formats including AHD, TVI, CVI, and CVBS, allowing flexible integration with a wide range of surveillance cameras and legacy video systems. In addition to video transport, the system supports serial control signals, audio transmission, and contact signals, enabling complete remote device operation over a single optical fiber link.

Features

Multi-format analog HD support

Compatible with major analog HD formats:

- AHD2.0
- TVI
- CVI
- CVBS

Long-distance fiber transmission

Supports reliable transmission over:

- Up to 20 km over single-mode fiber
- Up to 500 m over multimode fiber

Integrated signal transport

In addition to video, the system supports:

- RS-422 / RS-485 control signals
- Two-channel audio transmission
- Four bi-directional contact signals

Wide power input range

A VH connector power interface allows operation across a wide DC voltage range:

- DC +5 V to +24 V

This makes the unit compatible with a variety of power environments in industrial and security installations

Wall-mounted type

Parameter	Specification
Video interface	AHD2.0, TVI, CVI, CVBS
Serial data signal	RS422/RS485
Audio interface	20Hz to 10kHz, 0 dbm, Balanced, 2-ch
Contact signal	4-contacts, bi-directional
Optical port	1 fiber bi-directional
Optical fiber	SMF/MMF
Optical connector	SC
Optical wavelength	Tx: 1310-nm LD/1550-nm PD Rx: 1550-nm LD/1310-nm PD
Transmission distance	20 km, SMF 500 m, MMF
Supply voltage	DC +5 V ~ +24 V
Power consumption	2W (typ.)
Operating temperature	Ta: 0°C - +55°C
Dimensions	153.6 x 90 x 25 mm 153.6 x 90 x 41 mm



Video and Control Configuration.



Video, Control, Audio and Contact Configuration.

Ordering Information

Tx: Transmitter	Rx: Receiver	Optical fiber	function
MA12SS20131WN	MA12SS20155WN	SMF	Video and control (RS422/485)
MA22SS20131WN	MA22SS20155WN	SMF	Video, control, audio, and contact
MA12MS01131WN	MA12MS01155WN	MMF	Video and control (RS422/485)
MA22MS01131WN	MA22MS01155WN	MMF	Video, control, audio, and contact

Note:

A transmitter (Tx) and a receiver (Rx) are required to establish an optical transmission link. OptoHub transmitters and receivers are designed to operate as paired units and are not compatible with third-party devices.

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