2023 Digital IC Design Homework 5

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| NAME | 劉承軒 | | | |
| Student ID | P77111079 | | | |
| **Simulation Result** | | | | |
| Functional simulation | | Completed | Gate-level simulation | Completed |
|  | | |  | |
| **Evaluation Results** | | | | |
| test1.png | | 31.21 | test2.png | 31.9 |
| test3.png | | 34.82 | test4.png | 26.79 |
| test5.png | | 29.56 | test6.png | 32.75 |
| **Description of your design** | | | | |
| The method I use is referenced from the paper which title is “HIGH-QUALITY LINEAR INTERPOLATION FOR DEMOSAICING OF BAYER-PATTERNED COLOR IMAGES”. There will be different weights corresponding to the RGB channel that interpolate target channel value. The weight could refer to the following figure:  Each value in the line buffer need to multiply their weights and the final result should divided by 8. | | | | |

*Scoring = average PSNR of the six test images*

**\* PSNR of all interpolation results should meet at least the baseline.**