



There is a significant mismatch in 3mm frequency setups of ALMA and other GMVA stations. Most stations observe in 8 adjoining 32MHz channels per one polarization, but ALMA uses 32 overlapping 62.5MHz channels per one polarization. But even worse, only 4 out of 8 typical GMVA 32MHz channels fully correspond to a single ALMA channel (see the figure below).

One of the approaches (used in particular in processing of the Spring GMVA session of 2018) is to create a set of 12 channels of unequal length using zoom bands in vex2difx for each station. Then these channels are correlated with each other in the usual way, their different width being irrelevant for DiFX correlator. Finally, a special tool difx2difx is used to restich the smaller bands in the correlation results back together. The final product is equivalent to correlating the ordinary 8x32MHz mode.

