

Highly Selective Band-Pass Filter for the 450 MHz Band  
with High Power-Handling Capability (150 W)

DESCRIPTION

- This band-pass filter is mainly applied to prevent interference between transceivers with narrow frequency spacing which are operating on antennas installed very close to each other.
- One of the transmitters may cause intermodulation in the output amplifier of the other transmitter, or the presence of one transmitter might “block” the contrary receiver or desense it because of excess sideband noise.
- The BPF 70/3-150 consists of 3 full-size quarter wavelength cavities with adjustable capacitive coupling between the resonators. This filter is applied when other available band-pass filters or pass-reject filters do not provide adequate power handling capability, or lack in attenuation at narrow separations.
- The filter has a very steep rolloff between the pass-range and the stop-band. This rolloff can be made even steeper by sacrificing on insertion loss. This “trade-off” may be necessary by very small separations or by highly required stop-band attenuation. Please note that the full power rating of 150 W can only be kept when keeping insertion loss below 1 dB. If insertion loss is raised to 2 dB, maximum allowable input power is 75 W.
- Another feature of this filter is its ability to be tuned with a certain pass-range bandwidth.
- The housing is made of extruded aluminium, the chassis of passivated steel, and teflon insulation has been used in the coaxial cables and in the connectors. The filter is black vinyl coated to prevent corrosion.

SPECIFICATIONS

Electrical		
Model	BPF 70/3-150	
Filter Type	Band-pass filter	
Frequency	380 - 470 MHz	
Impedance	50 Ω	
Reject Attenuation	See curves	See curves
VSWR	< 1.4:1	
Maximum Input Power	75 - 150 W	
Mechanical		
Connection(s)	N(f)	
Dimensions	257 (incl. conn.) x 125 x +50 mm	
Weight	1.17 kg / 2.58 lb	
Environmental		
Operating Temperature Range	-30 °C to +60 °C	

ORDERING

Type	Product No.
BPF 70/3-150	200000926



DIAGRAM

TYPICAL RESPONSE CURVES

