

External downsampler to produce LR input	Proposed vs. 8-tap FIR
$[-1, 0, 9, 16, 9, 0, -1]/32$	0.66 dB
$[-2, 0, 64, 132, 64, 0, -2]/256$	0.58 dB
$[1, 0, -5, 0, 20, 32, 20, 0, -5, 0, 1]/64$	0.67 dB
$[1, 0, -11, 0, 74, 128, 74, 0, -11, 0, 1]/256$	0.66 dB
$[-1, 0, 4, 0, -17, 0, 78, 128, 78, 0, -17, 0, 4, 0, -1]/256$	0.66 dB
$[1, 0, -2, 0, 7, 0, -21, 0, 79, 128, 79, 0, -21, 0, 7, 0, -2, 0, 1]/256$	0.60 dB

Table 1: Influence of using different downsampling filters to generate LR images. For each HR image, six different LR images are generated using 2x downsampling filters given in the first column. It can be seen that the proposed method achieves stable results and the external downsampling filter does not greatly influence the gains.