Table 1. MobileNet Body Architecture

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| --- | --- | --- |
| Type / Stride | Filter Shape | Input Size |
| Conv / s2 | 3 × 3 × 3 × 32 | 224 × 224 × 3 |
| Conv dw / s1 | 3 × 3 × 32 dw | 112 × 112 × 32 |
| Conv / s1 | 1 × 1 × 32 × 64 | 112 × 112 × 32 |
| Conv dw / s2 | 3 × 3 × 64 dw | 112 × 112 × 64 |
| Conv / s1 | 1 × 1 × 64 × 128 | 56 × 56 × 64 |
| Conv dw / s1 | 3 × 3 × 128 dw | 56 × 56 × 128 |
| Conv / s1 | 1 × 1 × 128 × 128 | 56 × 56 × 128 |
| Conv dw / s2 | 3 × 3 × 128 dw | 56 × 56 × 128 |
| Conv / s1 | 1 × 1 × 128 × 256 | 28 × 28 × 128 |
| Conv dw / s1 | 3 × 3 × 256 dw | 28 × 28 × 256 |
| Conv / s1 | 1 × 1 × 256 × 256 | 28 × 28 × 256 |
| Conv dw / s2 | 3 × 3 × 256 dw | 28 × 28 × 256 |
| Conv / s1 | 1 × 1 × 256 × 512 | 14 × 14 × 256 |
| 5× Conv dw / s1  Conv / s1 | 3 × 3 × 512 dw  1 × 1 × 512 × 512 | 14 × 14 × 512  14 × 14 × 512 |
| Conv dw / s2 | 3 × 3 × 512 dw | 14 × 14 × 512 |
| Conv / s1 | 1 × 1 × 512 × 1024 | 7 × 7 × 512 |
| Conv dw / s2 | 3 × 3 × 1024 dw | 7 × 7 × 1024 |
| Conv / s1 | 1 × 1 × 1024 × 1024 | 7 × 7 × 1024 |
| Avg Pool / s1 | Pool 7 × 7 | 7 × 7 × 1024 |
| FC / s1 | 1024 × 1000 | 1 × 1 × 1024 |
| Softmax / s1 | Classifier | 1 × 1 × 1000 |

为方便替换darknet53网络，将输入修改为256\*256\*3

|  |  |  |  |
| --- | --- | --- | --- |
|  | Type / Stride | Filter Shape | Input Size |
| 1 | Conv / s2 | 3 × 3 × 3 × 32 | 256 × 256 × 3 |
| 2 | Conv dw / s1 | 3 × 3 × 32 dw | 128 × 128 × 32 |
| 3 | Conv / s1 | 1 × 1 × 32 × 64 | 128 × 128 × 32 |
| 4 | Conv dw / s2 | 3 × 3 × 64 dw | 128 × 128 × 64 |
| 5 | Conv / s1 | 1 × 1 × 64 × 128 | 64 × 64 × 64 |
| 6 | Conv dw / s1 | 3 × 3 × 128 dw | 64 × 64 × 128 |
| 7 | Conv / s1 | 1 × 1 × 128 × 128 | 64 × 64 × 128 |
| 8 | Conv dw / s2 | 3 × 3 × 128 dw | 64 × 64 × 128 |
| 9 | Conv / s1 | 1 × 1 × 128 × 256 | 32 × 32 × 128 |
| 10 | Conv dw / s1 | 3 × 3 × 256 dw | 32 × 32 × 256 |
| 11 | Conv / s1 | 1 × 1 × 256 × 256 | 32 × 32 × 256 |
| 12 | Conv dw / s2 | 3 × 3 × 256 dw | 32 × 32× 256 |
| 13 | Conv / s1 | 1 × 1 × 256 × 512 | 16 × 16 × 256 |
| 14-23 | 5× Conv dw / s1  Conv / s1 | 3 × 3 × 512 dw  1 × 1 × 512 × 512 | 16 × 6 × 512  16 × 16 × 512 |
| 24 | Conv dw / s2 | 3 × 3 × 512 dw | 16× 16× 512 |
| 25 | Conv / s1 | 1 × 1 × 512 × 1024 | 8 ×8 × 512 |
| 26 | Conv dw / s1 | 3 × 3 × 1024 dw | 8 ×8 × 1024 |
| 27 | Conv / s1 | 1 × 1 × 1024 × 1024 | 8× 8 × 1024 |
| 28 | Avg Pool / s1 | Pool 8 × 8 | 8 × 8 × 1024 |
| 29 | FC / s1 | 1024 × 1000 | 1 × 1 × 1024 |
|  | Softmax / s1 | Classifier | 1 × 1 × 1000 |