4th layer maxpooling — no wts or biases. o/p shape = (None, 8, 8, 32)

5th layer flatten — no wts or biases. o/p shape = (None, 2048)

6th layer dense

# of op channels = 32

i/p shape = o/p from flatten layer

o/p shape = (None, 32)

= (None, 2048)

↑ # of i/p channels

wts = 32 * 2048 = 65536

biases = 1 * 32

Layer Total = 65568

(For Dense layers:-

wts = # o/p channels * # i/p channels

biases = same formula as before)

7th layer dense

op channels = 16

wts = 16 * 32 = 512

biases = 1 * 16 = 16

Layer Total = 528

o/p shape = (None, 16)

8th layer dense

op channels = 10

wts = 10 * 16 = 160

biases = 1 * 10 = 10

Layer Total = 170

o/p shape = (None, 10)

For Conv layers :-

wts = # i/p channels * filter height * filter weight * # op channels

biases = 1 * # op channels

Q15 i/p shape = (32, 32, 3)

filter = 3×3

1st layer conv2d # op channels = 16.

wts = 3 * 3 * 3 * 16 = 432

biases = 1 * 16 = 16

o/p shape = (None, 32, 32, 16)

Layer Total 448

2nd layer maxpooling no weights or biases o/p shape = (None, 16, 16, 16)

3rd layer conv2d # op channels = 32

i/p shape = (None, ~~32~~ 16, ~~32~~ 16, 16) ← o/p from maxpool layer

↑ # of i/p channels

wts = 16 * 3 * 3 * 32 = 4608

biases = 1 * 32 = 32

o/p shape = (None, 16, 16, 32)

Layer Total 4640