7-539

# CHELTON

## V/UHF Low Pass Filter

The 7-539 is a V/UHF low pass filter designed to pass signals in the frequency range 30 MHz to 530 MHz and stop signals in the frequency range 960 MHz to 1220 MHz. The filter is intended for use in general subsonic airborne applications.

The **7-539** comprises a discrete component filter assembly housed within an aluminium alloy box, and enclosed at each end by the RF connectors. The structure is foam filled to prevent the ingress of moisture.



The **7-539** is configured as a Tchebyscheff filter.

#### ELECTRICAL

| Pass Band         | 30 MHz - 530 MHz   |
|-------------------|--------------------|
| Impedance         | 50 ohm (nominal)   |
| VSWR              | < 1.5:1            |
| Insertion Loss    | < 0.5 dB           |
| Stop Band         | 960 MHz - 1220 MHz |
| Isolation         | > 60 dB            |
| Power<br>Handling | 50 W CW (maximum)  |
| Connectors        | N Type Female      |
|                   | N Type Male        |
|                   |                    |

#### **MECHANICAL**

| Dimensions<br>(mm)<br>(including<br>connectors) | 123.444 x 26.516 x 26.516 (maximum) |
|---|-------------------------------------|
| Weight (kg)                                     | 0.18 (maximum)                      |
|   |                                     |

#### **ENVIRONMENTAL**

| High                 | MIL-STD-810F, Method 501.4                                       |
|----------------------|--|
| Temperature          | Operational: +55°C   |
|                      | Intermitttent: +71°C   |
|                      | Storage: +85°C   |
| Low                  | MIL-STD-810F, Method 502.4                                       |
| Temperature          | Operational: -54°C   |
|                      | Storage: -57°C   |
| Altitude             | MIL-STD-810F, Method 500.4                                       |
|                      | 9144 m   |
| Temperature<br>Shock | MIL-STD-810F, Method 503.4                                       |
| Vibration            | MIL-STD-810F, Method 514.5, Procedure I,<br>Categories 12 and 13 |
| Shock                | MIL-STD-810F, Method 516.5, Procedures<br>I and V                |
|                      | Functional: 20g, 11ms terminal sawtooth                          |
|                      | Crash Safety: 40g, 11ms terminal sawtooth                        |
| Salt Fog             | MIL-STD-810F, Method 509.4, Procedure I                          |
| Humidity             | MIL-STD-810F, Method 507.4                                       |
| Rain                 | MIL-STD-810F, Method 506.4 Procedure III<br>(Drip)               |
| Magnetic             | RTCA DO-160E, Section 15, Class Z                                |
| Influence            | Less than 1° deflection at 300 mm                                |
|                      |  |

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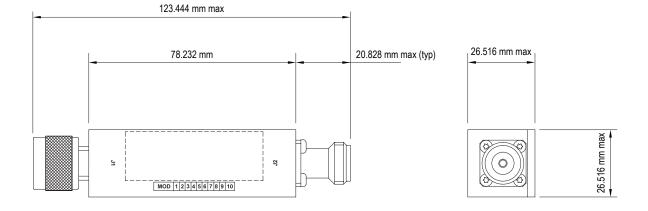
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