



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: HDMI20-OPTC-TX220-NTQ

FUNCTIONAL OVERVIEW

The HDMI20-OPTC-TX220-NTQ is an HDMI 2.0 compatible fiber transmitter for extending uncompressed video with embedded audio, bidirectional RS-232, and Gigabit Ethernet over multimode fiber. It supports HDMI 2.0 signals up to 18 Gbps, including 4K UHD/DCI 4K at 60 Hz 4:4:4, and transmits over one multimode fiber channel (the second fiber channel is available via the break-out LC concept). It provides two HDMI inputs with local HDMI output for monitoring and supports Advanced EDID Management.

VIDEO INPUT AND OUTPUT

- HDMI inputs: two HDMI 2.0 input ports (19-pole HDMI Type A receptacle with screw lock)
- Local HDMI output: one HDMI 2.0 output port for local display (equal to the extended video signal; no internal scaling/conversion)
- Optical output: multimode fiber optical interface for signal transmission (50/125 µm multimode; OM3 or OM4 recommended)
- Optical connector type: Neutrik opticalCON QUAD connector (NO4FDW-A type)
- Supported video formats: DVI 1.0, HDMI 1.4, HDMI 2.0
- Maximum resolution: 4096x2160@60Hz; 1920x1080@120Hz
- Transmitter video data rate (I1, I2, O1): 18 Gbps
- Color depth: Deep color support up to 36 bits
- Color space: RGB, YCbCr 4:4:4 / 4:2:0
- Reclocking: Pixel Accurate Reclocking
- 3D support: Yes
- Maximum HDMI cable length on input (22 AWG): 30 m
- Maximum extension distance over multimode fiber (format/cable dependent), up to 700 m for 4K60 4:4:4 on OM3/OM4

AUDIO CAPABILITIES

- Receives HDMI signal with embedded audio (HDMI source)
- Audio formats: all formats in line with HDMI 2.0 standard
- Local HDMI output duplicates the same HDMI stream (including embedded audio) as the extended signal

POWERING

- Powered by 100–240 V AC, 50/60 Hz mains supply
- AC power connector type: Standard IEC C14
- Maximum power consumption (transmitter): 11.6 W
- Class I apparatus: requires protective earth connection; do not bypass earth pin

CONTROL

- Ethernet control via Neutrik etherCON connectors (Gigabit Ethernet; two ports; same local network; pass-through/daisy chain supported; not PoE compatible)
- USB control via front-panel USB mini-B (local control only; USB is not transmitted via optical cable)
- RS-232 control via 9-pole D-SUB male connector (bidirectional), with selectable modes: Pass-through, Control, Command Injection
- Supports Lightware Device Controller (LDC) software control (Windows/macOS) via Ethernet, USB, and RS-232
- Supports LW3 protocol (LW3 over Ethernet uses TCP port 6107)

MOUNTING OPTIONS

- Rack mountable (standard rack installation using rack mounting kit with rack ears; two devices can be fastened together as a 1U pair)
- Standalone use supported
- Mounting threads on top and on one side for secure installation (to conform to installation safety regulations)
- Rack ears serve as handles and bump protection
- Ventilation clearance required; do not block ventilation holes

GENERAL

- Dimensions (with device ears): 221 W x 222.25 D x 42.9 H (mm)
- Weight: 1480 g (3.27 lb)
- Enclosure: 1 mm steel; rack mountable: Yes
- Cooling: Cooling fan
- Operating environment: 0°C to +50°C; 10–80% RH non-condensing (storage: -30°C to +80°C)
- Compliance: CE, UKCA; RoHS (EN 63000:2018); EMC emission EN 55032:2015+A1:2020; EMC immunity EN 55035:2017+A11:2020



- LVD / electrical safety: EN 62368-1:2014+A11:2017
- Laser safety: EN 60825-1:2014+A11:2021
- Warranty period: 3 years
- Supplied accessories (box contents): transmitter unit; Safety & Warranty Info; Quick Start Guide; IEC power cable
- The product has full paper / green packaging

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-07-20	Initial version	Tamas Forgacs