**Table S4.** Metrics obtained in the PICCOLO test set for the different models and datasets used during training. Best value per metric is indicated in bold.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Dataset for training/validation set** | **Network** | **PICCOLO – WL and NBI frames** | | | | | | |
| Accuracy | Precision | Recall | Specificity | F2-score | Jaccard | Dice |
| CVC-EndoSceneStill | U-Net+VGG16 | 81.97±19.67 | 55.84±44.84 | 40.59±39.2 | 94.19±12.64 | 38.06±37.81 | 32.82±34.81 | 39.39±38.72 |
| U-Net+Densenet121 | 84.65±19.63 | 55.31±45.60 | 42.92±42.12 | 97.26±6.89 | 42.66±41.85 | 38.76±39.05 | 44.10±42.21 |
| Linknet+VGG16 | 83.81±19.04 | 54.78±44.67 | 34.60±37.84 | 97.82±4.09 | 35.21±37.34 | 30.55±33.57 | 37.23±37.73 |
| Linknet+Densenet121 | 85.32±19.01 | 52.84±45.12 | 45.09±42.36 | 97.30±6.26 | 44.78±41.60 | 39.52±37.9 | 45.5±41.51 |
| Kvasir-SEG | U-Net+VGG16 | 84.70±19.09 | 52.00±46.99 | 30.86±38.27 | **99.41±2.16** | 31.74±38.24 | 28.51±35.12 | 33.89±38.82 |
| U-Net+Densenet121 | 87.76±17.47 | 60.77±43.16 | 53.77±43.26 | 96.97±8.57 | 51.38±41.52 | 44.78±38.73 | 51.00±41.08 |
| Linknet+VGG16 | 88.31±14.05 | 63.70±43.49 | 44.95±40.68 | 99.01±2.32 | 45.42±39.81 | 40.43±36.41 | 47.43±39.69 |
| Linknet+Densenet121 | 86.14±18.45 | 59.54±42.34 | 58.11±42.49 | 93.29±16.63 | 52.87±40.07 | 44.92±37.37 | 51.87±39.79 |
| PICCOLO | U-Net+VGG16 | 92.66±10.39 | 77.18±35.21 | 64.76±38.61 | 98.50±3.70 | 64.66±37.67 | 58.74±36.06 | 65.74±36.93 |
| U-Net+Densenet121 | 92.70±11.61 | **77.58±33.87** | **72.89±37.04** | 97.96±4.99 | **70.69±36.38** | **64.01±36.23** | **70.10±36.45** |
| Linknet+VGG16 | 91.91±11.88 | 73.16±37.77 | 60.69±41.91 | 98.29±4.96 | 60.02±41.02 | 54.46±38.88 | 60.48±40.36 |
| Linknet+Densenet121 | **93.05±11.65** | 75.85±36.49 | 65.36±40.63 | 98.01±6.30 | 65.16±39.91 | 60.14±38.31 | 65.81±39.32 |
|  |  | **PICCOLO – Only WL frames** | | | | | | |
| CVC-EndoSceneStill | U-Net+VGG16 | 85.38±14.42 | 60.93±42.72 | 57.06±37.65 | 91.12±14.91 | 52.02±37.24 | 45.00±35.60 | 52.81±38.33 |
| U-Net+Densenet121 | 89.53±10.67 | 62.86±44.81 | 50.27±40.71 | 96.87±5.97 | 49.73±40.66 | 45.57±38.71 | 51.78±41.27 |
| Linknet+VGG16 | 88.36±11.47 | 59.47±43.55 | 42.08±37.54 | 97.10±4.21 | 42.81±36.80 | 37.17±33.45 | 45.31±37.13 |
| Linknet+Densenet121 | 90.30±9.47 | 57.08±45.26 | 50.55±41.30 | 96.74±5.02 | 50.28±40.96 | 45.09±38.42 | 51.33±41.47 |
| Kvasir-SEG | U-Net+VGG16 | 88.59±13.40 | 42.90±47.74 | 30.56±38.28 | **99.43±2.62** | 31.61±38.86 | 29.01±36.31 | 33.77±40.32 |
| U-Net+Densenet121 | 92.36±10.67 | 63.61±43.66 | 54.63±42.64 | 98.06±6.63 | 53.13±41.67 | 47.74±39.55 | 53.62±41.68 |
| Linknet+VGG16 | 89.78±12.39 | 58.05±46.59 | 36.46±39.19 | 99.57±1.35 | 37.71±39.50 | 34.53±36.88 | 40.39±40.52 |
| Linknet+Densenet121 | 92.40±9.86 | 63.26±44.32 | 49.02±42.33 | 99.19±1.52 | 49.56±41.94 | 45.18±39.01 | 51.13±41.90 |
| PICCOLO | U-Net+VGG16 | 93.21±10.81 | **73.52±39.73** | 57.79±41.84 | 99.09±3.51 | 58.32±41.58 | 54.38±40.08 | 59.83±41.42 |
| U-Net+Densenet121 | 92.86±11.11 | 71.33±38.15 | **69.77±39.53** | 97.37±6.29 | **65.97±38.64** | **58.70±38.90** | **64.51±39.18** |
| Linknet+VGG16 | 92.66±11.15 | 68.43±42.15 | 54.75±43.72 | 98.73±4.95 | 54.79±43.29 | 50.66±41.13 | 55.57±43.24 |
| Linknet+Densenet121 | **93.34±11.36** | 69.18±40.96 | 59.12±42.68 | 98.17±6.62 | 58.88±42.08 | 54.47±40.60 | 59.64±41.94 |