

# ALMA Science

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## How high is the time cadence of synthesized Solar images?

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When you request an observation with single-pointing, the time cadence of images is limited by the integration time of the 64-bits correlator. Since the integration time is set to 1 second, the highest time cadence is 1 second. When you request a "mosaic" observation, the time cadence of "mosaic" images depends on the number of points in the Field of View (FoV). Since the observation for one point takes 7.6 seconds (Integration time 6 seconds + overhead) for "mosaic" observations, the time cadence of "mosaic" images is 7.6 seconds x the number of points. However, if a phase calibrator scan is inserted during the scanning of a "mosaic" image, the duration of the "mosaic" map increases by about 3 minutes (the duration on the phase calibrator observation).