**Table 2 - Quantitative evaluation of descriptors, precision and recall estimation (with found overlap)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name | NP | DP | NMO | NI | Precision | RecallO1 | avg ErrIM (pixel) | max ErrIM |
| SIFT | 918.952380952381 | 0,0039 | 291,7619 | 248.71428571428572 | 0,8468 | 0,2438 | 0,4554 | 2,1401 |
| SURF128 | 1402.6904761904761 | 0,0059 | 232,0476 | 182.0952380952381 | 0,7791 | 0,12 | 2,5641 | 14,1695 |
| SURF64 | 1402.6904761904761 | 0,0059 | 287,5714 | 229.1904761904762 | 0,7919 | 0,1519 | 0,9801 | 3,2573 |
| ORB | 3988.6190476190477 | 0,0169 | 610,5714 | 518.5714285714286 | 0,8472 | 0,128 | 0,8331 | 2,9511 |
| ORB1000 | 956.0952380952381 | 0,0041 | 174,4286 | 140.61904761904762 | 0,804 | 0,1583 | 0,8404 | 2,6965 |
| BRISK | 1525.7619047619048 | 0,0064 | 257,0952 | 229.66666666666666 | 0,8912 | 0,1458 | 0,6997 | 2,5401 |
| KAZE | 454.95238095238096 | 0,0019 | 100,1905 | 85.0 | 0,8448 | 0,1856 | 0,8147 | 2,61 |
| AKAZE | 395.7142857142857 | 0,0017 | 76,4762 | 64.85714285714286 | 0,8439 | 0,1616 | 0,6378 | 2,1329 |

**Table 3 - Estimation of time costs**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name | NP1 | NP2 | DesT1, sec | DesT2, sec | MatchT, sec | InlierT, sec | AvgDesT, ms | AvgMatchT, ms | AvgInlierT, ms | TotalNormT, sec |
| SIFT | 1052.4285714285713 | 785.4761904761905 | 0,073445 | 0,062342 | 0,018641 | 0,001003 | 0,074577 | 0,063465 | 0,004033 | 0,155431 |
| SURF128 | 1574.3809523809523 | 1231.0 | 0,079404 | 0,067864 | 0,025011 | 0,002016 | 0,052782 | 0,107013 | 0,011073 | 0,174295 |
| SURF64 | 1574.3809523809523 | 1231.0 | 0,067889 | 0,058557 | 0,015115 | 0,001782 | 0,045345 | 0,052222 | 0,007776 | 0,143344 |
| ORB | 4411.714285714285 | 3565.5238095238096 | 0,014078 | 0,013709 | 0,077507 | 0,001101 | 0,003518 | 0,126625 | 0,002123 | 0,106395 |
| ORB1000 | 954.8095238095239 | 957.3809523809524 | 0,009244 | 0,008474 | 0,00574 | 0,001556 | 0,009266 | 0,032819 | 0,011064 | 0,025014 |
| BRISK | 1731.5238095238096 | 1320.0 | 0,02607 | 0,019752 | 0,011884 | 0,000624 | 0,01501 | 0,046115 | 0,002718 | 0,058331 |
| KAZE | 498.6190476190476 | 411.2857142857143 | 0,188148 | 0,152836 | 0,002964 | 0,000612 | 0,374472 | 0,029454 | 0,007203 | 0,34456 |
| AKAZE | 442.0 | 349.42857142857144 | 0,021226 | 0,018621 | 0,001391 | 0,000807 | 0,050656 | 0,018096 | 0,012436 | 0,042044 |