**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 | 11710,3 | 0,011 | 1984,8 | 1841,4 | 0,921 | 0,129 | 0,54 | 3,333 |
| SURF128 | 12933,2 | 0,013 | 1086,6 | 945 | 0,867 | 0,062 | 0,942 | 3,543 |
| SURF64 | 12933,2 | 0,013 | 1516,2 | 1284,4 | 0,842 | 0,084 | 0,992 | 3,841 |
| ORB | 43130,5 | 0,041 | 3721,6 | 3455,6 | 0,919 | 0,067 | 0,922 | 3,713 |
| ORB1000 | 1000 | 0,001 | 116,4 | 98,2 | 0,839 | 0,122 | 0,677 | 2,397 |
| BRISK | 12834,1 | 0,012 | 1298,6 | 1184 | 0,908 | 0,078 | 0,827 | 3,335 |
| KAZE | 3184,8 | 0,003 | 431,6 | 378 | 0,873 | 0,104 | 0,908 | 3,213 |
| AKAZE | 3304,2 | 0,003 | 379 | 328,8 | 0,857 | 0,084 | 0,841 | 3,223 |

**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 | 17804 | 5616,6 | 0,411312 | 0,167602 | 0,289457 | 1,107781 | 0,002197 | 0,026471 | 0,55378 | 0,001193 | 1,688892 |
| SURF128 | 18208 | 7658,4 | 0,891907 | 0,362813 | 0,62736 | 1,868538 | 0,001118 | 0,048179 | 1,714255 | 0,001183 | 3,124377 |
| SURF64 | 18208 | 7658,4 | 0,884673 | 0,413299 | 0,648986 | 1,069856 | 0,002422 | 0,051277 | 0,701729 | 0,001886 | 2,37025 |
| ORB | 63449 | 22812 | 0,159787 | 0,060654 | 0,110221 | 5,431005 | 0,003738 | 0,002589 | 1,444954 | 0,001082 | 5,655185 |
| ORB1000 | 1000 | 1000 | 0,048821 | 0,022425 | 0,035623 | 0,005029 | 0,000659 | 0,035623 | 0,042984 | 0,006708 | 0,076934 |
| BRISK | 18557 | 7111,2 | 0,305338 | 0,116822 | 0,21108 | 0,451112 | 0,001151 | 0,016441 | 0,345892 | 0,000972 | 0,874423 |
| KAZE | 4397 | 1972,6 | 0,804839 | 0,387671 | 0,596255 | 0,090556 | 0,000703 | 0,189785 | 0,209232 | 0,00186 | 1,283768 |
| AKAZE | 4765 | 1843,4 | 0,168452 | 0,075276 | 0,121864 | 0,037178 | 0,001075 | 0,038094 | 0,096868 | 0,003269 | 0,28198 |