

| processor | model | TF ver. | input size | model size | FLOPs | parameters | accuracy | model load time | dataset load time | inference time | inference time(avg) | invoke time(avg) | IPS | IPS(inf) | total time | model_size (cur/prev) | FLOPs (cur/prev) | parameters (cur/prev) | total_time (cur/prev) |
|-------------|-------------|---------|------------|------------|----------|------------|----------|-----------------|-------------------|----------------|---------------------|------------------|--------|----------|------------|-----------------------|------------------|-----------------------|-----------------------|
| CPU | MobileNetV1 | 1 | 128x128x3 | 0.7MB | 0.0281 G | 475801 | 0.383 | 0.011 | 19.319 | 3.296 | 0.003 | 0.007 | 44.101 | 303.373 | 22.675 | | | | |
| EdgeTPU | MobileNetV1 | 1 | 128x128x3 | 0.7MB | | | 0.383 | 2.687 | 18.915 | 2.102 | 0.002 | 0.002 | 42.179 | 475.723 | 23.709 | | | | |
| CPU+EdgeTPU | MobileNetV1 | 1 | 128x128x3 | 0.7MB | | | 0.383 | 2.759 | 19.915 | 3.724 | 0.004 | 0.006 | 39.11 | 154.011 | 25.569 | | | | |
| CPU | MobileNetV1 | 1 | 160x160x3 | 1.6MB | 0.156 G | 1343049 | 0.579 | 0.014 | 19.897 | 9.19 | 0.009 | 0.028 | 34.906 | 108.814 | 29.15 | | | | |
| EdgeTPU | MobileNetV1 | 1 | 160x160x3 | 1.6MB | | | 0.578 | 2.692 | 19.681 | 2.865 | 0.003 | 0.002 | 39.617 | 348.988 | 25.242 | | | | |
| CPU+EdgeTPU | MobileNetV1 | 1 | 160x160x3 | 1.6MB | | | 0.579 | 2.723 | 19.675 | 6.073 | 0.006 | 0.014 | 35.043 | 113.682 | 28.536 | 2.28 | 5.551 | 2.822 | |
| CPU | MobileNetV1 | 1 | 192x192x3 | 2.8MB | 0.484 G | 2602745 | 0.697 | 0.242 | 20.683 | 21.831 | 0.022 | 0.077 | 23.486 | 45.806 | 42.579 | | | | |
| EdgeTPU | MobileNetV1 | 1 | 192x192x3 | 2.8MB | | | 0.697 | 2.697 | 20.366 | 3.639 | 0.004 | 0.003 | 37.447 | 274.834 | 26.705 | | | | |
| CPU+EdgeTPU | MobileNetV1 | 1 | 192x192x3 | 2.8MB | | | 0.697 | 2.725 | 20.431 | 8.885 | 0.009 | 0.021 | 31.137 | 86.129 | 32.116 | 1.425 | 3.102 | 1.937 | |
| CPU | MobileNetV2 | 1 | 224x224x3 | 4.9MB | 0.616 G | 3540265 | 0.793 | 0.022 | 21.556 | 41.491 | 0.041 | 0.152 | 15.843 | 24.102 | 63.118 | | | | |
| EdgeTPU | MobileNetV2 | 1 | 224x224x3 | 4.9MB | | | 0.794 | 2.703 | 21.316 | 5.69 | 0.006 | 0.005 | 33.654 | 175.744 | 29.714 | | | | |
| CPU+EdgeTPU | MobileNetV2 | 1 | 224x224x3 | 4.9MB | | | 0.794 | 2.763 | 21.215 | 11.004 | 0.011 | 0.028 | 28.521 | 72.637 | 35.062 | 1.428 | 1.272 | 1.36 | |
| CPU | MobileNetV1 | 1 | 224x224x3 | 4.4MB | 1.15 G | 4254889 | 0.777 | 0.027 | 21.458 | 45.854 | 0.046 | 0.172 | 14.84 | 21.808 | 67.387 | | | | |
| EdgeTPU | MobileNetV1 | 1 | 224x224x3 | 4.4MB | | | 0.777 | 2.704 | 21.243 | 5.413 | 0.005 | 0.005 | 34.056 | 184.752 | 29.363 | | | | |
| CPU+EdgeTPU | MobileNetV1 | 1 | 224x224x3 | 4.4MB | | | 0.777 | 2.746 | 21.234 | 11.489 | 0.011 | 0.03 | 28.13 | 70.248 | 35.549 | 1.1 | 1.866 | 1.201 | |
| CPU | MobileNetV3 | 2 | 224x224x3 | 4.9MB | 0.499 G | 5508713 | 0.675 | 0.033 | 21.571 | 83.874 | 0.084 | 0.321 | 9.477 | 11.923 | 105.522 | | | | |
| EdgeTPU | MobileNetV3 | 2 | 224x224x3 | 4.9MB | | | 0.691 | 2.706 | 21.148 | 5.901 | 0.006 | 0.005 | 33.604 | 169.461 | 29.759 | | | | |
| CPU+EdgeTPU | MobileNetV3 | 2 | 224x224x3 | 4.9MB | | | 0.689 | 2.759 | 21.277 | 11.791 | 0.012 | 0.032 | 27.846 | 68.732 | 35.911 | 1.113 | 0.433 | 1.294 | |
| CPU | InceptionV1 | 1 | 224x224x3 | 7.0MB | 3.02 G | 6633209 | 0.708 | 0.04 | 21.623 | 110.513 | 0.111 | 0.43 | 7.564 | 9.049 | 132.205 | | | | |
| EdgeTPU | InceptionV1 | 1 | 224x224x3 | 7.0MB | | | 0.708 | 2.713 | 21.371 | 6.833 | 0.007 | 0.006 | 32.339 | 146.358 | 30.923 | | | | |
| CPU+EdgeTPU | InceptionV1 | 1 | 224x224x3 | 7.0MB | | | 0.708 | 2.76 | 21.171 | 13.285 | 0.013 | 0.036 | 26.804 | 62.324 | 37.307 | 1.428 | 6.052 | 1.204 | |
| CPU | InceptionV2 | 1 | 224x224x3 | 12.0MB | 3.59 G | 11199137 | 0.782 | 0.113 | 21.566 | 160.097 | 0.16 | 0.624 | 5.502 | 6.246 | 181.755 | | | | |
| EdgeTPU | InceptionV2 | 1 | 224x224x3 | 12.0MB | | | 0.784 | 2.729 | 21.112 | 22.848 | 0.023 | 0.022 | 21.417 | 43.767 | 46.693 | | | | |
| CPU+EdgeTPU | InceptionV2 | 1 | 224x224x3 | 12.0MB | | | 0.783 | 2.774 | 21.262 | 25.784 | 0.026 | 0.077 | 20.031 | 35.016 | 49.622 | 1.714 | 1.188 | 1.688 | |
| CPU | InceptionV3 | 1 | 299x299x3 | 23.9MB | 5.7 G | 23653833 | 0.912 | 0.128 | 23.684 | 468.055 | 0.468 | 1.841 | 2.033 | 2.137 | 491.848 | | | | |
| EdgeTPU | InceptionV3 | 1 | 299x299x3 | 23.9MB | | | 0.913 | 2.774 | 23.181 | 70.464 | 0.07 | 0.07 | 10.371 | 14.192 | 96.424 | | | | |
| CPU+EdgeTPU | InceptionV3 | 1 | 299x299x3 | 23.9MB | | | 0.912 | 2.836 | 23.065 | 73.93 | 0.074 | 0.219 | 10.005 | 13.027 | 99.948 | 1.991 | 1.587 | 2.129 | |
| CPU | ResNet-50 | 2 | 224x224x3 | 25.0MB | 8.21 G | 25612201 | 0.757 | 0.132 | 21.394 | 356.507 | 0.357 | 1.403 | 2.645 | 2.805 | 378.021 | | | | |
| EdgeTPU | ResNet-50 | 2 | 224x224x3 | 25.0MB | | | 0.756 | 2.773 | 21.165 | 69.42 | 0.069 | 0.069 | 10.711 | 14.405 | 93.361 | | | | |
| CPU+EdgeTPU | ResNet-50 | 2 | 224x224x3 | 25.0MB | | | 0.756 | 3.009 | 21.184 | 65.322 | 0.065 | 0.263 | 11.157 | 14.635 | 89.634 | 1.04 | 1.44 | 1.073 | |
| CPU | InceptionV4 | 1 | 299x299x3 | 42.9MB | | | 0.904 | 0.268 | 23.53 | 1036.613 | 1.037 | 4.105 | 0.943 | 0.965 | 1060.308 | | | | |
| EdgeTPU | InceptionV4 | 1 | 299x299x3 | 42.9MB | | | 0.903 | 2.864 | 23.158 | 138.959 | 0.139 | 0.138 | 14.864 | 7.196 | 164.914 | | | | |
| CPU+EdgeTPU | InceptionV4 | 1 | 299x299x3 | 42.9MB | | | 0.903 | 2.955 | 23.187 | 138.806 | 0.139 | 0.411 | 6.056 | 7.054 | 165.118 | 1.716 | | | |