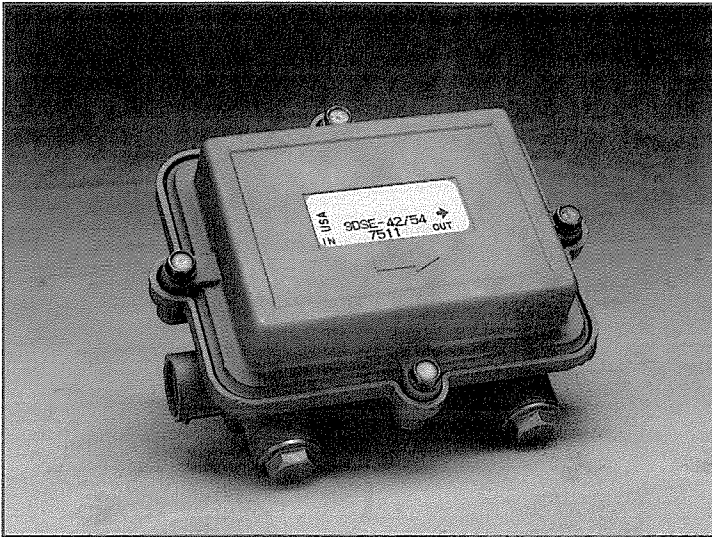


Distribution Slope Equalizers



9-DSE Series

A distribution slope equalizer compensates for slope in a feeder line to prevent exceeding the maximum allowable feeder slope levels.

- Flexible design allows you to use the 9-DSE in 750 MHz or 1 GHz systems, depending on the model.
- Dual gaskets keep RF signals pure and protect the circuitry from extreme environments.
- Environmental coating provides excellent corrosion resistance.
- Heavy AC power chokes and high voltage capacitors provide protection from system power surges and lightning strikes.

Distribution slope equalizers (DSE) compensate for slope in a feeder line. Since all carriers are reduced in amplitude, a DSE is only used when the feeder slope levels exceed the maximum allowable. Typically, you would use a DSE when there is a narrow window allowed between the levels of the high and low carriers in your network.

In the forward path, the 9-DSE corrects for cable slope with its built-in equalizer. Install a 9-A series attenuator to adjust the

return signal without affecting the forward path. The 9-A attenuator can be ordered in several values, allowing maximum control of the signal level.

Within the circuitry of the 9-DSE, internal triplexing isolates the AC, return, and forward frequencies. The 9-DSE is available in several bandsplits and comes with either an 8 or 11 dB equalizer, depending on the model. Refer to the ordering information for a description of the models available.

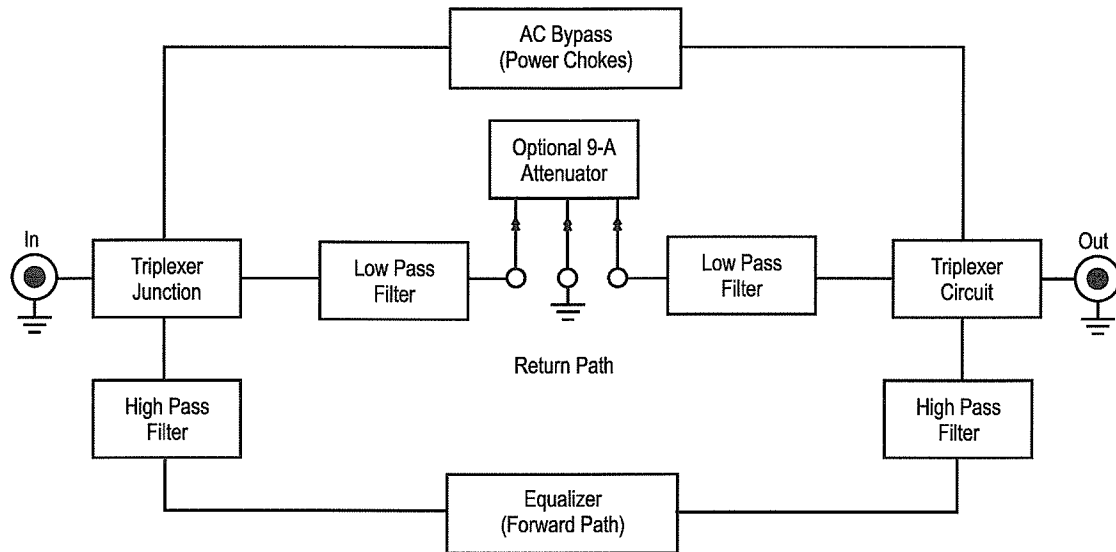
The components of the 9-DSE have a power handling capability of 8 Amps @ 90 VDC and VAC up to 60 Hz. The 9-DSE also meets ANSI/IEEE C62.41-1991, Class B, 2500 V surges.

The 9-DSE is made to survive extreme weather conditions, with a synthetic weather gasket between the faceplate and cover. The housing also has an RFI gasket to protect against signal leakage.

Distribution Slope Equalizers

Functional Block Diagram

9-DSE Series



Distribution Slope Equalizers

Worst Case Specifications

9-DSE Series, 42/54 Split

| | 9-DSE-7508 | 9-DSE-7511 | 9-DSE-1008 | 9-DSE-1011 | Units |
|--|--|------------|------------|------------|-------|
| Return Bandwidth | 5 to 42 | 5 to 42 | 5 to 42 | 5 to 42 | MHz |
| Forward Bandwidth | 54 to 750 | 54 to 750 | 54 to 1000 | 54 to 1000 | MHz |
| Insertion Loss (in-out, maximum) | | | | | |
| Return | 81.8 | 1.5 | 1.8 | 1.8 | dB |
| Forward ^a | | | | | |
| at 54 MHz | 7.8 | 10.5 | 8.5 | 11.0 | dB |
| at 550 MHz | 3.5 | 3.8 | 4.7 | 5.0 | dB |
| at 750 MHz | 2.2 | 2.5 | 3.7 | 4.1 | dB |
| at 1000 MHz | N/A | N/A | 3.0 | 3.2 | dB |
| Return Loss (minimum, input/output) | 16 | 16 | 16 | 16 | dB |
| Flatness (maximum) | | | | | |
| Return | ± 0.6 | ± 0.6 | ± 0.6 | ± 0.6 | dB |
| Forward | ± 0.65 | ± 0.65 | ± 0.65 | ± 0.65 | dB |
| Forward Equalizer (typical @ highest forward frequency) | 8 | 11 | 8 | 11 | dB |
| Relative Chroma Delay (maximum) | | | | | |
| Return | | | | | |
| 7.00 to 10.58 MHz | -11 | -11 | -11 | -11 | ns |
| 13.00 to 16.58 MHz | -3 | -3 | -3 | -3 | ns |
| 19.00 to 22.58 MHz | -4 | -4 | -4 | -4 | ns |
| 25.00 to 28.58 MHz | -4 | -4 | -4 | -4 | ns |
| 31.00 to 34.58 MHz | -9 | -9 | -9 | -9 | ns |
| 37.00 to 40.58 MHz | -23 | -23 | -23 | -23 | ns |
| Forward | | | | | |
| 55.25 to 58.83 MHz | -30 | -30 | -30 | -30 | ns |
| 61.25 to 64.83 MHz | -10 | -10 | -10 | -10 | ns |
| 67.25 to 70.83 MHz | -4 | -4 | -4 | -4 | ns |
| 73.25 to 76.83 MHz | -3 | -3 | -3 | -3 | ns |
| Unstated Channels | < 2 | < 2 | < 2 | < 2 | ns |
| Hum Modulation @ 6 Amps (minimum) | | | | | |
| 5 to 750 MHz | -60 | -60 | -60 | -60 | dB |
| 751 to 1000MHz | — | — | -55 | -55 | dB |
| Isolation Overall (minimum) | 35 | 35 | 35 | 35 | dB |
| RFI Isolation | Exceeds FCC Requirements | | | | |
| Current Handling Capacity (maximum) | 8 | 8 | 8 | 8 | Amps |
| Voltage Passing Capacity (maximum) DC, AC up to 60 Hz | 90 | 90 | 90 | 90 | V |
| Surge Rating | ANSI/IEEE C62.41-1991, Class B, 2500 V | | | | |
| Thermal Change (maximum, -40 to +60 °C) | ± 0.5 | ± 0.5 | ± 0.5 | ± 0.5 | dB |

continued

Specifications are subject to change without notice.

Distribution Slope Equalizers

9-DSE Series, 42/54 Split

| | 9-DSE-7508 | 9-DSE-7511 | 9-DSE-1008 | 9-DSE-1011 | Units |
|--|------------|--|------------|------------|-----------|
| Mechanical | | | | | |
| Dimensions (height x width x depth) ^b | | 11.9 x 14 x 7.6 (4.7 x 5.5 x 3.0) | | | cm (in.) |
| Weight | | 0.45 (1.0) | | | kg (lbs.) |
| Connector Type ^c | | Standard CATV KS entry connectors for cable up to 0.625-inch diameter | | | |
| Pin Length | | 3.7 (1.44) | | | cm (in.) |

Specifications are subject to change without notice.

- a. For 9-DSE-7508 and 9-DSE-7511, include 1.0 dB for equalizer loss. For 9-DSE-1008 and 9-DSE-1011, include 1.5 dB for equalizer loss.
- b. Height dimension includes port plug; depth dimension includes strand clamp and bolt in closed position.
- c. Pin connector (0.067-inch diameter) recommended for best RF performance.