

Table 1: Decoder Ablations.

Method	Params	FLOPs	mAD
CNN-based	13.0M	5.0G	81.7
Transformer-based	27.1M	8.4G	80.2
Mamba-based	22.5M	7.5G	82.1

Table 2: Scanning Directions Ablations.

Directions	Params	FLOPs	Train Time	Train Memory	mAD
2	21.8M	7.2G	2h1m	6230	85.8
4	23.1M	7.5G	2h56m	7974	85.9
8	25.7M	8.3G	5h39m	11802	86.0

Table 3: Components Ablations.

Basic Mamba	LSS	HSS	mAD
✓			82.1
✓	✓		84.9
✓	✓	✓	86.0

Table 4: Additional Datasets Results.

Extral Datasets	RD4AD	UniAD	SimpleNet	DeSTSeg	DiAD	Ours
Uni-Medical	70.2	69.9	69.1	60.9	70.5	74.7
MVTec-3D	74.3	71.1	66.9	69.1	73.8	78.0
COCO-AD	45.0	42.3	40.7	40.0	44.1	47.5

Table 5: Scanning Methods Ablations.

Sweep	Scan	Zorder	Zigzag	Hilbert	mAD
✓					85.8
	✓				85.9
		✓			85.8
			✓		85.8
				✓	86.0
			✓	✓	84.9
		✓		✓	85.3
			✓	✓	85.4
✓	✓			✓	85.7
	✓	✓	✓	✓	85.3

Table 6: mIoU Results on six Datasets.

mIoU	RD4AD	UniAD	SimpleNet	DiAD	Ours
MVTec-AD	37.0	32.5	36.4	21.1	41.2
VisA	27.9	26.4	25.7	14.9	29.5
Real-IAD	20.0	18.6	2.5	3.7	23.9
Uni-Medical	26.9	27.6	23.3	23.2	33.5
MVTec-3D	22.2	16.7	13.9	5.4	25.9
COCO-AD	11.5	10.9	11.5	11.6	12.9

Table 7: UniAD with Different Encoder.

UniAD	Params	FLOPs	mAD
EfficientNet-b4	24.5M	3.6G	81.7
ResNet-34	16.1M	6.1G	78.2
WideResNet-50	33.5M	14.4G	78.9

Table 8: MambaAD with Different Encoder.

MambaAD	Params	FLOPs	mAD
EfficientNet-b4	23.6M	2.7G	84.1
ResNet-34	25.7M	8.3G	86.0
WideResNet-50	268.M	68.1G	86.6

Table 9: Branches Ablations.

Method	Params	FLOPs	mAD
Local	13.0M	5.0G	81.7
Global	22.5M	7.5G	82.1
Global+Local	25.7M	8.3G	86.0

Table 10: Mamba-based Backbone Ablations.

Backbone	Params	FLOPs	mAD
EfficientVMamba-T	6.3M	1.0G	72.7
VMamba-T	30.2M	6.0G	82.9
ResNet34	8.2M	4.0G	86.0

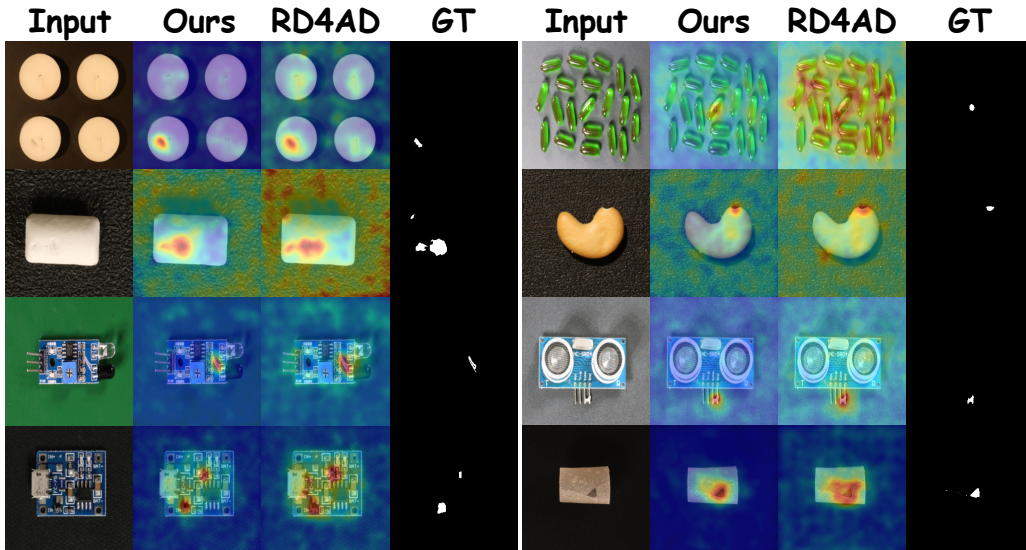


Figure 1: Qualitative analysis of RD4AD and MambaAD on the VisA dataset.