

Bing

Sure, I can give you an example of multiplication of a 4x2x2x2 input tensor and a 1x2x2x2 spatial attention map. The multiplication is done element-wise, which means that each element of the input tensor is multiplied by the corresponding element of the spatial attention map. The output tensor has the same shape as the input tensor, which is 4x2x2x2. Here is an example of the multiplication:

Let's say the input tensor x has the following values:

```
x = torch.tensor([[[[ 0.1, 0.2], [ 0.3, 0.4]],
                  [[ 0.5, 0.6],
                   [ 0.7, 0.8]]],
                  [[[ 0.9, 1.0],
                   [ 1.1, 1.2]],
                  [[ 1.3, 1.4],
                   [ 1.5, 1.6]]],
                  [[[ 1.7, 1.8],
                   [ 1.9, 2.0]],
                  [[ 2.1, 2.2],
                   [ 2.3, 2.4]]],
                  [[[ 2.5, 2.6],
                   [ 2.7, 2.8]],
                  [[ 2.9, 3.0],
                   [ 3.1, 3.2]]]]])
```

And let's say the spatial attention map spa_se has the following values:

```
spa_se = torch.tensor([[[[ 0.6, 0.7], [ 0.8, 0.9]],
                        [[ 0.9, 0.8],
                         [ 0.7, 0.6]]]])
```

Then the output tensor spa_se_x is obtained by multiplying x and spa_se element-wise, like this:

```
spa_se_x = torch.tensor([[[[ 0.06, 0.14], [ 0.24, 0.36]],
                          [[ 0.45, 0.48],
                           [ 0.49, 0.48]]],
                          [[[ 0.54, 0.70],
                           [ 0.88, 1.08]],
                          [[ 1.17, 1.12],
                           [ 1.05, 0.96]]],
                          [[[ 1.02, 1.26],
                           [ 1.52, 1.80]],
                          [[ 1.89, 1.76],
                           [ 1.38, 1.44]]],
                          [[[ 1.50, 1.82],
                           [ 2.16, 2.52]]],
                          ]])
```

```
[[ [ 2.61,  2.40],  
   [ 1.86,  1.92]]]]])
```

I hope this example helps you understand the multiplication of a 4x2x2x2 input tensor and a 1x2x2x2 spatial attention map. 😊