

The dual-band NIKA: Technical Note 1, IRAM  
run 2011

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Miscellaneous information for the IRAM2011 run.

## Frequencies

Data acquisition rate is  $f_{acq} = \frac{1.9 \times 10^3}{80} = 23.75$  Hz

To get the absolute frequency, Hz\_per\_bin=  $\frac{498.074 \times 10^6}{2^{18}} = 1900.0015$  Hz .

If one uses the IDL routine read\_camera\_data, then the tone frequency of each kid is available in kHz as kidpar.kid\_freq. Both 1 and 2 mm channels span a range of frequencies from 1.311 to 1.524 GHz.

The so-called Rf\_dIdQ (the first vector in the data for each kid) is the resonance central frequency in units of Hz starting at zero at the beginning of each scan (by construction). One can work out how the tone frequency is different from the central resonance frequency by propagating from scan to scan the offsets obtained from the last frequency sweep scan.