

This DC Block is used to prevent the flow of direct current and low frequency current surges along the inner and outer conductors of a transmission line, while permitting the unimpeded flow of RF signals. Applications include the blocking of current surges in subway tunnels. The unit consists of a length of coaxial line with a series capacitor in both the center conductor and outer conductor to block the flow of low frequencies, while passing RF with negligible loss or reflections.



## FEATURES / BENEFITS

- Broadband frequency range from 80 to 3800MHz
- 3 kV High voltage rating
- Inner and Outer conductor separated
- PIM optimized design to minimize network interferences
- Minimal RF insertion loss
- 7-16 male/female connector

## **Technical features**

| GENERAL SPECIFICATIONS    |          |
|---------------------------|----------|
| Product Type              | DC Block |
| Techn. Application        | Indoor   |
| Number of Input Ports     | 1        |
| Number of Output Ports    | 1        |
| ELECTRICAL SPECIFICATIONS |          |

| ELECTRICAL SPECIFICATIONS   |         |  |
|-----------------------------|---------|--|
| Frequency Range             | MHz     | 80 - 3800  |
| Impedance                   | Ohm     | 50   |
| Insertion Loss              | dB      | 0.25 @80 - 3800 MHz  |
| Max. VSWR / Return Loss, dB | VSWR/dB | 1.40/15.5 @80 - 100 MHz<br>1.30/17.7 @100 - 300 MHz<br>1.10/26.4 @300 - 1880 MHz<br>1.20/20.8 @1880 - 2700 MHz<br>1.25/19 @2700 - 3800 MHz |
| Intermodulation (IM3)       |         | 160dBc, typ -165dBc (2x20W)  |
|                             |         | _  |

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|------------------------------|----|-----------------------------|
| Max. DC Blocking Voltage, KV | kV | 3                           |
| MECHANICAL SPECIFICATIONS    |    |                             |
| Connectors                   |    | 7-16                        |
| Innut Connector Type         |    | 7-16 male                   |

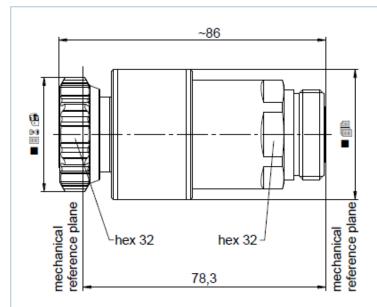
| Connectors            | 7-16        |
|-----------------------|-------------|
| Input Connector Type  | 7-16 male   |
| Output Connector Type | 7-16 female |

| TEMPERATURE SPECIFICATIONS |         |                        |
|----------------------------|---------|------------------------|
| Temperature Range          | °C (°F) | -40 to 55 (-40 to 131) |

| TESTING AND ENVIRONMENTAL |                  |  |
|---------------------------|------------------|--|
| Environmental Class       | IP67 per EN60529 |  |

DC-BLOCK-3-7MF-1 REV: A REV DATE: 09 Oct 2019 www.rfsworld.com





**External Document Links** 

## Notes

- RF CW Power, max: 1500W @ 80MHz, 300W @1880MHz, 250W @ 2700MHz, 130W @3800MHz ((for VSWR=1,0 at sea level, ambient temperature 40°C)
- 2. Blocking DC voltage for VSWR=1,0 at sea level, ambient temperature 20°C

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