2023 Digital IC Design Homework 5

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| **Simulation Result** | | | | |
| Functional simulation | | Completed | Gate-level simulation | Completed |
|  | | |  | |
| **Evaluation Results** | | | | |
| test1.png | | 25.32 | test2.png | 24.82 |
| test3.png | | 29.12 | test4.png | 20.95 |
| test5.png | | 21.94 | test6.png | 25.21 |
| **Description of your design** | | | | |
| |  | | --- | | 主要是用助教提供的bilinear interpolation來做這次作業。  分四狀態:  INIT: reset歸0，image的data可以開始讀。  DATA\_IN: 讀image的data，將data分別丟入RGB的memory，若屬於要執bilinear interpolation的pixel則先丟0。  STACK:開始計算bilinear interpolation。開始計算bilinear interpolation會先去memory抓資料。但因為邊緣不計算PSNR的標準，為計算方便，所以從pixel 128開始計算。計算完就丟進去address相對應的data。直到算到第16255個pixel 跳下一個狀態。  DONE: 將done拉起來，結束這張Image Demosaicing。 | | | | | |

*Scoring = average PSNR of the six test images*

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