

Table S1. The parameters of the spatial-attention block.

Layers	Parameters	Output Size
V1	conv (k1s1p0) ¹ +BN ² +ReLU	$512 \times 512 \times 16$
	conv (k3s1p1)+BN+ReLU	$512 \times 512 \times 16$
DS	2×2 MaxPooling	$256 \times 256 \times 16$
V2	conv (k1s1p0)+BN+ReLU	$256 \times 256 \times 32$
	conv (k3s1p1)+BN+ReLU	$256 \times 256 \times 32$
DS	2×2 MaxPooling	$128 \times 128 \times 32$
V3	conv (k1s1p0)+BN+ReLU	$128 \times 128 \times 64$
	conv (k3s1p1)+BN+ReLU	$128 \times 128 \times 64$
DS	2×2 MaxPooling	$64 \times 64 \times 64$
V4	conv (k1s1p0)+BN+ReLU	$64 \times 64 \times 128$
	conv (k3s1p1)+BN+ReLU	$64 \times 64 \times 128$
US	UnSampling+concatenation	$128 \times 128 \times (64 + 128)$
V5	conv (k1s1p0)+BN+ReLU	$128 \times 128 \times 64$
	conv (k3s1p1)+BN+ReLU	$128 \times 128 \times 64$
US	UnSampling+concatenation	$256 \times 256 \times (32 + 64)$
V6	conv (k1s1p0)+BN+ReLU	$256 \times 256 \times 32$
	conv (k3s1p1)+BN+ReLU	$256 \times 256 \times 32$
US	UnSampling+concatenation	$512 \times 512 \times (16 + 32)$
V7	conv (k1s1p0)+BN+ReLU	$512 \times 512 \times 16$
	conv (k3s1p1)+BN+ReLU	$512 \times 512 \times 16$
conv	k1s1p0	$512 \times 512 \times 1$

¹ conv(k1s1p0) represents the convolutional layer with kernel size 1, stride 1 and 0 paddings.² batch normalization