TELSA

# VHF Automatic Cavity Filter

118÷156 MHz, 3U Rack

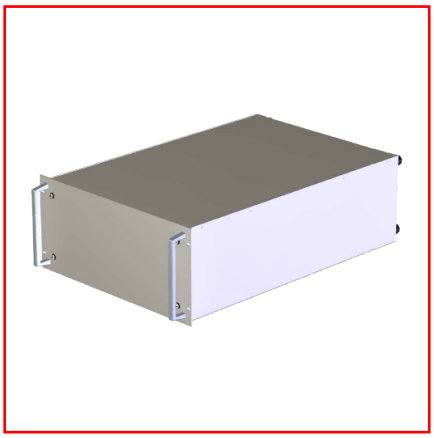
T05110446

## Electrical Specifications

| | |
|---|---|
| Frequency Band (MHz) | 118 ÷ 156 |
| Impedance (Ω) | 50 |
| Tuning accuracy (KHz) | ≤ 8 |
| Channel spacing<br>ICAO8.33 (KHz)<br>ICAO25 (KHz) | <br>8.33<br>25 |
| Return loss (dB) | ≥ 10 |
| Max continuous power (W) | 200 |
| Remote control interface | RS485 |
| Maintenance interface | RS232 |
| Thermal stability (ppm/°C) | 3 |
| Power supply<br>main (V AC)<br>stand-by (V DC) | <br>230(±20%)<br>21÷31 |
| Electrical safety | IEC 60950-1<br>EN 60950-1 |
| EMC | ETSI EN 301 489-22 |

## DESCRIPTION:

TELSA VHF Automatic Filters are the perfect solution for emergency channels and in general for applications where filter frequency is not fixed but can vary across the VHF band. Many standard configurations are available with single of double cavities and with different cavity sizes to achieve the desired balance between Selectivity and Insertion Loss. In all cases, compact and rugged mechanical design and high reliability make these systems well fit also for demanding applications in harsh environments.
No internal loop retuning is required when channel frequency is changed either automatically by the radio or directly by the operator using the (optional) keypad on the front panel. Thanks to the internal tuning mechanism, filter's depth remains unaltered when tuning is performed with great space optimization and reduction of overall volume. All systems come by default in a standard 19" fully enclosed metal housing.
The protocol of the electronic board is proprietary and fully customizable to ensure seamless compatibility with customer radio.
These filters are also suitable to be combined to compose automatic combiners in double-bridge configuration with any number of channels.



## Mechanical Specifications

| | |
|---|---|
| Maximum tuning time between fmin ÷ fmax (sec) | 60 for T ≤ 0°C<br>25 for T > 0°C |
| Emergency mechanical tuning | by screwdriver |
| RF Connectors | N f |
| Panel colour | RAL7035 |
| Operating enviroment | ETS 300 019-1-2<br>ETS 300 019-2-3<br>Class 3.1E |
| With extended temperature range (°C) | -10 ÷ +55 |
| Transportation and handling | ETS 300 019-2-2<br>Class 2.2 |

| Part Number | Filter Type | Insertion Loss (dB) | Selectivity (dB) | Current Consumption (mA) | Dimension (mm) | Weight (kg) |
|---|---|---|---|---|---|---|
| T05110446 | Single Cavity 100 | @118 MHz ≤ 1.2<br>@127.5 MHz ≤ 1<br>@156 MHz ≤ 0.9 | Δ(f)≥ ±0.5% ≥ 9<br>Δ(f)≥ ±1% ≥ 15 | stand-by ≤ 165<br>on tuning ≤ 230 | 3U x 19" x 600 | 10 |

**Telsa S.p.A.**
Via Cristoforo Colombo 29/31 - 24046 Osio Sotto (BG)
www.telsasrl.it info@telsasrl.it