



Micro Communications, Inc.  
Microwave A MICROWAVE TECHNIQUES COMPANY

# INTERDIGITAL BANDPASS FILTERS

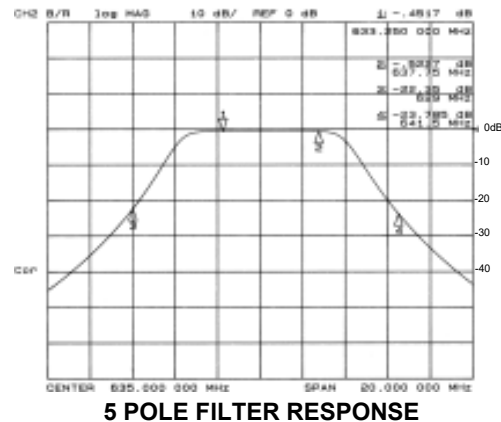
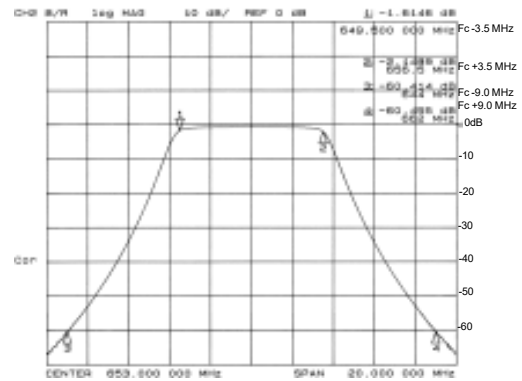
- Low Cost
- Low Loss
- Compact Design
- Low VSWR
- Thermally Stable
- High Power Handling



MCI's new "Interdigital" bandpass filters feature a unique design. Quarter-wave rods are housed inside a rectangular structure. Performance is based on the rod spacing and resonant length. The design results in a small rugged unit, which is easily integrated into a compact package.

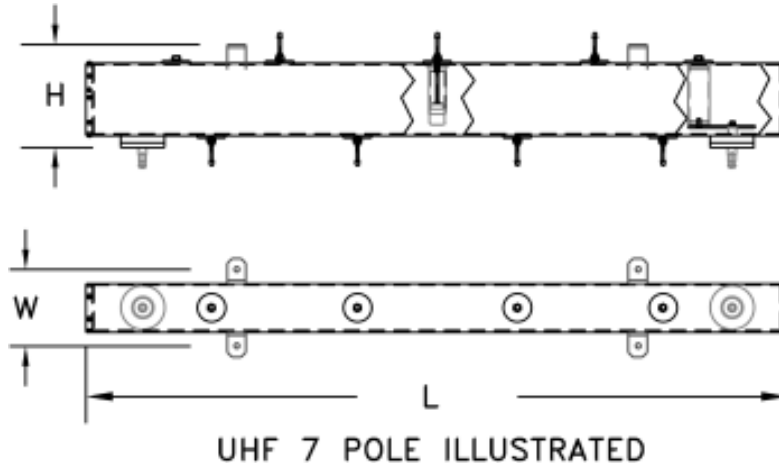
The filters are used to add additional rejection outside the band of interest. More importantly they can be incorporated into a channel combiner arrangement.

MCI's "Interdigital" filters are available for VHF and UHF. Consult factory for other applications. Please specify out-of-band rejection requirements when ordering.



| <b>SPECIFICATIONS</b><br><b>5 – Pole Filter</b> |
|---|
| VSWR: 1.15 over Pass Band                       |
| Frequency: Specify Channel                      |
| Insertion Loss: 0.5 dB (typ) 0.75 (max)         |

| <b>SPECIFICATIONS</b><br><b>7 – Pole Filter</b> |
|---|
| VSWR: 1.15 over Pass Band                       |
| Frequency: Specify Channel                      |
| Insertion Loss: 0.8 dB (typ) 1.0 (max)          |



|                        | <b>VHF</b><br><b>5 POLE</b> |         | <b>UHF</b><br><b>5 POLE</b> | <b>UHF</b><br><b>7 POLE</b> |
|------------------------|-----------------------------|---------|-----------------------------|-----------------------------|
| <b>FREQUENCY (MHz)</b> | 54-88                       | 174-216 | 470-860                     | 470-860                     |
| <b>CHANNEL RANGE</b>   | 2-6                         | 7-13    | 14-69                       | 14-69                       |
| <b>MODEL</b>           | 42104                       | 42164   | 42174                       | 42184                       |
| <b>POWER (Peak)</b>    | 23 kW                       | 14 kW   | 7 kW                        | 7 kW                        |
| <b>SIZE</b>            | 70x54x6                     | 50x17x6 | 57x6x6                      | 76x6x6                      |
| <b>WEIGHT</b>          | 150                         | 40      | 30                          | 40                          |
|                        | (68)                        | (18)    | (14)                        | (18)                        |
| <b>CONNECTORS EIA</b>  | 3 1/8"                      | 3 1/8"  | 3 1/8"                      | 3 1/8"                      |
| <b>MODEL</b>           | 42103                       | 42163   | 42173                       | 42183                       |
| <b>POWER (Peak)</b>    | 7.5 kW                      | 5 kW    | 2.5 kW                      | 2.5 kW                      |
| <b>SIZE</b>            | 54x32x6                     | 32x17x6 | 44x6x4                      | 60x6x4                      |
| <b>WEIGHT</b>          | 40                          | 30      | 20                          | 35                          |
|                        | (18)                        | (14)    | (9)                         | (16)                        |
| <b>CONNECTORS EIA</b>  | 1 5/8"                      | 1 5/8"  | 1 5/8"                      | 1 5/8"                      |
| <b>MODEL</b>           | 42102                       | 42162   | 42172                       | 42182                       |
| <b>POWER (Peak)</b>    | 4.5 kW                      | 3 kW    | 1.5 kW                      | 1.5 kW                      |
| <b>SIZE</b>            | 54x32x6                     | 32x17x6 | 40x6x4                      | 60x6x4                      |
| <b>WEIGHT</b>          | 40                          | 30      | 20                          | 35                          |
|                        | (18)                        | (14)    | (9)                         | (16)                        |
| <b>CONNECTORS EIA</b>  | 7/8"                        | 7/8"    | 7/8"                        | 7/8"                        |
| <b>MODEL</b>           |                             |         | 42171                       | 72181                       |
| <b>POWER (Peak)</b>    |                             |         | 500 W                       | 500 W                       |
| <b>SIZE</b>            |                             |         | 40x6x4                      | 60x6x4                      |
| <b>WEIGHT</b>          |                             |         | 20                          | 35                          |
|                        |                             |         | (9)                         | (16)                        |
| <b>CONNECTORS EIA</b>  |                             |         | N                           | N                           |

All specifications are subject to change without notice.



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