



Table 1 - 8 CHANNELS FREQUENCY DOWN CONVERTER:



This unit has a single four layer PCB enclosed in 2U/3U 19" temperature controlled chassis. The receiver is an 8 channel board which converts the RF signal to IF signals approximately 20MHz. 8 IF outputs from this unit are fed to the Digital unit. All the eight channels are identical and the specifications of one channel are as below:

- **IF frequency: 20 MHz**
- **LO frequency: 182.5MHz, 345MHz and 670MHz @ 10 dBm**
- **LO monitor: -10dBm max**
- **RF Input: 162.5MHz, 325MHz and 650MHz, Max +10dBm**
- **RF monitor Output: -10 dBm max, Channel to Channel isolation = -70dbm**
- **Gain in the path of IF out: 16.7dB**
- **The board also contains RF, LO and IF low pass, SSB mixer, band pass filters, RF amplifiers,**
- **Attenuators and provision for monitoring signals at various levels**
- **PCB material and thickness: ROGERS RO4350B 30mil on top layer with FR4 for other layers, 1.6mm**

THIS HAS BEEN DEVELOPED FOR BARC, MUMBAI FOR IIFC COLLABORATION WITH FERMILABS, US REQUIRED IN ACCELERATOR CONTROL APPLICATION.