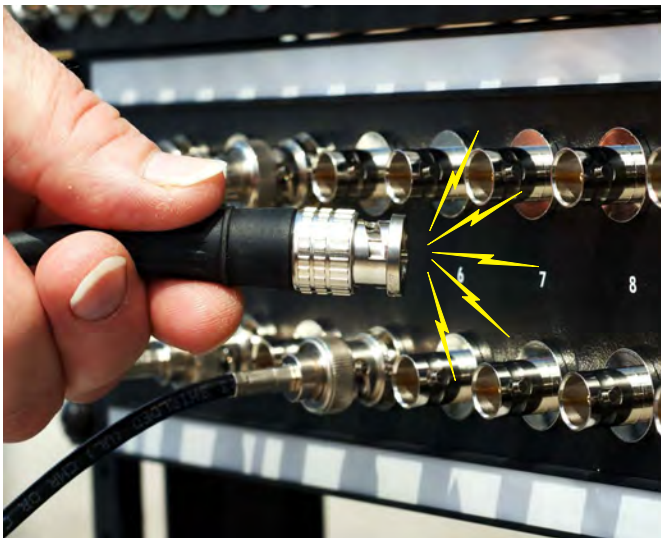


L-Band Patching

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.



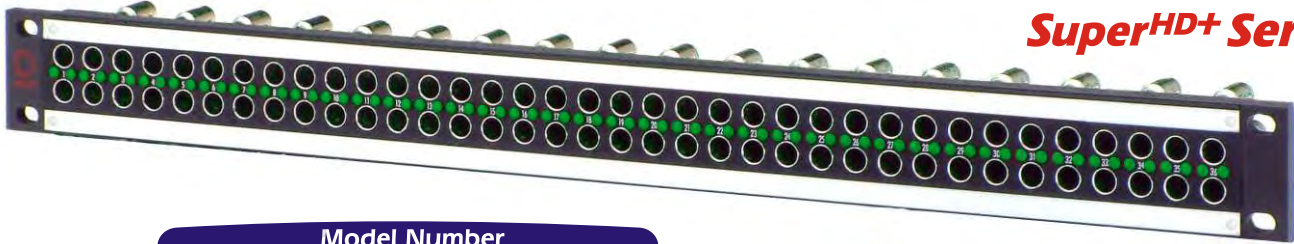
L Band Patching

Partners in Broadcast, Telecom & Satellite Solutions

The Problem & Solutions

3.0GHz - 3Gb/s Midsize Singles Video Jackfield

SuperHD+ Series



Model Number
V - D 2 E - AMS

Series

- A** Mosaic
- T** Mosaic (Black CIS)

Installed Jack Type

AMS 3.0Ghz - 3Gb/s 75Ω Non-Terminating, alternating, single long & short

Panel Hole Configuration

- 32** 2 x 32
- 34** 2 x 34
- 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

Options, add to end of Model Number

-BAR Heavy-duty Cable Bar
 - not available on 1RU 2x34 & 2x36 panels



AVP-AMSL
Non-Normaled, Non-Terminating



AVP-AMSS
Non-Normaled, Non-Terminating

View entire catalog at
www.jackfields.com

Insulated BNC Bulkhead Panels

- Heavy-duty Rigid Phenolic Panels
- Attractive textured black semi-gloss finish
- Hi-Performance 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
BNC-BNC Non-recessed Connector Panels	
WK-F116E1-JJ300	1RU, 1x16 position, BNC-BNC non-recessed panel, 16 JJ300 connectors
WK-F216E2-JJ300	2RU, 2x16 position, BNC-BNC non-recessed panel, 32 JJ300 connectors
WK-F320E2-JJ300	2RU, 3x20 position, BNC-BNC non-recessed panel, 60 JJ300 connectors
WK-F216E2-Z	2RU, 2x16 position, BNC-BNC non-recessed panel, empty
BNC-BNC Semi-recessed Connector Panels	
WK-G116E1-JJ300	1RU, 1x16 position, BNC-BNC semi-recessed panel, 16 JJ300 connectors
WK-G216E2-JJ300	2RU, 2x16 position, BNC-BNC semi-recessed panel, 32 JJ300 connectors
WK-G320E2-JJ300	2RU, 3x20 position, BNC-BNC semi-recessed panel, 60 JJ300 connectors
WK-G216E2-Z	2RU, 2x16 position, BNC-BNC semi-recessed panel, empty

BNC Patchcords

Model Number

BNCPC - - -

Patchcord Length

- 2** 2' [600mm]
- 3** 3' [900mm]
- 5** 5' [1.52m]
- 10** 10' [3.05m]
- 25** 25' [7.62m]
- 50** 50' [15.24m]
- 100** 100' [30.48m]

Color

- BLACK**
- RED**
- GREEN**
- BLUE**
- YELLOW**
- PURPLE**
- ORANGE**
- WHITE**



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