DATA SHEET

# AMX 4K60 In-Line Controller

**4K60 4:4:4 and HDCP 2.2. support including CEC control and EDID emulation**
DCE-1 (FG1015-200)

Front


Rear


**Overview**
The AMX DCE-1 In-Line Controller combines CEC control, EDID emulation and audio extraction in a single, cost-effective device. The DCE-1 provides EDID emulation for resolutions up to 4K60 4:4:4, and includes HDCP 2.2 support, offering compatibility with the latest displays and source devices. The integrator can either copy the EDID from the output or select from one of 15 preprogrammed EDIDs.

The controller provides a fixed EDID to the source device to ensure it reliably outputs video in the correct resolution for the display. The DCE-1 also offers audio de-embed capabilities, with digital SPDIF and analog output options. To simplify display control, the DCE-1 also offers the ability to turn the display on and off using CEC or RS232 strings whenever a source device is connected or disconnected.

**Common Applications**
Ideal for a variety applications requiring in-line EDID emulation, audio extraction, or simple display control.

**Features**
- **Extended Display Identification Data (EDID) –** Provides a fixed EDID to the source to ensure that it always reliably outputs video
- **4K60 4:4:4 and HDCP 2.2 Support –** Support the latest source and display devices. Experience pixel-for-pixel video reproduction of 4K60 source video with full 4:4:4 color space
- **Signal-Based Display Control –** Use CEC or RS232 to automatically turn displays on/off in response to a change in the input signal
- **Audio De-embed Capabilities –** Remove audio from line to be used in signal processing, amplification, and more

**Specifications – Subject to Change**

| General | |
|---|---|
| Dimensions | 3 in (8cm) depth<br>4.7 in (12cm) width<br>1 In (2.5cm) height |
| Weight | Approx. 66 lb (0.30 kg) |
| Shipping Weight | TBD |
| Mounting Options | Includes V-Style surface mount brackets |
| MTBF | CE, FCC, NRTL, RoHS, WEEE |
| Airflow | Convection (openings on sides) |
| Approvals: Regulatory Compliance | TBD |
| MTBF | 4x 3P-3.5MM Phoenix Connectors<br>1x 12V/1APower Adapter<br>1x US exchangeable adapter<br>1x EU exchangeable adapter<br>1x UK exchangeable adapter<br>2x mounting ear<br>4x M2.5 screw (for mounting ears) |

| Power Supply | |
|---|---|
| External, Included | 12 VDC 2A Max Output; 100-240V 50/60Hz AC Input |

| Active Power Requirements | |
|---|---|
| Voltage, DC (Typical) | 12 VDC |
| Power Consumption | 3.6w |
| Power Connector | Screw down locking power connector |

| Environmental | |
|---|---|
| Temperature (Operating) | 32° F to 122° F (0° C to 50° C) |
| Temperature (Storage) | 14° to 140° F (-10° to 60° C) |
| Humidity (Operating) | 10% to 90% RH (non-condensing) |
| Humidity (Storage) | 10% to 90% RH (non-condensing) |
| Thermal Dissipation | 12 BTU/hr |

| Front Connectors | |
|---|---|
| DC Power | Screw Down Locking Power Connector |
| HDMI Input | (1) HDMI Type A Female Connector |
| Digital Audio Output | (1) RCA S/PDIF |
| Analog Stereo Output | (1) 3 Position 3.5mm pluggable Phoenix Terminal Block |

| Rear Connectors | |
|---|---|
| Relay Control | (2) 3 Position 3.5mm Pluggable Phoenix Terminal Blocks |
| HDMI Output | (1) HDMI Type A Female Connector |
| Serial | 3 Position 3.5mm Pluggable Phoenix Terminal Block<br>Bidirectional RS-232<br>Standard NetLinx Baud rate 1200-115k<br>Parity support Odd/Even/None |

| Controls and Indicators | |
|---|---|
| Power Indicator | Green LED, Solid ON when power is applied (Front) |
| EDID Selection | Rotary Dial - 16 Position |

| HDMI | |
|---|---|
| Compatible Formats | HDMI , HDCP |
| Signal Type Support | HDMI, DisplayPort++ (input only with HDMI cable adapter) |

| | |
|---|---|
| Output Signal Type | HDMI, HDCP |
| Output Connector | HDMI Type A Female |
| Input Video Level | .5 - 1.2 V p-p |
| Data Rate (Max) | 18 Gbp |
| Pixel Clock (Max) | Up to 600 Mhz |
| Resolution Support | VESA<br>800x600 @ 60 Hz<br>1024x768 @ 60 Hz<br>1280x768, @ 60 Hz<br>1280x800 @ 60 Hz<br>1280x960 @ 60 Hz<br>1280x1024 @ 60 Hz<br>1360x768 @ 60 Hz<br>1366x768 @ 60 Hz<br>1440x900 @ 60 Hz<br>1600x900 @ 60 Hz<br>1600x1200 @ 60 Hz<br>1680x1050 @ 60 Hz<br>1920x1200 @ 60 Hz<br>2048x1152 @ 60 Hz<br>3840x2160 @ 24 Hz, 25Hz, 30 Hz, 60 Hz<br>4096x2160 @ 24 Hz, 25Hz, 30 Hz, 60 Hz<br><br>SMPT:<br>720x480 @ 59.94 Hz, 60 Hz<br>720x576 p @ 50 Hz<br>1280x720 p @ 50 Hz, 59.95 Hz, 60 Hz<br>1920x1080 p @ 50 hz, 59.94 Hz, 60 Hz<br><br>Established Timing<br>1280 x 1024 @ 75 Hz<br>1152 x 870 @ 75 Hz<br>1024 x 768 @ 60 Hz, 70 Hz, 75 Hz, 87 Hz<br>832 x 624 @ 75 Hz<br>800 x 600 @ 56 Hz, 60 Hz, 72 Hz, 75 Hz<br>720 x 400 @ 70 Hz, 88 Hz<br>640 x 480 @ 60 Hz, 67 Hz, 72 Hz, 75 Hz<br><br>CEA Information Code (VIC) Formats:<br>VIC = 1, 640 x 480 p 59.94/60 Hz 4:3<br>VIC = 2, 720 x 480 p 59.94/60 Hz 4:3<br>VIC = 3, 720 x 480 p 59.94/60 Hz 16:9<br>VIC = 4, 1280 x 720 p 59.94/60 Hz 16:9<br>VIC = 5, 1920 x 1080 i 59.94/60 Hz 16:9<br>VIC = 6, 720(1440) x 480 i 59.94/60 Hz 4:3<br>VIC = 7, 720(1440) x 480 i 59.94/60 Hz 16:9<br>VIC = 14, 1440 x 480 p 59.94/60 Hz 4:3<br>VIC = 15, 1440 x 480 p 59.94/60 Hz 16:9<br>VIC = 16, 1920 x 1080 p 59.94/60 Hz 16:9<br>VIC = 17, 720 x 576 p 50 Hz 4:3<br>VIC = 18, 720 x 576 p 50 Hz 16:9<br>VIC = 19, 1280 x 720 p 50 Hz 16:9<br>VIC = 20, 1920 x 1080 i 50 Hz 16:9<br>VIC = 21, 720(1440) x 576 i 50 Hz 4:3<br>VIC = 22, 720(1440) x 576 i 50 Hz 16:9<br>VIC = 29, 1440 x 576 p 50 Hz 4:3<br>VIC = 30, 1440 x 576 p 50 Hz 16:9<br>VIC = 30, 1440 x 576 p 50 Hz 16:9<br>VIC = 31, 1920 x 1080 p 50 Hz 16:9 |

| | |
|---|---|
| | VIC = 32, 1920 x 1080 p 23.97/24 Hz 16:9<br>VIC = 33, 1920 x 1080 p 25 Hz 16:9<br>VIC = 34, 1920 x 1080 p 29.97/30 Hz 16:9<br>VIC = 39, 1920 x 1080 i 50 Hz 16:9<br>VIC = 41, 1280 x 720 p 100 Hz 16:9<br>VIC = 42, 720 x 576 p 100 Hz 4:3<br>VIC = 43, 720 x 576 p 100 Hz 16:9<br>VIC = 44, 720(1440) x 576 i 100 Hz 4:3<br>VIC = 45, 720(1440) x 576 i 100 Hz 16:9 |
| 4K Format Support | 3840x2160p@24/25/30/60 Hz, 4:4:4<br>4096x2160p@24/25/30/60 Hz, 4:4:4<br>3840x2160p@50/60 Hz, 4:2:0<br>4096x2160p@50/60 Hz, 4:2:0 |
| Audio Format Support | Dolby TrueHD, Dolby Digital, DTS-HD Master Audio, DTS, 2 CH L-PCM, 6 CH L-PCM, 8 CH L-PCM Dolby Digital and DTS support up to 48kHz, 5.1 channel |
| Digital Audio S/PDIF Output | Supported when HDMI embedded audio is up to PCM 5.1, Dolby Digital, DTS 5.1 |
| Analog Stereo Output | Supported when audio is 2 Channel PCM |
| HDCP Support | Yes HDCP 1.4, 2.2 |
| CEC Support | Yes, Auto or Manual |

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