

# CAVITIES

## BPF 4/...-125

*Band-Pass Filters for the 80 MHz Band*



### DESCRIPTION:

- ★ High power base station band-pass filters for the 66–88 MHz range.
- ★ The use of large  $\varnothing 125$  mm cavities means a high Q, resulting in a very narrow passband.
- ★ The large dimensions also mean a high power rating.
- ★ Unloaded Q of a single cavity is approx. 4500.
- ★ High frequency stability on temperature and power.
- ★ 19" mounting brackets are included on BPF 4/2-125 and BPF 4/3-125.



BPF 4/1-125



BPF 4/2-125



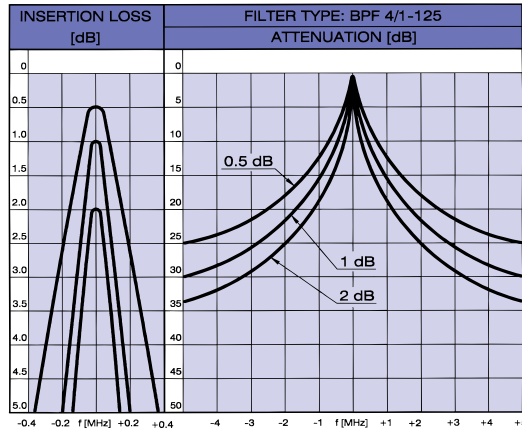
BPF 4/3-125

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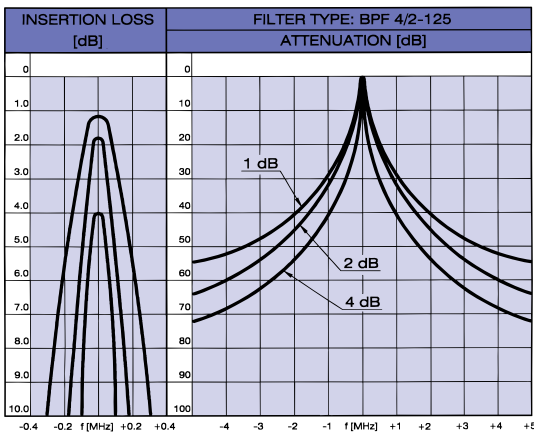
## BPF 4/...-125 Band-Pass Filters for the 80 MHz Band



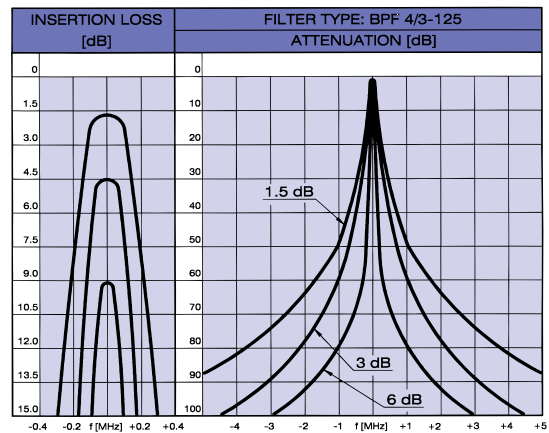
TYPICAL RESPONSE CURVES:



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### SPECIFICATIONS:

|                    | ELECTRICAL                                 |  |  |
|--------------------|--|--|--|
|                    | BPF 4/1-125                                | BPF 4/2-125                                | BPF 4/3-125                                |
| FREQUENCY RANGE    | 66-88 MHz                                  | 66-88 MHz                                  | 66-88 MHz                                  |
| MAX. INPUT POWER   | 300 W @ 0.5 dB IL<br>125 W @ 2.0 dB IL     | 300 W @ 1.0 dB IL<br>125 W @ 4.0 dB IL     | 300 W @ 1.5 dB IL<br>125 W @ 6.0 dB IL     |
| INSERTION LOSS     | Adjustable 0.4-2.0 dB                      | Adjustable 0.8-4.0 dB                      | Adjustable 1.2-6.0 dB                      |
| ATTENUATION        | See figure 1                               | See figure 2                               | See figure 3                               |
| IMPEDANCE          | Nom. 50 Ω                                  | Nom. 50 Ω                                  | Nom. 50 Ω                                  |
| SWR (at resonance) | ≤ 1.5                                      | ≤ 1.5                                      | ≤ 1.5                                      |
|                    | MECHANICAL                                 |  |  |
|                    |  |  |  |
| TEMP. RANGE        | -30° C → +60° C<br>RH 0-90% non-condensing | -30° C → +60° C<br>RH 0-90% non-condensing | -30° C → +60° C<br>RH 0-90% non-condensing |
| FREQ. STABILITY    | Approx. 1.5 ppm/° C                        | Approx. 1.5 ppm/° C                        | Approx. 1.5 ppm/° C                        |
| CONNECTORS         | N-female                                   | N-female                                   | N-female                                   |
| DIMENSIONS         | ø125 x 1200 mm                             | L: 125 x W: 250 x H: 1200 mm               | L: 125 x W: 375 x H: 1200 mm               |
| WEIGHT             | Approx. 4.3 kg                             | Approx. 9.3 kg                             | Approx. 13.7 kg                            |