**SHAPE PARAMETERS OF AlexNet AND ITS RS DATAFLOW MAPPING PARAMETERS ON EYERISS. THIS MAPPING ASSUMES A BATCH SIZE (N) OF 4**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Layer** | **H/W** | **R/S** | **E/F** | **C** | **M** | **U** | **m** | **n** | **e** | **p** | **q** | **r** | **t** |
| **CONV1** | 227 | 11 | 55 | 3 | 64 | 4 | 64 | 1 | 7 | 16 | 1 | 1 | 2 |
| **CONV2** | 31 | 5 | 27 | 64 | 192 | 1 | 64 | 1 | 27 | 16 | 2 | 1 | 1 |
| **CONV3** | 15 | 3 | 13 | 192 | 384 | 1 | 64 | 4 | 13 | 16 | 4 | 1 | 4 |
| **CONV4** | 15 | 3 | 13 | 384 | 256 | 1 | 64 | 4 | 13 | 16 | 3 | 2 | 2 |
| **CONV5** | 15 | 3 | 13 | 256 | 256 | 1 | 64 | 4 | 13 | 16 | 3 | 2 | 2 |

**H/W**: height and width for ifmap.

**R/S**: height and width for filter.

**E/F**: height and width for ofmap.

**C**: number of ifmap / filter channels.

**M**: number of filters / number of ofmap channels.

**N**: batch size of ifmaps.

**U**: stride number.

**m**: number of ofmap channels stored in the global buffer.

**n**: number of ifmaps used in a processing pass.

**e**: width of PE set (strip mining if necessary).

**p**: number of filters processed by a PE set.

**q**: number of channels processed by a PE set.

**r:** number of PE sets that process different channels in the PE array.

**t:** number of PE sets that process different filters in the PE array.

**p x t:** Number of filters processed by a PE array.

**q x r:** Number of channels processed by a PE array.