AVLSI   Lab2   **R10943170 連德宇**

Screenshot of Tera term which successfully run NN on MCU

```
ITERATION 1 OF 50
-------------------------------------
CONV_2D took 4185379 ticks (19 ms).
CONV_2D took 20828764 ticks (96 ms).
MUL took 3818534 ticks (17 ms).
ADD took 6437844 ticks (29 ms).
MAX_POOL_2D took 270990 ticks (1 ms).
CONV_2D took 10682682 ticks (49 ms).
MUL took 1884500 ticks (8 ms).
ADD took 3210438 ticks (14 ms).
CONV_2D took 21729810 ticks (100 ms).
MUL took 1883966 ticks (8 ms).
ADD took 3214394 ticks (14 ms).
MAX_POOL_2D took 120302 ticks (0 ms).
CONV_2D took 5431144 ticks (25 ms).
MUL took 477127 ticks (2 ms).
ADD took 803819 ticks (3 ms).
CONV_2D took 5429199 ticks (25 ms).
MUL took 476240 ticks (2 ms).
ADD took 803763 ticks (3 ms).
MAX_POOL_2D took 29408 ticks (0 ms).
CONV_2D took 1356671 ticks (6 ms).
MUL took 121225 ticks (0 ms).
ADD took 202977 ticks (0 ms).
CONV_2D took 1356853 ticks (6 ms).
MUL took 120653 ticks (0 ms).
ADD took 203217 ticks (0 ms).
MAX_POOL_2D took 7995 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34464 ticks (0 ms).
FULLY_CONNECTED took 2776 ticks (0 ms).
-------------------------------------
NUMBER OF TICKS = 95127502
INFERENCE TIME = 440 ms
=====================================
ITERATION 2 OF 50
-------------------------------------
CONV_2D took 4183735 ticks (19 ms).
CONV_2D took 20821781 ticks (96 ms).
MUL took 3786288 ticks (17 ms).
ADD took 6436050 ticks (29 ms).
MAX_POOL_2D took 271474 ticks (1 ms).
CONV_2D took 10685166 ticks (49 ms).
MUL took 1884008 ticks (8 ms).
ADD took 3213918 ticks (14 ms).
CONV_2D took 21735168 ticks (100 ms).
MUL took 1883836 ticks (8 ms).
ADD took 3214778 ticks (14 ms).
MAX_POOL_2D took 120706 ticks (0 ms).
CONV_2D took 5429654 ticks (25 ms).
MUL took 477103 ticks (2 ms).
ADD took 804049 ticks (3 ms).
CONV_2D took 5430005 ticks (25 ms).
MUL took 476716 ticks (2 ms).
ADD took 803981 ticks (3 ms).
MAX_POOL_2D took 29455 ticks (0 ms).
CONV_2D took 1357672 ticks (6 ms).
MUL took 120344 ticks (0 ms).
ADD took 202765 ticks (0 ms).
CONV_2D took 1356313 ticks (6 ms).
MUL took 121237 ticks (0 ms).
ADD took 202933 ticks (0 ms).
MAX_POOL_2D took 8007 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34064 ticks (0 ms).
FULLY_CONNECTED took 2709 ticks (0 ms).
-------------------------------------
NUMBER OF TICKS = 95096283
INFERENCE TIME = 440 ms
=====================================
```

```
ITERATION 3 OF 50
-------------------------------------
CONV_2D took 4185417 ticks (19 ms).
CONV_2D took 20827414 ticks (96 ms).
MUL took 3786208 ticks (17 ms).
ADD took 6425686 ticks (29 ms).
MAX_POOL_2D took 271468 ticks (1 ms).
CONV_2D took 10687150 ticks (49 ms).
MUL took 1887288 ticks (8 ms).
ADD took 3211992 ticks (14 ms).
CONV_2D took 21728762 ticks (100 ms).
MUL took 1887108 ticks (8 ms).
ADD took 3214652 ticks (14 ms).
MAX_POOL_2D took 120018 ticks (0 ms).
CONV_2D took 5428846 ticks (25 ms).
MUL took 473147 ticks (2 ms).
ADD took 804361 ticks (3 ms).
CONV_2D took 5430542 ticks (25 ms).
MUL took 472922 ticks (2 ms).
ADD took 804382 ticks (3 ms).
MAX_POOL_2D took 29471 ticks (0 ms).
CONV_2D took 1357226 ticks (6 ms).
MUL took 120636 ticks (0 ms).
ADD took 202871 ticks (0 ms).
CONV_2D took 1356259 ticks (6 ms).
MUL took 120234 ticks (0 ms).
ADD took 203123 ticks (0 ms).
MAX_POOL_2D took 8065 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34224 ticks (0 ms).
FULLY_CONNECTED took 2718 ticks (0 ms).
-------------------------------------
NUMBER OF TICKS = 95084558
INFERENCE TIME = 440 ms
=====================================
ITERATION 4 OF 50
-------------------------------------
CONV_2D took 4186257 ticks (19 ms).
CONV_2D took 20828603 ticks (96 ms).
MUL took 3786062 ticks (17 ms).
ADD took 6428020 ticks (29 ms).
MAX_POOL_2D took 271676 ticks (1 ms).
CONV_2D took 10682686 ticks (49 ms).
MUL took 1884584 ticks (8 ms).
ADD took 3211840 ticks (14 ms).
CONV_2D took 21727646 ticks (100 ms).
MUL took 1884364 ticks (8 ms).
ADD took 3212708 ticks (14 ms).
MAX_POOL_2D took 120536 ticks (0 ms).
CONV_2D took 5430912 ticks (25 ms).
MUL took 473580 ticks (2 ms).
ADD took 804899 ticks (3 ms).
CONV_2D took 5429708 ticks (25 ms).
MUL took 472914 ticks (2 ms).
ADD took 803693 ticks (3 ms).
MAX_POOL_2D took 29435 ticks (0 ms).
CONV_2D took 1357835 ticks (6 ms).
MUL took 120542 ticks (0 ms).
ADD took 203463 ticks (0 ms).
CONV_2D took 1356885 ticks (6 ms).
MUL took 120249 ticks (0 ms).
ADD took 203053 ticks (0 ms).
MAX_POOL_2D took 8061 ticks (0 ms).
RESHAPE took 2350 ticks (0 ms).
FULLY_CONNECTED took 34288 ticks (0 ms).
FULLY_CONNECTED took 2741 ticks (0 ms).
-------------------------------------
NUMBER OF TICKS = 95079590
INFERENCE TIME = 440 ms
=====================================
```

```
=====================================
ITERATION 5 OF 50
-------------------------------------
CONV_2D took 4182657 ticks (19 ms).
CONV_2D took 20820923 ticks (96 ms).
MUL took 3785928 ticks (17 ms).
ADD took 6429170 ticks (29 ms).
MAX_POOL_2D took 271118 ticks (1 ms).
CONV_2D took 10684332 ticks (49 ms).
MUL took 1883966 ticks (8 ms).
ADD took 3211962 ticks (14 ms).
CONV_2D took 21733020 ticks (100 ms).
MUL took 1883976 ticks (8 ms).
ADD took 3213738 ticks (14 ms).
MAX_POOL_2D took 120268 ticks (0 ms).
CONV_2D took 5430534 ticks (25 ms).
MUL took 473243 ticks (2 ms).
ADD took 804886 ticks (3 ms).
CONV_2D took 5431179 ticks (25 ms).
MUL took 472928 ticks (2 ms).
ADD took 804181 ticks (3 ms).
MAX_POOL_2D took 29469 ticks (0 ms).
CONV_2D took 1357184 ticks (6 ms).
MUL took 120088 ticks (0 ms).
ADD took 202647 ticks (0 ms).
CONV_2D took 1356653 ticks (6 ms).
MUL took 120152 ticks (0 ms).
ADD took 202846 ticks (0 ms).
MAX_POOL_2D took 8039 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34230 ticks (0 ms).
FULLY_CONNECTED took 2726 ticks (0 ms).
-------------------------------------
NUMBER OF TICKS = 95074411
INFERENCE TIME = 440 ms
=====================================
ITERATION 6 OF 50
-------------------------------------
CONV_2D took 4183564 ticks (19 ms).
CONV_2D took 20826842 ticks (96 ms).
MUL took 3786432 ticks (17 ms).
ADD took 6441340 ticks (29 ms).
MAX_POOL_2D took 271370 ticks (1 ms).
CONV_2D took 10683154 ticks (49 ms).
MUL took 1884272 ticks (8 ms).
ADD took 3211146 ticks (14 ms).
CONV_2D took 21727258 ticks (100 ms).
MUL took 1883938 ticks (8 ms).
ADD took 3211468 ticks (14 ms).
MAX_POOL_2D took 120504 ticks (0 ms).
CONV_2D took 5430330 ticks (25 ms).
MUL took 476301 ticks (2 ms).
ADD took 804419 ticks (3 ms).
CONV_2D took 5431539 ticks (25 ms).
MUL took 472864 ticks (2 ms).
ADD took 805394 ticks (3 ms).
MAX_POOL_2D took 29392 ticks (0 ms).
CONV_2D took 1356942 ticks (6 ms).
MUL took 120238 ticks (0 ms).
ADD took 202847 ticks (0 ms).
CONV_2D took 1357784 ticks (6 ms).
MUL took 120173 ticks (0 ms).
ADD took 202627 ticks (0 ms).
MAX_POOL_2D took 8017 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34244 ticks (0 ms).
FULLY_CONNECTED took 2856 ticks (0 ms).
-------------------------------------
NUMBER OF TICKS = 95089623
INFERENCE TIME = 440 ms
-------------------------------------
```
```
=====================================
ITERATION 7 OF 50
-------------------------------------
CONV_2D took 4183984 ticks (19 ms).
CONV_2D took 20826438 ticks (96 ms).
MUL took 3819036 ticks (17 ms).
ADD took 6413818 ticks (29 ms).
MAX_POOL_2D took 270922 ticks (1 ms).
CONV_2D took 10686050 ticks (49 ms).
MUL took 1884040 ticks (8 ms).
ADD took 3211962 ticks (14 ms).
CONV_2D took 21730876 ticks (100 ms).
MUL took 1884462 ticks (8 ms).
ADD took 3214622 ticks (14 ms).
MAX_POOL_2D took 120792 ticks (0 ms).
CONV_2D took 5430606 ticks (25 ms).
MUL took 473355 ticks (2 ms).
ADD took 804008 ticks (3 ms).
CONV_2D took 5429802 ticks (25 ms).
MUL took 472832 ticks (2 ms).
ADD took 804073 ticks (3 ms).
MAX_POOL_2D took 29370 ticks (0 ms).
CONV_2D took 1356215 ticks (6 ms).
MUL took 120191 ticks (0 ms).
ADD took 203069 ticks (0 ms).
CONV_2D took 1355504 ticks (6 ms).
MUL took 120286 ticks (0 ms).
ADD took 202764 ticks (0 ms).
MAX_POOL_2D took 8043 ticks (0 ms).
RESHAPE took 2381 ticks (0 ms).
FULLY_CONNECTED took 34256 ticks (0 ms).
FULLY_CONNECTED took 2812 ticks (0 ms).
-------------------------------------
NUMBER OF TICKS = 95096569
INFERENCE TIME = 440 ms
=====================================
ITERATION 8 OF 50
-------------------------------------
CONV_2D took 4184428 ticks (19 ms).
CONV_2D took 20824934 ticks (96 ms).
MUL took 3786262 ticks (17 ms).
ADD took 6422244 ticks (29 ms).
MAX_POOL_2D took 270834 ticks (1 ms).
CONV_2D took 10685184 ticks (49 ms).
MUL took 1884090 ticks (8 ms).
ADD took 3212966 ticks (14 ms).
CONV_2D took 21730502 ticks (100 ms).
MUL took 1884360 ticks (8 ms).
ADD took 3215868 ticks (14 ms).
MAX_POOL_2D took 120504 ticks (0 ms).
CONV_2D took 5428152 ticks (25 ms).
MUL took 473081 ticks (2 ms).
ADD took 804284 ticks (3 ms).
CONV_2D took 5429755 ticks (25 ms).
MUL took 472950 ticks (2 ms).
ADD took 802958 ticks (3 ms).
MAX_POOL_2D took 29498 ticks (0 ms).
CONV_2D took 1357687 ticks (6 ms).
MUL took 120175 ticks (0 ms).
ADD took 202933 ticks (0 ms).
CONV_2D took 1357604 ticks (6 ms).
MUL took 120209 ticks (0 ms).
ADD took 202481 ticks (0 ms).
MAX_POOL_2D took 8001 ticks (0 ms).
RESHAPE took 2352 ticks (0 ms).
FULLY_CONNECTED took 34284 ticks (0 ms).
FULLY_CONNECTED took 2752 ticks (0 ms).
-------------------------------------
NUMBER OF TICKS = 95071332
INFERENCE TIME = 440 ms
=====================================
```

```
===========================================
ITERATION 9 OF 50
-------------------------------------------
CONV_2D took 4182463 ticks (19 ms).
CONV_2D took 20824604 ticks (96 ms).
MUL took 3785804 ticks (17 ms).
ADD took 6437198 ticks (29 ms).
MAX_POOL_2D took 271462 ticks (1 ms).
CONV_2D took 10684762 ticks (49 ms).
MUL took 1884180 ticks (8 ms).
ADD took 3212226 ticks (14 ms).
CONV_2D took 21729564 ticks (100 ms).
MUL took 1883916 ticks (8 ms).
ADD took 3213554 ticks (14 ms).
MAX_POOL_2D took 120864 ticks (0 ms).
CONV_2D took 5430676 ticks (25 ms).
MUL took 473246 ticks (2 ms).
ADD took 803960 ticks (3 ms).
CONV_2D took 5430532 ticks (25 ms).
MUL took 473308 ticks (2 ms).
ADD took 804322 ticks (3 ms).
MAX_POOL_2D took 29403 ticks (0 ms).
CONV_2D took 1356699 ticks (6 ms).
MUL took 120191 ticks (0 ms).
ADD took 202619 ticks (0 ms).
CONV_2D took 1356790 ticks (6 ms).
MUL took 120174 ticks (0 ms).
ADD took 202687 ticks (0 ms).
MAX_POOL_2D took 8000 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34282 ticks (0 ms).
FULLY_CONNECTED took 2761 ticks (0 ms).
-------------------------------------------
NUMBER OF TICKS = 95082615
INFERENCE TIME = 440 ms
===========================================
ITERATION 10 OF 50
-------------------------------------------
CONV_2D took 4182848 ticks (19 ms).
CONV_2D took 20823132 ticks (96 ms).
MUL took 3785990 ticks (17 ms).
ADD took 6427142 ticks (29 ms).
MAX_POOL_2D took 271164 ticks (1 ms).
CONV_2D took 10686626 ticks (49 ms).
MUL took 1884466 ticks (8 ms).
ADD took 3211856 ticks (14 ms).
CONV_2D took 21729842 ticks (100 ms).
MUL took 1883944 ticks (8 ms).
ADD took 3212996 ticks (14 ms).
MAX_POOL_2D took 120278 ticks (0 ms).
CONV_2D took 5431426 ticks (25 ms).
MUL took 473110 ticks (2 ms).
ADD took 804052 ticks (3 ms).
CONV_2D took 5430499 ticks (25 ms).
MUL took 473320 ticks (2 ms).
ADD took 803807 ticks (3 ms).
MAX_POOL_2D took 29425 ticks (0 ms).
CONV_2D took 1356705 ticks (6 ms).
MUL took 120232 ticks (0 ms).
ADD took 202671 ticks (0 ms).
CONV_2D took 1356116 ticks (6 ms).
MUL took 120625 ticks (0 ms).
ADD took 203005 ticks (0 ms).
MAX_POOL_2D took 8075 ticks (0 ms).
RESHAPE took 2362 ticks (0 ms).
FULLY_CONNECTED took 33974 ticks (0 ms).
FULLY_CONNECTED took 2650 ticks (0 ms).
-------------------------------------------
NUMBER OF TICKS = 95072338
INFERENCE TIME = 440 ms
===========================================
```

```
===========================================
ITERATION 11 OF 50
-------------------------------------------
CONV_2D took 4185029 ticks (19 ms).
CONV_2D took 20826034 ticks (96 ms).
MUL took 3785986 ticks (17 ms).
ADD took 6435882 ticks (29 ms).
MAX_POOL_2D took 270846 ticks (1 ms).
CONV_2D took 10684278 ticks (49 ms).
MUL took 1884058 ticks (8 ms).
ADD took 3212382 ticks (14 ms).
CONV_2D took 21730918 ticks (100 ms).
MUL took 1884442 ticks (8 ms).
ADD took 3213466 ticks (14 ms).
MAX_POOL_2D took 120270 ticks (0 ms).
CONV_2D took 5432144 ticks (25 ms).
MUL took 477128 ticks (2 ms).
ADD took 803627 ticks (3 ms).
CONV_2D took 5429077 ticks (25 ms).
MUL took 477088 ticks (2 ms).
ADD took 803939 ticks (3 ms).
MAX_POOL_2D took 29439 ticks (0 ms).
CONV_2D took 1357196 ticks (6 ms).
MUL took 120613 ticks (0 ms).
ADD took 202887 ticks (0 ms).
CONV_2D took 1357797 ticks (6 ms).
MUL took 120593 ticks (0 ms).
ADD took 203192 ticks (0 ms).
MAX_POOL_2D took 8029 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34324 ticks (0 ms).
FULLY_CONNECTED took 2814 ticks (0 ms).
-------------------------------------------
NUMBER OF TICKS = 95095846
INFERENCE TIME = 440 ms
===========================================
ITERATION 12 OF 50
-------------------------------------------
CONV_2D took 4183377 ticks (19 ms).
CONV_2D took 20828254 ticks (96 ms).
MUL took 3785998 ticks (17 ms).
ADD took 6438010 ticks (29 ms).
MAX_POOL_2D took 271238 ticks (1 ms).
CONV_2D took 10684040 ticks (49 ms).
MUL took 1887340 ticks (8 ms).
ADD took 3211550 ticks (14 ms).
CONV_2D took 21732214 ticks (100 ms).
MUL took 1884390 ticks (8 ms).
ADD took 3212944 ticks (14 ms).
MAX_POOL_2D took 120730 ticks (0 ms).
CONV_2D took 5430890 ticks (25 ms).
MUL took 473115 ticks (2 ms).
ADD took 804127 ticks (3 ms).
CONV_2D took 5428879 ticks (25 ms).
MUL took 477400 ticks (2 ms).
ADD took 804762 ticks (3 ms).
MAX_POOL_2D took 29454 ticks (0 ms).
CONV_2D took 1356999 ticks (6 ms).
MUL took 120409 ticks (0 ms).
ADD took 202847 ticks (0 ms).
CONV_2D took 1356535 ticks (6 ms).
MUL took 120236 ticks (0 ms).
ADD took 202829 ticks (0 ms).
MAX_POOL_2D took 8032 ticks (0 ms).
RESHAPE took 2350 ticks (0 ms).
FULLY_CONNECTED took 34190 ticks (0 ms).
FULLY_CONNECTED took 2819 ticks (0 ms).
-------------------------------------------
NUMBER OF TICKS = 95095958
INFERENCE TIME = 440 ms
===========================================
```

```
================================================        ================================================
ITERATION 13 OF 50                                      ITERATION 15 OF 50
------------------------------------------------        ------------------------------------------------
CONV_2D took 4184484 ticks (19 ms).                     CONV_2D took 4183024 ticks (19 ms).
CONV_2D took 20825296 ticks (96 ms).                    CONV_2D took 20825468 ticks (96 ms).
MUL took 3786258 ticks (17 ms).                         MUL took 3818784 ticks (17 ms).
ADD took 6426634 ticks (29 ms).                         ADD took 6427854 ticks (29 ms).
MAX_POOL_2D took 270960 ticks (1 ms).                   MAX_POOL_2D took 270900 ticks (1 ms).
CONV_2D took 10685324 ticks (49 ms).                    CONV_2D took 10684206 ticks (49 ms).
MUL took 1884328 ticks (8 ms).                          MUL took 1884086 ticks (8 ms).
ADD took 3213138 ticks (14 ms).                         ADD took 3213248 ticks (14 ms).
CONV_2D took 21731730 ticks (100 ms).                   CONV_2D took 21729954 ticks (100 ms).
MUL took 1883972 ticks (8 ms).                          MUL took 1884354 ticks (8 ms).
ADD took 3213908 ticks (14 ms).                         ADD took 3215310 ticks (14 ms).
MAX_POOL_2D took 120464 ticks (0 ms).                   MAX_POOL_2D took 120586 ticks (0 ms).
CONV_2D took 5428543 ticks (25 ms).                     CONV_2D took 5429713 ticks (25 ms).
MUL took 473077 ticks (2 ms).                           MUL took 473186 ticks (2 ms).
ADD took 804313 ticks (3 ms).                           ADD took 804187 ticks (3 ms).
CONV_2D took 5429285 ticks (25 ms).                     CONV_2D took 5430524 ticks (25 ms).
MUL took 472870 ticks (2 ms).                           MUL took 472916 ticks (2 ms).
ADD took 803917 ticks (3 ms).                           ADD took 803938 ticks (3 ms).
MAX_POOL_2D took 29364 ticks (0 ms).                    MAX_POOL_2D took 29436 ticks (0 ms).
CONV_2D took 1358415 ticks (6 ms).                      CONV_2D took 1356925 ticks (6 ms).
MUL took 121231 ticks (0 ms).                           MUL took 120271 ticks (0 ms).
ADD took 202639 ticks (0 ms).                           ADD took 202744 ticks (0 ms).
CONV_2D took 1356095 ticks (6 ms).                      CONV_2D took 1356175 ticks (6 ms).
MUL took 120171 ticks (0 ms).                           MUL took 120574 ticks (0 ms).
ADD took 203440 ticks (0 ms).                           ADD took 203016 ticks (0 ms).
MAX_POOL_2D took 8005 ticks (0 ms).                     MAX_POOL_2D took 8059 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).                         RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34254 ticks (0 ms).                FULLY_CONNECTED took 34188 ticks (0 ms).
FULLY_CONNECTED took 2814 ticks (0 ms).                 FULLY_CONNECTED took 2754 ticks (0 ms).
------------------------------------------------        ------------------------------------------------
NUMBER OF TICKS = 95077297                              NUMBER OF TICKS = 95108748
INFERENCE TIME = 440 ms                                 INFERENCE TIME = 440 ms
================================================        ================================================
ITERATION 14 OF 50                                      ITERATION 16 OF 50
------------------------------------------------        ------------------------------------------------
CONV_2D took 4184126 ticks (19 ms).                     CONV_2D took 4182787 ticks (19 ms).
CONV_2D took 20825794 ticks (96 ms).                    CONV_2D took 20825316 ticks (96 ms).
MUL took 3789792 ticks (17 ms).                         MUL took 3785960 ticks (17 ms).
ADD took 6431700 ticks (29 ms).                         ADD took 6431936 ticks (29 ms).
MAX_POOL_2D took 270760 ticks (1 ms).                   MAX_POOL_2D took 271572 ticks (1 ms).
CONV_2D took 10684412 ticks (49 ms).                    CONV_2D took 10681072 ticks (49 ms).
MUL took 1884536 ticks (8 ms).                          MUL took 1884638 ticks (8 ms).
ADD took 3210803 ticks (14 ms).                         ADD took 3211872 ticks (14 ms).
CONV_2D took 21732178 ticks (100 ms).                   CONV_2D took 21730118 ticks (100 ms).
MUL took 1883952 ticks (8 ms).                          MUL took 1883950 ticks (8 ms).
ADD took 3215230 ticks (14 ms).                         ADD took 3214154 ticks (14 ms).
MAX_POOL_2D took 120418 ticks (0 ms).                   MAX_POOL_2D took 120484 ticks (0 ms).
CONV_2D took 5431018 ticks (25 ms).                     CONV_2D took 5431507 ticks (25 ms).
MUL took 477190 ticks (2 ms).                           MUL took 473108 ticks (2 ms).
ADD took 804018 ticks (3 ms).                           ADD took 804153 ticks (3 ms).
CONV_2D took 5428468 ticks (25 ms).                     CONV_2D took 5430205 ticks (25 ms).
MUL took 477024 ticks (2 ms).                           MUL took 476980 ticks (2 ms).
ADD took 803859 ticks (3 ms).                           ADD took 804273 ticks (3 ms).
MAX_POOL_2D took 29417 ticks (0 ms).                    MAX_POOL_2D took 29411 ticks (0 ms).
CONV_2D took 1357720 ticks (6 ms).                      CONV_2D took 1357188 ticks (6 ms).
MUL took 121235 ticks (0 ms).                           MUL took 120147 ticks (0 ms).
ADD took 202907 ticks (0 ms).                           ADD took 202706 ticks (0 ms).
CONV_2D took 1357026 ticks (6 ms).                      CONV_2D took 1356881 ticks (6 ms).
MUL took 120203 ticks (0 ms).                           MUL took 120164 ticks (0 ms).
ADD took 203028 ticks (0 ms).                           ADD took 202615 ticks (0 ms).
MAX_POOL_2D took 8037 ticks (0 ms).                     MAX_POOL_2D took 8053 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).                         RESHAPE took 2349 ticks (0 ms).
FULLY_CONNECTED took 34188 ticks (0 ms).                FULLY_CONNECTED took 34048 ticks (0 ms).
FULLY_CONNECTED took 2814 ticks (0 ms).                 FULLY_CONNECTED took 2651 ticks (0 ms).
------------------------------------------------        ------------------------------------------------
NUMBER OF TICKS = 95094221                              NUMBER OF TICKS = 95080298
INFERENCE TIME = 440 ms                                 INFERENCE TIME = 440 ms
================================================        ================================================
                                                        ITERATION 17 OF 50
```

```
========================================      ITERATION 19 OF 50
ITERATION 17 OF 50                            ----------------------------------------
----------------------------------------
                                              CONV_2D took 4183338 ticks (19 ms).
CONV_2D took 4183445 ticks (19 ms).           CONV_2D took 20826374 ticks (96 ms).
CONV_2D took 20829324 ticks (96 ms).          MUL took 3818748 ticks (17 ms).
MUL took 3786046 ticks (17 ms).               ADD took 6426484 ticks (29 ms).
ADD took 6437784 ticks (29 ms).               MAX_POOL_2D took 270830 ticks (1 ms).
MAX_POOL_2D took 270858 ticks (1 ms).         CONV_2D took 10685852 ticks (49 ms).
CONV_2D took 10679090 ticks (49 ms).          MUL took 1884020 ticks (8 ms).
MUL took 1883878 ticks (8 ms).                ADD took 3212650 ticks (14 ms).
ADD took 3213709 ticks (14 ms).               CONV_2D took 21728136 ticks (100 ms).
CONV_2D took 21733790 ticks (100 ms).         MUL took 1883888 ticks (8 ms).
MUL took 1883826 ticks (8 ms).                ADD took 3216432 ticks (14 ms).
ADD took 3213808 ticks (14 ms).               MAX_POOL_2D took 120096 ticks (0 ms).
MAX_POOL_2D took 120158 ticks (0 ms).         CONV_2D took 5429398 ticks (25 ms).
CONV_2D took 5430156 ticks (25 ms).           MUL took 473223 ticks (2 ms).
MUL took 473025 ticks (2 ms).                 ADD took 804051 ticks (3 ms).
ADD took 803645 ticks (3 ms).                 CONV_2D took 5429383 ticks (25 ms).
CONV_2D took 5428869 ticks (25 ms).           MUL took 476988 ticks (2 ms).
MUL took 473088 ticks (2 ms).                 ADD took 803721 ticks (3 ms).
ADD took 803652 ticks (3 ms).                 MAX_POOL_2D took 29421 ticks (0 ms).
MAX_POOL_2D took 29381 ticks (0 ms).          CONV_2D took 1356895 ticks (6 ms).
CONV_2D took 1357074 ticks (6 ms).            MUL took 120289 ticks (0 ms).
MUL took 120150 ticks (0 ms).                 ADD took 202509 ticks (0 ms).
ADD took 202697 ticks (0 ms).                 CONV_2D took 1357123 ticks (6 ms).
CONV_2D took 1356959 ticks (6 ms).            MUL took 120701 ticks (0 ms).
MUL took 120354 ticks (0 ms).                 ADD took 203041 ticks (0 ms).
ADD took 203181 ticks (0 ms).                 MAX_POOL_2D took 7984 ticks (0 ms).
MAX_POOL_2D took 8050 ticks (0 ms).           RESHAPE took 2368 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).               FULLY_CONNECTED took 34250 ticks (0 ms).
FULLY_CONNECTED took 34198 ticks (0 ms).      FULLY_CONNECTED took 2712 ticks (0 ms).
FULLY_CONNECTED took 2679 ticks (0 ms).       ----------------------------------------
----------------------------------------
                                              NUMBER OF TICKS = 95110905
NUMBER OF TICKS = 95085242                    INFERENCE TIME = 440 ms
INFERENCE TIME = 440 ms                       ========================================
========================================      ITERATION 20 OF 50
ITERATION 18 OF 50                            ----------------------------------------
----------------------------------------
                                              CONV_2D took 4183490 ticks (19 ms).
CONV_2D took 4183556 ticks (19 ms).           CONV_2D took 20827726 ticks (96 ms).
CONV_2D took 20822780 ticks (96 ms).          MUL took 3786070 ticks (17 ms).
MUL took 3786162 ticks (17 ms).               ADD took 6433096 ticks (29 ms).
ADD took 6435038 ticks (29 ms).               MAX_POOL_2D took 271476 ticks (1 ms).
MAX_POOL_2D took 270866 ticks (1 ms).         CONV_2D took 10682942 ticks (49 ms).
CONV_2D took 10683888 ticks (49 ms).          MUL took 1884176 ticks (8 ms).
MUL took 1883928 ticks (8 ms).                ADD took 3211882 ticks (14 ms).
ADD took 3211062 ticks (14 ms).               CONV_2D took 21730228 ticks (100 ms).
CONV_2D took 21727628 ticks (100 ms).         MUL took 1883930 ticks (8 ms).
MUL took 1883918 ticks (8 ms).                ADD took 3215642 ticks (14 ms).
ADD took 3215236 ticks (14 ms).               MAX_POOL_2D took 120442 ticks (0 ms).
MAX_POOL_2D took 120300 ticks (0 ms).         CONV_2D took 5429919 ticks (25 ms).
CONV_2D took 5431008 ticks (25 ms).           MUL took 477034 ticks (2 ms).
MUL took 473485 ticks (2 ms).                 ADD took 804186 ticks (3 ms).
ADD took 804239 ticks (3 ms).                 CONV_2D took 5431567 ticks (25 ms).
CONV_2D took 5431553 ticks (25 ms).           MUL took 476984 ticks (2 ms).
MUL took 477022 ticks (2 ms).                 ADD took 804053 ticks (3 ms).
ADD took 804293 ticks (3 ms).                 MAX_POOL_2D took 29444 ticks (0 ms).
MAX_POOL_2D took 29391 ticks (0 ms).          CONV_2D took 1357517 ticks (6 ms).
CONV_2D took 1356613 ticks (6 ms).            MUL took 121224 ticks (0 ms).
MUL took 120269 ticks (0 ms).                 ADD took 203119 ticks (0 ms).
ADD took 202521 ticks (0 ms).                 CONV_2D took 1356401 ticks (6 ms).
CONV_2D took 1357400 ticks (6 ms).            MUL took 120156 ticks (0 ms).
MUL took 120620 ticks (0 ms).                 ADD took 202986 ticks (0 ms).
ADD took 202395 ticks (0 ms).                 MAX_POOL_2D took 8053 ticks (0 ms).
MAX_POOL_2D took 8067 ticks (0 ms).           RESHAPE took 2367 ticks (0 ms).
RESHAPE took 2367 ticks (0 ms).               FULLY_CONNECTED took 34270 ticks (0 ms).
FULLY_CONNECTED took 34254 ticks (0 ms).      FULLY_CONNECTED took 2763 ticks (0 ms).
FULLY_CONNECTED took 2696 ticks (0 ms).       ----------------------------------------
----------------------------------------
                                              NUMBER OF TICKS = 95093143
NUMBER OF TICKS = 95087555                    INFERENCE TIME = 440 ms
INFERENCE TIME = 440 ms                       ========================================
========================================
```

```
==================================================        ==================================================
ITERATION 21 OF 50                                        ITERATION 23 OF 50
--------------------------------------------------        --------------------------------------------------
CONV_2D took 4185077 ticks (19 ms).                       CONV_2D took 4184491 ticks (19 ms).
CONV_2D took 20827096 ticks (96 ms).                      CONV_2D took 20828710 ticks (96 ms).
MUL took 3818584 ticks (17 ms).                           MUL took 3786362 ticks (17 ms).
ADD took 6421514 ticks (29 ms).                           ADD took 6437224 ticks (29 ms).
MAX_POOL_2D took 271408 ticks (1 ms).                     MAX_POOL_2D took 271148 ticks (1 ms).
CONV_2D took 10683586 ticks (49 ms).                      CONV_2D took 10685316 ticks (49 ms).
MUL took 1883818 ticks (8 ms).                            MUL took 1884304 ticks (8 ms).
ADD took 3214264 ticks (14 ms).                           ADD took 3211164 ticks (14 ms).
CONV_2D took 21731374 ticks (100 ms).                     CONV_2D took 21726594 ticks (100 ms).
MUL took 1884356 ticks (8 ms).                            MUL took 1884358 ticks (8 ms).
ADD took 3221260 ticks (14 ms).                           ADD took 3214432 ticks (14 ms).
MAX_POOL_2D took 120254 ticks (0 ms).                     MAX_POOL_2D took 120712 ticks (0 ms).
CONV_2D took 5430258 ticks (25 ms).                       CONV_2D took 5429958 ticks (25 ms).
MUL took 473527 ticks (2 ms).                             MUL took 473558 ticks (2 ms).
ADD took 803717 ticks (3 ms).                             ADD took 804485 ticks (3 ms).
CONV_2D took 5429425 ticks (25 ms).                       CONV_2D took 5429339 ticks (25 ms).
MUL took 473158 ticks (2 ms).                             MUL took 472872 ticks (2 ms).
ADD took 805015 ticks (3 ms).                             ADD took 804273 ticks (3 ms).
MAX_POOL_2D took 29423 ticks (0 ms).                      MAX_POOL_2D took 29433 ticks (0 ms).
CONV_2D took 1357469 ticks (6 ms).                        CONV_2D took 1357811 ticks (6 ms).
MUL took 120631 ticks (0 ms).                             MUL took 120186 ticks (0 ms).
ADD took 202502 ticks (0 ms).                             ADD took 202787 ticks (0 ms).
CONV_2D took 1357347 ticks (6 ms).                        CONV_2D took 1357433 ticks (6 ms).
MUL took 120146 ticks (0 ms).                             MUL took 120370 ticks (0 ms).
ADD took 202047 ticks (0 ms).                             ADD took 203209 ticks (0 ms).
MAX_POOL_2D took 8020 ticks (0 ms).                       MAX_POOL_2D took 8039 ticks (0 ms).
RESHAPE took 2352 ticks (0 ms).                           RESHAPE took 2350 ticks (0 ms).
FULLY_CONNECTED took 34176 ticks (0 ms).                  FULLY_CONNECTED took 34154 ticks (0 ms).
FULLY_CONNECTED took 2785 ticks (0 ms).                   FULLY_CONNECTED took 2702 ticks (0 ms).
--------------------------------------------------        --------------------------------------------------
NUMBER OF TICKS = 95104589                                NUMBER OF TICKS = 95087774
INFERENCE TIME = 440 ms                                   INFERENCE TIME = 440 ms
==================================================        ==================================================
ITERATION 22 OF 50                                        ITERATION 24 OF 50
--------------------------------------------------        --------------------------------------------------
CONV_2D took 4184776 ticks (19 ms).                       CONV_2D took 4185280 ticks (19 ms).
CONV_2D took 20826028 ticks (96 ms).                      CONV_2D took 20827802 ticks (96 ms).
MUL took 3793718 ticks (17 ms).                           MUL took 3786050 ticks (17 ms).
ADD took 6434242 ticks (29 ms).                           ADD took 6428010 ticks (29 ms).
MAX_POOL_2D took 270912 ticks (1 ms).                     MAX_POOL_2D took 270778 ticks (1 ms).
CONV_2D took 10683834 ticks (49 ms).                      CONV_2D took 10684816 ticks (49 ms).
MUL took 1884122 ticks (8 ms).                            MUL took 1884070 ticks (8 ms).
ADD took 3210088 ticks (14 ms).                           ADD took 3210238 ticks (14 ms).
CONV_2D took 21729946 ticks (100 ms).                     CONV_2D took 21729670 ticks (100 ms).
MUL took 1883956 ticks (8 ms).                            MUL took 1883878 ticks (8 ms).
ADD took 3213376 ticks (14 ms).                           ADD took 3214140 ticks (14 ms).
MAX_POOL_2D took 120386 ticks (0 ms).                     MAX_POOL_2D took 120612 ticks (0 ms).
CONV_2D took 5430993 ticks (25 ms).                       CONV_2D took 5429042 ticks (25 ms).
MUL took 473043 ticks (2 ms).                             MUL took 477581 ticks (2 ms).
ADD took 804593 ticks (3 ms).                             ADD took 803471 ticks (3 ms).
CONV_2D took 5428818 ticks (25 ms).                       CONV_2D took 5429377 ticks (25 ms).
MUL took 472892 ticks (2 ms).                             MUL took 473320 ticks (2 ms).
ADD took 803909 ticks (3 ms).                             ADD took 805139 ticks (3 ms).
MAX_POOL_2D took 29418 ticks (0 ms).                      MAX_POOL_2D took 29383 ticks (0 ms).
CONV_2D took 1356217 ticks (6 ms).                        CONV_2D took 1358410 ticks (6 ms).
MUL took 120603 ticks (0 ms).                             MUL took 121683 ticks (0 ms).
ADD took 203193 ticks (0 ms).                             ADD took 202609 ticks (0 ms).
CONV_2D took 1357128 ticks (6 ms).                        CONV_2D took 1356451 ticks (6 ms).
MUL took 120199 ticks (0 ms).                             MUL took 120262 ticks (0 ms).
ADD took 203051 ticks (0 ms).                             ADD took 202726 ticks (0 ms).
MAX_POOL_2D took 8043 ticks (0 ms).                       MAX_POOL_2D took 8015 ticks (0 ms).
RESHAPE took 2350 ticks (0 ms).                           RESHAPE took 2365 ticks (0 ms).
FULLY_CONNECTED took 34046 ticks (0 ms).                  FULLY_CONNECTED took 34156 ticks (0 ms).
FULLY_CONNECTED took 2731 ticks (0 ms).                   FULLY_CONNECTED took 2723 ticks (0 ms).
--------------------------------------------------        --------------------------------------------------
NUMBER OF TICKS = 95086611                                NUMBER OF TICKS = 95082057
INFERENCE TIME = 440 ms                                   INFERENCE TIME = 440 ms
==================================================        ==================================================
```

```
==========================================
ITERATION 25 OF 50
------------------------------------------
CONV_2D took 4184579 ticks (19 ms).
CONV_2D took 20830062 ticks (96 ms).
MUL took 3786166 ticks (17 ms).
ADD took 6437086 ticks (29 ms).
MAX_POOL_2D took 271070 ticks (1 ms).
CONV_2D took 10687484 ticks (49 ms).
MUL took 1884184 ticks (8 ms).
ADD took 3213012 ticks (14 ms).
CONV_2D took 21731078 ticks (100 ms).
MUL took 1884034 ticks (8 ms).
ADD took 3210710 ticks (14 ms).
MAX_POOL_2D took 120372 ticks (0 ms).
CONV_2D took 5429658 ticks (25 ms).
MUL took 473050 ticks (2 ms).
ADD took 803346 ticks (3 ms).
CONV_2D took 5428979 ticks (25 ms).
MUL took 476644 ticks (2 ms).
ADD took 804761 ticks (3 ms).
MAX_POOL_2D took 29445 ticks (0 ms).
CONV_2D took 1356665 ticks (6 ms).
MUL took 120197 ticks (0 ms).
ADD took 202945 ticks (0 ms).
CONV_2D took 1356761 ticks (6 ms).
MUL took 120187 ticks (0 ms).
ADD took 202766 ticks (0 ms).
MAX_POOL_2D took 8032 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34280 ticks (0 ms).
FULLY_CONNECTED took 2724 ticks (0 ms).
------------------------------------------
NUMBER OF TICKS = 95092645
INFERENCE TIME = 440 ms
==========================================
ITERATION 26 OF 50
------------------------------------------
CONV_2D took 4184288 ticks (19 ms).
CONV_2D took 20826778 ticks (96 ms).
MUL took 3786114 ticks (17 ms).
ADD took 6433640 ticks (29 ms).
MAX_POOL_2D took 271566 ticks (1 ms).
CONV_2D took 10688114 ticks (49 ms).
MUL took 1883840 ticks (8 ms).
ADD took 3211370 ticks (14 ms).
CONV_2D took 21729918 ticks (100 ms).
MUL took 1883866 ticks (8 ms).
ADD took 3214438 ticks (14 ms).
MAX_POOL_2D took 120658 ticks (0 ms).
CONV_2D took 5431348 ticks (25 ms).
MUL took 473594 ticks (2 ms).
ADD took 803689 ticks (3 ms).
CONV_2D took 5430715 ticks (25 ms).
MUL took 477470 ticks (2 ms).
ADD took 804868 ticks (3 ms).
MAX_POOL_2D took 29419 ticks (0 ms).
CONV_2D took 1356630 ticks (6 ms).
MUL took 120240 ticks (0 ms).
ADD took 203187 ticks (0 ms).
CONV_2D took 1356863 ticks (6 ms).
MUL took 121265 ticks (0 ms).
ADD took 202921 ticks (0 ms).
MAX_POOL_2D took 8006 ticks (0 ms).
RESHAPE took 2350 ticks (0 ms).
FULLY_CONNECTED took 34002 ticks (0 ms).
FULLY_CONNECTED took 2663 ticks (0 ms).
------------------------------------------
NUMBER OF TICKS = 95093820
INFERENCE TIME = 440 ms
==========================================
```

```
==========================================
ITERATION 27 OF 50
------------------------------------------
CONV_2D took 4183540 ticks (19 ms).
CONV_2D took 20830222 ticks (96 ms).
MUL took 3818702 ticks (17 ms).
ADD took 6423692 ticks (29 ms).
MAX_POOL_2D took 271592 ticks (1 ms).
CONV_2D took 10684940 ticks (49 ms).
MUL took 1883970 ticks (8 ms).
ADD took 3210772 ticks (14 ms).
CONV_2D took 21727712 ticks (100 ms).
MUL took 1884244 ticks (8 ms).
ADD took 3212980 ticks (14 ms).
MAX_POOL_2D took 119942 ticks (0 ms).
CONV_2D took 5429036 ticks (25 ms).
MUL took 473234 ticks (2 ms).
ADD took 804298 ticks (3 ms).
CONV_2D took 5431883 ticks (25 ms).
MUL took 472858 ticks (2 ms).
ADD took 803497 ticks (3 ms).
MAX_POOL_2D took 29401 ticks (0 ms).
CONV_2D took 1357634 ticks (6 ms).
MUL took 120207 ticks (0 ms).
ADD took 202910 ticks (0 ms).
CONV_2D took 1356550 ticks (6 ms).
MUL took 120133 ticks (0 ms).
ADD took 202874 ticks (0 ms).
MAX_POOL_2D took 8028 ticks (0 ms).
RESHAPE took 2348 ticks (0 ms).
FULLY_CONNECTED took 34342 ticks (0 ms).
FULLY_CONNECTED took 2757 ticks (0 ms).
------------------------------------------
NUMBER OF TICKS = 95104298
INFERENCE TIME = 440 ms
==========================================
ITERATION 28 OF 50
------------------------------------------
CONV_2D took 4183929 ticks (19 ms).
CONV_2D took 20823376 ticks (96 ms).
MUL took 3786308 ticks (17 ms).
ADD took 6432848 ticks (29 ms).
MAX_POOL_2D took 271286 ticks (1 ms).
CONV_2D took 10685236 ticks (49 ms).
MUL took 1883854 ticks (8 ms).
ADD took 3211942 ticks (14 ms).
CONV_2D took 21729002 ticks (100 ms).
MUL took 1883962 ticks (8 ms).
ADD took 3213328 ticks (14 ms).
MAX_POOL_2D took 120350 ticks (0 ms).
CONV_2D took 5430976 ticks (25 ms).
MUL took 473454 ticks (2 ms).
ADD took 803679 ticks (3 ms).
CONV_2D took 5430870 ticks (25 ms).
MUL took 477418 ticks (2 ms).
ADD took 805174 ticks (3 ms).
MAX_POOL_2D took 29422 ticks (0 ms).
CONV_2D took 1357749 ticks (6 ms).
MUL took 120388 ticks (0 ms).
ADD took 202801 ticks (0 ms).
CONV_2D took 1356886 ticks (6 ms).
MUL took 120692 ticks (0 ms).
ADD took 202371 ticks (0 ms).
MAX_POOL_2D took 8111 ticks (0 ms).
RESHAPE took 2381 ticks (0 ms).
FULLY_CONNECTED took 34288 ticks (0 ms).
FULLY_CONNECTED took 2729 ticks (0 ms).
------------------------------------------
NUMBER OF TICKS = 95084810
INFERENCE TIME = 440 ms
==========================================
```

```
------------------------------------------------
ITERATION 29 OF 50                                 ITERATION 31 OF 50
------------------------------------------------   ------------------------------------------------
CONV_2D took 4183984 ticks (19 ms).               CONV_2D took 4184094 ticks (19 ms).
CONV_2D took 20831232 ticks (96 ms).              CONV_2D took 20827464 ticks (96 ms).
MUL took 3786514 ticks (17 ms).                   MUL took 3789364 ticks (17 ms).
ADD took 6424726 ticks (29 ms).                   ADD took 6441888 ticks (29 ms).
MAX_POOL_2D took 271230 ticks (1 ms).             MAX_POOL_2D took 271054 ticks (1 ms).
CONV_2D took 10683550 ticks (49 ms).              CONV_2D took 10682438 ticks (49 ms).
MUL took 1884316 ticks (8 ms).                    MUL took 1884236 ticks (8 ms).
ADD took 3212884 ticks (14 ms).                   ADD took 3210982 ticks (14 ms).
CONV_2D took 21725760 ticks (100 ms).             CONV_2D took 21732162 ticks (100 ms).
MUL took 1883946 ticks (8 ms).                    MUL took 1883844 ticks (8 ms).
ADD took 3213150 ticks (14 ms).                   ADD took 3211126 ticks (14 ms).
MAX_POOL_2D took 120090 ticks (0 ms).             MAX_POOL_2D took 119866 ticks (0 ms).
CONV_2D took 5428865 ticks (25 ms).               CONV_2D took 5429717 ticks (25 ms).
MUL took 473075 ticks (2 ms).                     MUL took 476744 ticks (2 ms).
ADD took 803205 ticks (3 ms).                     ADD took 804670 ticks (3 ms).
CONV_2D took 5430055 ticks (25 ms).               CONV_2D took 5428973 ticks (25 ms).
MUL took 472862 ticks (2 ms).                     MUL took 477094 ticks (2 ms).
ADD took 804581 ticks (3 ms).                     ADD took 805917 ticks (3 ms).
MAX_POOL_2D took 29404 ticks (0 ms).              MAX_POOL_2D took 29439 ticks (0 ms).
CONV_2D took 1357351 ticks (6 ms).                CONV_2D took 1356895 ticks (6 ms).
MUL took 120256 ticks (0 ms).                     MUL took 121201 ticks (0 ms).
ADD took 202917 ticks (0 ms).                     ADD took 202859 ticks (0 ms).
CONV_2D took 1357072 ticks (6 ms).                CONV_2D took 1356387 ticks (6 ms).
MUL took 120218 ticks (0 ms).                     MUL took 120238 ticks (0 ms).
ADD took 202703 ticks (0 ms).                     ADD took 202821 ticks (0 ms).
MAX_POOL_2D took 8039 ticks (0 ms).               MAX_POOL_2D took 7990 ticks (0 ms).
RESHAPE took 2351 ticks (0 ms).                   RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34250 ticks (0 ms).          FULLY_CONNECTED took 34176 ticks (0 ms).
FULLY_CONNECTED took 2826 ticks (0 ms).           FULLY_CONNECTED took 2712 ticks (0 ms).
------------------------------------------------   ------------------------------------------------
NUMBER OF TICKS = 95071412                        NUMBER OF TICKS = 95098719
INFERENCE TIME = 440 ms                           INFERENCE TIME = 440 ms
================================================   ================================================
ITERATION 30 OF 50                                 ITERATION 32 OF 50
------------------------------------------------   ------------------------------------------------
CONV_2D took 4185033 ticks (19 ms).               CONV_2D took 4186821 ticks (19 ms).
CONV_2D took 20830452 ticks (96 ms).              CONV_2D took 20827270 ticks (96 ms).
MUL took 3818144 ticks (17 ms).                   MUL took 3773938 ticks (17 ms).
ADD took 6442884 ticks (29 ms).                   ADD took 6431948 ticks (29 ms).
MAX_POOL_2D took 271020 ticks (1 ms).             MAX_POOL_2D took 270264 ticks (1 ms).
CONV_2D took 10680994 ticks (49 ms).              CONV_2D took 10683784 ticks (49 ms).
MUL took 1887060 ticks (8 ms).                    MUL took 1884398 ticks (8 ms).
ADD took 3210352 ticks (14 ms).                   ADD took 3213573 ticks (14 ms).
CONV_2D took 21732134 ticks (100 ms).             CONV_2D took 21730094 ticks (100 ms).
MUL took 1883934 ticks (8 ms).                    MUL took 1883832 ticks (8 ms).
ADD took 3212058 ticks (14 ms).                   ADD took 3215550 ticks (14 ms).
MAX_POOL_2D took 120460 ticks (0 ms).             MAX_POOL_2D took 120096 ticks (0 ms).
CONV_2D took 5430775 ticks (25 ms).               CONV_2D took 5429223 ticks (25 ms).
MUL took 473249 ticks (2 ms).                     MUL took 473049 ticks (2 ms).
ADD took 804035 ticks (3 ms).                     ADD took 804287 ticks (3 ms).
CONV_2D took 5429587 ticks (25 ms).               CONV_2D took 5430281 ticks (25 ms).
MUL took 473370 ticks (2 ms).                     MUL took 473388 ticks (2 ms).
ADD took 805152 ticks (3 ms).                     ADD took 804292 ticks (3 ms).
MAX_POOL_2D took 29436 ticks (0 ms).              MAX_POOL_2D took 29374 ticks (0 ms).
CONV_2D took 1356696 ticks (6 ms).                CONV_2D took 1356568 ticks (6 ms).
MUL took 120638 ticks (0 ms).                     MUL took 120173 ticks (0 ms).
ADD took 202881 ticks (0 ms).                     ADD took 202617 ticks (0 ms).
CONV_2D took 1357361 ticks (6 ms).                CONV_2D took 1357321 ticks (6 ms).
MUL took 120186 ticks (0 ms).                     MUL took 121234 ticks (0 ms).
ADD took 202791 ticks (0 ms).                     ADD took 203199 ticks (0 ms).
MAX_POOL_2D took 8015 ticks (0 ms).               MAX_POOL_2D took 8054 ticks (0 ms).
RESHAPE took 2350 ticks (0 ms).                   RESHAPE took 2350 ticks (0 ms).
FULLY_CONNECTED took 34284 ticks (0 ms).          FULLY_CONNECTED took 34212 ticks (0 ms).
FULLY_CONNECTED took 2815 ticks (0 ms).           FULLY_CONNECTED took 2760 ticks (0 ms).
------------------------------------------------   ------------------------------------------------
NUMBER OF TICKS = 95128146                        NUMBER OF TICKS = 95073950
INFERENCE TIME = 440 ms                           INFERENCE TIME = 440 ms
================================================   ================================================
```

```
===================================
ITERATION 33 OF 50
-----------------------------------
CONV_2D took 4183814 ticks (19 ms).
CONV_2D took 20829736 ticks (96 ms).
MUL took 3793384 ticks (17 ms).
ADD took 6423758 ticks (29 ms).
MAX_POOL_2D took 271326 ticks (1 ms).
CONV_2D took 10686592 ticks (49 ms).
MUL took 1883948 ticks (8 ms).
ADD took 3212082 ticks (14 ms).
CONV_2D took 21726576 ticks (100 ms).
MUL took 1883914 ticks (8 ms).
ADD took 3214586 ticks (14 ms).
MAX_POOL_2D took 120352 ticks (0 ms).
CONV_2D took 5430373 ticks (25 ms).
MUL took 473293 ticks (2 ms).
ADD took 804931 ticks (3 ms).
CONV_2D took 5430060 ticks (25 ms).
MUL took 477380 ticks (2 ms).
ADD took 803349 ticks (3 ms).
MAX_POOL_2D took 29450 ticks (0 ms).
CONV_2D took 1356852 ticks (6 ms).
MUL took 120144 ticks (0 ms).
ADD took 203087 ticks (0 ms).
CONV_2D took 1356398 ticks (6 ms).
MUL took 120236 ticks (0 ms).
ADD took 203072 ticks (0 ms).
MAX_POOL_2D took 7991 ticks (0 ms).
RESHAPE took 2349 ticks (0 ms).
FULLY_CONNECTED took 34222 ticks (0 ms).
FULLY_CONNECTED took 2730 ticks (0 ms).
-----------------------------------
NUMBER OF TICKS = 95085985
INFERENCE TIME = 440 ms
===================================
ITERATION 34 OF 50
-----------------------------------
CONV_2D took 4182543 ticks (19 ms).
CONV_2D took 20829362 ticks (96 ms).
MUL took 3786048 ticks (17 ms).
ADD took 6426890 ticks (29 ms).
MAX_POOL_2D took 271428 ticks (1 ms).
CONV_2D took 10683522 ticks (49 ms).
MUL took 1884124 ticks (8 ms).
ADD took 3211322 ticks (14 ms).
CONV_2D took 21731398 ticks (100 ms).
MUL took 1884018 ticks (8 ms).
ADD took 3215224 ticks (14 ms).
MAX_POOL_2D took 120698 ticks (0 ms).
CONV_2D took 5431116 ticks (25 ms).
MUL took 472962 ticks (2 ms).
ADD took 804302 ticks (3 ms).
CONV_2D took 5430648 ticks (25 ms).
MUL took 473058 ticks (2 ms).
ADD took 803757 ticks (3 ms).
MAX_POOL_2D took 29400 ticks (0 ms).
CONV_2D took 1357243 ticks (6 ms).
MUL took 120645 ticks (0 ms).
ADD took 202722 ticks (0 ms).
CONV_2D took 1357294 ticks (6 ms).
MUL took 120195 ticks (0 ms).
ADD took 203283 ticks (0 ms).
MAX_POOL_2D took 8021 ticks (0 ms).
RESHAPE took 2381 ticks (0 ms).
FULLY_CONNECTED took 34136 ticks (0 ms).
FULLY_CONNECTED took 2776 ticks (0 ms).
-----------------------------------
NUMBER OF TICKS = 95080516
INFERENCE TIME = 440 ms
===================================
ITERATION 37 OF 50

===================================
ITERATION 35 OF 50
-----------------------------------
CONV_2D took 4184221 ticks (19 ms).
CONV_2D took 20828200 ticks (96 ms).
MUL took 3785974 ticks (17 ms).
ADD took 6434174 ticks (29 ms).
MAX_POOL_2D took 271424 ticks (1 ms).
CONV_2D took 10685220 ticks (49 ms).
MUL took 1900384 ticks (8 ms).
ADD took 3211272 ticks (14 ms).
CONV_2D took 21732144 ticks (100 ms).
MUL took 1884368 ticks (8 ms).
ADD took 3212862 ticks (14 ms).
MAX_POOL_2D took 120896 ticks (0 ms).
CONV_2D took 5431000 ticks (25 ms).
MUL took 473531 ticks (2 ms).
ADD took 803043 ticks (3 ms).
CONV_2D took 5429720 ticks (25 ms).
MUL took 473154 ticks (2 ms).
ADD took 805153 ticks (3 ms).
MAX_POOL_2D took 29397 ticks (0 ms).
CONV_2D took 1357820 ticks (6 ms).
MUL took 120569 ticks (0 ms).
ADD took 202907 ticks (0 ms).
CONV_2D took 1355992 ticks (6 ms).
MUL took 120378 ticks (0 ms).
ADD took 203120 ticks (0 ms).
MAX_POOL_2D took 8053 ticks (0 ms).
RESHAPE took 2381 ticks (0 ms).
FULLY_CONNECTED took 34190 ticks (0 ms).
FULLY_CONNECTED took 2666 ticks (0 ms).
-----------------------------------
NUMBER OF TICKS = 95104213
INFERENCE TIME = 440 ms
===================================
ITERATION 36 OF 50
-----------------------------------
CONV_2D took 4183123 ticks (19 ms).
CONV_2D took 20826370 ticks (96 ms).
MUL took 3786084 ticks (17 ms).
ADD took 6421460 ticks (29 ms).
MAX_POOL_2D took 271170 ticks (1 ms).
CONV_2D took 10687840 ticks (49 ms).
MUL took 1884170 ticks (8 ms).
ADD took 3212546 ticks (14 ms).
CONV_2D took 21730802 ticks (100 ms).
MUL took 1883936 ticks (8 ms).
ADD took 3213278 ticks (14 ms).
MAX_POOL_2D took 120310 ticks (0 ms).
CONV_2D took 5431078 ticks (25 ms).
MUL took 473064 ticks (2 ms).
ADD took 805216 ticks (3 ms).
CONV_2D took 5431874 ticks (25 ms).
MUL took 472919 ticks (2 ms).
ADD took 802925 ticks (3 ms).
MAX_POOL_2D took 29385 ticks (0 ms).
CONV_2D took 1356971 ticks (6 ms).
MUL took 120165 ticks (0 ms).
ADD took 203099 ticks (0 ms).
CONV_2D took 1356372 ticks (6 ms).
MUL took 121245 ticks (0 ms).
ADD took 203083 ticks (0 ms).
MAX_POOL_2D took 8058 ticks (0 ms).
RESHAPE took 2352 ticks (0 ms).
FULLY_CONNECTED took 34236 ticks (0 ms).
FULLY_CONNECTED took 2789 ticks (0 ms).
-----------------------------------
NUMBER OF TICKS = 95075920
INFERENCE TIME = 440 ms
===================================
ITERATION 37 OF 50
```

```
========================================
ITERATION 37 OF 50
----------------------------------------
CONV_2D took 4185580 ticks (19 ms).
CONV_2D took 20828216 ticks (96 ms).
MUL took 3786020 ticks (17 ms).
ADD took 6432824 ticks (29 ms).
MAX_POOL_2D took 271434 ticks (1 ms).
CONV_2D took 10682006 ticks (49 ms).
MUL took 1900482 ticks (8 ms).
ADD took 3211533 ticks (14 ms).
CONV_2D took 21729924 ticks (100 ms).
MUL took 1884428 ticks (8 ms).
ADD took 3213634 ticks (14 ms).
MAX_POOL_2D took 120740 ticks (0 ms).
CONV_2D took 5429920 ticks (25 ms).
MUL took 473001 ticks (2 ms).
ADD took 803860 ticks (3 ms).
CONV_2D took 5430849 ticks (25 ms).
MUL took 476984 ticks (2 ms).
ADD took 804533 ticks (3 ms).
MAX_POOL_2D took 29541 ticks (0 ms).
CONV_2D took 1357289 ticks (6 ms).
MUL took 120220 ticks (0 ms).
ADD took 202981 ticks (0 ms).
CONV_2D took 1356871 ticks (6 ms).
MUL took 120679 ticks (0 ms).
ADD took 202845 ticks (0 ms).
MAX_POOL_2D took 8072 ticks (0 ms).
RESHAPE took 2363 ticks (0 ms).
FULLY_CONNECTED took 34190 ticks (0 ms).
FULLY_CONNECTED took 2705 ticks (0 ms).
----------------------------------------
NUMBER OF TICKS = 95103724
INFERENCE TIME = 440 ms
========================================
ITERATION 38 OF 50
----------------------------------------
CONV_2D took 4183215 ticks (19 ms).
CONV_2D took 20826214 ticks (96 ms).
MUL took 3786098 ticks (17 ms).
ADD took 6429940 ticks (29 ms).
MAX_POOL_2D took 270828 ticks (1 ms).
CONV_2D took 10685396 ticks (49 ms).
MUL took 1884092 ticks (8 ms).
ADD took 3214799 ticks (14 ms).
CONV_2D took 21731948 ticks (100 ms).
MUL took 1883934 ticks (8 ms).
ADD took 3209820 ticks (14 ms).
MAX_POOL_2D took 120280 ticks (0 ms).
CONV_2D took 5430098 ticks (25 ms).
MUL took 473075 ticks (2 ms).
ADD took 803740 ticks (3 ms).
CONV_2D took 5432209 ticks (25 ms).
MUL took 472966 ticks (2 ms).
ADD took 804805 ticks (3 ms).
MAX_POOL_2D took 29453 ticks (0 ms).
CONV_2D took 1357358 ticks (6 ms).
MUL took 120178 ticks (0 ms).
ADD took 202923 ticks (0 ms).
CONV_2D took 1356413 ticks (6 ms).
MUL took 120415 ticks (0 ms).
ADD took 202763 ticks (0 ms).
MAX_POOL_2D took 8028 ticks (0 ms).
RESHAPE took 2352 ticks (0 ms).
FULLY_CONNECTED took 34128 ticks (0 ms).
FULLY_CONNECTED took 2792 ticks (0 ms).
----------------------------------------
NUMBER OF TICKS = 95080260
INFERENCE TIME = 440 ms
========================================
```

```
========================================
ITERATION 39 OF 50
----------------------------------------
CONV_2D took 4184215 ticks (19 ms).
CONV_2D took 20824840 ticks (96 ms).
MUL took 3786024 ticks (17 ms).
ADD took 6431300 ticks (29 ms).
MAX_POOL_2D took 271202 ticks (1 ms).
CONV_2D took 10684234 ticks (49 ms).
MUL took 1883822 ticks (8 ms).
ADD took 3212718 ticks (14 ms).
CONV_2D took 21728906 ticks (100 ms).
MUL took 1883882 ticks (8 ms).
ADD took 3215320 ticks (14 ms).
MAX_POOL_2D took 120554 ticks (0 ms).
CONV_2D took 5430042 ticks (25 ms).
MUL took 473146 ticks (2 ms).
ADD took 804329 ticks (3 ms).
CONV_2D took 5428868 ticks (25 ms).
MUL took 473356 ticks (2 ms).
ADD took 803723 ticks (3 ms).
MAX_POOL_2D took 29404 ticks (0 ms).
CONV_2D took 1357308 ticks (6 ms).
MUL took 120682 ticks (0 ms).
ADD took 202997 ticks (0 ms).
CONV_2D took 1356881 ticks (6 ms).
MUL took 120193 ticks (0 ms).
ADD took 202853 ticks (0 ms).
MAX_POOL_2D took 8011 ticks (0 ms).
RESHAPE took 2352 ticks (0 ms).
FULLY_CONNECTED took 34158 ticks (0 ms).
FULLY_CONNECTED took 2744 ticks (0 ms).
----------------------------------------
NUMBER OF TICKS = 95078064
INFERENCE TIME = 440 ms
========================================
ITERATION 40 OF 50
----------------------------------------
CONV_2D took 4184023 ticks (19 ms).
CONV_2D took 20824286 ticks (96 ms).
MUL took 3819094 ticks (17 ms).
ADD took 6435924 ticks (29 ms).
MAX_POOL_2D took 271686 ticks (1 ms).
CONV_2D took 10685654 ticks (49 ms).
MUL took 1900360 ticks (8 ms).
ADD took 3213572 ticks (14 ms).
CONV_2D took 21729900 ticks (100 ms).
MUL took 1883938 ticks (8 ms).
ADD took 3214634 ticks (14 ms).
MAX_POOL_2D took 120442 ticks (0 ms).
CONV_2D took 5430026 ticks (25 ms).
MUL took 473042 ticks (2 ms).
ADD took 804031 ticks (3 ms).
CONV_2D took 5430684 ticks (25 ms).
MUL took 477382 ticks (2 ms).
ADD took 804431 ticks (3 ms).
MAX_POOL_2D took 29387 ticks (0 ms).
CONV_2D took 1357659 ticks (6 ms).
MUL took 121172 ticks (0 ms).
ADD took 203075 ticks (0 ms).
CONV_2D took 1356046 ticks (6 ms).
MUL took 120241 ticks (0 ms).
ADD took 202986 ticks (0 ms).
MAX_POOL_2D took 7971 ticks (0 ms).
RESHAPE took 2363 ticks (0 ms).
FULLY_CONNECTED took 34216 ticks (0 ms).
FULLY_CONNECTED took 2752 ticks (0 ms).
----------------------------------------
NUMBER OF TICKS = 95140977
INFERENCE TIME = 440 ms
========================================
```

```
====================================
ITERATION 41 OF 50
------------------------------------
CONV_2D took 4185517 ticks (19 ms).
CONV_2D took 20825912 ticks (96 ms).
MUL took 3786018 ticks (17 ms).
ADD took 6434974 ticks (29 ms).
MAX_POOL_2D took 270852 ticks (1 ms).
CONV_2D took 10682194 ticks (49 ms).
MUL took 1884336 ticks (8 ms).
ADD took 3210394 ticks (14 ms).
CONV_2D took 21729260 ticks (100 ms).
MUL took 1883868 ticks (8 ms).
ADD took 3214284 ticks (14 ms).
MAX_POOL_2D took 120266 ticks (0 ms).
CONV_2D took 5431056 ticks (25 ms).
MUL took 477126 ticks (2 ms).
ADD took 804203 ticks (3 ms).
CONV_2D took 5431311 ticks (25 ms).
MUL took 476956 ticks (2 ms).
ADD took 803779 ticks (3 ms).
MAX_POOL_2D took 29455 ticks (0 ms).
CONV_2D took 1357051 ticks (6 ms).
MUL took 120229 ticks (0 ms).
ADD took 202889 ticks (0 ms).
CONV_2D took 1356357 ticks (6 ms).
MUL took 120231 ticks (0 ms).
ADD took 202901 ticks (0 ms).
MAX_POOL_2D took 8041 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34172 ticks (0 ms).
FULLY_CONNECTED took 2772 ticks (0 ms).
------------------------------------
NUMBER OF TICKS = 95088772
INFERENCE TIME = 440 ms
====================================
ITERATION 42 OF 50
------------------------------------
CONV_2D took 4184759 ticks (19 ms).
CONV_2D took 20827728 ticks (96 ms).
MUL took 3819044 ticks (17 ms).
ADD took 6429576 ticks (29 ms).
MAX_POOL_2D took 270970 ticks (1 ms).
CONV_2D took 10685302 ticks (49 ms).
MUL took 1887484 ticks (8 ms).
ADD took 3213807 ticks (14 ms).
CONV_2D took 21727436 ticks (100 ms).
MUL took 1883940 ticks (8 ms).
ADD took 3214374 ticks (14 ms).
MAX_POOL_2D took 120448 ticks (0 ms).
CONV_2D took 5431038 ticks (25 ms).
MUL took 473138 ticks (2 ms).
ADD took 804197 ticks (3 ms).
CONV_2D took 5428830 ticks (25 ms).
MUL took 472868 ticks (2 ms).
ADD took 803581 ticks (3 ms).
MAX_POOL_2D took 29439 ticks (0 ms).
CONV_2D took 1357709 ticks (6 ms).
MUL took 120245 ticks (0 ms).
ADD took 203079 ticks (0 ms).
CONV_2D took 1357670 ticks (6 ms).
MUL took 120188 ticks (0 ms).
ADD took 202875 ticks (0 ms).
MAX_POOL_2D took 8006 ticks (0 ms).
RESHAPE took 2352 ticks (0 ms).
FULLY_CONNECTED took 34232 ticks (0 ms).
FULLY_CONNECTED took 2681 ticks (0 ms).
------------------------------------
NUMBER OF TICKS = 95116996
INFERENCE TIME = 440 ms
====================================

====================================
ITERATION 43 OF 50
------------------------------------
CONV_2D took 4183461 ticks (19 ms).
CONV_2D took 20826610 ticks (96 ms).
MUL took 3786112 ticks (17 ms).
ADD took 6439792 ticks (29 ms).
MAX_POOL_2D took 271178 ticks (1 ms).
CONV_2D took 10684692 ticks (49 ms).
MUL took 1883868 ticks (8 ms).
ADD took 3214136 ticks (14 ms).
CONV_2D took 21731384 ticks (100 ms).
MUL took 1887178 ticks (8 ms).
ADD took 3212834 ticks (14 ms).
MAX_POOL_2D took 120584 ticks (0 ms).
CONV_2D took 5430748 ticks (25 ms).
MUL took 473286 ticks (2 ms).
ADD took 803932 ticks (3 ms).
CONV_2D took 5428710 ticks (25 ms).
MUL took 473034 ticks (2 ms).
ADD took 803556 ticks (3 ms).
MAX_POOL_2D took 29425 ticks (0 ms).
CONV_2D took 1356438 ticks (6 ms).
MUL took 120207 ticks (0 ms).
ADD took 202961 ticks (0 ms).
CONV_2D took 1355792 ticks (6 ms).
MUL took 120193 ticks (0 ms).
ADD took 202728 ticks (0 ms).
MAX_POOL_2D took 8069 ticks (0 ms).
RESHAPE took 2352 ticks (0 ms).
FULLY_CONNECTED took 34304 ticks (0 ms).
FULLY_CONNECTED took 2726 ticks (0 ms).
------------------------------------
NUMBER OF TICKS = 95090290
INFERENCE TIME = 440 ms
====================================
ITERATION 44 OF 50
------------------------------------
CONV_2D took 4184338 ticks (19 ms).
CONV_2D took 20827652 ticks (96 ms).
MUL took 3818758 ticks (17 ms).
ADD took 6437138 ticks (29 ms).
MAX_POOL_2D took 271094 ticks (1 ms).
CONV_2D took 10686276 ticks (49 ms).
MUL took 1883904 ticks (8 ms).
ADD took 3212138 ticks (14 ms).
CONV_2D took 21729640 ticks (100 ms).
MUL took 1887216 ticks (8 ms).
ADD took 3213404 ticks (14 ms).
MAX_POOL_2D took 120716 ticks (0 ms).
CONV_2D took 5430390 ticks (25 ms).
MUL took 473147 ticks (2 ms).
ADD took 804014 ticks (3 ms).
CONV_2D took 5429167 ticks (25 ms).
MUL took 473350 ticks (2 ms).
ADD took 804049 ticks (3 ms).
MAX_POOL_2D took 29435 ticks (0 ms).
CONV_2D took 1357541 ticks (6 ms).
MUL took 120632 ticks (0 ms).
ADD took 202929 ticks (0 ms).
CONV_2D took 1356593 ticks (6 ms).
MUL took 120147 ticks (0 ms).
ADD took 202225 ticks (0 ms).
MAX_POOL_2D took 8005 ticks (0 ms).
RESHAPE took 2363 ticks (0 ms).
FULLY_CONNECTED took 34212 ticks (0 ms).
FULLY_CONNECTED took 2723 ticks (0 ms).
------------------------------------
NUMBER OF TICKS = 95123196
INFERENCE TIME = 440 ms
====================================
```

```
========================================      ========================================
ITERATION 45 OF 50                            ITERATION 47 OF 50
----------------------------------------      ----------------------------------------
CONV_2D took 4182839 ticks (19 ms).           CONV_2D took 4185211 ticks (19 ms).
CONV_2D took 20827444 ticks (96 ms).          CONV_2D took 20828294 ticks (96 ms).
MUL took 3786126 ticks (17 ms).               MUL took 3786326 ticks (17 ms).
ADD took 6437442 ticks (29 ms).               ADD took 6430826 ticks (29 ms).
MAX_POOL_2D took 271280 ticks (1 ms).         MAX_POOL_2D took 271554 ticks (1 ms).
CONV_2D took 10685778 ticks (49 ms).          CONV_2D took 10682730 ticks (49 ms).
MUL took 1884046 ticks (8 ms).                MUL took 1883806 ticks (8 ms).
ADD took 3211314 ticks (14 ms).               ADD took 3212106 ticks (14 ms).
CONV_2D took 21731340 ticks (100 ms).         CONV_2D took 21730782 ticks (100 ms).
MUL took 1883966 ticks (8 ms).                MUL took 1883852 ticks (8 ms).
ADD took 3214928 ticks (14 ms).               ADD took 3215032 ticks (14 ms).
MAX_POOL_2D took 120364 ticks (0 ms).         MAX_POOL_2D took 120472 ticks (0 ms).
CONV_2D took 5430546 ticks (25 ms).           CONV_2D took 5429904 ticks (25 ms).
MUL took 473035 ticks (2 ms).                 MUL took 473497 ticks (2 ms).
ADD took 804028 ticks (3 ms).                 ADD took 803822 ticks (3 ms).
CONV_2D took 5430050 ticks (25 ms).           CONV_2D took 5431628 ticks (25 ms).
MUL took 476994 ticks (2 ms).                 MUL took 477348 ticks (2 ms).
ADD took 803657 ticks (3 ms).                 ADD took 804529 ticks (3 ms).
MAX_POOL_2D took 29401 ticks (0 ms).          MAX_POOL_2D took 29593 ticks (0 ms).
CONV_2D took 1357604 ticks (6 ms).            CONV_2D took 1356553 ticks (6 ms).
MUL took 121257 ticks (0 ms).                 MUL took 120280 ticks (0 ms).
ADD took 202718 ticks (0 ms).                 ADD took 202796 ticks (0 ms).
CONV_2D took 1357041 ticks (6 ms).            CONV_2D took 1357466 ticks (6 ms).
MUL took 120140 ticks (0 ms).                 MUL took 120605 ticks (0 ms).
ADD took 203162 ticks (0 ms).                 ADD took 202909 ticks (0 ms).
MAX_POOL_2D took 8003 ticks (0 ms).           MAX_POOL_2D took 8085 ticks (0 ms).
RESHAPE took 2352 ticks (0 ms).               RESHAPE took 2379 ticks (0 ms).
FULLY_CONNECTED took 34308 ticks (0 ms).      FULLY_CONNECTED took 34256 ticks (0 ms).
FULLY_CONNECTED took 2722 ticks (0 ms).       FULLY_CONNECTED took 2748 ticks (0 ms).
----------------------------------------      ----------------------------------------
NUMBER OF TICKS = 95093885                     NUMBER OF TICKS = 95089389
INFERENCE TIME = 440 ms                        INFERENCE TIME = 440 ms
========================================      ========================================
ITERATION 46 OF 50                            ITERATION 48 OF 50
----------------------------------------      ----------------------------------------
CONV_2D took 4184062 ticks (19 ms).           CONV_2D took 4184568 ticks (19 ms).
CONV_2D took 20830856 ticks (96 ms).          CONV_2D took 20826458 ticks (96 ms).
MUL took 3785808 ticks (17 ms).               MUL took 3818850 ticks (17 ms).
ADD took 6436772 ticks (29 ms).               ADD took 6425834 ticks (29 ms).
MAX_POOL_2D took 271042 ticks (1 ms).         MAX_POOL_2D took 271034 ticks (1 ms).
CONV_2D took 10685600 ticks (49 ms).          CONV_2D took 10683486 ticks (49 ms).
MUL took 1883970 ticks (8 ms).                MUL took 1884118 ticks (8 ms).
ADD took 3209976 ticks (14 ms).               ADD took 3212666 ticks (14 ms).
CONV_2D took 21732772 ticks (100 ms).         CONV_2D took 21727648 ticks (100 ms).
MUL took 1883918 ticks (8 ms).                MUL took 1884428 ticks (8 ms).
ADD took 3211472 ticks (14 ms).               ADD took 3213942 ticks (14 ms).
MAX_POOL_2D took 120576 ticks (0 ms).         MAX_POOL_2D took 120494 ticks (0 ms).
CONV_2D took 5430836 ticks (25 ms).           CONV_2D took 5430206 ticks (25 ms).
MUL took 473043 ticks (2 ms).                 MUL took 476350 ticks (2 ms).
ADD took 804680 ticks (3 ms).                 ADD took 803911 ticks (3 ms).
CONV_2D took 5429552 ticks (25 ms).           CONV_2D took 5431184 ticks (25 ms).
MUL took 472938 ticks (2 ms).                 MUL took 472922 ticks (2 ms).
ADD took 805801 ticks (3 ms).                 ADD took 804309 ticks (3 ms).
MAX_POOL_2D took 29489 ticks (0 ms).          MAX_POOL_2D took 29440 ticks (0 ms).
CONV_2D took 1357036 ticks (6 ms).            CONV_2D took 1356750 ticks (6 ms).
MUL took 120268 ticks (0 ms).                 MUL took 120126 ticks (0 ms).
ADD took 202931 ticks (0 ms).                 ADD took 202673 ticks (0 ms).
CONV_2D took 1356027 ticks (6 ms).            CONV_2D took 1355937 ticks (6 ms).
MUL took 120417 ticks (0 ms).                 MUL took 120234 ticks (0 ms).
ADD took 202788 ticks (0 ms).                 ADD took 202891 ticks (0 ms).
MAX_POOL_2D took 8031 ticks (0 ms).           MAX_POOL_2D took 8091 ticks (0 ms).
RESHAPE took 2351 ticks (0 ms).               RESHAPE took 2350 ticks (0 ms).
FULLY_CONNECTED took 34138 ticks (0 ms).      FULLY_CONNECTED took 34310 ticks (0 ms).
FULLY_CONNECTED took 2708 ticks (0 ms).       FULLY_CONNECTED took 2674 ticks (0 ms).
----------------------------------------      ----------------------------------------
NUMBER OF TICKS = 95089858                     NUMBER OF TICKS = 95107884
INFERENCE TIME = 440 ms                        INFERENCE TIME = 440 ms
========================================      ========================================
```

```
========================================
ITERATION 49 OF 50
----------------------------------------
CONV_2D took 4183474 ticks (19 ms).
CONV_2D took 20831566 ticks (96 ms).
MUL took 3786432 ticks (17 ms).
ADD took 6426092 ticks (29 ms).
MAX_POOL_2D took 271010 ticks (1 ms).
CONV_2D took 10685586 ticks (49 ms).
MUL took 1884100 ticks (8 ms).
ADD took 3213295 ticks (14 ms).
CONV_2D took 21731140 ticks (100 ms).
MUL took 1884328 ticks (8 ms).
ADD took 3213846 ticks (14 ms).
MAX_POOL_2D took 119958 ticks (0 ms).
CONV_2D took 5431804 ticks (25 ms).
MUL took 477225 ticks (2 ms).
ADD took 804360 ticks (3 ms).
CONV_2D took 5431375 ticks (25 ms).
MUL took 477410 ticks (2 ms).
ADD took 803467 ticks (3 ms).
MAX_POOL_2D took 29374 ticks (0 ms).
CONV_2D took 1356964 ticks (6 ms).
MUL took 120177 ticks (0 ms).
ADD took 202823 ticks (0 ms).
CONV_2D took 1356578 ticks (6 ms).
MUL took 120462 ticks (0 ms).
ADD took 202953 ticks (0 ms).
MAX_POOL_2D took 7999 ticks (0 ms).
RESHAPE took 2368 ticks (0 ms).
FULLY_CONNECTED took 34214 ticks (0 ms).
FULLY_CONNECTED took 2736 ticks (0 ms).
----------------------------------------
NUMBER OF TICKS = 95093116
INFERENCE TIME = 440 ms
========================================
ITERATION 50 OF 50
----------------------------------------
CONV_2D took 4186325 ticks (19 ms).
CONV_2D took 20826861 ticks (96 ms).
MUL took 3786744 ticks (17 ms).
ADD took 6437512 ticks (29 ms).
MAX_POOL_2D took 271498 ticks (1 ms).
CONV_2D took 10685020 ticks (49 ms).
MUL took 1884252 ticks (8 ms).
ADD took 3211534 ticks (14 ms).
CONV_2D took 21729970 ticks (100 ms).
MUL took 1883908 ticks (8 ms).
ADD took 3213640 ticks (14 ms).
MAX_POOL_2D took 120312 ticks (0 ms).
CONV_2D took 5430098 ticks (25 ms).
MUL took 472951 ticks (2 ms).
ADD took 804698 ticks (3 ms).
CONV_2D took 5430325 ticks (25 ms).
MUL took 473362 ticks (2 ms).
ADD took 804621 ticks (3 ms).
MAX_POOL_2D took 29387 ticks (0 ms).
CONV_2D took 1356697 ticks (6 ms).
MUL took 120279 ticks (0 ms).
ADD took 202702 ticks (0 ms).
CONV_2D took 1356889 ticks (6 ms).
MUL took 120177 ticks (0 ms).
ADD took 202949 ticks (0 ms).
MAX_POOL_2D took 8018 ticks (0 ms).
RESHAPE took 2352 ticks (0 ms).
FULLY_CONNECTED took 34182 ticks (0 ms).
FULLY_CONNECTED took 2745 ticks (0 ms).
----------------------------------------
NUMBER OF TICKS = 95090008
INFERENCE TIME = 440 ms
========================================
Predicted 35 correct out of 50
Accuracy = 0.70
```
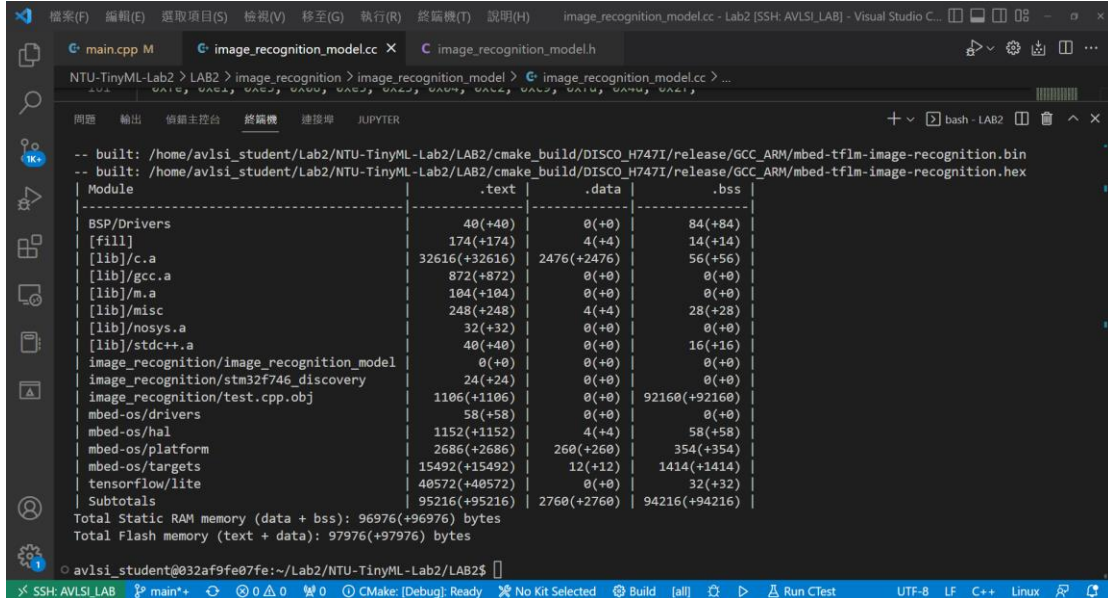
Response on Question: Please describe how much memory used to store your neural network's parameter in this deployment, by using which memory?

RAM memory : 96976 bytes

Flash memory : 97976 bytes