

## **C-Band Interference 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.).

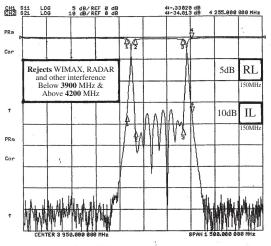
However, not long ago, WiMAX began operating in the (3400-3800) MHz frequency band in many regions around the world. This **common band** operation causes **in-band** interference at C-band receive sites that cannot be eliminated with "standard footprint" BPFs.

**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 <u>all</u> 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.

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 /40 dB @ 4325 MHz 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

Following are just some of our many filtering solutions for eliminating

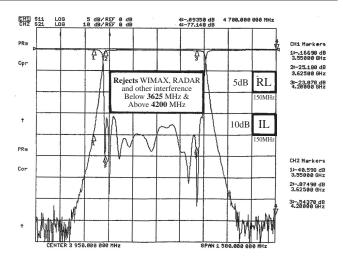


CH2 Markers 12-36.400 dB 3.84500 GHz 22-93850 dB 3.90000 GHz 32-189660 dB 4.20000 GHz

1:-.33170 dB 3.84500 GHz

31-21,319 dB 4,20000 6Hz

7893D-3900/4200 Typical Response



11383-3625/4200 Typical Response