DESIGN STANDARD

274100D03 Standard Dual Projection Classroom Equipment List

Revision:

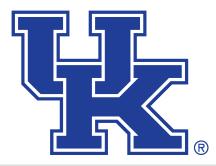
Modified: 9/17/2024



Engineered By:

University of Kentucky

ITS AV Services Lexington, KY 40506 United States 859-323-6455 www.uky.edu



This document in addition to the attached set of plans and Section 274000 of the Project Specification Book serve as an Audio/Visual Reference Design Standard for the University of Kentucky's Dual Projection Classroom. This document is separated into system categories with a product list and functional description of each.

Items marked as [UKFE] and printed in blue indicate they are being furnished by the University. The AV Contractor is responsible for providing any related accessories, wiring, and installation labor for all items.

Revision History Rev 0, 2024-9-13

- -Initial Release of new document format and revision numbering scheme.
- -Changed AV switching from Extron DTP Series to DTP3 Series CrossPoint and peripherals.
- -Added USB-C DisplayPort connection for laptops and mobile devices.
- -Added Crestron Airmedia as a wireless presentation source.
- -Changed equipment rack size from 18RU to 21RU.
- -Changed projection screen aspect ratio from 16:10 to 16:9

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Dated: 10/2024
Applies to: All Pr

Several AV sources shall be provided in the classroom. A dedicated in-room PC will be the primary source. UK AV Services will provide a turnkey PC solution for the AV contractor to install. A simple cable connection will allow laptops and other mobile devices to be connected. This includes both HDMI and USB-C DisplayPort connectivity. A wireless presentation gateway will allow laptops and mobile devices to present via Wi-Fi. Lastly, a document camera will reside on top of the equipment rack to allow instructors to show other documents and objects.



1 CRESTRON AM-3100-WF

AirMedia Wireless Presentation Receiver with Wi-Fi Network Connectivity



1 COMMSCOPE CO166S2-0ZF005

Category 6 U/UTP Reduced Diameter Patch Cable, Blue, 5ft



1 COMPREHENSIVE MHD48G-3PROGRY

MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, Gray, 3ft



1 MIDDLE ATLANTIC LBP-6A

L-Shaped Lacer Bar, 6" Offset



1 MIDDLE ATLANTIC UMS1-5.5

1 RU Universal Mounting Rackshelf, 5.5 Inches Deep



1 DELL PRECISION 3440

[UKFE] - Small Form Factor PC Workstation



1 ANKER A7505

7-Port USB 3.0 Hub



1 COMMSCOPE CO166S2-0ZF005

Category 6 U/UTP Reduced Diameter Patch Cable, Blue, 5ft

1 COMPREHENSIVE MHD48G-3PRORED

MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, Red, 3ft

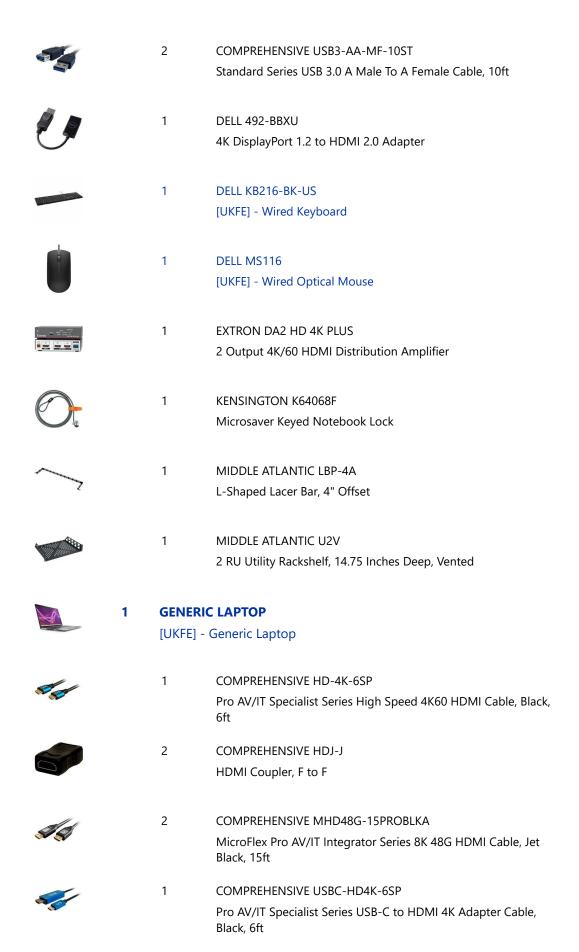


1 COMPREHENSIVE MHD48G-6PROGRN

MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, Green, 6ft

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1 LUMENS PC193

20x Zoom Document Camera



1 COMPREHENSIVE MHD48G-6PROBLK

MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, Jet Black, 6ft



1 KENSINGTON K64068F

Microsaver Keyed Notebook Lock

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Control and AV Switching

The control and AV switching will be performed using an Extron all-in-one crosspoint switcher coupled with a 7" touch panel. All AV sources, displays, and speakers will connect through the AV switcher. The switcher shall support 4K video, stereo or mono audio, and signal transmission via traditional connections as well as Category cable. The switcher shall also have a built-in control processor providing the necessary logical and physical connectivity to control all devices in the system. A drop-in ceiling tile speaker will provide sound reinforcement for the AV sources. A 7" touch panel will reside on the desktop to provide power control, source selection, and volume adjustment with feedback.

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*SPEAKER TO BE INSTALLED BY?????

1 EXTRON AAP 102 B

Two-Gang AV Connectivity Mounting Frame, Black



Standard Series USB 3.0 A Male To B Male Cable, 15ft

1 EXTRON 60-1936-02

Two AC Outlet AAP AV Connectivity Module with Power Cord, US, Black

1 EXTRON 70-090-11

AAP AV Connectivity Module, Single Blank, Black

1 EXTRON 70-1235-02

Two USB A 3.2 Female AAP AV Connectivity Module, Black

1 EXTRON SMB 112 B

2-Gang Surface Mount Box, Black

1 EXTRON DTP3 CROSSPOINT 622 IPCP A LL

4K/60 Presentation Matrix Switcher Configurable from 6x4 to 8x2 with Control Processor, and LinkLicense

1 COMMSCOPE CO166S2-01F015

Category 6 U/UTP Reduced Diameter Patch Cable, Black, 15ft

2 MIDDLE ATLANTIC LBP-2A L-Shaped Lacer Bar, 2" Offset

L Shaped Lacer Bar, 2 Onset

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1 EXTRON TLP PRO 725T B

7" Tabletop TouchLink Pro Touchpanel, Black



COMMSCOPE CO166S2-01F015

Category 6 U/UTP Reduced Diameter Patch Cable, Black, 15ft



1 COMMSCOPE SL-CPLR-UTP-6



1 PURE RESONANCE SD5

Drop-in Ceiling Tile Speaker Array, 2' x 2', White

75 EXTRON SPK16P/1000

16/2 Speaker Wire, Plenum Rated, Blue

Two laser projectors will be the primary display devices in the room. The projectors will be mounted using drop-in tile kits. The projectors will be connected to the AV switcher using HDMI over Category cable extenders. Two motorized screens will be hung on the wall as a projection surfaces. A University provided monitor will reside on the desktop to display the video for the in-room PC. Each projector can display the same or different sources. NOTE: This document outlines the most likely screen to be used in a room with a 9 foot tall ceiling. An alternate screen is also noted which provides ambient light rejection. Actual screen size and material selection is dependent on ceiling height, viewing distance, and ambient light levels.

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*PROJECTOR PAN AND SCREEN TO BE INSTALLED BY???



1 DELL P2219H

[UKFE] - 21.5" Full HD LCD Monitor



1 CHIEF K1D120B

Height-Adjustable Desktop Monitor Mount, Single Display, Black



1 COMPREHENSIVE HDJ-J

HDMI Coupler, F to F



1 COMPREHENSIVE MHD48G-15PROBLKA

MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, Jet Black, 15ft



1 COMPREHENSIVE MHD48G-6PROBLK

MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, Jet Black, 6ft



2 DRAPER 101794TE

Motorized Projection Screen, 16:10 Aspect, 113" Diagonal, TecVision XH900X ALR



4 DA-LITE 40932

Motorized Screen Extension Mounting Bracket, White, No. 6



2 DRAPER 121225

LVC-S & LV-IV Control Station



100 EXTRON STP22P/1000

22/2 Serial Control/Audio Cable, Plenum Rated, Blue

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22/2 Serial Control/Audio Cable, Plenum Rated, Blue

2 EPSON L630U

PowerLite Series WUXGA 3LCD Laser Projector, 6,200 Lumens, 1.35-2.20:1 Throw Ratio

2 BTX CD-MX915H

MaxBlox Hood With Strain Relief

2 BTX CD-MX9F

MaxBlox 9-Pin D-Sub Connector, Female

2 CADDY MP2

Low Voltage Mounting Plate, 2 Gang

2 CHIEF CMS012W12 Inch Fixed Extension Pole, White

2 CHIEF CMS445

Speed-Connect Suspended Ceiling Tile Replacement Kit

CHIEF RPMAUW
 RPA Elite Universal Projector Mount with Keyed Lock, White

300 COMMSCOPE UN874043004/10
Category 6 U/UTP Cable, Plenum Rated, Blue

category o of orr cable, richam nated, blue

2 COMPREHENSIVE MHD48G-3PROWHT MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, White,

3ft

EXTRON DTP3 R 2014K/60 HDMI DTP3 Receiver with Audio De-Embedding

10 EXTRON STP22P/1000
22/2 Serial Control/Audio Cable, Plenum Rated, Blue

150 EXTRON XTP DTP 24P/1000

Category 6A S/UTP Cable, Plenum Rated, Blue

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2 MIDDLE ATLANTIC RLNK-215 Select Series PDU with RackLink, 2 Outlet



4 NIGEL B DESIGN NB-DMSS-W
Dual-Mount Small Platform Shelf, White

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Lecture Capture and Distance Learning

The room shall be equipped for lecture capture and distance learning. The room is capable of both of the following scenarios:

Scenario 1: An Echo360 appliance will enable the AV source displayed on the projector to be captured and broadcast on the Echo360 platform. Simultaneously, a ceiling-mounted camera and desktop boundary microphone will capture and broadcast the instructor on the Echo360 platform.

Scenario 2: An HDMI capture device will enable the ceiling-mounted camera and desktop boundary microphone to be ingested by the in-room PC for use in the Zoom platform. The in-room PC will be the only source with Zoom capability.



1 AXIS M4216-V

4 Megapixel Dome Camera, 3-6mm lens



75 COMMSCOPE UN874043004/10

Category 6 U/UTP Cable, Plenum Rated, Blue



2 COMPREHENSIVE HDJ-J

HDMI Coupler, F to F



1 COMPREHENSIVE MHD48G-3PROBLU

MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, Blue,



1 COMPREHENSIVE MHD48G-3PROORG

MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, Orange, 3ft



1 COMPREHENSIVE MHD48G-3PROWHT

MicroFlex Pro AV/IT Integrator Series 8K 48G HDMI Cable, White, 3ft



1 EPIPHAN AV.IO HD+

HDMI Video Capture Appliance



1 EXTRON A MINI/6

3.5 mm Male to Male Stereo Audio Cable, 6ft



1 EXTRON CSM 6

Captive Screw to Female 3.5 mm Mini Stereo Jack Adapter



1 EXTRON DA2 HD 4K PLUS

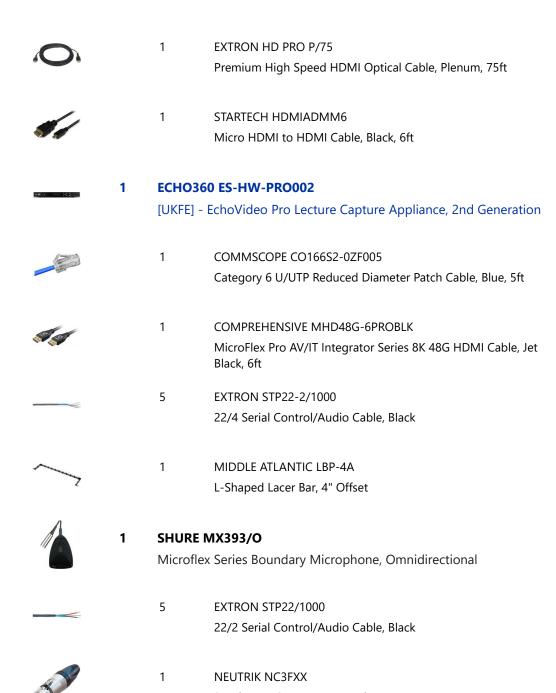
2 Output 4K/60 HDMI Distribution Amplifier

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3-Pole XLR Connector, Female

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Networking

UK ITS Networking will provide and install a pre-configured network switch for ethernet connectivity to all devices. This switch will be configured with multiple VLANs and must be connected in accordance with the attached plans.



[UKFE] - 24-Port 1 Gbps Network Switch with 24-Port PoE+ and 4 10 Gbps SFP

1 MIDDLE ATLANTIC LBP-2A L-Shaped Lacer Bar, 2" Offset

Power and Protection

Two intelligent PDUs will provide the power connectivity for all devices in and around the equipment rack. Each projector will have a locally-located intelligent PDUas well. UK ITS Networking will provide and install a power conditioner for the network switch. Lastly, the equipment rack must be bonded to a building electrical ground.

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*BONDING TO BE PERFORMED BY????

1 FURMAN M-8X2

[UKFE] - 8-Outlet Power Conditioner

2 MIDDLE ATLANTIC RLNK-915R

Select Series PDU with RackLink, 9 Outlet

- 2 COMMSCOPE CO166S2-0ZF005
 - Category 6 U/UTP Reduced Diameter Patch Cable, Blue, 5ft
 - 2 MIDDLE ATLANTIC LBP-4A L-Shaped Lacer Bar, 4" Offset

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Centralized equipment shall be mounted in a 21-space equipment rack. The attached plans outline all mounting locations and installation requirements.

1 EXTRON RSF 123

1RU 3.5" Deep Rack Shelf Kit, Gray

1 MIDDLE ATLANTIC LBP-6A
L-Shaped Lacer Bar, 6" Offset

1 MIDDLE ATLANTIC ERK-2128LRD

21 RU Floorstanding Rack, 28" Deep, Less Rear Door

- 5 MIDDLE ATLANTIC EB11 RU Flanged Blank Panel, Steel
- 1 MIDDLE ATLANTIC ERK-RR21
 21 RU Rear Rackrail for ERK Series, Pair
 - 1 MIDDLE ATLANTIC ERK-VRD-2121 RU Vented Rear Door for ERK Racks
- 5 MIDDLE ATLANTIC EVT1
 1 RU Vent Panel, Steel, 17% Open Area
 - 1 MIDDLE ATLANTIC HG 10-32 Rack Screw, Black Gloss, 100 Piece
- 2 MIDDLE ATLANTIC LBP-6A L-Shaped Lacer Bar, 6" Offset
 - 1 MIDDLE ATLANTIC LF-ISO
 Leveling Feet, Isolating, Set of 4
 - 1 MIDDLE ATLANTIC LVFD-21
 21 RU Vented Front Door for DWR and ERK Racks, 64% Open
- 2 MIDDLE ATLANTIC QBP-2 1 RU BlowervPanel, 100 CFM, 32dB

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An ADA compliant adjustable height desk will act as the instructor station for the room. The PC monitor will be mounted to an articulating mount which will be permanently attached to the worksurface. The control system keypad and several convenience outlets will be permanently attached as well.



1 FELLOWES 2R4830-HPL-GR

High Pressure Laminate Worksurface, 48" x 30", Light Gray



1 FELLOWES 2VT-LX-C36-30-BLK

Two-Leg Electric Height Adjustable Table Base for 36-60" x 30" Worksurfaces, Black



FELLOWES TROUGH-DLX-KIT-BLK

Deluxe Cable Management Trough, Black



1 FELLOWES TTMODACR-489-FST

Modesty Panel, 48" x 9", Frosted



1 KI SPSNAP

1

Strive Armless Task Stool, Black Poly Shell, Black Base/Frame



1 TRIPPLITE 602-15

5 Outlet Industrial Power Strip

Dated: 10/2024