



Microwave Filter Company, Inc.

"Brickwall" Single TV Channel Deletion Filters



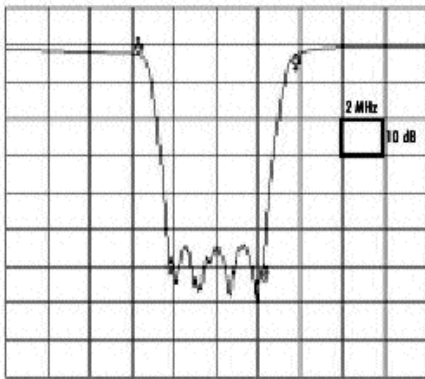
Select Models pass up to 1 GHz without an external passband extender.

The series of deletion filters attenuate the entire channel spectrum from video carrier to aural carrier to allow reinsertion of new information without interference. The 50 dB continuous suppression from video carrier to aural carrier has been found more than ample for reinsertion. Attenuation drops sharply at channel edges to preserve upper and lower adjacent channels.

All models are at AC/DC passing. 1amp max.



Typical Frequency Response of 3271Sub



Typical Frequency Response of 3271ABH



Typical Frequency Response of 3272

| Model Number | Freq. Range (MHz) | Adjacent Carrier Insertion Loss (Max.) |
|-----------------------------|-------------------|--|
| 3271Sub-Channels T7 to T13 | 5.75-47.75 | 5 dB |
| 3272-Channels 2 to 6 | 54-88 | 4 dB |
| 3271ABM-Channels A-2 to I | 108-174 | 3 dB |
| 3271ABH-Channels 7 to 13 | 174-216 | 3 dB |
| 3271ABS-Channels J to W | 216-300 | 4 dB |
| 3271ABY-Channels AA to YY | 300-450 | 5 dB |
| 3271ABY-Channels AAA to RRR | 450-564 | 6 dB Approx. |

| Channels | Upper Passband Limit (MHz.) | Insertion Loss (Approx.) |
|----------|-----------------------------|--------------------------|
| T7 to 13 | 750* | 2.0 dB |
| 2 to 6 | 500* | 1.0 dB |
| A-2 to A | 550* | 1.5 dB |
| B to F | 750* | 1.5 dB |
| G to 9 | 850* | 1.0 dB |
| 10 to ZZ | 1000 | 1.0 dB |

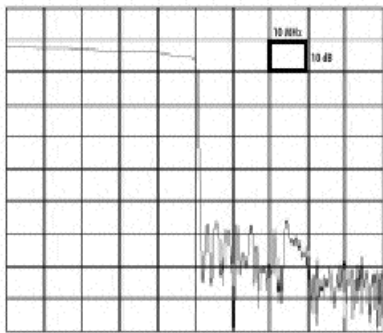
Custom models are available for higher frequencies up to 750 MHz

*Can be extended to 1 GHz with external passband extender.

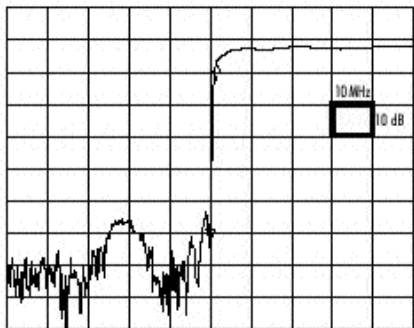
Mechanical Specifications:

- 3271 Sub-band Dimensions: 6" x 2.25"
- 3271AA Rack Dimensions: 19" x 1.75"
- 3271ABM, 3271ABH, 3271ABS & 3271ABY Rack Dimensions: 19" x 3.5"
- Connectors: 75 ohms - Type "F"

"Brickwall" Lowpass & Highpass Filters



Typical frequency response of 6211LP



Typical frequency response of 6211HP

Description:

These made to order filters divide the entire TV spectrum into two regions: passband and stopband without sacrificing a channel as a guardband. "Brickwall" lowpass and highpass filters are often used to suppress a block of channels for reinsertion of other programming.

Lowpass Example:

The unit consists of a sharp lowpass filter and a tuned deletion filter, 6211LP-(50)/(51). It passes all channels through 50 with 50 dB suppression on 51 and up. The assembly has a sharp lowpass filter and a specially tuned deletion filter, 3271ABY-51, to give the "Brickwall" interface between channels 50 and 51.

Highpass Example:

The unit consists of a sharp highpass filter and a tuned deletion filter, 6211HP-(24)/(25). Suppression is 50 dB suppression on channel 24 and below. It passes channel 25 to at least channel 61. Consists of a series assembly of a highpass filter and a specially tuned deletion filter 3271ABY-24 to give the "Brickwall" interface between channels 24-25.

Any interface channel (2-61) may be customer specified.

| 6211LP/HP Channels | Band Edge Insertion Loss (Max.) | Stopband Rejection (Min.) |
|--------------------|---------------------------------|---------------------------|
| 2 to W | 5.5 dB | 50 dB |
| AA to QQ | 6.5 dB | 50 dB |
| RR to NNN | 7.5 dB | 50 dB |
| OOO to RRR | 8.5 dB | 50 dB |

Mechanical Specifications:

Baseplate Dimensions: 19" x 8.75"

Connectors: 75 ohm - Type "F"

Other impedances and connectors can be supplied to order.

Special assemblies of several channel deletion filters are available for:

- Suppressing contiguous channel blocks
- Suppressing several non-contiguous channels
- Spectrum splitting "Brickwall" highpass or lowpass filters
- Temperature for standard models: 50° F to 90° F
- Temperature compensated models are available for -20° F to 120° F
- Batch descrambling, scrambling, channel conversion or any combination of these functions.