

Solid Signal's

# WHITE PAPER



4K For  
Commercial  
Customers



**DIRECTV**  
FOR BUSINESS  
AUTHORIZED DEALER



# DIRECTV Commercial 4K



**4K is coming... and commercial customers can join the revolution.**

DIRECTV has leveraged its existing technology, the HR54 DVR and C61K 4K Mini Client. This hardware has proven itself in the residential market and is ready for use in commercial.

## FACTS AT A GLANCE

- Open to all customers in Bars&Restaurants as well as specific other markets (check with your dealer)
- Open to almost all programming packages (check with your dealer)
- Requires HR54 and 4K Mini at a total purchase price of \$268 (or HR54+DIRECTV 4K Ready TV)
- DVR Service cannot be activated
- Open to existing and new customers
- Installation service is required

## WHAT'S ON IN 4K

- Channel 104:  
24/7 4K programming
- Channel 106:  
Special Events

***DIRECTV Cinema (Pay-Per-View) and other Pay-Per-View events are not supported at this time, but special 4K events may be available directly from the content provider in the future.***

# What you'll need

Most commercial customers can upgrade to 4K very easily. If you have a standard DIRECTV commercial installation, you may take nothing more than adding two receivers. The HR54 Receiver receives 4K programming, but it does not output it. The C61K Mini Client connects to your TV and provides all live TV service.

## Your dish and wiring



Unlike home 4K setups, a special dish isn't needed for 4K at this time. It's possible that you'll need an upgrade at some time, but at this point the [Slimline-5](#) dish is all you need. If your DIRECTV dish looks like this picture, you're all set.

You may need to upgrade your multiswitch, because you'll need to allocate at least 5 tuners. If you already have more than three receivers you may need to upgrade. It's best to allocate 7 tuners to the 4K system in order to be futureproof. This may mean adding a second multiswitch or replacing your older multiswitch with a [SWM-16](#). This is usually a very easy and inexpensive upgrade.

The biggest expense in your 4K installation will be the television. There are a lot of very cheap 4K televisions, but most will not work for DIRECTV 4K. In order to get 4K live programming from DIRECTV, you need a TV that supports both the HDMI 2.0 and HDCP 2.2 standards. Most club-store and discount-store TVs do not support this standard. Be careful to do your research when looking for a new 4K television. You should expect to pay a little extra.

You do not need to buy a TV with HDR, quantum dot, or OLED technology. While these TVs may make your TV picture look better, they aren't required for DIRECTV 4K service.

You will also need an [HDMI cable](#) that supports a high-speed connection of at least 10.2Gbps. These don't cost too much, but you should avoid using a cable you already have or buying one for under two dollars.



# Basic installation - HR54 Receiver



The first step in installing a Commercial DIRECTV 4K system is installing the HR54 receiver. It is not used for direct output but will still require 5 tuners from a SWM multiswitch (and possibly 7 tuners in a future configuration.)

Start by connecting the HR54 to a SWM multiswitch. It's recommended that each HR54 either be on its own SWM multiswitch or

have an entire leg of a SWM-16 multiswitch or SWM-32 multiswitch. If you use a SWM-16 multiswitch, a [Band Stop Filter](#) must be used to isolate each 4K setup from other receivers.

The first step before you activate is connecting the C61K client to the TV and starting it up. You should see an on-screen display that says **"This TV input supports DIRECTV 4K Service."** If you do not see this message, you cannot use this TV for 4K. Make sure you try all inputs on the TV because some TVs only support HDCP 2.2 on one input. Once you see this message, put the C61K aside and proceed to activate the HR54.

In order to activate the 4K system, you will be temporarily connecting the HR54 to the TV on a different input than the C61K. It can be disconnected after the system is activated. Use an HDMI cable to connect the HR54 to any input. Call 866-726-4182 to get this device and the 4K client activated. Confirm that you have a live TV picture on the HR54 and program its remote to RF mode. **Do not skip this step because you don't want accidentally control the HR54 when you are controlling the 4K client.** [Here's a tutorial](#) that will help you program the remote.

If you have a single 4K installation, connecting the system to the internet is recommended. The easiest way to do this is to use a [wireless access point](#) that supports multiple guest networks. Put the 4K setup on its own guest network. Wired Ethernet may also be used, but the built-in Ethernet port on the HR54 should not be used. Instead, use a [Broadband DECA](#) to bridge the coax and wired networks, and put the HR54 on its own subnet.

Finally, turn off HDMI Control on the HR54. This will keep the DVR from switching inputs when you are configuring the system, Press **{MENU}** on the remote, then go to **Settings & Help > Settings > Display > Video > HDMI Control**. Set HDMI Control to "Off."



# Basic installation - C61K Client



The process of pairing the C61K Mini Client with the HR54 receiver is simple. First, connect the C61K to the same splitter as the HR54 using a coaxial cable. You should already have the HDMI cable connected. Power on the C61K.

Put the TV on the correct input for the HR54. Using the HR54's remote, Press **{MENU}** then go to **Settings & Help > Settings > Whole-Home > Manage Clients > Add Clients** to add a client. Then switch inputs back to the C61K and enter the PIN code you get. A full tutorial can be found [here](#). *It may be helpful to cover the front of the HR54 with aluminum foil until you can program the C61K remote.*

Pair the remote to the C61K using the same procedure you used to pair the remote for the HR54. ([Here's a tutorial.](#)) Then, press **{MENU}** then go to **Settings & Help > Settings > Power Saving** and turn Power Saving OFF. This will keep the client from turning off even if the remote has not been touched for four hours.

Once the client is paired and you can see live TV, confirm that you can see channel 104, which is DIRECTV's 24/7 live 4K channel. If you cannot, contact your commercial dealer to make sure that 4K service has properly been added to your account.

Finally, disconnect the HR54's HDMI cable. You will use the C61K for live TV. While the HR54 may continue to put out live TV, it will not output 4K.

*Activating Commercial 4K service is easy... call 866-726-4182 and our experts will work through the activation process. For existing customers, the process is very straightforward. New customers will need to activate a new HD receiver at the same time as well as activating the 4K system, but the receiver can be deactivated if you only want one TV in your system.*



# Optional Installation - DIRECTV 4K Ready Smart TV



If you would prefer a “receiverless” installation, some smart TVs by Samsung, Sony, and LG are pre-programmed to act as DIRECTV 4K clients. In some cases, this may be indicated on the TV or on the box it came in, and an always up-to-date list can be found [here](#).

The installation process is similar to installing a C61K client. If the TV has previously been connected to

the internet, the network settings must be reset to “wired.” Doing this is different on every manufacturer’s TVs: On a Samsung, go to **Menu -> Network -> Network Settings -> Wired**. On a Sony, go to **Home -> Settings -> Network -> Network Setup -> Set up network connection -> Custom -> Wired Setup**.

Run coaxial cable to the TV and use a [Broadband DECA](#) to convert to wired Ethernet. Connect the Ethernet cable to the TV. Because you have already connected the HR54 to the internet, it should allow the TV to connect as well.

Make sure the software on the DIRECTV-Ready TV is up to date. On a Samsung, Press **Menu** then select **-> Support -> Update Software -> Via Online**. On a Sony, Press **Home** then select **-> Settings -> Network -> Network Update**.

Once the software is up to date, change inputs. You should see an input labeled DIRECTV RVU. When you are on that input, follow the instructions to pair the TV to the HR54. [Here’s a full tutorial](#) on adding a client.

We recommend getting a second [Genie Remote](#) and setting it to work with the TV. This is a simple process but depends on which TV model you have. [Here’s a full tutorial](#) on programming your TV to use the Genie Remote.

Once the TV is paired and the remote is programmed, check that you can see channel 104, which is DIRECTV’s full-time 4K channel. Once you have confirmed that you can, disconnect the HDMI cable from the HR54. If you have problems, call the installation professionals at Signal Connect at 866.726.4182.

# Frequently Asked Questions

## **Can the HR54 Receiver be used for live TV or for recording?**

The HR54 should not be used at all for live TV. Only the C61K 4K Mini Client should be used for live TV. Recording is not allowed in most commercial installations. Consult your dealer with any questions.

## **How many 4K TVs can be used in a commercial installation?**

Unlike home installations, there is no limit to the number of 4K TVs on a commercial account. However, every 4K TV will require its own HR54 as well as a C61K client (or it must be a DIRECTV 4K-Ready TV.) If multiple 4K TVs are used, none of the HR54s should be connected to the internet and should each be isolated using band stop filters.

## **How are pay-per-view events handled?**

4K Pay-Per-View events, when available will be handled the same way that other commercial pay-per-view events are ordered. While you will be able to see channel 105 (4K Pay-Per-View) as well as other pay-per-view channels in the 100s, you will not be able to order through your receiver.

## **Does the 4K setup require a special dish?**

Unlike a home installation, DIRECTV 4K for commercial requires only a Slimline-5 dish. In the future, a different dish or upgraded dish may be needed.

## **What multiswitches may be used with the Commercial 4K setup?**

The Commercial 4K setup must use a SWM multiswitch. SWM-8, SWM-16, and SWM-32 multiswitches may be used. Future multiswitches using digital (DSWM) technology will be available in 2017. One full leg of a SWM should be allocated for each 4K installation. If a SWM-16 is used, a Band Stop filter must also be used.

## **Can the Ethernet port on the HR54 be used for networking?**

No. Use wireless or a Broadband DECA.

## **What DIRECTV Market Segments can use Commercial 4K?**

BAR, GOV, HOS, POL, and FIR segments. If you are unsure of which market you are in, contact your commercial dealer.

## **What programming is required to activate 4K?**

Commercial Xtra, Commercial Choice Plus, Commercial Más Ultra Pack, Business Xtra Pack. If you are on an older package, you may need to upgrade packages in order to use 4K.

## **Can 4K service be combined with Netflix 4K, YouTube 4K, or other 4K services?**

In most cases, using streaming services in a public environment is not allowed. If 4K is being used in a private area where no customers will see it, and if the TV supports it, other 4K services may be used.

# Job Aid: Basic Install Steps

*For more detail, consult the detailed steps on pages 2-6 of this document.*

## Wiring

1. Install Slimline-5 dish. Wire according to D2 Advantage standards. Trunk Amplifier and Polarity Locker are required. D2-certified taps can be used if needed.
2. Run coax from SWM to location of HR54, C61K and Broadband DECA (if not connecting via Wi-Fi.) Green-label splitters must be used. If SWM-16, Band Stop Filter must be used.
3. Confirm that at least 5 tuners, preferably 8 tuners, are allocated to each HR54.
4. Connect Broadband DECA (if needed), receivers and/or Smart TV to coax. Smart TVs require their own Broadband DECA.

## Compatibility Test (C61K)

1. Connect C61K to TV (unless Smart TV is used) and confirm on-screen display that says "This TV Input Supports DIRECTV 4K Service."
2. If TV input does not support DIRECTV 4K service, try different inputs or change TV.

## HR54 Activation

1. Connect HR54 to TV via HDMI cable.
2. Activate all equipment through a commercial dealer.
3. Pair remote and set HDMI Control to "OFF."
4. If a only one 4K setup is used, connect to internet using Wi-Fi or separate Broadband DECA. Do not use wired Ethernet. If a single HR54 is used, it must be subnetted or on a separate guest network. Multiple HR54s should not be connected to internet.

## C61K Activation

1. On HR54, initiate "Add Client" procedure.
2. Switch inputs to C61K and add C61K using PIN provided by HR54.
3. Turn off Power Saving. Pair remote with C61K.
4. Confirm that channel 104 has live 4K programming.
5. Leave HR54 plugged in to wall, but power down from front panel.

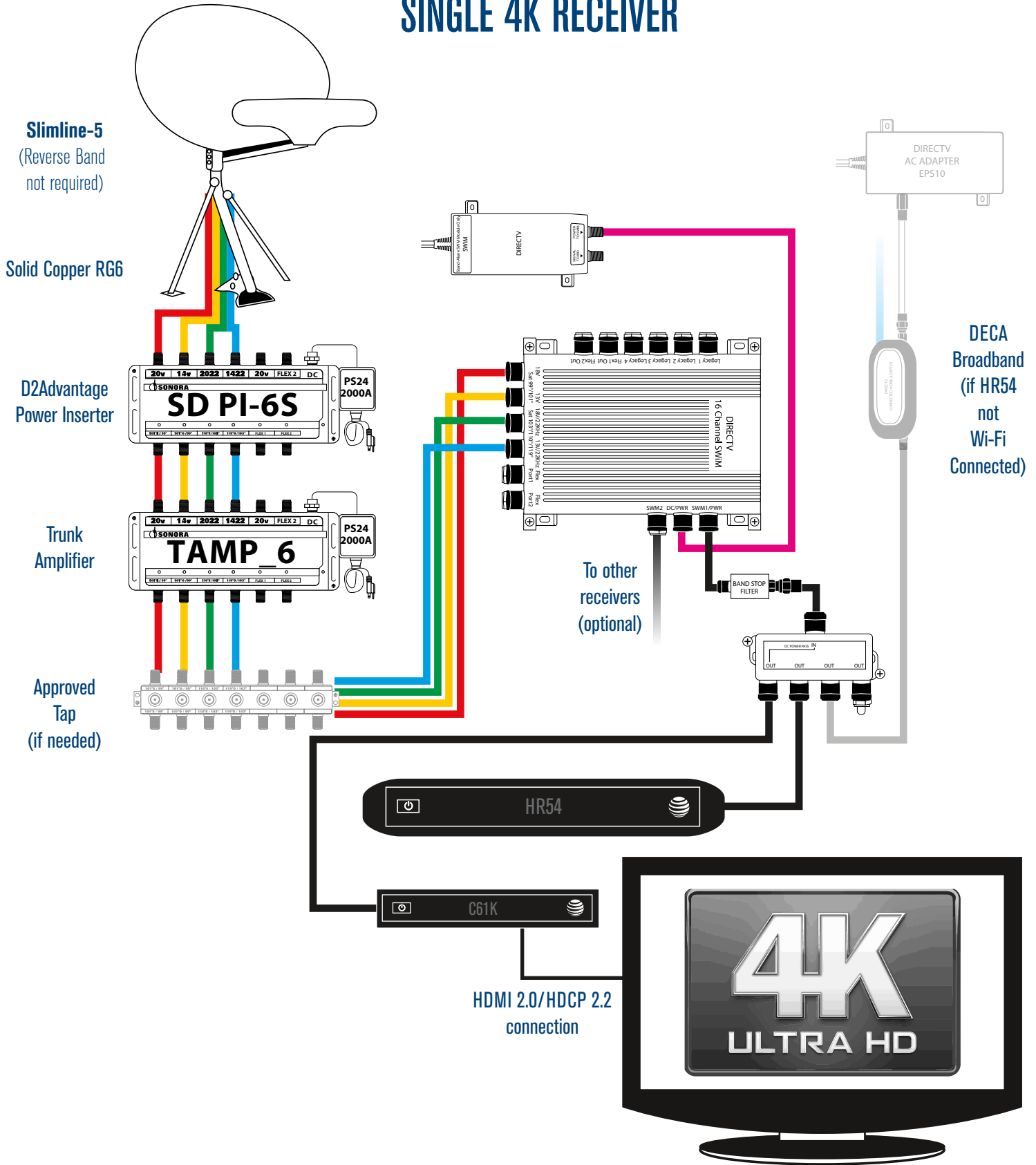
## Smart TV Activation (Optional)

1. Ensure that Smart TV is connected via Coax by way of Broadband DECA. Reset network settings on TV if necessary to ensure that internet is coming through DIRECTV coax.
2. Upgrade software on TV to the latest version.
3. Switch inputs to HR54 and initiate "Add Client" procedure.
4. Switch inputs to "DIRECTV RVU" and complete "Add Client" procedure.
5. Confirm that channel 104 has live 4K programming.
6. Optional: Program DIRECTV remote to control TV.
7. Disconnect HDMI cable from TV. Leave HR54 plugged in to wall, but power down from front panel.



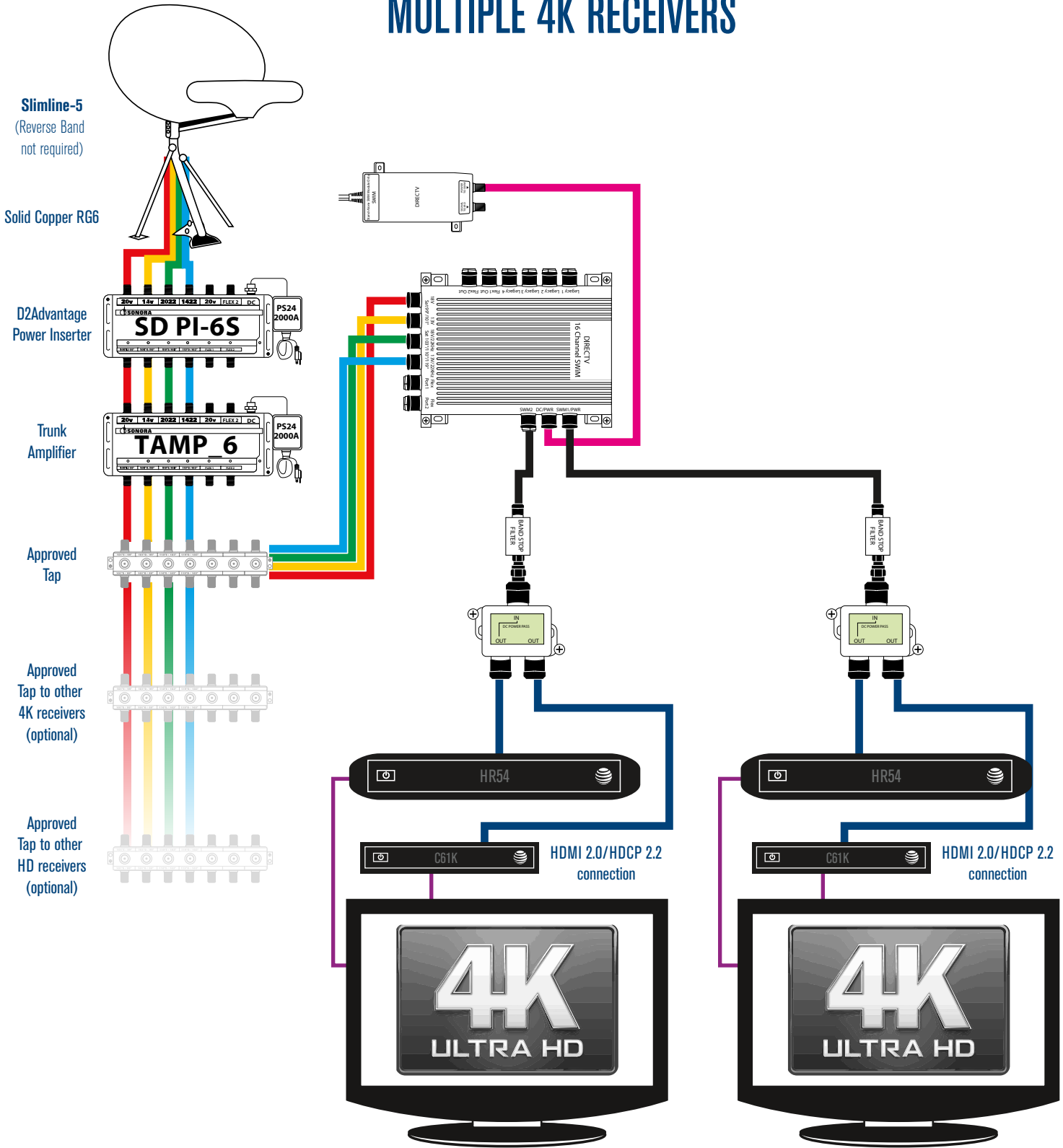
# COMMERCIAL 4K INSTALLATION

## SINGLE 4K RECEIVER



# COMMERCIAL 4K INSTALLATION

## MULTIPLE 4K RECEIVERS





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