

## L Band Patching

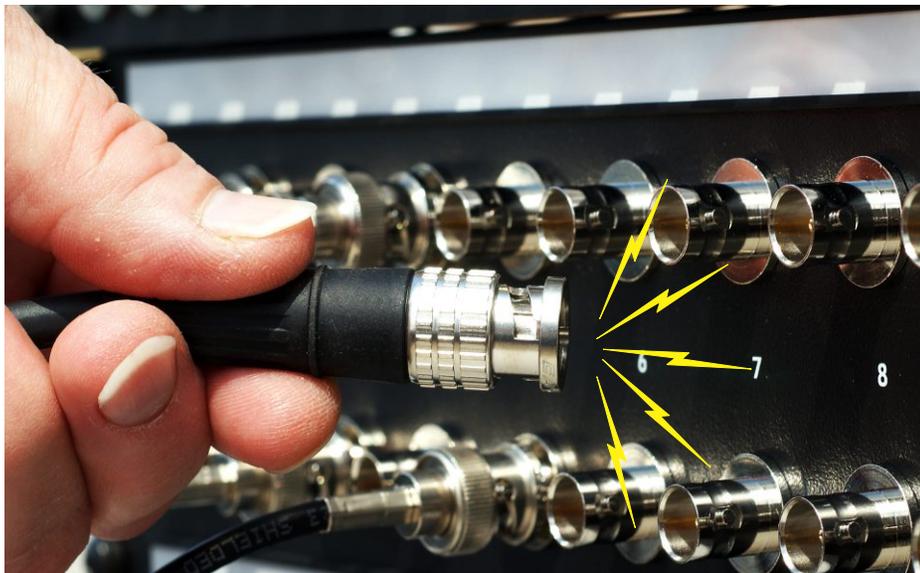
### Overview

L band comprises four different bands on the electromagnetic spectrum: 40-60 GHz (NATO), 1-2 GHz (IEEE), 1565-1625 nm (optical), and ~ 3.5 micrometres (infrared astronomy).

In broadcast technology, L Band refers to the frequency range of 950-1450 MHz ... 950-2025 MHz in MDU systems with stacked L band signals. Satellite modems and television receivers work in this range, with the signal translated to and from the satellite band by either dedicated upconverters/downconverters or a solid-state low-noise block converter and upconverter (LNB).

### The Problem

All receivers are designed with front ends featuring a generous input range and at least 50db of gain adaptable by Automatic Gain Control (AGC). Achieving full mute on the input typically requires isolation approaching 80db. Unpatched, a



receiver with leakage across the jack will compensate by increasing sensitivity until it gets the input it wants. This can usually be seen at initial patch when the signal briefly disappears until AGC obtains the required gain. The signal then reappears, apparently unaffected by patching. While it looks like the jack failed to switch, the receiver has actually compensated for the inadequate level. Most professional receivers have an input indicator which will show the drop but the “capture” effect of the front end will completely eliminate any cross-coupling of the two signals, and there will be no impairment to the patched signal. This AGC response is often very confusing to operations staff, and is almost always interpreted as jack failure.

There isn't a dual video jack on the market today that can meet the necessary level of isolation, so AVP does not recommend a dual video jack for L Band service. Even a BNC bulkhead using a BNC patchcord will have isolation issues when:

- LNBS connected to the upper row are powered
- The BNC patchcord is connected to a receiver input
- The other end of the BNC patchcord is held close to a BNC with a feed from an LNB

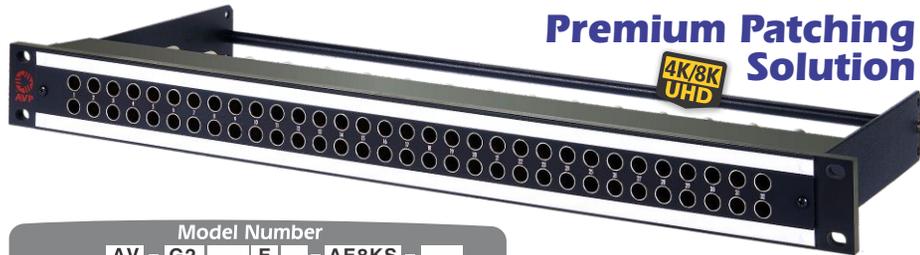
The signal from the LNB will radiate from the open BNC on the panel to the BNC on the end of the patchcord. At this point the receiver will often un-mute and display the signal from the LNB.

### The Solution

Because L Band service carries too much power on the cable for normalizing contacts and terminating resistors in a video jack, the answer is non-terminated midsize single jacks with looping plugs and/or insulated bulkhead BNC panels.

AVP midsize single video jacks with looping plugs for normalizing provide excellent return loss, the best isolation, and absolutely no issue with current load up to 2 amps.

## UHD 4K/8K E-Series 20GHz - 12Gb/s Video Patchbays



Premium Patching Solution

4K/8K UHD

Model Number  
AV - G2 [ ] E - AE8KS - [ ]

Number of Jacks Across  
24 2x24 Single Video Jacks  
26 2x26 Single Video Jacks  
32 2x32 Single Video Jacks

Cable Bar Option  
BZ No Cable Bar  
B10 7.0" [175mm] Cable Bar

Panel Height  
1 1 Rack Unit 1.75", [44mm]  
15 1.5 Rack Unit 2.62", [66mm]  
(only in 2x32 position panel)  
2 2 Rack Unit 3.50", [89mm]

Ordering Information



LPE8K-COLOR Looping Plug

See Page 6 for Features & Charts

## UHD 4K/8K W-Series 13GHz - 12Gb/s Video Patchbays



High bandwidth performance for SD-SDI, HD-SDI, UHD-SDI, HDR, 4K/8K video applications

4K/8K UHD

Model Number  
AV - G2 32 E - AW8K - [ ]

Panel Height  
1 1 Rack Unit 1.75", [44mm]  
15 1.5 Rack Unit 2.62", [66mm]  
2 2 Rack Unit 3.50", [89mm]

Cable Bar Option  
BZ No Cable Bar  
B10 7.0" [175mm] Cable Bar

Ordering Information



LPW8K Looping Plug

See Page 7 for Features & Charts

## SuperHD+ Series 3.0GHz - 3Gb/s Midsize Singles Video Patchbays



Model Number  
V - D 2 E - [ ] - [ ]

Series  
A Mosaic  
T Mosaic (Black CIS)

Panel Hole Configuration  
32 1 x 21, 1RU only  
32 2 x 32  
36 1 x 36, 1RU only  
36 2 x 36

Rack Space  
1 1 Rack Unit 1.75", 44mm  
15 1.5 Rack Unit 2.62", 66mm  
2 2 Rack Unit 3.50", 89mm

Cable Bar Option  
BZ No Cable Bar  
B10 7.0" [178mm] Cable Bar  
\*not available on 2x36 panels  
B21 6.0" [152mm] cable bar, \*only available on 2x36 panels, 1.5 & 2RU only

Installed Jack Type  
AMS 3.0GHz - 3Gb/s 75Ω Non-Normaled, Non-Terminating, Singles  
AMS75 3.0GHz - 3Gb/s 75Ω Terminating, Singles  
Z None (empty panel)



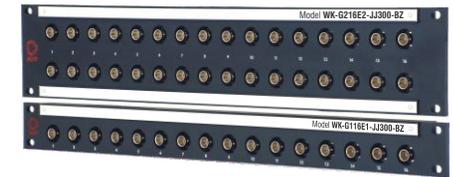
AV-DLP Looping Plug

See Pages 8, 11 & 15 for Full Specifications

## Insulated BNC Bulkhead Patchbays



Non-Recessed Connector Patchbays



Semi-Recessed Connector Patchbays

### Features

- Heavy-duty Rigid Phenolic Panels
- Attractive textured black semi-gloss finish
- Hi-Performance 24GHz BNC-BNC Connectors
- Non-Recessed available in 12, 16, 20 & 24 positions
- Semi-Recessed available in 12, 16 & 20 positions
- Configurations up to 4x24

### Popular Models (Configurations up to 4x24 are available)

Model	Description
<b>BNC-BNC Non-recessed Connector Patchbays</b>	
WK-F116E1-JJ300-BZ	1RU, 1x16 position, BNC-BNC non-recessed panel, 16 JJ300 connectors, no cable bar
WK-F216E2-JJ300-BZ	2RU, 2x16 position, BNC-BNC non-recessed panel, 32 JJ300 connectors, no cable bar
WK-F320E2-JJ300-BZ	2RU, 3x20 position, BNC-BNC non-recessed panel, 60 JJ300 connectors, no cable bar
WK-F216E2-Z-BZ	2RU, 2x16 position, BNC-BNC non-recessed panel, empty, no cable bar
<b>BNC-BNC Semi-recessed Connector Patchbays</b>	
WK-G116E1-JJ300-BZ	1RU, 1x16 position, BNC-BNC semi-recessed panel, 16 JJ300 connectors, no cable bar
WK-G216E2-JJ300-BZ	2RU, 2x16 position, BNC-BNC semi-recessed panel, 32 JJ300 connectors, no cable bar
WK-G320E2-JJ300-BZ	2RU, 3x20 position, BNC-BNC semi-recessed panel, 60 JJ300 connectors, no cable bar
WK-G216E2-Z-BZ	2RU, 2x16 position, BNC-BNC semi-recessed panel, empty, no cable bar

### Ordering Information