



One Room – One Cable™ Architectural Specification

ORC-1: One Room – One Cable™ Kit:

The ORC-1 One Room – One Cable™ Kit shall consist of one (1) DXW-2 Wall Plate switcher, one (1) DXE-CAT-RX3-A HDBaseT Receiver with amplifier, one (1) DXB-8 8-button in-wall control keypad, two (2) SKR-22T Ceiling Tile Speakers and four (4) 3.5mm to DB-9 serial cables. The unit shall accept up to 2 simultaneous Video and Audio connections consisting of HDMI and VGA/Component/Composite signals and fit into a 2-gang Decora® style faceplate. These signals shall auto switch on connection and be sent over a single CAT5e/6/6a shielded or un-shielded cable incorporating HDBaseT standards and shall be able to extend input signals reliably over 330ft with a max distance of 600ft to an included HDBaseT Receiver. This Receiver shall have a two (2) channel 35 watt amplifier at four (4) ohms. The receiver unit shall also provide balanced line level audio connections for external audio input from background/paging/mic system as well as a de-embedded audio output. All Audio levels shall be controllable via RS232. The Receiver unit shall also provide two (2) normally-open relays controllable via serial RS232 for toggle and discrete open or closed functions. The relays shall have a max current rating of one (1) Ampere. An eight (8) button style control panel shall be included for all control of the entire system to include but not be limited to input switching, relays amplifier level and audio mute. The single keypad shall fit into single-gang Decora® style mount and provide serial RS232 control of any connected display. The entire system shall be powered by a single 90 watt power supply connected to the Receiver unit. Speakers shall be UL94V-0 compliant and fit into a 2'x2' drop-ceiling grid. Speakers must only be 2.2" thick and weigh a maximum of 5.5 pounds.

ORC-2: One Room – One Cable™ Kit:

The ORC-2 One Room – One Cable™ Kit shall consist of one (1) DXW-2E Wall Plate switcher, one (1) DXE-CAT-RX3-A HDBaseT Receiver with amplifier, one (1) DXB-8 8-button in-wall control keypad, two (2) SKR-22T Ceiling Tile Speakers and four (4) 3.5mm to DB-9 serial cables. The unit shall accept up to 2 simultaneous Video and Audio connections consisting of HDMI and VGA/Component/Composite signals and fit into a 2-gang Decora® style faceplate. These signals shall auto switch on connection and be sent over a single CAT5e/6/6a shielded or un-shielded cable incorporating HDBaseT standards and shall be able to extend input signals reliably over 330ft with a max distance of 600ft to an included HDBaseT Receiver. The wall plate shall be able to provide a 10/100baseT connection on the front of the panel for a PC or other networkable device to easily connect. The Receiver shall have a two (2) channel 35 watt amplifier at four (4) ohms. The receiver unit shall also provide balanced line level audio connections for external audio input from background/paging/mic system as well as a de-embedded audio output. All Audio levels shall be controllable via RS232. The Receiver unit shall also provide two (2) normally-open relays controllable via serial RS232 for toggle and discrete open or



closed functions. The relays shall have a max current rating of one (1) Ampere. An eight (8) button control panel shall be included for all control of the entire system to include but not be limited to input switching, relays amplifier level and audio mute. The single keypad shall fit into single-gang Decora® style mount and provide serial RS232 control of any connected display. The entire system shall be powered by a single 90 watt power supply connected to the Receiver unit. Speakers shall be UL94V-0 compliant and fit into a 2'x2' drop-ceiling grid. Speakers must only be 2.2" thick and weigh a maximum of 5.5 pounds.

ORC-3: One Room – One Cable™ Kit:

The ORC-1 One Room – One Cable™ Kit shall consist of one (1) DXW-2EU Wall Plate switcher, one (1) DXE-USB-DP1 USB 2.0 receiver, one (1) DXE-CAT-RX3-A HDBaseT Receiver with amplifier, one (1) DXB-8 8-button in-wall control keypad, two (2) SKR-22T Ceiling Tile Speakers and four (4) 3.5mm to DB-9 serial cables. The unit shall accept up to 2 simultaneous Video and Audio connections consisting of HDMI and VGA/Component/Composite signals and fit into a 2-gang Decora® style faceplate. These signals shall auto switch on connection and be sent over a single CAT5e/6/6a shielded or un-shielded cable incorporating HDBaseT standards and shall be able to extend input signals reliably over 330ft with a max distance of 600ft to an included HDBaseT Receiver. The wall plate shall be able to provide a 10/100baseT connection on the front of the panel for a PC or other networkable device to easily connect as well as a USB2.0 connection. The wall plates USB port shall be compatible for use with interactive projectors or displays as well as USB2.0 cameras and other devices capable of up to 480mbps. The Receiver shall have a two (2) channel 35 watt amplifier at four (4) ohms. The receiver unit shall also provide balanced line level audio connections for external audio input form background/paging/mic system as well as a de-embedded audio output. All Audio levels shall be controllable via RS232. The Receiver unit shall also provide two (2) normally-open relays controllable via serial RS232 for toggle and discrete open or closed functions. The relays shall have a max current rating of one (1) Ampere. An eight (8) button control panel shall be included for all control of the entire system to include but not be limited to input switching, relays amplifier level and audio mute. The single keypad shall fit into single-gang Decora® style mount and provide serial RS232 control of any connected display. The entire system shall be powered by a single 90 watt power supply connected to the Receiver unit. Speakers shall be UL94V-0 compliant and fit into a 2'x2' drop-ceiling grid. Speakers must only be 2.2" thick and weigh a maximum of 5.5 pounds.

DXW-2 Wall Plate:

The DXW-2 wall plate shall fit into a 2-gang low-voltage electrical box and be no thicker than 1.4" deep. The unit shall accept up to 2 simultaneous Video and Audio connections consisting of HDMI and VGA/Component/Composite signals. These signals shall auto switch when connected or be selectable via easy to navigate front



panel lighted switches or via RS232 control from 3rd party controllers. HDCP shall be supported and wall plate must have the ability to turn off HDCP hand-shaking at the input for proper use with non-HDCP encrypted sources. The output from the wall plate shall be a single CAT5e/6/6a shielded or un-shielded cable incorporating HDBaseT standards and shall be able to extend input signals reliably over 330ft with a max distance of 600ft with a max resolution of up to 1080P 60Hz. This cable shall **not** extrude straight out from the rear eliminating need for cable bend in back box. The unit shall have an Infra-Red (IR) receiver on the front allowing it to pass IR signals over the HDBaseT CAT cable to the Receiver unit for Control of displays or other IR controllable devices. The unit shall have a rear bidirectional serial RS232 connection for interfacing with a control system. RS232 control must also be able to pass over the CAT output to the Receiver side for Display (or other serial device) control. Unit shall provide 5v DC power to the 3rd party Serial controller. Unit shall incorporate Flex Power™ allowing it to be powered from either remote receiver location from a single power supply or via a PoE connection on the receiver. The unit shall also be able to be locally powered directly on rear of unit if desired. Front of wall plate shall be aesthetically pleasing and fit with standard decora® faceplates. Unit shall come in Black or White and be paintable if need be.

DXW-2E Wall Plate:

The DXW-2 wall plate shall fit into a 2-gang low-voltage electrical box and be no thicker than 1.4" deep. The unit shall accept up to 2 simultaneous Video and Audio connections consisting of HDMI and VGA/Component/Composite signals. These signals shall auto switch when connected or be selectable via easy to navigate front panel lighted switches or via RS232 control from 3rd party controllers. HDCP shall be supported and wall plate must have the ability to turn off HDCP hand-shaking at the input for proper use with non-HDCP encrypted sources. The unit shall be able to provide a 10/100baseT connection on the front of the panel for a PC or other networkable device to easily connect. The output from the wall plate shall be a single CAT5e/6/6a shielded or un-shielded cable incorporating HDBaseT standards and shall be able to extend input signals reliably over 330ft with a max distance of 600ft with a max resolution of up to 1080P 60Hz. This cable shall **not** extrude straight out from the rear eliminating need for cable bend in back box. The unit shall have an Infra-Red (IR) receiver on the front allowing it to pass IR signals over the HDBaseT CAT cable to the Receiver unit for Control of displays or other IR controllable devices. The unit shall have a rear bidirectional serial RS232 connection for interfacing with a control system. RS232 control must also be able to pass over the CAT output to the Receiver side for Display (or other serial device) control. Unit shall provide 5v DC power to the 3rd party Serial controller. Unit shall incorporate Flex Power™ allowing it to be powered from either remote receiver location from a single power supply or via a PoE connection on the receiver. The unit shall also be able to be locally powered directly on rear of unit if desired. Front of wall plate shall be aesthetically pleasing and fit with standard decora® faceplates. Unit shall come in Black or White and be paintable if need be.



DXW-2EU Wall Plate:

The DXW-2 wall plate shall fit into a 2-gang low-voltage electrical box and be no thicker than 1.4" deep. The unit shall accept up to 2 simultaneous Video and Audio connections consisting of HDMI and VGA/Component/Composite signals. These signals shall auto switch when connected or be selectable via easy to navigate front panel lighted switches or via RS232 control from 3rd party controllers. HDCP shall be supported and wall plate must have the ability to turn off HDCP hand-shaking at the input for proper use with non-HDCP encrypted sources. The unit shall be able to provide a 10/100baseT connection on the front of the panel for a PC or other networkable device to easily connect as well as a USB2.0 connection. Unit's USB port shall be compatible for use with interactive projectors or displays as well as USB2.0 cameras and other devices capable of up to 480mbps. The output from the wall plate shall be a single CAT5e/6/6a shielded or un-shielded cable incorporating HDBaseT standards and shall be able to extend input signals reliably over 330ft with a max distance of 600ft with a max resolution of up to 1080P 60Hz. This cable shall **not** extrude straight out from the rear eliminating need for cable bend in back box. The unit shall have an Infra-Red (IR) receiver on the front allowing it to pass IR signals over the HDBaseT CAT cable to the Receiver unit for Control of displays or other IR controllable devices. The unit shall have a rear bidirectional serial RS232 connection for interfacing with a control system. RS232 control must also be able to pass over the CAT output to the Receiver side for Display (or other serial device) control. Unit shall provide 5v DC power to the 3rd party Serial controller. Unit shall incorporate Flex Power™ allowing it to be powered from either remote receiver location from a single power supply or via a PoE connection on the receiver. The unit shall also be able to be locally powered directly on rear of unit if desired. Front of wall plate shall be aesthetically pleasing and fit with standard decora® faceplates. Unit shall come in Black or White and be paintable if need be.

DXE-CAT-RX3-A HDBaseT Receiver w/Amplifier:

The DXE-CAT-RX3-A shall be an HDBaseT compliant Receiver capable of receiving HDMI Video and Audio with control over a single CAT5e/6/6a shielded or unshielded cable with distances over 330ft and up to 600ft using CAT6a shielded with a max resolution of up to 1080P 60Hz. This unit shall have an on-board two (2) channel amplifier capable of driving up to four (4) speakers with a total power of 35 watts (RMS) per channel at 4ohms. This amplifier volume shall be controlled by a simple manufacturer-provided serial protocol able to be communicated from any 3rd party serial controller. This serial control shall be able to be connected directly to the unit or passed over the HDBaseT CAT cable from the transmitter side. The unit shall be capable of de-embedding any 2-channel audio being passed to the unit with individual volume control via RS232 independent of the amplifier volume level. This de-embedded audio output shall be accessible via a balanced line-level output on a



removable four (4) post Euro-style screw terminal on the rear of the unit. The unit shall have a two (2) channel balanced line-level audio input for incorporating background/mic/paging signals. This audio input shall be independently controllable via RS232 for level allowing it to be mixed into the programming material. The unit shall have two (2) normally open relays controllable via serial RS232 for toggle and discrete open or closed functions. The relays shall have a max current rating of one (1) Ampere. The unit shall have two (2) RJ45 10/100BaseT LAN connections . The unit shall be powered by a single 90 watt power supply and be capable of sending power back down the HDBaseT CAT cable to power any Aurora HDBaseT Transmitter. The unit shall be mountable via angle brackets affixed to the side of the unit allowing it to be wall or surface mounted. All useable connections should be accessible on the rear of the unit only.

DXE-CAT-RX3C-A HDBaseT Receiver w/Amplifier and Control:

The DXE-CAT-RX3C-A shall be an HDBaseT compliant Receiver capable of receiving HDMI Video and Audio with control over a single CAT5e/6/6a shielded or unshielded cable with distances over 330ft and up to 600ft using CAT6a shielded. This unit shall include an IP based LXC web control engine capable of serving up web pages for control from any web browsing device and offer direct control of the units functions over standard IP protocols. The IP control shall be able to send RS232 and IR commands through the unit to control any Serial or IR controllable device. This unit shall have an on-board two (2) channel amplifier capable of driving up to four (4) speakers with a total power of 35 watts (RMS) per channel at 4ohms. This amplifier volume shall be controlled by a simple manufacturer-provided serial and IP protocol able to be communicated from any 3rd party serial or IP web controller. This serial control shall be able to be connected directly to the unit or passed over the HDBaseT CAT cable from the transmitter side. The unit shall be capable of de-embedding any 2-channel audio being passed to the unit with individual volume control via RS232 independent of the amplifier volume level. This de-embedded audio output shall be accessible via a balanced line-level output on a removable four (4) post Euro-style screw terminal on the rear of the unit. The unit shall have a two (2) channel balanced line-level audio input for incorporating background/mic/paging signals. This audio input shall be independently controllable via RS232 for level allowing it to be mixed into the programming material. The unit shall have two (2) normally open relays controllable via serial RS232 for toggle and discrete open or closed functions. The relays shall have a max current rating of one (1) Ampere at 24vDC. The unit shall have two (2) RJ45 10/100BaseT LAN connections . The unit shall be powered by a single 90 watt power supply and be capable of sending power back down the HDBaseT CAT cable to power any Aurora HDBaseT Transmitter. The unit shall be mountable via angle brackets affixed to the side of the units allowing it to be wall or surface mounted. All useable connections should be accessible on the rear of the unit only.

DXE-CAT-RX3 HDBaseT Receiver:



The DXE-CAT-RX3 shall be an HDBaseT compliant Receiver capable of receiving HDMI Video and Audio with control over a single CAT5e/6/6a shielded or unshielded cable with distances over 330ft and up to 600ft using CAT6a shielded. The unit shall be capable of de-embedding any 2-channel audio being passed to the unit with individual volume control via RS232 independent of the amplifier volume level. This de-embedded audio output shall be accessible via a balanced line-level output on a removable four (4) post Euro-style screw terminal on the rear of the unit. The unit shall have a two (2) channel balanced line-level audio input for incorporating background/mic/paging signals. This audio input shall be independently controllable via RS232 for level allowing it to be mixed into the programming material. The unit shall have two (2) normally open relays controllable via serial RS232 for toggle and discrete open or closed functions. The relays shall have a max current rating of one (1) Ampere at 24vDC. The unit's serial control shall be able to be connected directly to the unit or passed over the HDBaseT CAT cable from the transmitter side. The unit shall have two (2) RJ45 10/100BaseT LAN connections . The unit shall be powered by a single 90 watt power supply and be capable of sending power back down the HDBaseT CAT cable to power any Aurora HDBaseT Transmitter. The unit shall also be able to be powered without any physical power supply by using a single PoE connection minimizing AC power requirement at the display. The unit shall be mountable via angle brackets affixed to the side of the unit allowing it to be wall or surface mounted. All useable connections should be accessible on the rear of the unit only.

DXE-CAT-RX3C HDBaseT Receiver w/Control:

The DXE-CAT-RX3C shall be an HDBaseT compliant Receiver capable of receiving HDMI Video and Audio with control over a single CAT5e/6/6a shielded or unshielded cable with distances over 330ft and up to 600ft using CAT6a shielded. This unit shall include an IP based LXC web control engine capable of serving up web pages for control from any web browsing device and offer direct control of the units functions over standard IP protocols. The IP control shall be able to send RS232 and IR commands through the unit to control any Serial or IR controllable device. The unit shall be capable of de-embedding any 2-channel audio being passed to the unit with individual volume control via RS232 independent of the amplifier volume level. This de-embedded audio output shall be accessible via a balanced line-level output on a removable four (4) post Euro-style screw terminal on the rear of the unit. The unit shall have a two (2) channel balanced line-level audio input for incorporating background/mic/paging signals. This audio input shall be independently controllable via RS232 for level allowing it to be mixed into the programming material. The unit shall have two (2) normally open relays controllable via serial RS232 for toggle and discrete open or closed functions. The relays shall have a max current rating of one (1) Ampere at 24vDC. The unit's serial control shall be able to be connected directly to the unit or passed over the HDBaseT CAT cable from the transmitter side. The unit shall have two (2) RJ45 10/100BaseT LAN connections . The unit shall be powered by a single 90 watt power supply and



be capable of sending power back down the HDBaseT CAT cable to power any Aurora HDBaseT Transmitter. The unit shall also be able to be powered without any physical power supply by using a single PoE connection minimizing AC power requirement at the display. The unit shall be mountable via angle brackets affixed to the side of the unit allowing it to be wall or surface mounted. All useable connections should be accessible on the rear of the unit only.

DXB-8 8-Button Control Keypad:

The DXB-8 shall be an eight (8) button serial in-wall control keypad. The Buttons shall be laser etched for proper visibility of functions as well as removable and interchangeable. Each button shall have a programmable backlight with up to three (3) colors selectable for activation on push, release and toggle. The unit shall have two serial ports. The buttons shall be able to activate serial macros of one or more commands executed on a press or release of each button. The unit shall also offer press-and-hold macro activation for devices requiring ramping of functionality (volume, camera panning etc...). The unit shall be programmable from a simple-easy to use programming software. This software shall be free of charge for the installer and available for download from manufacturer's web site. The unit shall be expandable combining up-to eight (8) DXB-8 units for applications requiring more serial macros.

SKR-22T Ceiling Tile Speaker:

The SKR-22T shall be a ceiling tile speaker able to be placed into a two foot by two foot (2'x2') drop-ceiling tile grid. The unit shall also be able to fit into a six hundred millimeter by six hundred millimeter (600mm x 600mm) ceiling tile opening for use internationally by removing outer ring. The speaker shall be capable of twenty-five (25) watts RMS power handling at four (4) ohms. All connections must be enclosed and unit must comply with UL94V-0 standard for safety of flammability. Unit must be a maximum of 2.2 inches thick and weigh no more than 5.5 pounds (lbs.). Unit must have eyelets on the rear of the unit for securing via cables to a fixed point above the speaker. The unit must produce a sound field that is even across the front surface of the unit and not create "hot-spots" of sound pressure. Frequency response must be 50Hz - 15kHz (+/-10 decibels) at a minimum.

SKR-22T-XFR 70v/100v Ceiling Tile Speaker:

The SKR-22T shall be a ceiling tile speaker able to be placed into a two foot by two foot (2'x2') drop-ceiling tile grid. The unit shall also be able to fit into a six hundred millimeter by six hundred millimeter (600mm x 600mm) ceiling tile opening for use internationally by removing outer ring. The speaker shall be capable of twenty-five (25) watts RMS power handling and capable of accepting signal over a 70volt or 100volt amplified transmission system. All connections must be enclosed and unit must comply with UL94V-0 standard for safety of flammability. Unit must be a maximum of 2.2 inches thick and weigh no more than 5.5 pounds (lbs.). Unit must have eyelets on the rear of the unit for securing via cables to a fixed point above the



speaker. The unit must produce a sound field that is even across the front surface of the unit and not create "hot-spots" of sound pressure. Frequency response must be 50Hz – 15kHz (+/-10 decibels) at a minimum.