

Acquisition Parameters

SW Spectral Width (Hz)

DW Dwell time between samples (s)

NP, TD Number of data points in FID

AT, AQ Acquisition Time for FID (s)

$$SW = 1 / (2 * DW)$$

maximum frequency
without aliasing

$$AT = NP * DW$$

time required to sample
NP data points

Combining:

$$DW = 1 / (2 * SW) = AT / NP$$

$$NP = 2 * SW * AT$$

$$\text{Complex Pairs} = SW * AT$$