Sheet1

C-BAND FREQUENCY SETTINGS

	Bottom	Top 0.5 to 20 dB width		Mixer makes second harmonic.				
Lower filter, 0.5 dB	3900	5900	150	LO	LO*2	L	_O*2-1024	LO*2-512
Lower filter, 20 dB	3750	6050		34	400	6800	5776	6288
Upper filter, 0.5 dB	5600	7900	200	30	600	7200	6176	6688
Upper filter, 20 dB	5400	8100		39	900	7800	6776	7288

Nominal Range Upper Sideband		Usable ranges Upper Sideband			Nominal Range Lower Sideband.			Range leband	
LO	Low	High			LO	Low	High		
3400	3912	4424	3912	4150					
3600	4112	4624	4112	4624	5100	4076	4588	4076	4150
3900	4412	4924	4412	4924	5400	4376	4888	4376	4750
4100	4612	5124	4612	5124	5600	4576	5088	4576	5088
4400	4912	5424	5050	5424	5900	4876	5388	4876	5388
4600	5112	5624			6100	5076	5588	5076	5588
4900	5412	5924	5600	5924	6400	5376	5888	5376	5888
5100	5612	6124	5612	6124	6600	5576	6088	5576	5900
5400	5912	6424	5912	6424	6900	5876	6388		
5600	6112	6624	6112	6624	7100	6076	6588		
5900	6412	6924	6412	6924	7400	6376	6888	6376	6700
6100	6612	7124	6800	7124	7600	6576	7088	6576	7088
6400	6912	7424			7900	6876	7388	6876	7388
6600	7112	7624			8100	7076	7588	7076	7588
6900	7412	7924			8400	7376	7888	7376	7888
7100	7612	8124			8600	7576	8088	7576	7900
7400	7912	8424			8900	7876	8388	7876	7900

The 4.0-4.1 GHz range is only accessible with an IF that will have noise from the harmonic above about 4.15 GHz. The 7.9-8.0 GHz range will be in the roll off part of the upper filter. Note that the 4 cm receiver covers this. The OH lines around 4.7 GHz and 6.0 GHz and the Methanol line at 6.7 GHz are available in multiple good Ifs.