



DSV-42

Diplexer for Sub-Band and VHF/UHF Channels Stock No. 4376

Description

The DSV-42 is a high performance, 75 Ohm, three port, RF multiplexer. It may be used either to combine or to separate two bands of frequencies (DC to 42 / 54 to 1000 MHz). This frequency selective device provides a lower loss method of combining/separating signals than a conventional hybrid splitter. Internal filters provide a great degree of isolation between those bands. That isolation is necessary to prevent input overload of active devices located in the headend or distribution system where such signals are joined.

DSV-42 applications include sub-split, bi-directional systems. These are usually LAN or CATV networks distributing data or video in the reverse direction via the sub-channel band.

One example is an educational TV system. In this case, the DSV-42 enables sub-channel TV signals from one or more closed circuit TV cameras to be sent, by means of the existing distribution cables, back to the headend where they can be converted to unused TV channels for distribution in the usual manner. Another example is the addition of AM radio to a TV distribution system. The DSV-42 may also be used as a High-Pass or Low-Pass filter to solve a TVI problem by installing it in the line ahead of the affected device and terminating the unused port.

Features

- Low Thru-Loss
- High Isolation Between Bands
- Good VSWR in Both Bands
- Usable to 1 GHz
- Fiberglass Epoxy PC Board for High-Frequency Stability
- All-Aluminum Enclosure for Good Electrical Performance and Long Term Corrosion-free Reliability



**BLONDER
TONGUE**
LABORATORIES, INC.

The Standard of Quality in TV Signal Distribution

One Jake Brown Road, P.O. Box 1000
Old Bridge, NJ 08857-1000 USA
(800) 523-6049 • (732) 679-4000 • FAX: (732) 679-4353
www.blondertongue.com

Specifications

| Electrical (Typical) | High-Pass Filter Section | Low-Pass Filter Section |
|-----------------------------|---------------------------------|--------------------------------|
| Impedance: | 75 Ohm | 75 Ohm |
| Passband | | |
| Frequency: | 50 to 1000 MHz | DC to 42 MHz |
| Bandpass Flatness: | 0.5 dB P/V | 0.5 dB P/V |
| Insertion Loss: | 1.0 dB | 0.5 dB |
| Match | | |
| Input Return Loss: | 14 dB | 14 dB |
| Output Return Loss: | 14 dB | 14 dB |
| Stopband | | |
| Frequency: | DC to 42 MHz | 54 to 1000 MHz |
| Minimum Attenuation | | |
| DC to 42 MHz: | 55 dB | N/A |
| 54 to 860 MHz: | N/A | 55 dB |
| 860 to 1000 MHz: | N/A | 45 dB |
| Power Passing Cap: | No | 650 mA |

Mechanical

| | |
|------------------|--|
| Connections: | 3 "F" Type Female Connectors (Hi/Lo/All Channel) |
| Mounting: | Keyway Slot in Two End Flanges |
| Dimensions: | 7-3/8 " x 2" x 1-3/4", LxWxH |
| Shipping Weight: | 7.1 oz |

Service

The DSV-42 is conservatively designed and intended for operation over a wide range of environmental conditions. If trouble is noted, check for corrosion of connectors and other obvious signs of physical damage. Beyond visual inspection, servicing should not be attempted in the field. For service, pack the unit carefully, enclose a description of the trouble and ship the unit prepaid to:

Service Department
Blonder Tongue Laboratories, Inc.
One Jake Brown Rd.
Old Bridge, NJ 08857



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