Product Introduction and Guide July 2018

Introducing the NEXT GENERATION of Axium Control and Amplifiers

Axium

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Contents

AUTOMATION AND CONTROL

AX-R4D

What is it?

Quite simply, the Axium AX-R4D allows control of IR, RS232 and IP devices using multiple iOS and Android devices as well as the Axium AX-KPC-N or AX-KPD keypad(s) as the user interfaces.

The AX-R4D facilitates 2-way communication between these devices including a wide range of 3rd party products bringing Metadata back to the end user.

Use the AX-R4D in a basic home theatre and multiroom installations right through to complex multiroom, conference room, hospitality and food service environments. The AX-R4D transmits all data over the network securely by using data encryption, making it ideal for use where security is a high priority (banks, office environments, etc.).

Devices and Software supported features

IR:

The AX-R4D has eight routed emitter outputs, however each output can handle multiple devices. In addition, four output ports support the S4 sensor. More IR ports can be added using the Axium EX4-N connecting block (no additional IR routing via the EX4-N). IR can also be routed from a AX-1250, AX-400DA or the AX-Mini-4 to a port on the AX-R4D or AXR1D.

Serial (RS232):

There are four physical Serial ports on the AX-R4D. Each port allows full 2-way communication.

IP:

The AX-R4D also allows IP control of up to 32 simultaneous connections.

Dali (Lighting):

Four Dali control legs are fitted to the AX-R4D. Each leg allows for up to 64 channels of Dali devices to be controlled, giving a total of 256 devices.

Zone Setup:

Given the AX-R4D works over IP, multiple AX-R4D/ AX-R1D units can be combined to create a large system.
The number of units on a network is limited only by the capabilities of your network.

Control interfaces:

The AX-R4D has 2 keypad ports (for AX-KPD or connection of a AX-IRFX3). As the AX-KPC-N has IP connectivity the number of AX-KPC-N's on a network is limited only by the capabilities of your network peripheral equipment.
Multiple iOS and Android devices may be added to each System. The App is available on the App Store and Play Store and is a FREE download.

Commands:

- o Dali command. Set Level, On, Off, toggle/dim and Activate scene o Relay control. Open, Close, Toggle or pulse a relay
- o Input Counter commands. Allows a command based on multiple input triggers – e.g. Press a single button 10 times to trigger an event

- o Snooze command (works with Scheduled events). Allows for a Snooze style function within the automation environment.

  E.G. a scheduled trigger issues a command to open the blinds and start music playing. The Snooze command could turn down the music and close the blinds. The original trigger will then re activate after a given duration. There is also the facility to enable or disable the scheduled trigger.

Triggers:

Commands can be triggered in numerous ways:

- o Voltage level (0-10V) - e.g. a water-level metre
- o Frequency - e.g. wind sensor input (the faster the wind blows, the higher the frequency output)
- o Command match (IR/RS232/IP) – e.g. if a device is switched off manually, the AX-R4D can match the power off command, and run a macro to turn off the rest of the system. Another example – on the arming of an alarm, set a macro to turn off lights.
- o Sunrise/sunset +/- offset available o Scheduled event - i.e. Use as an alarm, water the plants or turn on outside lights etc.
- o Monitor a variable o AX-S4 Sensor status

AX-R4D Hardware

With 4x DALI controller (256 devices), 2-way routed RS232, Ethernet, routed IR, real-time clock with internet lookup, Analog level detect inputs (via AX-S4), command match triggers and relay drivers, the power of 2 way communication is realised in this powerful package.

Specifications

- o 4x DALI Control ports
  - • Maximum of 256 devices o 1x Ethernet RJ45 port: 10/100Mbs, DHCP or Fixed IP
  - • Maximum of 32 IP connections
  - • Configurable IP code specific detection triggers. o 4x Dedicated RS232 DB9 port, max throughput =

115 k baud port(s) may be configured with code specific detection triggers

- o 4x IR emitter output / sensor inputs: 3.5mm jacks. ☐ These jacks work concurrently as an IR output and sensor input.
  - • The IR port(s) route IR signals from a specific keypad port(s) or the internal IR generator.
  - • The Sensor input(s) may be configured as level or frequency threshold triggers.
  - • More IR ports can be added via a EX4-N but without routing or sensor compatibility o 4x IR emitter

outputs: 3.5mm jacks

  - • (more IR ports can be added via a EX4-N but without routing) o Port activity LED indication on each IR

port and each RS232 comms port

- o Real-time internal clock, with setup & synchronisation via internet including astronomical clock and time based scheduled tasks
  - • backed up by a super cap which can keep it running for several days if power is lost o 2x Analogue level

threshold triggers: 0 - 10V

  - • Inputs may also be configured as frequency threshold triggers.
- o DIN mount compatible o 2x 12VDC Relay drivers: 300mA max active pull down. o 2x Axium RJ45 port: For connection to an Axium AX-KPC-N, AX-KPD keypad, or IRFX3 receiver.
- o USB port for programming and Firmware Updates. Over the air updates supported via the internet* o IR Learning Receiver
- o Powered by 12VDC 1A power supply

An internet connection is required for the over the air updates. ISP charges may apply. Future services may be added. Additional charges may apply to activate these features.

AX-R1D

What is it?

The baby brother of the AX-R4D. The AX-R1D shares many of the features of the AX-R4D but with less connections.

Quite simply, just like the AX-R4D, the Axium AX-R1D allows control of IR, RS232 and IP devices using multiple iOS and Android devices as well as Axium AX-KPC-N or KPD keypad(s) as the user interfaces.

The AX-R1D facilitates 2-way communication between these devices including a wide range of 3rd party products bringing Metadata back to the end user.

Use the AX-R1D in basic home theatre and multiroom installations right through to complex multiroom, conference room, hospitality and food service environments. The AX-R1D transmits all data over the network securely by using data encryption, making it ideal for use where security is a high priority (banks, office environments, etc.).

Devices and Software supported features

IR:

The AX-R1D has two routed emitter outputs, however each output can handle multiple devices. In addition, both output ports support the AX-S4 sensor. More IR ports can be added using the Axium AX-EX4-N connecting block (no additional IR routing via the EX4-N). IR can also be routed from an AX-1250, AX-400DA or the AX-Mini-4 to a port on the AX-R4D or AX-R1D.

Serial (RS232):

There is one physical Serial port on the AX-R1D. This port allows full 2-way communication.

IP:

The AX-R1D also allows IP control of up to 16 simultaneous connections.

Dali (Lighting):

One Dali control leg is fitted to the AX-R1D, this allows for up to 64 channels of Dali devices to be controlled.

Zone Setup:

Given the AX-R1D works over IP, multiple AX-R4D/ AX-R1D units can be combined to create a large system.
The number of units on a network is limited only by the capabilities of your network.

Number of Control interfaces:

The AX-R1D has 1 keypad port (for AX-KPD or connection of a AX-IRFX3). As the AX-KPC-N has IP connectivity the number of AX-KPC-N's on a network is limited only by the capabilities of your network peripheral equipment. Multiple iOS and Android devices may be added to each System. The App is available on the App Store and Play Store and is a FREE download.

Commands:

- o Dali command. Set Level, On, Off, toggle/dim and Activate scene o Relay control. Open, Close, Toggle or pulse a relay
- o Input Counter commands. Allows a command based on multiple input triggers – e.g. Press a single button 10 times to trigger an event
- o Snooze command (works with Scheduled events). Allows for a Snooze style function within the automation environment.

E.G. a scheduled trigger issues a command to open the blinds and start music playing. The Snooze command could turn down the music and close the blinds. The original trigger will then re activate after a given duration. There is also the facility to enable or disable the scheduled trigger.

Triggers:

Commands can be triggered in numerous ways:

- o Voltage level (0-10V) - e.g. a water-level metre
- o Frequency - e.g. wind sensor input (the faster the wind blows, the higher the frequency output)
- o Command match (IR/RS232/IP) – e.g. if a device is switched off manually, the AX-R1D can match the power off command, and run a macro to turn off the rest of the system. Another example – on the arming of an alarm, set a macro to turn off lights.
- o Sunrise/sunset +/- offset available o Scheduled event - i.e. Use as an alarm, water the plants or turn on outside lights etc.
- o Monitor a variable o AX-S4 Sensor status

AX-R1D Hardware

With 1x DALI controller (64 devices), 2-way RS232, Ethernet, routed IR, real-time clock with internet lookup, Analog level detect inputs, command match triggers and relay drivers, the power of 2-way communication is realised in this powerful package.

Specifications

- o 1x DALI Control port
  - • Maximum of 64 devices o 1x Ethernet RJ45 port: 10/100Mbs, DHCP or Fixed IP
  - • Maximum of 16 IP connections
  - • Configurable IP code specific detection triggers
- o 1x Dedicated RS232 DB9 port, max throughput = 115 k baud port may be configured with code specific detection triggers
- o 2x IR emitter output / sensor inputs: 3.5mm jacks.
  - • These jacks work concurrently as an IR output and sensor input
  - • The IR port(s) route IR signals from a specific keypad port(s) or the internal IR generator
  - • The Sensor input(s) may be configured as level or frequency threshold triggers
  - • More IR ports can be added via a EX4-N but without routing or sensor compatibility o Port activity LED indication on each IR port and the RS232 comms port
- o Real-time internal clock, with setup & synchronisation via internet including astronomical clock and time based scheduled tasks
- o 2x Analogue level threshold triggers: 0 - 10V
  - • Inputs may also be configured as frequency threshold triggers.
- o DIN mount compatible o 2x 12VDC Relay drivers: 300mA max active pull down. o 1x Axium RJ45 port: For connection to an Axium AX-KPC-N, AX-KPD keypad, or IRFX3 receiver.
- o USB port for programming and Firmware Updates. Over the air updates supported via the internet* o IR Learning Receiver
- o Powered by 12VDC 1A power supply or PoE (switch or injector)

An internet connection is required for the over the air updates. ISP charges may apply. Future services may be added. Additional charges may apply to activate these features.

Common features

Both the R4D and R1D support seamless integration with the Axium AX-1250, AX-400DA and the Mini-4 amplifiers as well as C-Bus, Fibaro, Bticino and DALI lighting control to name a few. Both controllers also have the ability for complete flow control including but not limited to Flags, Variables, external command matching, Page jumps from other user interfaces (iOS, Android or keypad) as well as custom scripting.

Combined with the ability to send commands from either iOS, Android, Axium KPD or KPC-N, there is no job to large or small that Axium can't control.

CONTROL

AX-S4 Sensor

Adding an AX-S4 Sensor to your system provides detection of Audio, Video or Current enabling enhanced control of system power on / off and status.

The Axium AX-S4 Quad Sensor can accurately detect Mains Current, Digital Audio, Analog Audio or Video signals without interfering with the original signal by using a Magnetic Sensor to detect very small levels of current.

In addition, this clever device has a manual gain adjustment to enable the detection of the smallest signals and an adjustable "detect off delay" so gaps between songs do not cause false triggers.

The AX-S4 is designed to connect to the IR out of an Axium AX-R4D or AX-R1D router. This connection allows "flag" status setting in macros for accurate source or system status in an Axium System.

Specifications o Switch 'On'
Resistance: 3.5Ω o Switch Current:
0.22A continuous
- o 0.8A pulsed <300µs
- o Detect LED indicator – Orange o RCA input
resistance: 200KΩ
- o Delay adjustment: 2 – 20 seconds
- o Gain: adjustment range suitable for detecting a
minimum of:
    - 0.1A current in Mains conductor (must be firmly seated & optimally rotated in the sensing channel)
    - 1.0V CVBS composite video or Y component video signal
    - 0.5V SPDIF Digital Audio signal
    - 0.5V RMS analog audio signal o Cable length: 2m o Isolation:
    - RCA: 200VDC (500VAC)
    - Current: >5KV~
- o IR emitter output socket
- o Mounting flange
- o Power requirement: 12VDC 10mA
- o Dimensions: 32mm x 55mm x 14mm
- o Ambient Operating Temperature: 0 - 50℃

AX-IRFX3

The Smallest of small Data-Stream Filtered Infra-Red Receiver.

The AX-IRFX3 is Plasma, LCD, LED & Sun light tolerant, utilising leading edge technology to filter the received Infrared (IR) data packets. A microprocessor filters then re-transmits & re-modulates in real-time, with priority to reconstruct Foxtel IQ/My Sky HD (Pace HD) IR commands.

With superior performance in rejecting noise and interference using a dual lens receiver system which incorporates a High-Q optical filter removing the problematic LCD/Plasma frequencies. In addition, an EMI shield has been integrated to provide even greater compatibility and more mounting options.

The AX-IRFX3 is suitable for surface mounting on Televisions, Plasma or LCD displays, cabinets, appliances, or behind speaker grills.

The AX-IRFX3 can be connected directly to either the IR data port on the Axium AX-1250, AX-400DA or the AX-Mini-4 amplifiers, the AX-R4D/AX-R1D keypad ports or even used in standalone configuration with a AX-EX4-N connecting block.

Black, Silver and White covers are all supplied free with the AX-IRFX3 (including when purchased in the AX-IR KIT 4).

Specifications

- o Excellent IR receiver range: 8m ± 45° (Depends on ambient light levels and remote-control strength)
- o Receives / processes very short pulse burst codes systems as used by some set top box receivers
- o Wide input voltage range: 8 - 16VDC 50mA
- o Amplifier ON indicator and IR reception "flash back" indicator. (Both can be turned off)
- o Default modulation frequency, : 38KHz ± 1%
- o Multiple IRFX3 receivers may be connected in parallel
- o Excellent off axis reception, giving >50% range when 45° off axis
- o Flat 4 core 28AWG 2m black lead o Ingenious Rear / Bottom cable exit
- o Enhanced EMI immunity with Data Stream filtering
- o Rejects IR disturbances that can slow down or cause intermittent problems on IR systems o Fitted with RJ45 for easy connection via wall plates or direct to EX4-N
- o Supplied with 3 shell colours
    - • Black
    - • White
    - • Silver o Dimensions: 9mm x 22mm x 6.5mm

AX-EX4 2

The new AX-EX42 hosts a few new features over its predecessor the AX-EX4N.

There are now two. These can accommodate either 2 x IRFX3 Single IR Receivers or you can connect our EXP4 Expander board to add a further 4 x IRFX3 IR Receivers to the system. The EX4 2 also allows for up to 4 x Single SIR1 Emitters to be connected.

The AX-EX42, like the AX-EX4N, has been designed to give optimal performance in any IR installation including eliminating current hogging, giving each IR port equal current distribution. In addition, EMI shielding has been Integrated to provide even greater noise rejection from the surrounding environment.

With its slim profile and small footprint, the AX-EX42 easily fits into small places and the RJ45 connectors makes hook-up a breeze.

Specifications

o Ingenious IR return path over the CATx cable via the RJ45 connector
o Excellent IR distribution giving equal output to all ports.
o 4x IR Emitter Ports
o Wide input voltage range: 8 - 16VDC 50mA
o Multiple AX-IRFX3 receivers may be connected in parallel
o Superior EMI rejection
o 2 x RJ J45 connection options
o Dimensions:
  • Width 34mm
  • Length 72mm
  • Height 16mm

AX-EX1 2

Like the EX42, the EX12 has 1x IR Emitter port to accommodate an SIR2 Dual Emitter.

Specifications

o Ingenious IR return path over the CATx cable via the RJ45 connector
o Excellent IR distribution giving equal output to all ports.
o 1x IR Emitter Port
o Wide input voltage range: 8 - 16VDC 50mA
o Multiple AX-IRFX3 receivers may be connected in parallel
o Superior EMI rejection
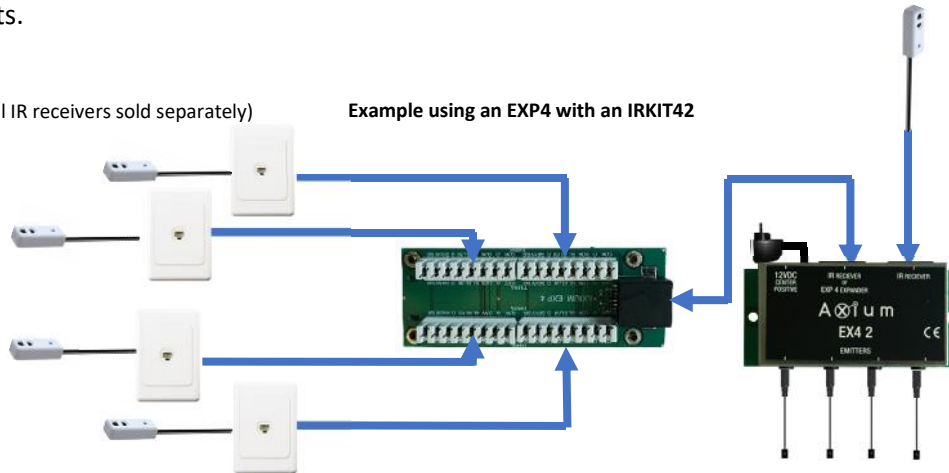o 2 x RJ J45 connection options o Dimensions: W 34mm L 72mm H 16mm

AX-EXP4

The new AX-EXP4 allows for convenient system expansion of up to 4 additional IRFX Single IR Receivers via convenient punch down connectors. An RJ45 provides easy connection to the EX42, EX12 expander boards supplied with the IRKIT42 and IRKIT12 IR Kits.
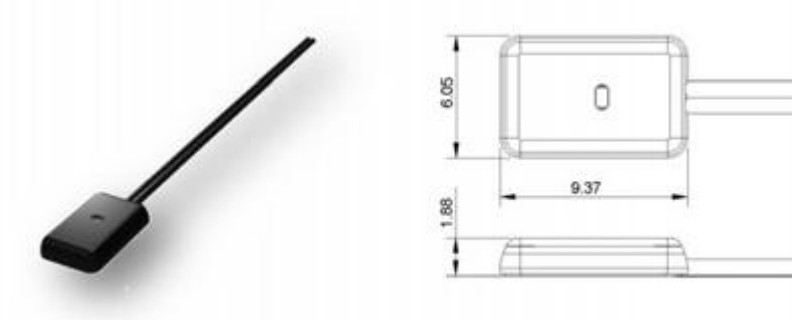
(All additional IR receivers sold separately) **Example using an EXP4 with an IRKIT42**

Specifications

o   All receivers are wired in parallel.
o   Up to an additional 4x IRFX Receivers can be connected
o   Dimensions:
   •   Width 34mm
   •   Length 91mm
   •   Height 14mm

AX-SIR1 and AX-SIR2

The AX-SIR1 and AX-SIR2 have been re-designed from the ground up. Featuring a new IR diode and a white feedback LED separated by the micro sized circuit board, IR bleed has virtually been eliminated.
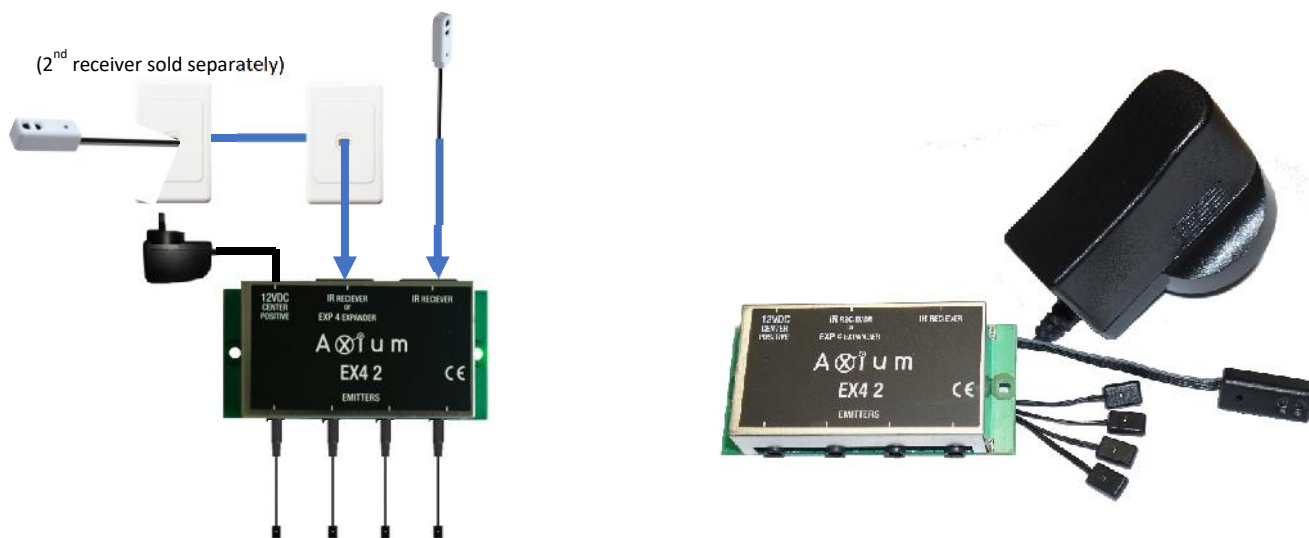
The ultra slim profile means the emitter blends into the device you are controlling. This not only looks great but eliminates the risk of the emitter being accidently knocked out of place and includes high grade 3M branded adhesive to keep the emitter right where you need it.

Specifications

- o Only 1.88mm thick
- o Blink, single or dual emitters types
- o Emitters have high output 940nm Infrared emission o Visible White feedback LED o Black feedback cover pad supplied o 1m cable with 3.5mm plug
- o Micro sized low profile with a tiny footprint
- o Strong acrylic adhesive mounts supplied some spares included o IR dispersion angle <25° o Maximum current: 20mA
- o Emitter Case dimensions: 6.1mm x 9.4mm x 1.88mm

AX-IR KIT42

The IRKIT42 is a complete IR kit, controlling up to 4 IR devices via an IRFX Single IR Receiver. If more IR Receivers are required, you add a second IRFX3 receiver to the additional RJ45 connector or use the EXP4 Expander that allows for 4 further IR receivers to be connected. (See the EXP4 wiring example)
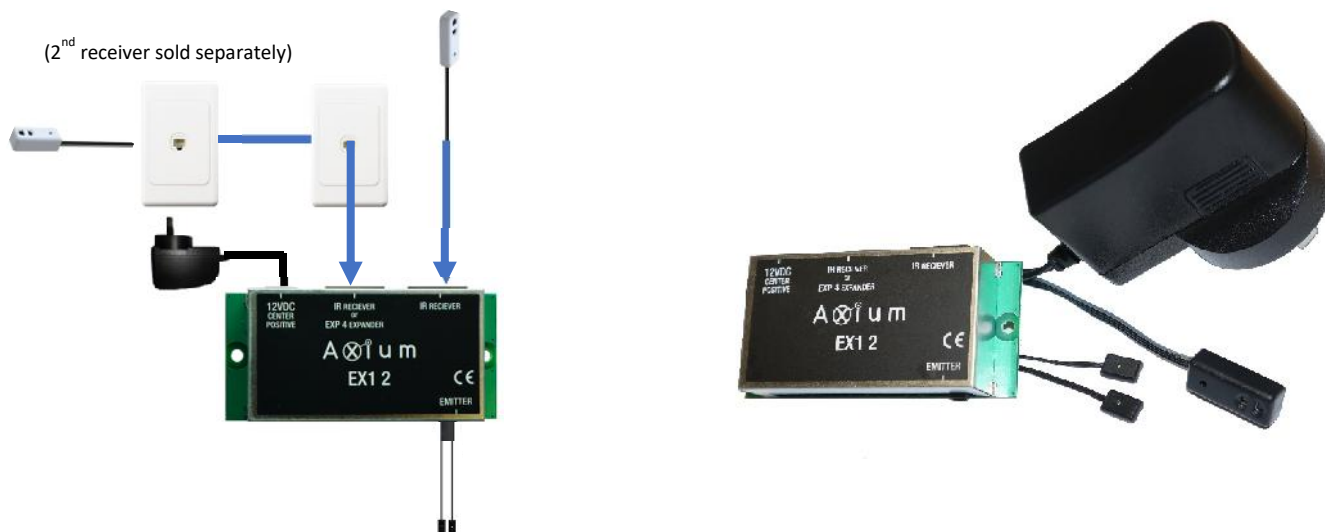

This pack contains everything required to satisfy your IR needs:

1x AX-IRFX3 (IR Receiver, 3 colour shells included)
1x EX4 2 (IR Connecting block)
4x AX-SIR1 Single Emitter (Ultra Slim IR Emitters <2mm thick)
1x 12v 500mA PSU (500mA minimum spec)

AX-IR KIT12

The IRKIT12 is a complete IR kit control up to 2 IR devices with the SIR2 Dual emitter via an IRFX Single IR Receiver. If more IR Receivers are required, you add a second IRFX3 receiver to the additional RJ45 connector or use the EXP4 Expander that allows for 4 further IR receivers to be connected. (See the EXP4 wiring example)

This pack contains everything required to satisfy your IR needs:

1x AX-IRFX3 (IR Receiver, 3 colour shells included)
1x EX12 (IR Connecting block)
1x AX-SIR2 Dual Emitter (Ultra Slim IR Emitters <2mm thick)
1x 12v 500mA PSU (500mA minimum spec)

AX-KPC-N

The Axium AX-KPC-N keypad is a programmable 2.8" colour LCD touch screen.

The AX-KPC-N is capable of learning and sending IR commands to control virtually any IR and IP controlled device. The AX-KPC-N can be powered in a number of ways either directly via the Legacy Axium port or via a PoE switch and it can also be connected directly to any Axium amplifier or controller via the keypad port. The AX-KPC-N is also flexible enough to be used as a standalone keypad.

When used with an Axium Multi-Zone Amplifier full 2-way feedback of source selection, power, mute & volume status is provided. Full 2-way RS232 and IP control is available on the AX-KPC-N when used with an Axium AX-R4D or AX-R1D and the prebuilt Axium applets. We can provide a free template that allows control of four Axium Amplifier Zones with Auto population of Source and Zone names.

Setup by the ADP software, the AX-KPC-N includes a host of features to simplify programming and enhance amplifier and source equipment control including pre-defined layouts.

The AX-KPC-N ships with both black and white cover plates and can be installed and programmed in either Portrait or Landscape orientations. A simple slice of a knife is all that is required to turn the AX-KPC-N into the EURO mount configuration.

Specifications

- o 2.8" LCD touch panel
- o Contrast ratio = 500:1
  - Viewing angle =160° (H & V)
  - 240 (RGB) x 320 Dot 64K Colours o Operating voltage: 12VDC ± 3V, 60mA – 100mA o 8Mbytes Flash for graphics and IR commands
- o Both Modulated and Pulse IR codes learning. Modulation up to 500 KHz o Fully customizable via Axium Design Portal o Portrait or Landscape orientations o User defined button sounds: wav file
- o Range of Skins available for graphical user interface (GUI)
- o Single touch Control types: Animated Buttons, Buttons with feedback, Sliders, Numeric Readouts and Applets providing control & Metadata display
- o Transparent and multilayer images supported.
- o Background images using PNG, BMP, JPG or GIF formats may be imported o Anti-aliased Text with user defined Font, Colour and Unicode support o Polygon button outlines provide very close button spacing
- o 2-Way RS232, Ethernet and IR routing when used with the Axium AX-R4D/AX-R1D
- o Send direct TCP commands including PJLink o Over the air fw updates via the internet*

o Mounting options for European, Australasian and USA style flush box. Both WHITE and BLACK cover plates supplied
o Up to 300m CAT5E 'Home Run' cable using the legacy connection o Up to 95m using the IP connection

An internet connection is required for the over the air updates. ISP charges may apply. Future services may be added. Additional charges may apply to activate these features. The legacy RJ45 bus connector is still available for jobs where you need to replace an existing keypad or where you do not have a PoE switch to power the AX-KPC, however the AX-KPC-N does not support RS485 and it is not compatible with the first version of the AX-R4.

AX-KPE Plug and Play keypad

The AX-KPE requires no programming, instead it adopts the zone it controls from the amplifier controller port it is connect to. Source control can be achieved using the original manufacturers remote and the IR receiver/target on the front of the keypad.

As the KPE is powered directly from by the controller ports it needs no additional power supply. Slim and discrete styling with tactile buttons and screwless décor cover plates, it is a functional system controller available in white only

Specifications
o Plug and Play versatility
o No Programming required
  • Automatically adopts the zone assigned to the keypad port on the amplifier for ultimate connection and
o Compatible with all current Axium Amplifiers.
o IR pass through for source control using original manufactures remote control
o Full source selection functionality incl led indicator
o Power On Off, Vol Up Down
o LED indication of the amplifier power status, source selection, volume and mute
o Connection: RJ45 plug
o Dimensions
  • Width 75mm
  • Length 120mm

MEDIA MANAGER

AX-AMM

The AX-AMM features 4 digital coaxial connections and 8 internal network streams. (This provides a total of 12 physical sources available to any Axium amplifier on the network*)

The AMM supports Apple Airplay, Spotify Connect, TuneIn radio, Tidal, Network shares (UPnP, SMB) play form your local device and Axium favourites. Axium will offer new services via a firmware update as they become available. The AMM supports a large list of audio files, included in this list is ACC (MPEG4), FLAC (lossless) and WAV files. It also supports up to 96kHz sampling rates.

Complete customization is also available via ADP where you (among other things) device what outputs are connected to what inputs on the AX-1250 and AX-Mini4 amplifiers as well as what streaming services to include.

Specifications

- o Apple Airplay for each media player stream**
- o Spotify Connect for each media player stream**
- o TuneIn Internet streaming**
- o Local mobile device music playback (iOS and Android) and UPnP push functionality
- o Network share (NAS or PC) playback (UPnP, DLNA and SMB)
- o 12 Audio streams
    - o 1 – 4 Digital Coax (PCM)
    - o 5 – 12 Network streams via RJ45)10/100)
- o Support for up to 96KHz 16 Bit stereo audio
- o Send IR to control 3rd party devices***
- o Auto integration into AX-Mini4 and AX-1250 media players
- o KPC-N applet
- o Alarm capabilities via amplifier
- o One 12VDC power supply
- o Static or DHCP network connection
- o Dimensions: 110 L x 89 W x 30 D mm

Audio formats supported as of December 2016	
MP3	Standard and variable bit and sample rates
WAV	8 and 16bit PCM up to 48kHz. No metadata. (96kHz)
M4A/MP4	Up to 48kHz and 576kBits/s. (96kHz)
AAC	48, 96K
OGG/OGA	2Ch, 500kBits
FLA C	Up to 48 kHz and 24 bit 96kHz
HD FLAC 24 / 96	24,96K
HD WAV	24,96K
ALAC	24, 96K
AIFF	24, 96K

** An internet connection is required for internet streaming service. ISP charges may apply. Future services maybe added.

***Feature set on coming soon

Specifications and features subject to change without notice. Please check www.axiumcontrol.com for latest updates

MULTI-ROOM AUDIO

AX-Mini-4

The AX-Mini-4 features 4 powered zones delivering 30 watts per Zone with two analogue and two internal media streamers, these can stream from a local network and the Internet. TuneIn and local device audio, Network playback and a UPnP media renderer are supported**.

There are two digital audio source, these are configurable to be either inputs for digital source inputs or outputs to allow for connection to external amplifiers or sound bars etc. E.G. A home theatre receiver. When two or more Axium amplifiers are on the network (AX-Mini-4 or AX-1250) sources from each amplifier can be distributed or shared between each other. The AX-Mini-4 can distribute 4 sources and receive 4 distributed sources at one time, a total of 32 distributed sources are available.

The AX-Mini-4 may be small but it has a lot of the features and functions available on our flagship unit the AX-1250. These include the endless ways to connect and control the AX-Mini-4.

The keypad ports provide IR input control and the Network port allows for IP control. There are two IR outputs, one on the main unit and the other on the BAL-TX (supplied), these allow the AX-Mini-4 to control virtually any IR or IP controllable 3rd party device. The AX-Mini-4 is expandable to 32 Zones and the internal webpage has unique customization allowing IR commands to be attached to buttons for source control. Also supported is a user-based source and zone lockout functionality via customizable user accounts and the ability for built-in automation via Zone and Source event triggers.

By using the FREE iOS or Android app you can use the Amplifier as a controller with IR and IP macro capability. Add the KPC-N 2.8" colour touchscreen and enjoy full two-way communications from each zone on both interfaces.

There is an unbelievable amount of audio control on the Mini-4, starting with 600ms of audio delay for each Zone and each Source, adjustable input levels, bass, treble, balance and loudness adjustments per zone, maximum volume limits and turn On volume setup is also available. Zones can be configured to be independent or share a source with linking power and or volume control

The AX-Mini-4 also boasts the fastest and easiest setup available on any Multi-room audio system!
1. Connect speakers and sources
2. Connect the Mini 4 to your network via the Ethernet port
4. Connect the power supply
5. Download the free Axium app for iOS or Android to your device.

6. Open the Axium app on your device. The App will automatically discover all the Axium AX-Mini 4s on your network
7. Listen to music!

If you have more than one AX-Mini-4 they will automatically be assigned the next four available zones. I.E. Zone 5-8, 9-12 etc.

A more advanced configuration can be achieved using the webpage and or ADP.

Specifications o 30 Watts per zone

@8Ω* o 2x Network audio streamers featuring

- Pandora and TuneIn Internet streaming**
- Fully implemented UPNP media renderer
- Local network playback from a NAS or PC shared directory
- Play from my device. Play back stored music from your iOS and Android device o 2x Analogue line in connection for local source playback expandable to 32 sources
- Each amplifiers source, both analogue and network streamer, can be selected to be a "Distributed source"
  These are available to any other AX-Mini 4 or AX-1250 on the network

o Expandable to 32 zones
o Bass, Treble, Balance and Loudness adjustments per zone
o Alarm function
o Doorbell function via IP command
o Turn On volume and Maximum volume limits
o 2x keypad ports for local keypad control. More keypads can be added via an IP connection (KPC-N)
o Mono mode for large areas where a stereo setup is not possible (same audio to all speakers) o Internal Web Page for user control and system setup
o +16dB audio gain adjustment per analogue source
o FREE app for both iOS and Android systems
o 600ms of adjustable audio delay per zone per source. (Includes remote sources.)
o IR return path via the RJ45 keypad ports
o Local and remote IR (via BAL-TX) output for control of 3rd party devices
o IR and IP commands via the AX-KPC-N and mobile device for 3rd party device control***
o Zone linking functionality
o Output short circuit, thermal and hard clipping protection
o Events triggers
o Static and DHCP network connections
o Over the air fw updated via the internet**
o Control4 driver available with all 32 distributed sources available – FREE (net and UPnP function not supported) o External 15v DC Power Supply o Dimensions: 165mm x 147mm x 35 mm o Weight: 0.8kg

*4Ω capable on one zone

** An internet connection is required for over the air updates, Pandora and TuneIn and any future Internet streaming services. ISP charges may apply. Future services may be added. Additional charges may apply to activate these features. Pandora and Local device audio are only supported from an iOS or Android interface. Pandora may not be available in every country.

*** Recommended configuration by Custom Installation Professional using Axium Design Portal (ADP)

AX-1250

The AX-1250 features six powered zones delivering 55 watts per speaker with two independent preamp zones, eight digital/analogue sources, four digital only sources plus an internal audio decoder that can stream from a local network and the Internet. TuneIn, Pandora, local device audio, Network playback and a UPnP media renderer are also supported*.

There are a number of ways to connect to and control the AX-1250, from the USB (for configuration), IR BUS and Ethernet connectivity, 10x buffered IR outputs, two lit doorbell compatible triggers, individual amp on's, keypad connections and Ethernet loop through (switch) for a maximum of 96 Zones. Just like the AX-Mini-4 when two or more Axium amplifiers are on the network (AX-Mini-4 or AX-1250) sources from each amplifier can be distributed or shared between each other. The AX-1250 can distribute 6 sources and receive 6 distributed sources at one time, a total of 32 distributed sources are available.

The internal webpage has unique customization allowing IR commands to be attached to buttons for source control. Also supported is a user-based source and zone lockout functionality via customizable user accounts and the ability to include built-in automation via Zone and Source event triggers. The AX-1250 also supports Auto Zone On and Off via source audio detection!

By using the FREE iOS or Android app you can use the Amplifier as a controller with IR and IP macro capability. Add the AX-KPC-N 2.8" colour touchscreen and enjoy full two-way communications from each zone on both interfaces.

An unbelievable amount of audio control is available. Starting with 600ms of audio delay for each Zone and each Source (totalling 64 delay settings), adjustable input levels, bass, treble, balance and loudness adjustments per zone, maximum volume limits and turn On volume setup, there is even and a sub-woofer preamplifier filter when using a powered subwoofer in conjunction with a powered or pre-out zone.

Zones can be configured to be independent or share a source with linking power and/or volume control

Prepare to be spellbound in every room....

Specifications
o   55 Watts per channel @8Ω (4Ω capable on 3 Zones)
o   1x Network audio streamers featuring
- Pandora and TuneIn Internet streaming*
- Fully implemented UPNP media renderer
- Local network playback from a NAS or PC shared directory
- Play from my device. Play back stored music from your iOS and Android device

o   12x Analogue line in   connection for local source playback expandable to 32 sources
- S1 -8 either Analogue, or Digital Coax (PCM)
- S9 - 12 either Digital Coax or Optical (PCM)
- All amplifier sources, including the network streamer, can be selected to be a "Distributed source"
  These are available to any other AX-Mini 4 or AX-1250 on the network

o   Alarm Function
o   Auto Zone turn On and Off via Audio detection
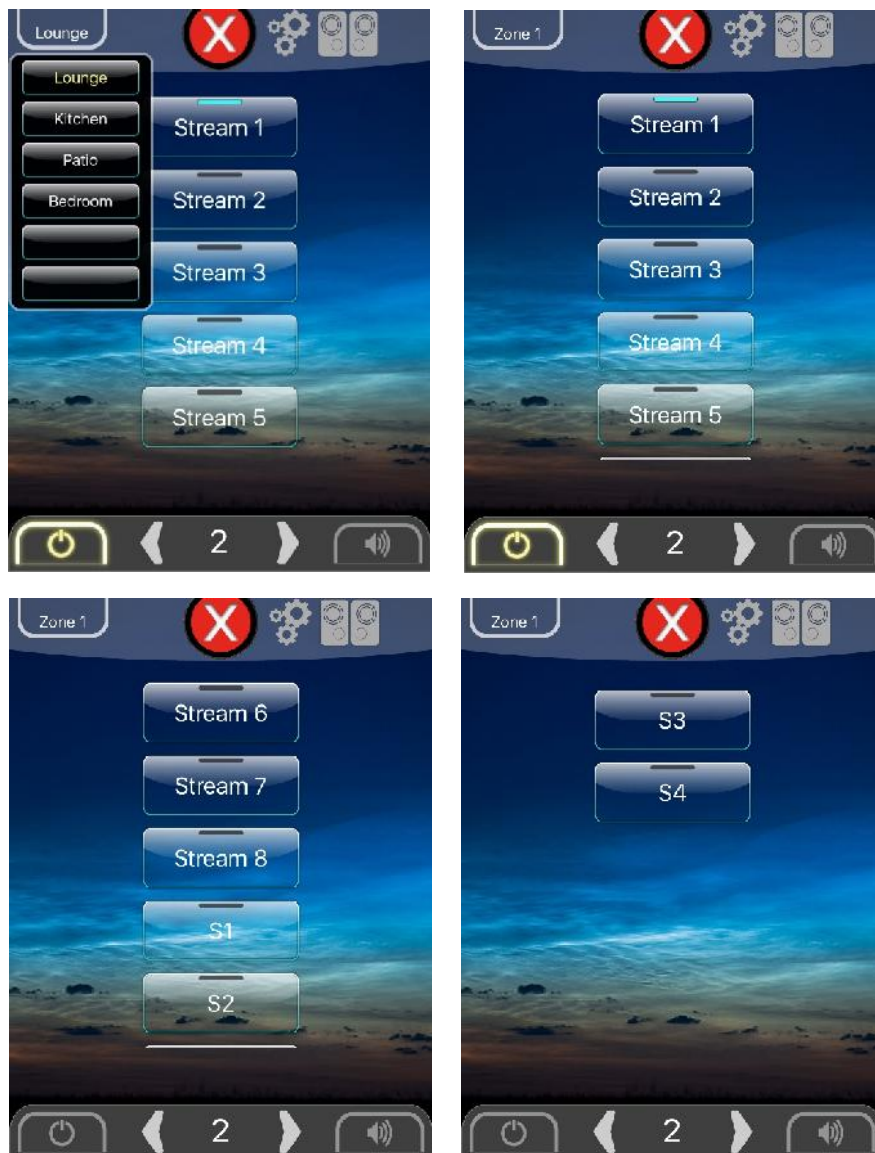o   Output short circuit, thermal and hard clipping protection

- o Analogue input level gain adjustment o 600ms of audio delay per zone, per source
- o Expandable to 96 zones (via network expansion)
- o Bass, Treble, Balance and Loudness per zone
- o Turn On volume and Maximum volume limits
- o Sub-Woofer pre amplification filter setting
- o Doorbell function via contact closure or IP command
- o Mono mode for large areas where a stereo setup is not possible (same audio to all speakers)
- o Up to 10 seconds of 44.1 KHz 16 Bit stereo audio for the doorbell
- o 10x Buffered IR outputs
  - 1 - 8 routing
  - 9 - 10 summed
  -
- o Send IR from the keypad ports to a controller
- o Internal real-time clock*
- o Internal Web Page with user access control and setup
- o iOS and Android compatible via FREE app
- o Zone and Source event triggers
- o Backward compatible, adding Ethernet connectivity and control to legacy systems
  distributed sources not available to legacy systems
- o Extensive zone linking
- o Keypad/IR connection for every zone
- o USB, RS232 and Ethernet interface
- o 14x amplifier pre-sets and two page pre-sets
- o AMP-ON status: 12VDC Outputs
- o Setup lockout
- o Static or DHCP network connections

- o Over the air fw updates via the internet*

- o Control4 driver available with all 32 distributed sources available – FREE
  (net and UPnP function not supported)

- o Power Consumption: 650 WRMS

- o Dimensions: 435 x 90 x 390 mm o Weight: 8kg

An internet connection is required for the over the air updates. ISP charges may apply. Future services may be added. Additional charges may apply to activate these features.

MOBILE APP SELF DISCOVER TEMPLATE

Axium offers a self-discover mobile template for the AX-Mini4, AX-1250 amplifiers and the AMM Media manager with a few simple steps.

- o Connect each of the Axium devices to the network switch and ensure they have power
- o Download the FREE Axium Mobile app on your mobile device/s and that the mobile device is o the same network as the Axium products
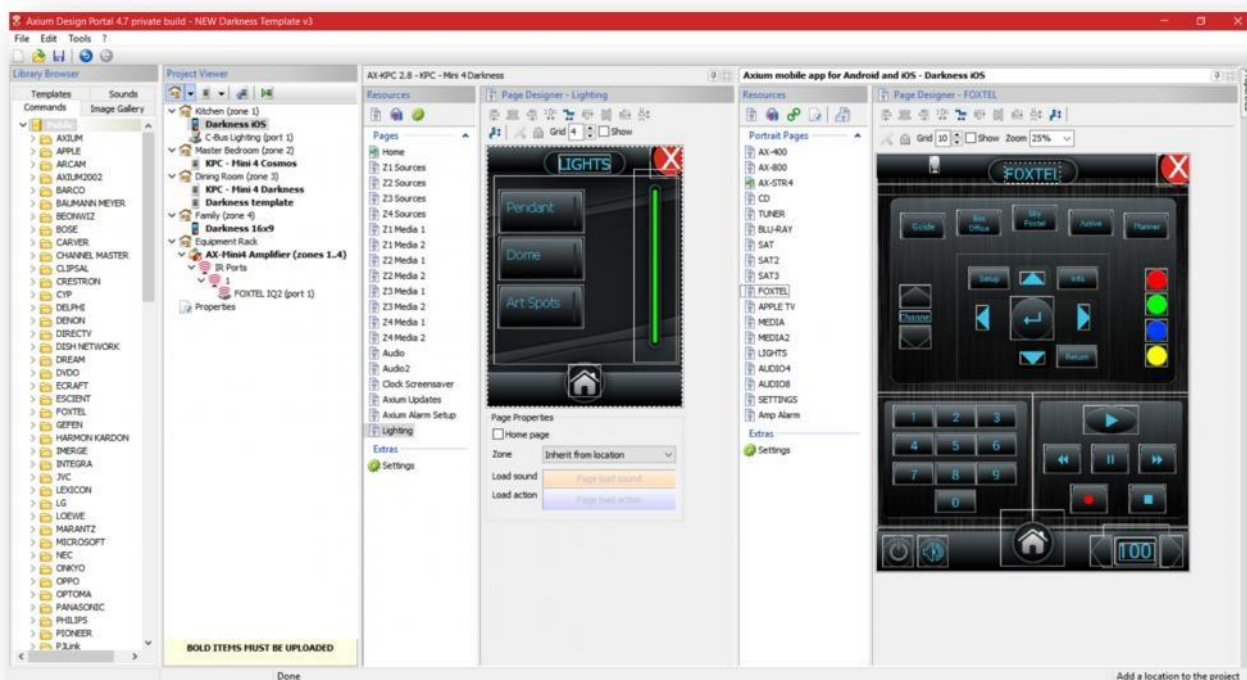- o Open the Axium mobile app for the self-discover template to load… start playing music

Examples of pre-defined Layout choices

CUSTOMISATION

Axium Design Portal Software (ADP)

Download the Axium Design Portal Software Setup from: http://www.axiumcontrol.com/software-and-firmware.html

The Design Portal software contains all that is required for complete programming of all the Axium range. From the AXKPD/AX-KPC-N to the amplifiers and the controllers. The software contains a comprehensive IR/RS232/IP library (which is constantly expanding).

For a full rundown of all the programming capabilities of ADP please feel free to contacts us and we would be more than happy to go over it with you.

Hi-res Templates for iOS and Android

There a 3 main Hi-Res designs templates for iOS and Android. They are pre-programmed to operate the Axium amplifiers put can easily be changed to operate any amp or switcher.

Programming of 3rd parts source equipment (My Sky, Foxtel, Blu-Ray etc) is as easy as drag and dropping the device onto the page you want to use.

Templates for KPC-N

The same three themes (plus 7 more) are available for the KPC to keep a consistent feel to jobs where both a KPC and mobile device are being used. As with the Mobile templates the KPC can be completely customised to suite any job. The layouts are pre-programmed to operate the Axium amplifiers

Applets

Applets allow easy integration for 2 Way communications from 3rd Party devices.

For most applets to work either an AX-R1D or AX-R4D is required but there are some that do not. E.G. Integra AVR and Apple TV.

Two way control Applets for KPC
- Axium Amplifiers zone feedback
- Axium Amplifier Media Players
- Axium Alarm configuration
- Clock Display
- ELK/NESS M1 Alarm
- Integra
    - Blu-ray Player
    - CD Player
    - DVD Player
    - iPod Dock
    - Receiver incl. Z1, Z2, Z3, & Z4
- Lighting
    - C-Bus
    - Luxom
    - Lutron
    - Bticino
    - Vantage
- Autonomic Media Center
- NEC Projectors
- ReQuest
- Schedule editor
- Slideshow Screen Saver
- Sonance iPort iPod Dock
- T118RDS Tuner
- Vantage DMM Music Server
- Variables Display

Two way control Applets for Axium Mobile App
- Axium Amplifiers zone feedback
- Axium Amplifier Media Player
- Axium Alarm configuration
- Integra Receiver incl. Z1, Z2, Z3, & Z4
- ELK/NESS M1 Alarm
- Lighting
    - C-Bus
    - Lutron
    - Bticino
    - Vantage
    - Fibaro
    - HDL
- Apple TV (IP control)
- Roku (IP Control)
- ReQuest
- Scheduled Event Setup
- Sonos – Some functions only
- Variables Display
- Web View (IP camera etc)
- HTML Scrips
- Grace Reciva
- NEST
    - Thermostat
    - Smoke Alarm

Popups and scroll panels are also available

The Axium Mobile app supports Screen popups and sliding panels. This allows for a completely unique and customisable user interface. Ask us about you can incorporate these features into your next project.

Technical Training & Support contact

Our sales and brand management, technical training and support team can be contacted on 09 3022271 or email sales@audiovisualsolutions.co.nz

Dealers must first be accredited to gain access to Axium products. Please contact us for further information.
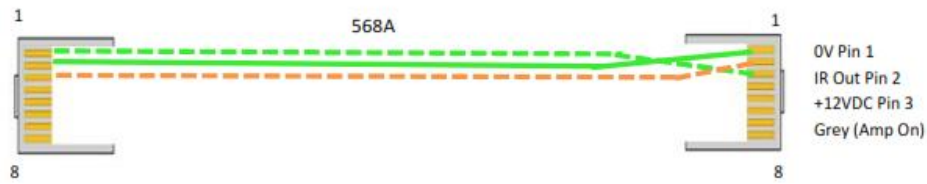
About Axium

The Axium range of distributed audio and control products is proudly designed in New Zealand. Axium prides itself as a hi-fidelity distributed audio system, with a huge attention to detail and quality of music in the home.

Axium's products are designed so that they can be tailored in anyway, for any environment, with ultimate flexibility. Enjoy simple to use keypads and touch screen control, or allow integration into another control system.

Wiring Configuration for a KPC-N into an EX42 or EX12 Connecting block
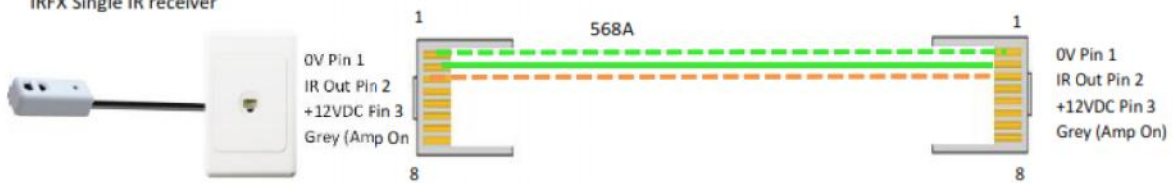
KPC-N

+12VDC Pin 1
0V Pin 2
IR Out Pin 3

568A

0V Pin 1
IR Out Pin 2
+12VDC Pin 3
Grey (Amp On)

KPC-N

+12VDC Pin 1
0V Pin 2
IR Out Pin 3

568B

0V Pin 1
IR Out Pin 2
+12VDC Pin 3
Grey (Amp On)

Wiring Configuration for an IRFX3 into an EX42 or EX12 Connecting block

IRFX Single IR receiver

0V Pin 1
IR Out Pin 2
+12VDC Pin 3
Grey (Amp On)

568A

0V Pin 1
IR Out Pin 2
+12VDC Pin 3
Grey (Amp On)

IRFX Single Receiver

0V Pin 1
IR Out Pin 2
+12VDC Pin 3
Grey (Amp On)
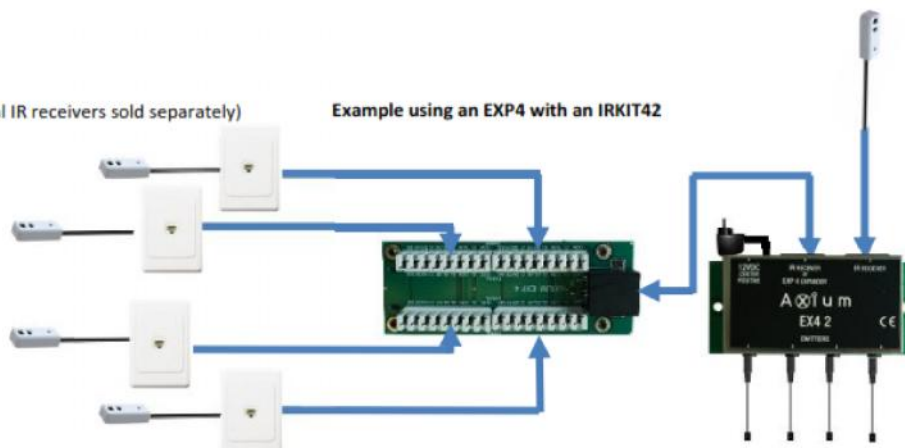
568B

0V Pin 1
IR Out Pin 2
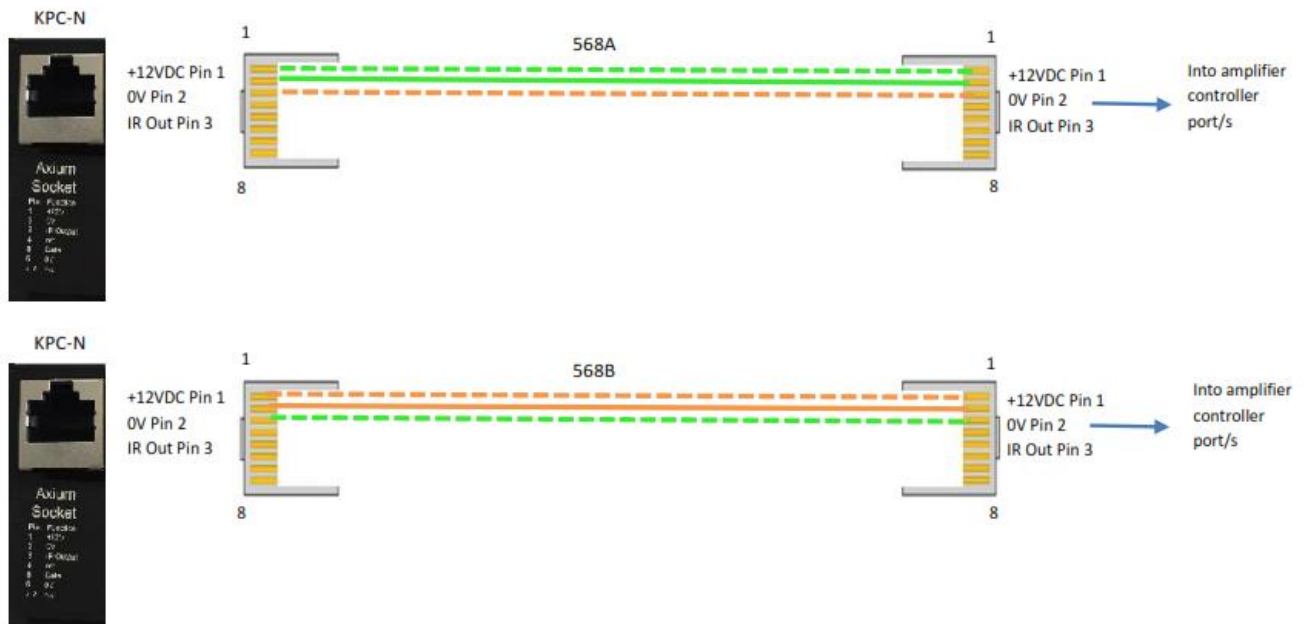+12VDC Pin 3
Grey (Amp On)

(All additional IR receivers sold separately)   **Example using an EXP4 with an IRKIT42**

Wiring Configuration for a KPC-N into an Axium Amplifier or R1D/R4D Controller Port

Wiring Configuration for an IRFX IR Receiver into an Axium Amplifier or R1D/R4D Controller Port