

# the **GAME** changer



One of, if not the biggest step forward for Dish Network is upon us. The Hopper Joey system is going to put Dish Network at the TOP of pay TV providers. Almost every issue the technicians and customers have had with previous systems has been addressed in this new release. We are now seeing the reason behind the madness of this system. Whole Home DVR has been something Dish has been patient on with other competitors releasing products, but they were patient because they were doing it right. They are continuing to make up-to-the-minute changes in functionality, making this by far the best system out there. Some of the components and features are as follows:



The "brains" behind the system. A 3 tuner receiver with features such as PrimeTime Anytime, a 2TB hard drive which will hold 250 hours of HD programming or 2000 hours of SD Programming and Picture-in-Picture functionality. Compatible with WiFi adapter, external hard drives, and Sling Adapter.

The smallest DVR capable receiver on the market (ideal for concealment), up to 3 Joeys can be linked to a Hopper, sharing the 3 tuners, with HD capability as well as Blockbuster@Home, Dish On-Demand, DVR content, and Dish Unplugged.



## dish unplugged

A new implementation which allows a customer's system to download the most popular BlockBuster@Home titles as well as HBO and Cinemax original series and movies (HBO and/or Cinemax subscription required) WITHOUT fast internet! The programs are downloaded through the satellite!

The new name for BlockBuster Movie Pass for the Hopper Joey system. Thousands of movies and TV shows at the customer's fingertips.



A VERY cool feature of the system that records primetime programs on HD (only locals (M-Sat 7-10CST, Sun 6-10CST on ABC, CBS, NBC, and FOX) using only ONE tuner! This feature give the Hopper the ability to record an astonishing SIX programs at ONCE! Oh...and if that's not enough...it does not take away from the customers 250 hours of HD programming.

# the HOPPER TRAINING rollout



## Existing Techs

After attending the DNS provided Hopper Training (4 hours) – we believe we can slim the time frame down to approximately 3 hours. We propose to break this up in a series over the next month starting with next weeks CIT meeting. We suggest continuing to use the “CIT model” for all three parts of the training rollout.

### Here's a Quick Look

#### **Week of 2/5**

Ops Brief: 30 Minutes

Hopper Training Part I: 1 Hour (“Installation Focus”)

#### **Week of 2/19**

Ladder Safety Training: 30 minutes

Hopper Training Part II: 1 Hour (“Features and Functionality”)

Note: The plan has been discussed with Zack and he is ok with this combination

#### **Week of 3/4**

Ops Brief: 30 minutes

Hopper Training Part III: 1 Hour (“Customer Education and Review”)

## New-Hire Update

We also need to consider how to update and include this new system into our new-hire technician training. As of right now, we will most likely need to add an extra class day. This will give us the ample time to train on the Hopper system, as well as leave some more room to perform better end-of-training review.

## Connectivity Concerns

### Current Hierarchy

#### **Hopper-direct-to-Ethernet**

Provides Connection to all Joeys

#### **Hopper-Internet-Connector or “HIC”**

Requires installation of HIC via a coax cable run to the router

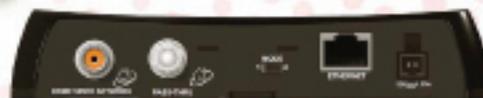
\*\*\*Additional AO?\*\*\*

#### **Sling-link**

The Hopper does not work the ‘traditional’ way with Sling-link

It will require 2 sling-links: one at the router, one behind the hopper

#### **WiFi Adapter**



## Non-Dish Materials Needed

75 Ohm Terminators

3-Way Splitters

RF Modulators

## Other Concerns

Super Sat will not work past node!!

## Installation Rules

Only 2 components can be between any 2 Hopper Joey System receivers

- Nodes and 75 Ohm Terminators do not count for this restriction
- Minimize number of devices for the installation

Nodes must be connected to a DPP LNB or DPP switch

Do not install any non-Hopper Joey System components after the Node

Maximum 200-foot cable length from LNB to FURTHEST Hopper

Maximum 200-foot cable length between ANY Hopper and Joey

Host lines must use RG-6 coaxial cable

Client lines can use either RG-59 or RG-6 coaxial cable

Limited to 1 Tap per installation

- 2 Taps can be used, but then the entire system must use RG-6 coaxial cable

Isolators must be used in pairs

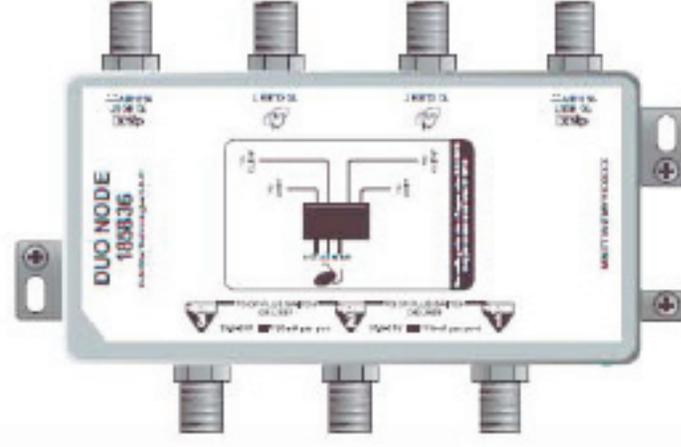
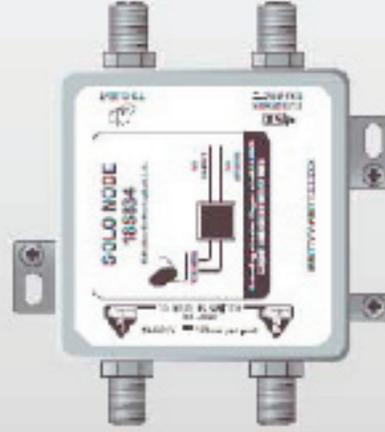
All unused ports must be terminated with 75 Ohm Terminators

If using a power inserter, it must be installed before the Node

- Connect ports 2-4 on the switch to the Node and port 1 to the power inserter

Install the Hopper at the primary TV location; it supports PIP

Always install the Hopper before plugging in Joey receivers



### Hopper

Hopper host receivers connect to Joey client receivers through Nodes via coaxial cables. Hopper host receivers can share any content with any Hopper or Joey receivers installed in the system.

- Host receiver (main receiver)
- 3 tuners
- 2 Terabyte hard drive (Up to 250 hours of HD program recording)
- Up to three Joey client receivers supported
- Supports PrimeTime Anytime (PTAT)
- Only connects via a TO HOST port (host line)
- HDMI, RCA, and digital audio outputs are supported
- Ethernet port for broadband connectivity is supported
- Uses the 40.0 UHF 2G remote
  - o Colored shortcut buttons for easy menu access
  - o Increased distance and faster communication
- Picture-in-Picture and BLOCKBUSTER @HOME supported
- USB port can be used for Wi-Fi adapter, external hard drive, or Sling adapter

### Joey

Joey client receivers connect to Hopper client receivers through Nodes via coaxial cables. Joey client receivers can request any content from any Hopper installed in the system.

- Client receiver
- Requires a Hopper to work
- Must be paired with a Hopper
- Only connects via a TO CLIENT port (client line)
- Compact size is ideal for placement out of view
- Same user interface as a Hopper
- HDMI, RCA, and digital audio outputs are supported
- Internal remote antenna
- BLOCKBUSTER @HOME supported
- Uses the 40.0 UHF 2G remote
  - o Colored shortcut buttons for easy menu access
  - o Increased distance and faster communication
- Ethernet and USB ports are for future functionality

### Single Node

A Single Node is the nearest component to the DPP LNBF or DPP switch in the Whole-Home HD DVR system. Nodes manage the transfer of programming between a Hopper and a Joey.

- Requires two DPP satellite inputs
- One Hopper supported
  - o One TO HOST port
- One TO CLIENT port supported
- Can be used to ground the DISH system

### Duo Node

A Duo Node is the nearest component to the DPP LNBF or DPP switch in the Whole-Home HD DVR system. Nodes manage the transfer of programming between a Hopper and a Joey.

- Requires three DPP satellite inputs
- Up to two Hopper host receivers supported
  - o Two TO HOST ports
- Two TO CLIENT ports supported
- Can be used to ground the DISH system

### Tap

Taps are used to create a host line and client line from a single host line off of a Node. Think of it as creating a line for a Hopper and Joey from a single host line.

- Limited to one Tap per installation
- One TO NODE port supported
- One TO HOST port supported
- One TO CLIENT port supported

### Splitters

Standard 2-way or 3-way splitters can only be used on a client line to support multiple Joey client receivers off of a single client line.

Example: Using a 2-way splitter from the TO CLIENT port on a Tap to support two Joey client receivers.

- Only use splitters on client lines
- 2-way or 3-way splitters are supported

### Isolators

Isolators are used to create a host line and client line from a single host line; Isolators disable the TO CLIENT ports on the Node.

Isolators prevent content from being shared between any Hopper and Joey receivers NOT on the TO HOST or TO CLIENT side of the Isolator.

- Must be used in pairs
- One TO NODE port supported
- One TO HOST port supported
- One TO CLIENT port supported

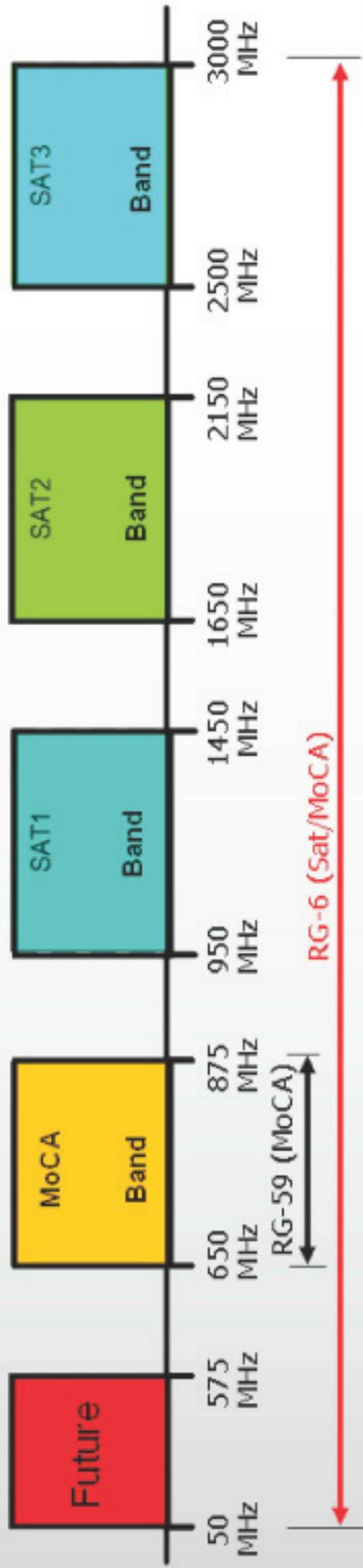
### 75 Ohm Terminator

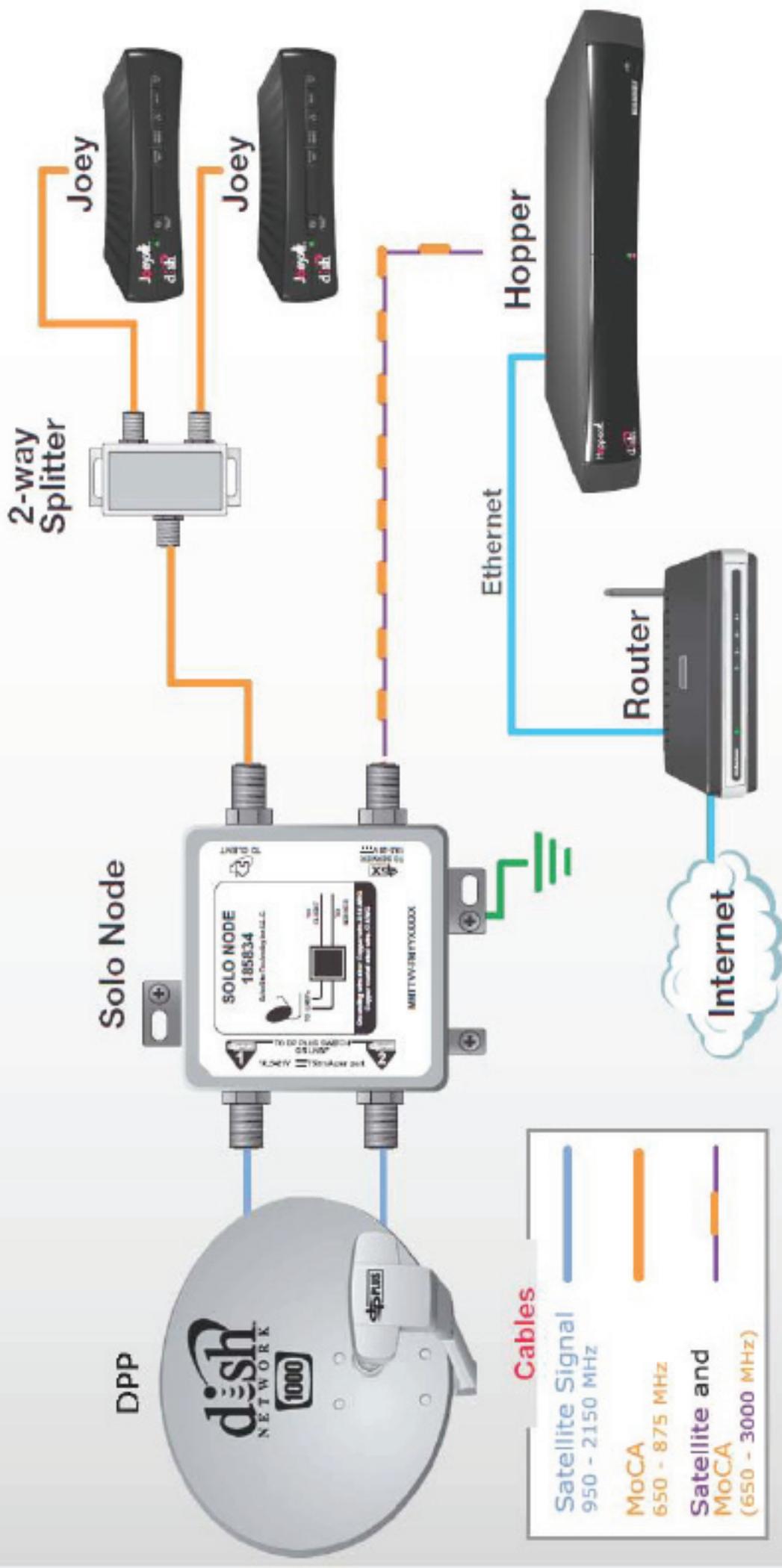
Use 75 ohm terminators on any unused ports in a Hopper Joey System installation to prevent RF leakage or outside RF interference.

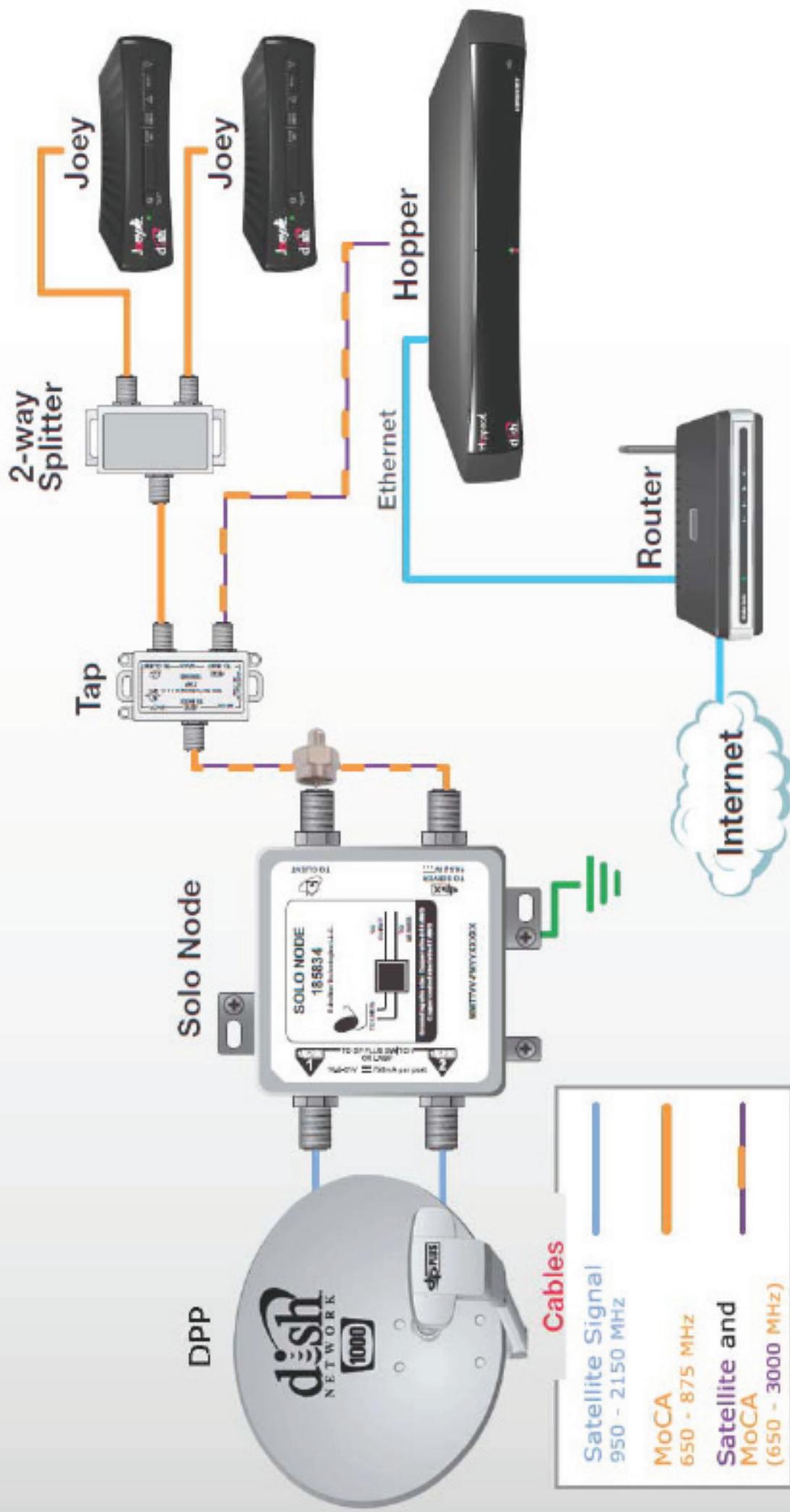
### Hopper Internet Connector (HIC)

The HIC makes the Internet connection between the customer's router and the entire Hopper Joey System.

- Only use a HIC on client lines
- One Ethernet port supported
  - o Used to connect to the customer's router
- One Home Video Network port supported
  - o Carries the Internet connection to the entire Hopper Joey System

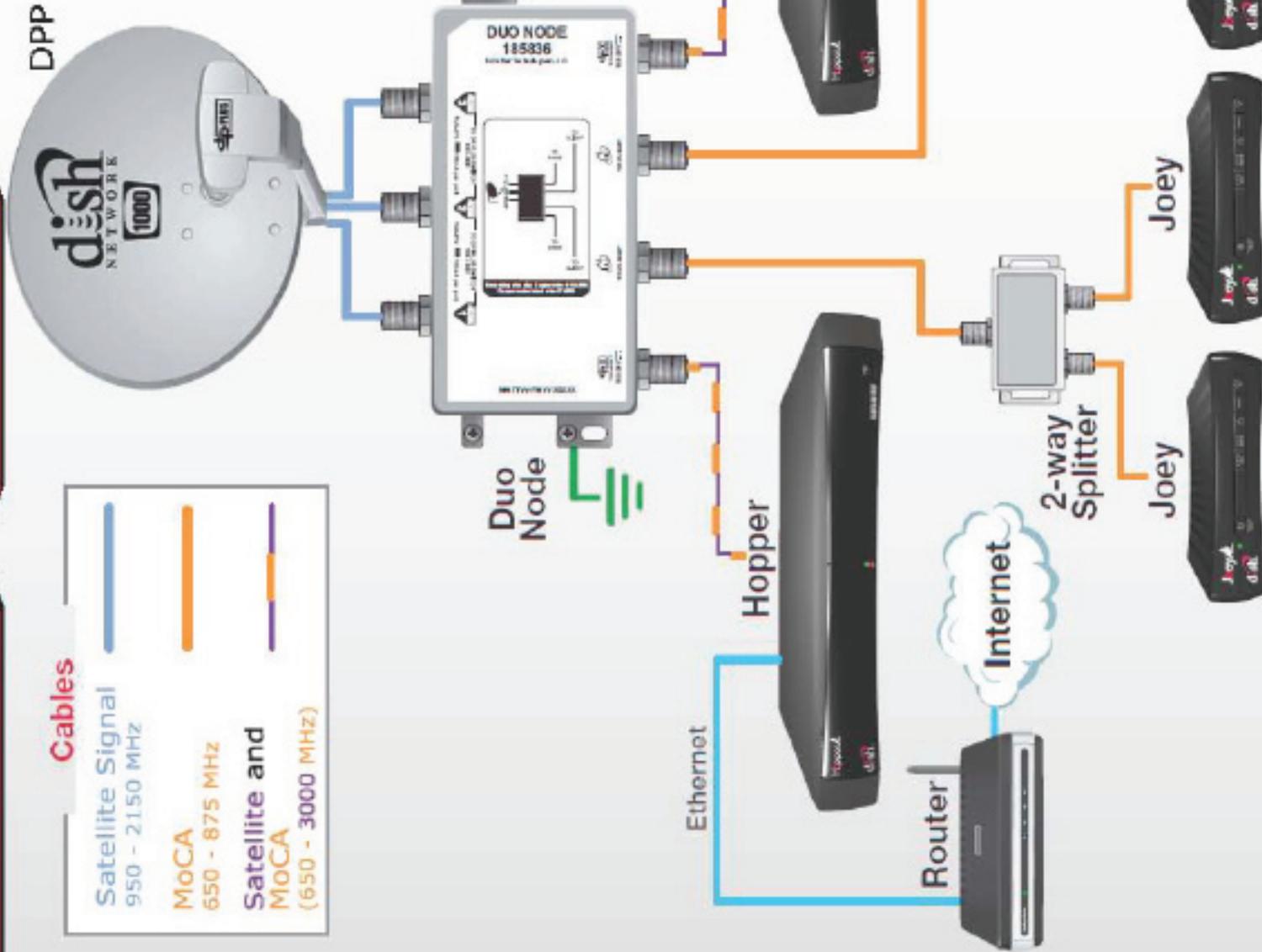


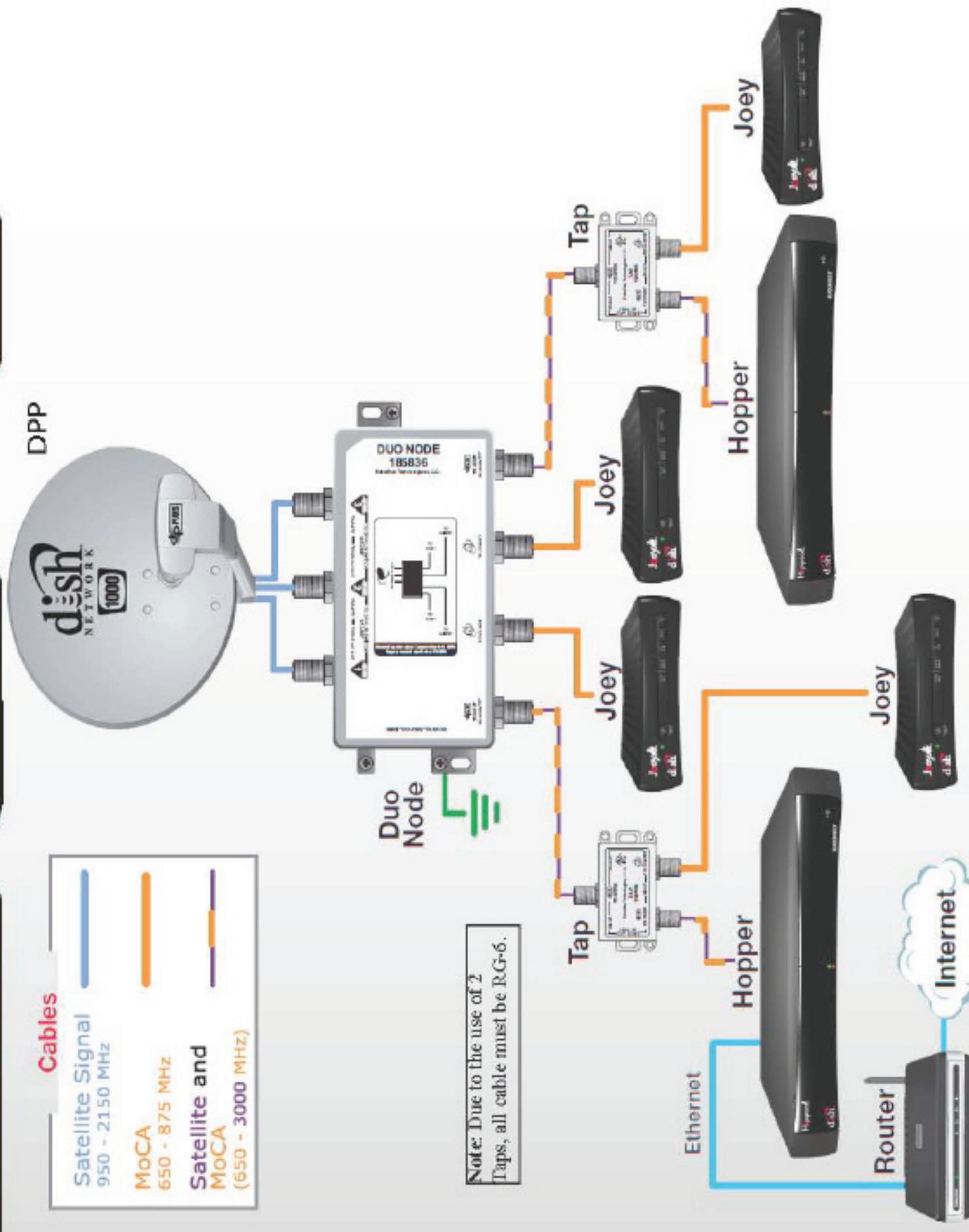




**Cables**

- Satellite Signal  
950 - 2150 MHz
- MoCA  
650 - 875 MHz
- Satellite and MoCA  
(650 - 3000 MHz)



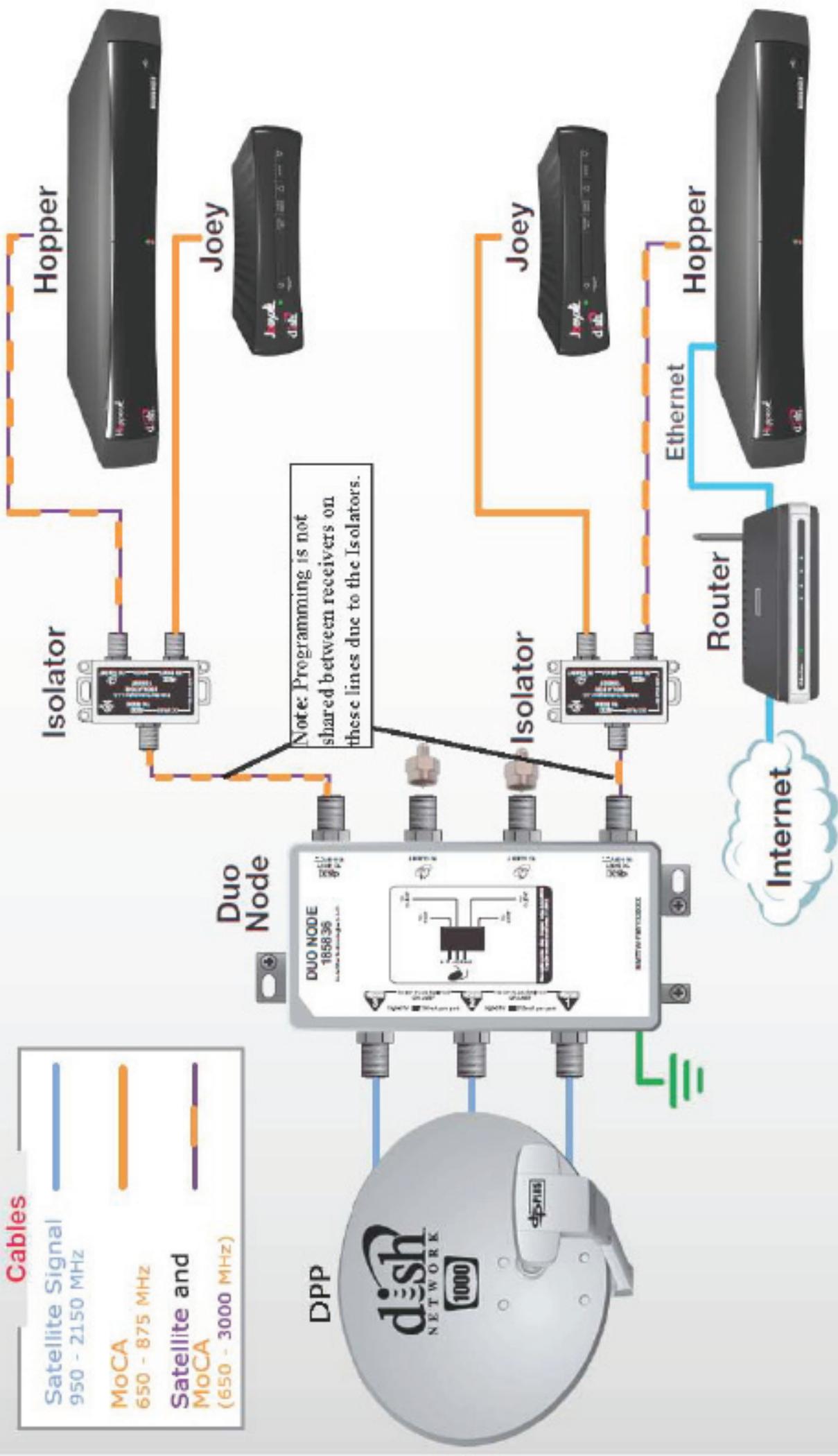


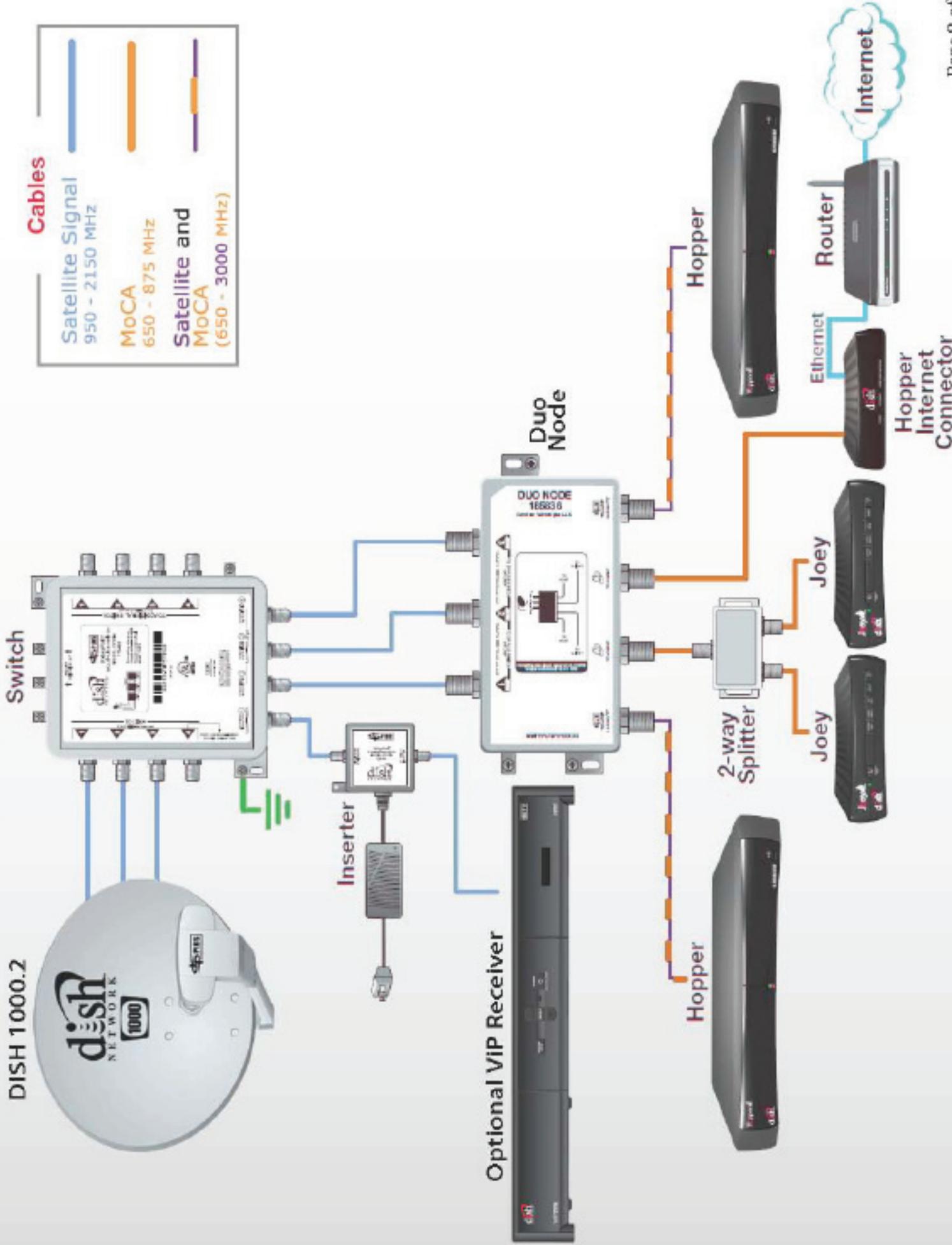
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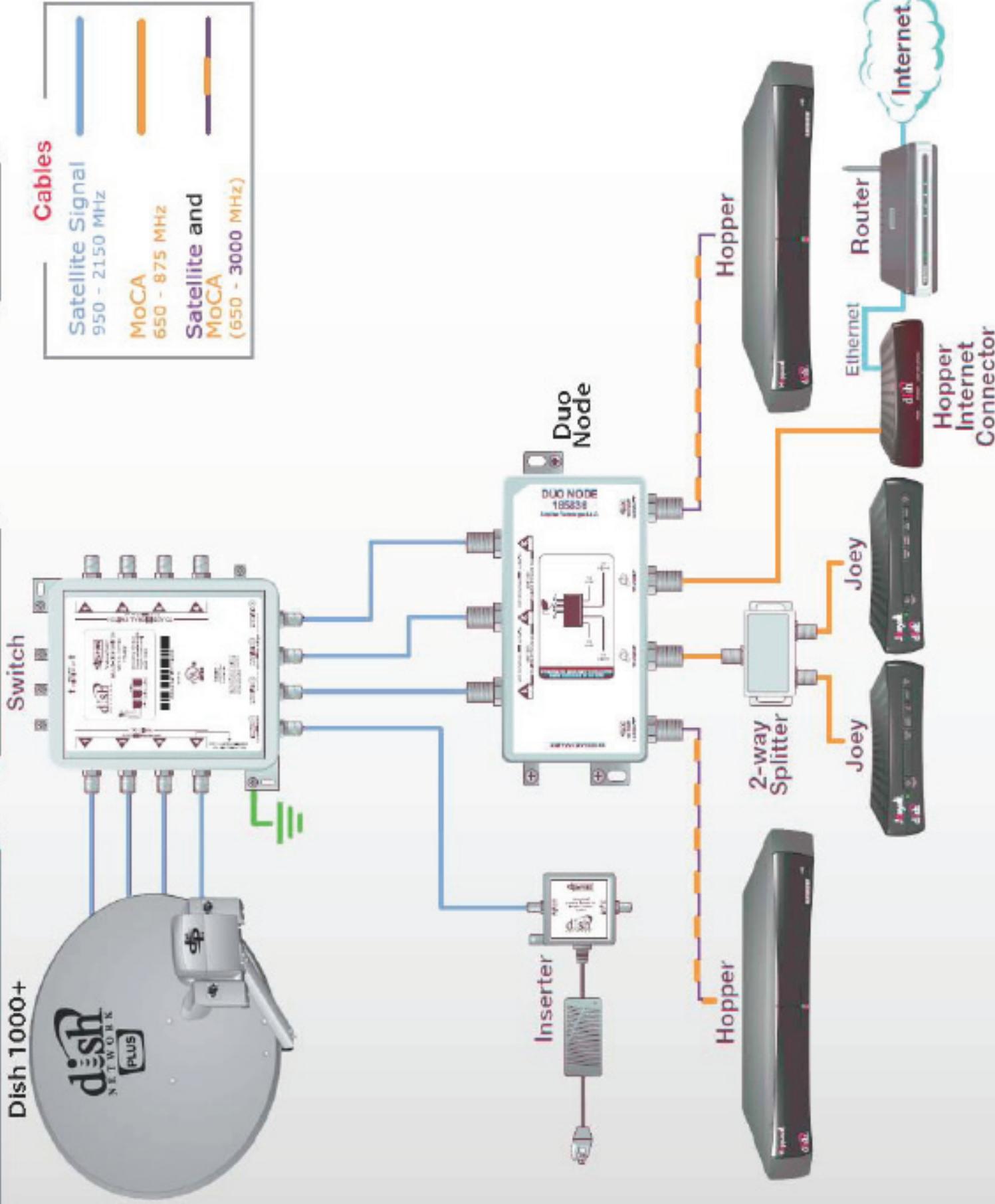
Satellite Signal  
950 - 2150 MHz

MoCA  
650 - 875 MHz

Satellite and  
MoCA  
(650 - 3000 MHz)







# Hopper™

## HD Multi-Tuner DVR Satellite Receiver



**EXPERIENCE NEXT GENERATION HOME ENTERTAINMENT** with this multi-tuner, satellite receiver delivering high-definition programming and enabled for Whole-Home DVR services.

### Features

- View DISH Network High-Definition (HD) and Standard-Definition (SD) programming; view MPEG-2 and MPEG-4 programming
- Three HD/SD satellite tuners
- Digital Video Recorder (DVR) capacity
  - up to 1000 hours SD
  - up to 250 hours HD
- DVR with name-based recording
- Advanced search easily finds shows, recordings, and On Demand content
- Image rich Graphics User Interface (GUI)
- Multiple independent TVs supported
  - HD or SD
- HDMI digital audio/video output
- Three USB 2.0 ports
- Ethernet built-in
- Favorites Lists
- Parental Controls
- Closed-caption support
- On-screen Caller ID with history
- Software upgradeable via satellite
- Up to 9-day Picture-In-Guide with optional widescreen Electronic Program Guide (EPG)
- DishCOMM™ compatible
- DISH On Demand with Video-On-Demand (VOD)
- Blockbuster @ Home
- PrimeTime Anytime with instant On Demand access to as much as 8 days of ABC, CBS, FOX, and NBC content
- DishONLINE
- DISH Remote Access
- Integrated apps
- Smart Card slot for conditional access
- Enabled for multi-room HD content sharing and other Whole-Home DVR services
- Optional Sling Adapter capability
- Optional External Hard Drive (EHD) capability
- Joey compatible to enable HD sharing of satellite and DVR content to the Joey connected HDTV (For additional information see the *Joey Product Sheet*)

Note: Some features may require additional fees or subscriptions



Front Panel w/Door Open



Entertainment – Anytime. **Anywhere.**



## Technical Specifications

### Hardware

MPEG-2 and MPEG-4:	Yes
Number of Tuners:	3
Picture-In-Picture (PIP):	Yes
High-Definition (HD):	Yes
Display Resolutions:	480i, 480p, 720p, 1080i, 1080p24
Hard Drive Size:	2 Terabyte
DVR Recording Capacity:	1000 hours SD 250 hours HD
3D Compatible:	Yes
Home Media Formats:	MKV, MP4, Music-MPG, Images JPEG

### Software

DISH On Demand (VOD):	Yes
DISH ONLINE (IPTV):	Yes
DISH Remote Access:	Yes
Blockbuster @ Home:	Yes
PrimeTime Anytime:	Yes
Applications:	Yes
Electronic Program Guide:	Up to 9 days

### Connections

Home Video Network F-Coaxial Input (Satellite and MoCA):	1
HDMI Digital A/V Output:	1
HD Component (YPbPr) Output:	1
Optical Digital Audio Output:	1
RCA A/V Output:	1
USB 2.0 Ports:	3 (1 front, 2 back)
Ethernet Ports:	2
Telephone Jack:	1
Remote Control Antenna Input:	1
eSATA Port:	1

### Optional

External Hard Drive Compatible:	Yes
Slings Adapter Compatible:	Yes

### Space

Approx. Dimensions (HxWxD):	2.30"x11.4"x16"
Approx. Weight:	8 lb.
Color:	Black

## Remote Features



49.9 UHF 2G

- Universal, four-component, two-way remote control operation with the Joey or Hopper
- Programmable to operate a TV, Blu-ray/DVD Player, and audio receiver or VCR
- Supports IR learning from most remote controls
- Unique address for each remote virtually eliminates conflicts
- System Wizard feature supports remote control and receiver settings backup and restore capability
- Remote locate option for lost remote discovery

# Joey™

## HD Satellite Client



**THIN-CLIENT** delivering the next-generation of TV content including multimedia services over IP-based networks with high-definition television (HDTV).

### Features

- Integrated Home Video Network (HVN) signals communicate to a MoCA-connected Hopper receiver for easy access to Whole-Home DVR services and satellite programming (For additional information see the *Hopper Product Sheet*)
- High-definition (HD) and standard-definition (SD) programming; view MPEG-2 and MPEG-4 programming
- Hopper Internet Connector compatible
- Electronic Program Guide (EPG)
- Advanced Graphical User Interface (GUI)
- Ethernet built-in
- Video-On-Demand (VOD) capability
- Integrated apps
- Software upgradeable via satellite
- Secure to the base horizontally or vertically for added stability
- Mount on a wall or flat surface for space-saving convenience



**Vertically Secured to the Base**

Note: Some features may require additional fees or subscriptions



## Technical Specifications

### Hardware

MPEG-2 and MPEG-4: Tuners:	Yes Uses the Hopper's tuners
High-Definition (HD): Display Resolutions:	Yes 480i, 480p, 720p, 1080i, 1080p24
TVs Supported:	1
MoCA 1.1:	Yes
Ethernet:	Yes

### Connections

Home Video Network F-Coaxial Input (MoCA only):	1
RCA A/V Outputs:	1
Optical Digital Audio Output:	1
HDMI Digital A/V Output:	1
Ethernet Port:	1
USB 2.0 Port:	1

### Specs

Approx. Dimensions (H:W:D)	
With Stand:	1.7":6.5":5.8"
Without Stand:	1.5":6.5":5.8"
Approx. Weight	
With Stand:	1.2 lb.
Without Stand:	0.7 lb.
Color:	Black

## Remote Features



40.0 UHF 2G

- Universal, four-component, two-way remote control operation with the Joey or Hopper
- Programmable to operate a TV, Blu-ray/DVD Player, and audio receiver or VCR
- Supports IR learning from most remote controls
- Unique address for each remote virtually eliminates conflicts
- System Wizard feature supports remote control and receiver settings backup and restore capability
- Remote locate option for lost remote discovery

# Hopper Internet Connector™

## Satellite Internet Connector



**HOPPER INTERNET CONNECTOR** is used to connect a Hopper multi-tuner host receiver and/or any MoCA-linked Joey clients to a broadband home network's existing router or Ethernet switch.

### Features

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- Compact design allows the Hopper Internet Connector to be mounted vertically on a wall or horizontally on a shelf
- Built-in 6,000-volt lightning protection
- Improved reliability with connection to the AC power adapter via a locking connector
- Compatible with existing WiFi equipment
- Pass-thru port allows Home Video Network (HVN) signals to be communicated to a MoCA-connected Joey client
- Simple MoCA Setup screen accessible from any linked Hopper or Joey provides automatic Network Device Discovery and real time status of Linked or Un-Linked for discovered receivers



## Technical Specifications

### Hardware

MoCA 1.1:	Yes
Ethernet:	Yes
WiFi Compatible:	Yes

### Connections

Home Video Network Input:	1
Pass-Thru Port:	1
Mode Switch:	1
Ethernet Port:	1

### Specs

Approx. Dimensions (H:W:D):	1.03":5.48":3.48"
Approx. Weight:	0.37 lb.
Color:	Black

## Installation Diagrams

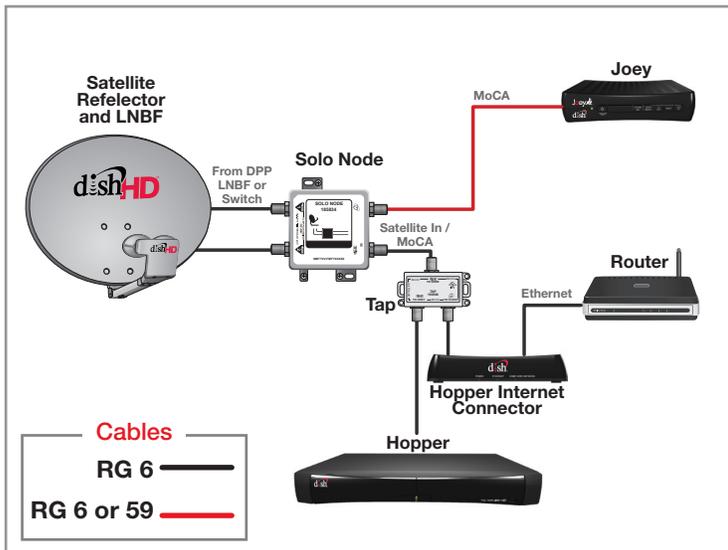


Figure 1. Standard Two-Room with One Hopper and One Joey

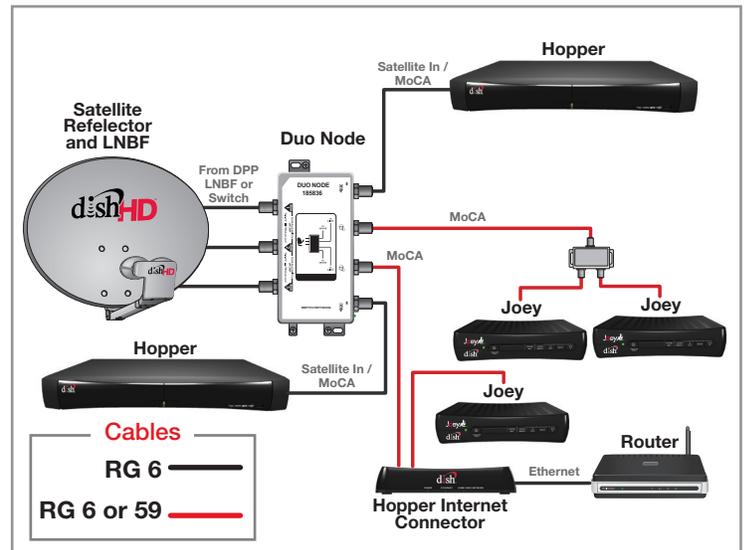


Figure 2. Standard Five-Room with Two Hoppers and Three Joys