



Microwave Filter Company, Inc.

7893D | 7894D | 11383

C-Band Elimination Filters

Eliminate WiMAX, RADAR and Other Sources of Interference at your C-Band Receive Antenna



- **Low Insertion Loss** – Typically less than 1 dB
- **Also Rejects Transmit Band (5800-6725 MHz) >70 dB Typ** – Eliminating the need for a separate TRF
- **Low Group Delay Variation** - 8 nS Max
- **Compact Size** – For easy installation on single or multi-feed LNBS
- **Superior VSWR Performance** - 1.5:1 Max
- **Quick Turnaround** – Most orders ship within (1-5) days ARO

Historically, the solution for eliminating out-of-band interference (e.g. - RADAR) has been to install a highly-selective bandpass filter. Specifically, a filter with a passband corresponding to that region's standard footprint (i.e. - 3700-4200 MHz, 3400-4200 MHz, etc.).

However, not long ago, WiMAX began operating in the (3400-3800) MHz frequency band in many regions around the world. This common band operation causes in-band interference at C-band receive sites that cannot be eliminated with "standard footprint" BPFs.

Example : WiMAX - operating at 3700 MHz - causes interference at a C-band receive site (where the footprint is 3700-4200 MHz). A standard footprint BPF will pass all frequencies from 3700 4200 MHz (i.e. - including the interfering WiMAX signal).

Solution : Install an MFC model 7893D-3780/4200 bandpass filter that will provide 30 dB rejection at 3700 MHz and will pass all remaining C-band from (3780-4200) MHz.

Following are just some of our many filtering solutions for eliminating WiMAX, RADAR and other C-band interference :

| Model Number | Passband (MHz) | LOWER Rejection (Min./Typ. dB) | UPPER Rejection (Min./Typ. dB) |
|-----------------|----------------|---|---|
| 7893D-3400/4200 | 3400-4200 | 25/30 dB @ 3300 MHz | 25/30 dB @ 4300 MHz |
| 11383-3550/4150 | 3550-4150 | 25/-- dB @ 3500 MHz | 25/-- dB @ 4200 MHz |
| 11383 | 3600-4200 | --/25 dB @ 3550 MHz --/45 dB @ 3500 MHz | --/25 dB @ 4250 MHz 70/-- dB @ 4400 MHz |
| 11383-3625/4200 | 3625-4200 | 10/13 dB @ 3600 MHz 25/-- dB @ 3575 MHz --/40 dB @ 3550 MHz | --/20 dB @ 4285 MHz -40dB@4325MHz 60/-- dB @ 4400 MHz |
| 7893D-3665/4165 | 3665-4165 | 25/30 dB @ 3615 MHz 60/65 dB @ 3515 MHz 70/80 dB @ 3465 MHz | 25/30 dB @ 4215 MHz 60/70 dB @ 4315 MHz 70/80 dB @ 4365 MHz |
| 7893D | 3700-4200 | 25/-- dB @ 3650 MHz 60/70 dB @ 3550 MHz 70/80 dB @ 3500 MHz | 25/-- dB @ 4250 MHz 60/70 dB @ 4350 MHz 70/80 dB @ 4400 MHz |
| 7893D-3740/4160 | 3740-4160 | --/25 dB @ 3690 MHz --/40 dB @ 3650 MHz | --/25 dB @ 4210 MHz --/40 dB @ 4250 MHz |
| 7893D-3780/4200 | 3780-4200 | 10/-- dB @ 3725 MHz 30/-- dB @ 3700 MHz 50/-- dB @ 3650 MHz | 30/-- dB @ 4325 MHz 60/-- dB @ 4400 MHz |
| 7893D-3900/4200 | 3900-4200 | 30/35 dB @ 3845 MHz | 30/35 dB @ 4255 MHz |

