The output images for both design scenarios are presented in Figure **??**. Since the overclocking errors are in the LSDs of the results with online arithmetic, the degradation on the image can be hardly observed. In contrast, timing violations cause error in the MSDs with traditional arithmetic. This leads to "salt and pepper noise" and severe quality loss as shown on the images in the right column of Figure **??**. Meanwhile, errors in the MSDs would result in large noise power and therefore the signal-to-noise ratio (SNR) for the traditional design is small.