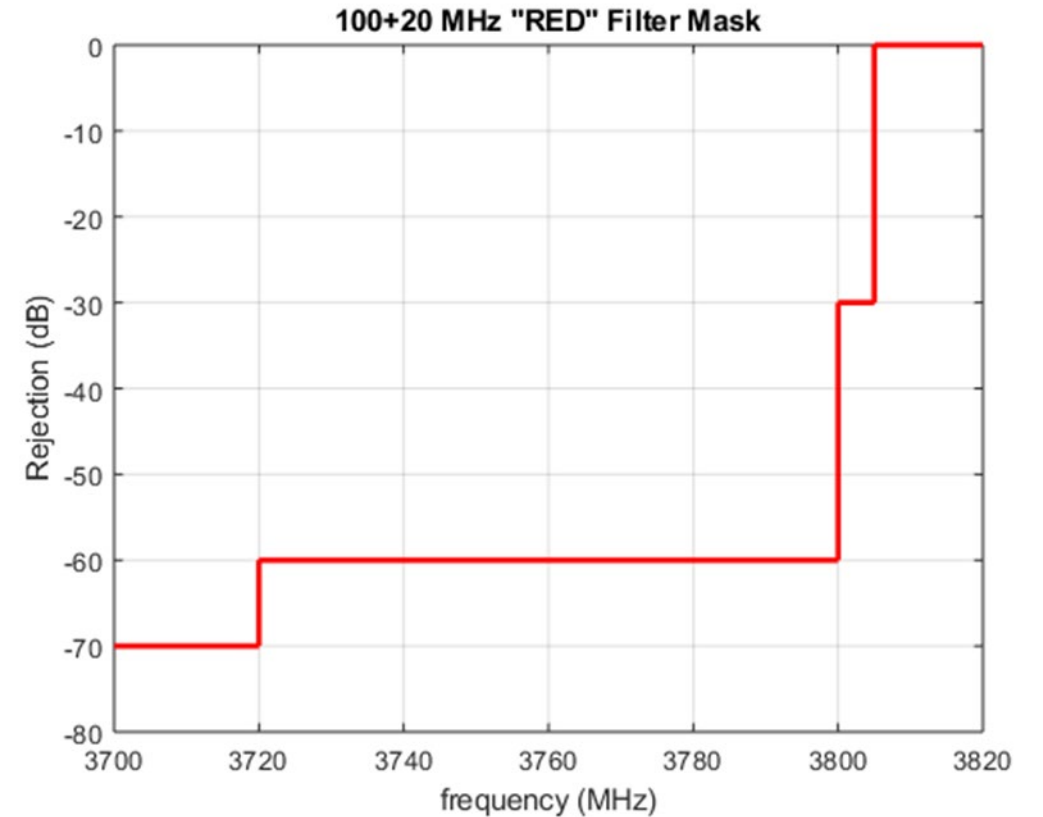


C-BAND EARTH STATIONS 5G FILTERS SPECIFICATIONS

This document summarizes the specifications for C-band satellite earth stations filters. These filters represent one of the elements to prevent harmful interference from 5G signals included in the FCC Report and Order of Proposed Modification (FCC 20-22) in the matter of “Expanding Flexible Use of the 3.7 to 4.2 GHz Band” (GN Docket No. 18-122 adopted February 28, 2020). The filter rejection specifications contained in this document comply with the filter mask requirements in the FCC Report and Order.

Earth Station Passband Filter Requirements

100+20 MHz "Red" Filter		
Electrical Characteristics	Passband	3820 - 4200 MHz
	Group delay variation within +/- 0.5 MHz	1.45 nSec max
	Insertion Loss in Pass Band	1.3 dB max
	Return Loss	20 dB min
	Rejection from 3700 MHz to 3720 MHz	70 dB min
	Rejection from 3720 MHz to 3800 MHz	60 dB min
	Rejection from 3800 MHz to 3805 MHz	30 dB min
	Rejection from 3805 MHz to 3820 MHz	0 dB min
	Rejection above 4230 MHz	25 dB min
Mechanical Characteristics	Interfaces	CPR-229G & CPR-229F Through holes both ends
	Size (L x W x H)	
	Length inclusive of flanges	
	Width and height exclusive of flanges	6.75" x 3.00" x 2.00"
	Width and height inclusive of flanges	6.75" x 3.00" x 2.96"
	Operating Temperature	-40° C to +50° C
	Finish	Matte white light textured paint



Earth Station Passband Filter Requirements

280+20 MHz "Blue" Filter		
Electrical Characteristics	Passband	4000 - 4200 MHz
	Group delay variation within +/- 0.5 MHz	1.45 nSec max
	Insertion Loss in Pass Band	1.3 dB max
	Return Loss	20 dB min
	Rejection from 3700 MHz to 3900 MHz	70 dB min
	Rejection from 3900 MHz to 3980 MHz	60 dB min
	Rejection from 3980 MHz to 3985 MHz	30 dB min
	Rejection from 3985 MHz to 4000 MHz	0 dB min
	Rejection above 4230 MHz	25 dB min
Mechanical Characteristics	Interfaces	CPR-229G & CPR-229F Through holes both ends
	Size (L x W x H)	
	Length inclusive of flanges	6.75" x 3.00" x 2.00"
	Width and height exclusive of flanges	6.75" x 3.00" x 2.96"
	Width and height inclusive of flanges	6.75" x 3.00" x 2.96"
	Operating Temperature	-40° C to +50° C
	Finish	Matte white light textured paint

