**Table 1 - Quantitative evaluation of descriptors, precision and recall estimation (with found overlap)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name | NP | DP | NMO | NI | Precision | RecallO1 | avg ErrIM (pixel) | max ErrIM |
| SIFT | 8769,2 | 0,01 | 2182,8 | 1806,6 | 0,816 | 0,179 | 0,598 | 3,464 |
| SURF128 | 12637 | 0,015 | 1582,2 | 1289,8 | 0,807 | 0,086 | 0,985 | 3,398 |
| SURF64 | 12637 | 0,015 | 2014,2 | 1703,2 | 0,838 | 0,113 | 0,992 | 3,95 |
| ORB | 51655,1 | 0,062 | 6902,8 | 6328,6 | 0,915 | 0,103 | 0,98 | 3,905 |
| ORB1000 | 1000 | 0,001 | 160 | 126,8 | 0,792 | 0,13 | 0,9 | 2,348 |
| BRISK | 21875 | 0,026 | 2259,6 | 2014,6 | 0,888 | 0,078 | 0,889 | 3,816 |
| KAZE | 5235,6 | 0,006 | 1089,6 | 927 | 0,847 | 0,152 | 0,831 | 3,791 |
| AKAZE | 5775,3 | 0,007 | 944 | 802,2 | 0,844 | 0,116 | 0,705 | 3,42 |

**Table 2 - Estimation of time costs**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name | NP1 | NP2 | DesT1, sec | DesT2, sec | DesT, sec | MatchT, sec | InlierT, sec | AvgDesT, ms | AvgMatchT, ms | AvgInlierT, ms | TotalNormT, sec |
| SIFT | 11196 | 6342,4 | 0,32105 | 0,191788 | 0,256419 | 0,828712 | 0,005365 | 0,029457 | 0,374204 | 0,00297 | 1,346915 |
| SURF128 | 16204 | 9070 | 0,785085 | 0,452698 | 0,618892 | 2,235808 | 0,001756 | 0,049181 | 1,399654 | 0,001361 | 3,475347 |
| SURF64 | 16204 | 9070 | 0,647683 | 0,373604 | 0,510644 | 0,971723 | 0,002054 | 0,040581 | 0,47821 | 0,001206 | 1,995064 |
| ORB | 64719 | 38591,2 | 0,160437 | 0,090747 | 0,125592 | 8,562969 | 0,005197 | 0,002415 | 1,237495 | 0,000821 | 8,819351 |
| ORB1000 | 1000 | 1000 | 0,059771 | 0,032059 | 0,045915 | 0,011371 | 0,001098 | 0,045915 | 0,071071 | 0,008658 | 0,104299 |
| BRISK | 27371 | 16379 | 0,459996 | 0,258352 | 0,359174 | 1,51054 | 0,001737 | 0,01629 | 0,666081 | 0,000862 | 2,230625 |
| KAZE | 6700 | 3771,2 | 0,6564 | 0,413608 | 0,535004 | 0,269889 | 0,000978 | 0,103823 | 0,246699 | 0,001055 | 1,340875 |
| AKAZE | 7407 | 4143,6 | 0,129193 | 0,08549 | 0,107341 | 0,142513 | 0,000979 | 0,019037 | 0,150014 | 0,001221 | 0,358175 |