CADRef: Robust Out-of-Distribution Detection via Class-Aware Decoupled Relative Feature Leveraging

Supplementary Material

7. Experiment Details

7.1. Dataset Settings

In our experiments, we perform OOD detection across two dataset scenarios. In the small-scale dataset scenario, we employ CIFAR-10 and CIFAR-100 as ID datasets, with SVHN, LSUN-R, LSUN-C, iSUN, Texture, and Places serving as the corresponding OOD datasets. In the large-scale dataset scenario, we use ImageNet-1k as the ID dataset, with OOD detection conducted on six datasets: iNaturalist, SUN, Places, Textures, OpenImage-O and ImageNet-O. Additionally, we also conduct extended experiments on SSB-hard and Ninco to further discuss the impact of the logit-based component. Table 8 provides detailed information of the datasets utilized in both scenarios.

	Dataset	# of Classes	# of Samples	Size
ID	*CIFAR-10*	10	10000	32×32
	CIFAR-100	100	10000	32×32
	ImageNet-1k	1000	50000	224×224
OOD (small-scale)	*SVHN*	–	26032	32×32
	LSUN-R	–	10000	32×32
	LSUN-C	–	10000	32×32
	iSUN	–	8925	32×32
	Texture	–	5640	32×32
	Places	–	10000	32×32
OOD (large-scale)	*iNaturalist*	–	10000	224×224
	SUN	–	10000	224×224
	Places	–	10000	224×224
	Texture	–	5640	224×224
	OpenImage-O	–	17632	224×224
	ImageNet-O	–	2000	224×224
	SSB-hard	–	49000	224×224
	Ninco	–	5878	224×224

Table 8. Details of ID/OOD datasets. Note that the third column is the number of test samples. All OOD dataset samples are processed to match the size of the corresponding ID dataset samples.

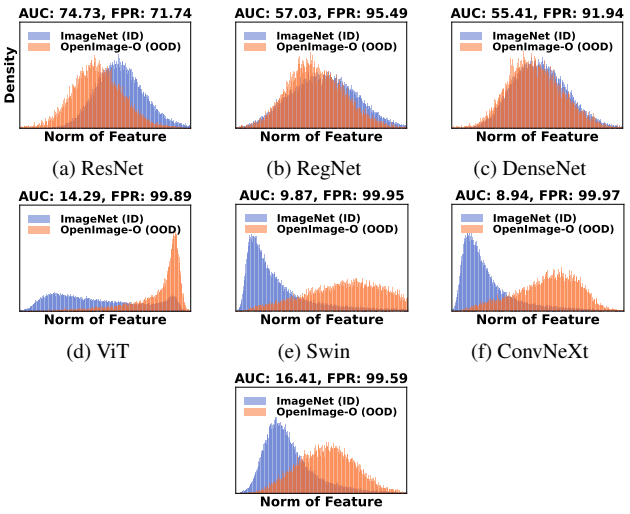
7.2. Hyperparameter Settings

The detailed hyperparameters of all baseline methods are listed in Table 9. For most baseline methods, we keep the same hyperparameters as the original paper. For methods that lack experiments on ImageNet-1k in the original work, we adopt the settings from the *ReAct* [34].

8. Detailed Experiment Results

For the ImageNet-1k benchmark, we conduct extensive experiments using ResNet-50, RegNet-8GF, DenseNet-201, ViT-B/16, Swin-B, ConvNeXt-B, and MaxVit-B models to complete Table 3. Besides the main text, we introduce three new baselines: *CIDER* [29], *PALM* [27], and *Mahalanobis* [21]. To address the performance drop observed with *PALM*'s original settings, we modify its learning rate from 0.001 to 0.01, maintaining all other configurations as in the original paper. All results are presented in Tables 10, 11, 12, 13, 14, 15, and 16, where *CARef* and *CADRef* consistently demonstrate superior performance across these models, highlighting the robustness of our methods.

9. Collapse of the feature norm



(a) ResNet (b) RegNet (c) DenseNet

(d) ViT (e) Swin (f) ConvNeXt

(g) MaxViT

Figure 6. Comparison of feature ℓ_2-norm across different models.

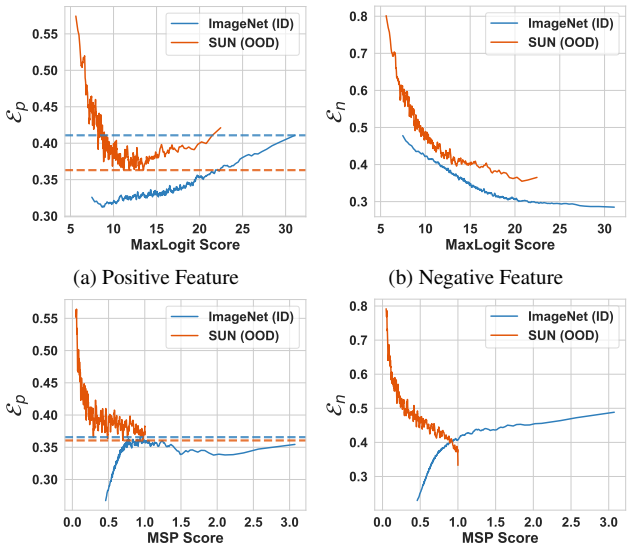
We also explore the challenges associated with using feature norm for OOD detection. According to the conclusion in [46], the feature norms of ID samples are generally larger than those of OOD samples. However, as shown in Figure 6, this conclusion holds only for ResNet. In RegNet and DenseNet, this method lacks discriminative power (with an

Method	Configurable Hyperparameters	CIFAR-10	CIFAR-100	ImageNet-1k
MSP	None	–	–	–
MaxLogit	None	–	–	–
ODIN	T: temperature scaling ϵ: perturbation magnitude	$T = 1000$ $\epsilon = 0.0014$	$T = 1000$ $\epsilon = 0.002$	$T = 1000$ $\epsilon = 0.005$
Energy	T: temperature scaling	$T = 1$	$T = 1$	$T = 1$
GEN	M: top classes used in truncated sum γ: exponential scale	$M = 10$ $\gamma = 0.1$	$M = 10$ $\gamma = 0.1$	$M = 100$ $\gamma = 0.1$
ReAct	p: percentile for rectification threshold	$p = 90$	$p = 90$	$p = 90$
DICE	p: sparsity parameter	$p = 0.9$	$p = 0.7$	$p = 0.7$
ViM	D: dimension of principal space	$D = 171$	$D = 171$	$D = \begin{cases} 256 & \text{for MaxViT} \\ 1000 & \text{for ResNet} \\ 512 & \text{for others} \end{cases}$
ASH-S	p: pruning percentage	$p = 95$	$p = 90$	$p = 90$
OptFS	K: number of intervals	$K = 100$	$K = 100$	$K = 100$
Ours	None	–	–	–

Table 9. Hyperparameter settings for different OOD detection methods.

AUROC of around 50%), and in other models, the conclusion is actually reversed.

9.1. Score and error distribution for other methods



(a) Positive Feature (b) Negative Feature

(c) Positive Feature (d) Negative Feature

Figure 7. Score and error distribution of ID/OOD samples.

Figure 7 illustrates the score and error distributions for the *MSP* and *MaxLogit* methods. While the *MaxLogit* method demonstrates error trends consistent with the *Energy* and *GEN* methods, the *MSP* method exhibits a markedly different behavior. At higher $\mathcal{S}_{\text{logit}}$ values, *MSP* shows distinctly separated positive errors but significant overlap in negative errors, which fundamentally contradicts the *Error Scaling* component's design principles. Consequently, integrating *MSP* as a logit-based component in *CADRef* leads to a detrimental impact, as substantiated by the results in Figure 5.

Methods	iNaturalist		SUN		Places		Textures		OpenImage-O		ImageNet-O		Average	
	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓
MSP	88.42	52.73	81.75	68.58	80.63	71.59	80.46	66.15	84.98	63.60	28.61	100.00	74.14	70.44
MaxLogit	91.14	50.77	86.43	60.39	84.03	66.03	86.38	54.91	89.13	57.89	40.73	100.00	79.64	65.00
ODIN	87.00	52.33	86.57	53.49	85.30	58.64	86.51	46.08	86.65	52.76	43.63	98.65	79.28	60.32
Energy	90.59	53.96	86.73	58.28	84.12	65.43	86.73	52.30	89.12	57.23	41.79	100.00	79.85	64.53
GEN	92.44	45.76	85.52	65.54	83.46	69.24	85.41	59.24	89.31	60.44	43.59	100.00	79.95	66.70
ReAct	96.39	19.55	**94.41**	**24.01**	**91.93**	**33.45**	90.45	45.83	90.53	43.69	52.45	98.00	86.03	44.09
DICE	94.51	26.63	90.91	36.48	87.64	47.98	90.44	32.58	88.57	45.72	42.78	98.00	82.48	47.90
ViM	87.42	71.80	81.07	81.80	78.39	83.12	96.83	14.84	89.30	58.68	70.77	84.85	83.96	65.85
ASH-S	**97.87**	**11.49**	94.02	27.96	90.98	39.83	97.60	11.97	92.75	32.77	67.44	89.10	**90.11**	**35.52**
OptFS	96.88	16.79	93.13	35.31	90.42	44.78	95.74	23.08	92.77	37.68	59.94	97.20	88.15	42.47
Mahalanobis	63.97	93.84	52.19	97.43	51.85	97.30	90.10	43.49	69.56	87.64	**80.90**	**66.55**	68.10	81.04
CIDER	92.63	42.24	85.91	61.07	81.33	71.30	97.71	**9.77**	90.85	42.99	77.74	80.86	87.70	51.37
PALM	93.96	31.86	88.91	48.95	83.90	60.68	97.22	12.22	90.39	40.18	79.66	75.85	89.01	44.96
CARef	96.54	17.46	89.51	44.89	85.41	57.64	**97.94**	10.15	92.57	37.73	77.66	77.60	89.94	40.91
CADRef	96.90	16.08	91.26	39.23	87.80	51.12	97.14	12.60	**93.93**	**32.69**	68.38	92.35	89.24	40.68

Table 10. Results of OOD detection on ImageNet-1k benchmark with ResNet-50. ↑ indicates that higher values are better, while ↓ indicates that lower values are better. All values are percentages, with the best and second-best results being **highlighted** and underlined, respectively.

Methods	iNaturalist		SUN		Places		Textures		OpenImage-O		ImageNet-O		Average	
	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓
MSP	88.32	53.48	82.16	68.00	80.98	71.68	79.87	68.77	86.01	61.30	52.69	96.65	78.34	69.98
MaxLogit	90.01	51.89	86.32	57.56	84.02	64.45	82.71	61.24	89.59	51.53	57.64	95.80	81.71	63.75
ODIN	85.52	54.58	86.11	50.33	85.76	54.66	82.34	53.19	86.99	49.30	56.72	89.90	80.57	58.66
Energy	89.29	55.36	86.27	57.37	83.85	63.97	82.51	61.40	89.36	51.87	58.03	94.70	81.55	64.11
GEN	92.36	44.63	86.44	60.33	84.40	66.31	84.53	60.85	90.59	52.96	62.12	95.65	83.41	63.46
ReAct	96.04	21.72	**94.85**	**24.55**	**91.71**	**36.38**	87.26	56.80	87.96	47.03	61.91	91.35	86.62	46.30
DICE	88.83	56.48	84.19	62.09	80.05	74.33	80.13	64.18	81.65	62.26	52.65	94.00	77.92	68.89
ViM	90.88	58.04	85.31	70.72	82.12	75.84	97.35	12.23	91.95	48.58	80.85	71.40	88.08	56.13
ASH-S	**96.49**	**18.52**	91.00	35.15	86.84	50.60	97.12	13.40	91.07	35.58	73.71	74.80	89.37	**38.01**
OptFS	96.06	20.96	92.03	40.58	88.30	51.62	95.90	22.96	92.33	37.47	71.19	84.20	89.30	42.97
Mahalanobis	72.94	89.86	60.81	94.63	59.74	95.45	92.89	32.20	74.97	82.21	79.74	70.35	73.52	77.45
CIDER	90.62	51.76	85.59	61.69	80.00	73.79	**97.63**	**9.75**	89.10	50.64	83.04	65.49	87.66	52.19
PALM	85.12	65.34	80.80	71.64	73.89	80.24	97.23	12.06	83.88	59.89	**83.33**	**62.80**	84.04	58.66
CARef	93.07	41.97	86.21	57.28	81.48	72.04	97.26	15.00	90.21	47.77	81.38	70.00	88.27	50.68
CADRef	95.31	28.13	90.29	44.08	86.73	58.14	97.20	14.02	**93.87**	**34.70**	78.15	75.00	**90.26**	42.34

Table 11. Results of OOD detection on ImageNet-1k benchmark with RegNet-8GF. ↑ indicates that higher values are better, while ↓ indicates that lower values are better. All values are percentages, with the best and second-best results being **highlighted** and underlined, respectively.

Methods	iNaturalist		SUN		Places		Textures		OpenImage-O		ImageNet-O		Average	
	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓
MSP	89.83	44.80	82.22	65.22	81.13	68.86	79.40	67.02	85.21	61.93	48.78	97.95	77.76	67.63
MaxLogit	92.12	40.68	85.91	55.85	83.83	62.12	83.41	58.31	88.31	55.05	53.35	97.35	81.16	61.56
ODIN	89.95	42.93	84.09	55.57	83.01	59.93	81.45	54.85	84.70	56.80	50.21	94.40	78.90	60.75
Energy	91.47	43.76	85.97	53.85	83.68	61.42	83.44	56.61	87.95	55.92	54.04	95.95	81.09	61.25
GEN	93.37	37.92	85.77	59.34	84.03	64.53	83.78	60.69	89.24	58.20	58.18	97.40	82.39	63.01
ReAct	88.65	51.99	89.55	51.38	85.92	61.57	81.49	60.83	74.19	68.20	50.97	91.10	78.46	64.18
DICE	91.73	39.18	86.76	48.13	82.29	60.72	83.85	53.28	81.62	59.35	48.94	93.60	79.20	59.04
ViM	82.69	85.18	73.99	91.50	72.87	91.43	94.66	26.13	87.21	66.06	76.58	75.64	81.33	72.66
ASH-S	**96.18**	**20.51**	**90.58**	**39.42**	**87.54**	**50.40**	93.81	26.13	**92.28**	**37.42**	64.97	88.95	87.56	**43.80**
OptFS	94.61	28.62	90.08	46.12	86.18	56.28	95.17	26.32	90.23	46.91	73.21	83.00	88.25	47.88
Mahalanobis	64.12	94.30	48.25	97.74	47.62	97.69	94.24	26.45	76.83	78.84	**83.07**	**62.50**	69.02	76.25
CIDER	89.17	61.90	81.61	74.77	77.25	81.31	**96.95**	**12.91**	90.51	47.23	80.44	70.96	85.99	58.18
PALM	89.44	60.74	81.08	82.11	75.91	86.09	94.08	26.72	85.99	63.67	76.92	82.10	83.90	66.90
CARef	92.94	36.18	84.16	60.12	78.68	72.13	96.43	18.99	87.01	54.50	80.08	73.60	86.55	52.59
CADRef	95.41	24.59	89.17	47.19	85.03	58.96	96.39	16.68	91.57	42.85	74.27	81.20	**88.64**	45.25

Table 12. Results of OOD detection on ImageNet-1k benchmark with DenseNet-201. ↑ indicates that higher values are better, while ↓ indicates that lower values are better. All values are percentages, with the best and second-best results being **highlighted** and underlined, respectively.

Methods	iNaturalist		SUN		Places		Textures		OpenImage-O		ImageNet-O		Average	
	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓
MSP	88.18	51.42	80.88	66.65	80.37	68.49	82.96	60.47	84.81	59.84	58.79	90.85	79.33	66.29
MaxLogit	85.27	52.14	76.28	66.86	75.03	69.19	81.64	56.57	81.53	58.72	54.31	88.94	75.68	65.40
ODIN	71.50	94.86	56.56	95.31	56.12	95.49	66.32	92.18	62.79	94.79	55.43	93.35	61.45	94.33
Energy	79.27	63.93	70.16	72.81	68.39	74.35	79.24	58.45	76.44	64.83	52.71	87.00	71.04	70.23
GEN	92.91	40.05	85.03	61.06	83.49	64.22	87.97	50.69	89.36	52.53	67.44	88.90	84.37	59.58
ReAct	85.99	65.07	78.93	72.38	77.48	73.84	84.62	57.09	84.21	64.58	66.69	87.00	79.65	69.99
DICE	74.54	90.41	65.23	94.51	64.79	93.05	77.34	84.04	77.28	83.01	70.75	86.05	71.65	88.51
ViM	**97.18**	**12.55**	83.99	**56.77**	81.48	**58.98**	88.92	46.48	**92.44**	**38.11**	76.29	83.25	86.72	**49.36**
ASH-S	6.68	99.99	16.70	99.73	18.32	99.65	24.13	99.13	14.04	99.84	28.46	99.40	18.06	99.62
OptFS	89.94	55.59	84.19	66.36	82.70	68.39	86.46	56.60	88.20	59.86	71.85	89.15	83.89	65.99
Mahalanobis	95.97	18.69	**85.18**	60.07	**84.03**	60.71	87.66	52.93	92.26	40.44	77.03	86.55	**87.02**	53.23
CIDER	91.74	47.68	83.69	71.43	82.41	72.99	88.76	51.14	90.45	52.16	78.89	81.77	85.99	62.86
PALM	86.97	59.15	74.47	76.94	72.04	78.38	88.03	**43.85**	86.46	61.12	**81.24**	**77.85**	81.53	66.21
CARef	94.07	36.59	84.83	66.92	83.03	68.36	89.28	52.57	91.54	50.32	78.31	88.14	86.84	60.48
CADRef	93.81	38.45	85.12	65.85	83.28	67.91	**89.59**	49.78	91.52	50.44	78.12	87.85	86.91	60.05

Table 13. Results of OOD detection on ImageNet-1k benchmark with ViT-B/16. ↑ indicates that higher values are better, while ↓ indicates that lower values are better. All values are percentages, with the best and second-best results being **highlighted** and underlined, respectively.

Methods	iNaturalist		SUN		Places		Textures		OpenImage-O		ImageNet-O		Average	
	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓
MSP	87.00	51.68	80.53	66.52	80.69	67.79	78.46	66.20	81.78	62.13	58.38	88.40	77.81	67.12
MaxLogit	79.86	55.48	72.23	67.86	71.97	69.54	73.98	61.93	71.08	65.52	56.00	85.75	70.85	67.68
ODIN	58.88	90.31	51.06	92.18	48.57	93.24	64.36	86.61	52.42	92.10	56.00	91.70	55.22	91.02
Energy	68.57	72.55	63.08	78.54	62.48	78.92	69.58	65.95	60.23	76.13	55.13	83.65	63.18	75.96
GEN	92.69	**32.94**	85.02	**56.61**	**84.06**	**59.95**	85.61	49.93	87.18	48.66	67.77	83.90	83.72	**55.33**
ReAct	88.72	59.29	81.46	69.10	80.87	70.79	84.07	57.83	85.90	61.58	70.45	**80.85**	81.91	66.57
DICE	23.13	97.70	42.48	91.57	33.91	94.74	73.15	63.22	45.55	86.66	56.50	86.65	45.79	86.76
ViM	93.60	44.56	80.12	71.10	77.96	71.82	83.96	64.64	92.10	46.36	76.03	83.80	83.96	63.63
ASH-S	10.69	99.81	20.18	99.36	21.37	99.59	18.41	98.65	11.94	99.84	32.52	98.85	19.18	99.35
OptFS	90.71	54.98	84.86	67.93	83.94	68.63	85.10	61.68	90.34	51.19	73.28	85.75	84.71	65.03
Mahalanobis	**93.99**	36.30	84.19	71.72	83.02	71.88	86.21	64.31	92.41	44.39	76.74	85.35	86.09	62.32
CIDER	93.35	38.72	**85.45**	66.91	83.69	68.95	88.67	52.15	92.25	**43.46**	78.83	84.24	87.04	59.07
PALM	92.79	43.35	77.62	69.17	73.68	71.91	88.17	50.39	91.54	46.40	**80.95**	82.95	84.12	60.70
CARef	93.57	39.78	84.83	66.72	83.25	68.68	88.74	49.86	**92.55**	43.52	78.57	83.35	86.92	58.65
CADRef	93.77	37.87	85.12	64.23	83.57	66.71	**89.08**	**47.38**	92.32	46.63	78.76	81.45	**87.10**	57.38

Table 14. Results of OOD detection on ImageNet-1k benchmark with Swin-B. ↑ indicates that higher values are better, while ↓ indicates that lower values are better. All values are percentages, with the best and second-best results being **highlighted** and underlined, respectively.

Methods	iNaturalist		SUN		Places		Textures		OpenImage-O		ImageNet-O		Average	
	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓
MSP	89.69	44.35	79.28	63.37	78.41	67.02	73.77	65.76	83.40	58.48	52.85	92.45	76.23	65.24
MaxLogit	83.32	57.91	69.83	72.02	68.44	74.92	65.72	70.88	74.08	68.10	51.18	92.10	68.76	72.66
ODIN	63.62	81.28	47.54	91.28	47.73	90.28	43.43	93.49	52.75	88.20	51.48	91.45	51.09	89.33
Energy	57.94	90.10	51.17	94.53	50.85	92.84	52.87	87.26	54.62	88.78	50.00	93.00	52.91	91.09
GEN	94.86	25.69	84.78	**52.70**	83.04	**59.18**	80.10	55.21	89.37	46.11	64.02	90.50	82.69	54.90
ReAct	87.94	68.80	78.51	78.02	77.07	79.42	76.45	71.57	83.30	73.30	65.61	90.10	78.15	76.87
DICE	20.82	98.55	41.27	93.95	34.27	96.24	71.72	69.92	47.62	88.50	54.99	91.45	45.12	89.77
ViM	93.63	40.84	85.00	59.57	82.17	61.76	86.79	52.41	91.36	45.33	66.46	91.50	84.24	58.57
ASH-S	3.79	99.91	10.77	99.56	14.87	99.02	33.22	96.20	17.33	98.67	41.80	96.00	20.30	98.23
OptFS	92.20	46.02	85.96	61.69	85.10	64.02	86.11	54.32	91.02	49.68	69.97	91.30	85.06	61.17
Mahalanobis	94.20	34.23	**87.62**	58.74	**86.25**	60.61	89.58	47.84	93.00	40.45	74.35	91.05	87.50	55.49
CIDER	93.78	37.16	86.78	60.33	84.55	65.51	92.12	33.97	93.52	35.82	79.50	84.51	88.37	52.88
PALM	**95.65**	**24.74**	84.64	56.83	79.85	63.13	**93.90**	**25.09**	**93.95**	**31.52**	**83.19**	**77.75**	**88.53**	**46.51**
CARef	94.81	29.79	87.37	58.04	85.40	63.09	90.04	45.09	93.39	38.82	76.70	89.70	87.95	54.09
CADRef	94.50	33.08	86.84	60.16	84.92	65.09	89.27	49.17	92.85	44.85	76.49	89.15	87.48	56.92

Table 15. Results of OOD detection on ImageNet-1k benchmark with ConvNeXt-B. ↑ indicates that higher values are better, while ↓ indicates that lower values are better. All values are percentages, with the best and second-best results being **highlighted** and underlined, respectively.

Methods	iNaturalist		SUN		Places		Textures		OpenImage-O		ImageNet-O		Average	
	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓	AU↑	FP↓
MSP	89.04	49.30	82.99	61.46	81.95	64.91	84.33	57.32	86.25	55.89	57.62	92.10	80.36	63.50
MaxLogit	90.54	37.76	80.88	55.30	78.52	61.36	84.81	45.18	82.97	51.04	45.37	93.05	77.18	57.28
ODIN	75.26	75.28	60.07	83.23	55.45	86.82	75.86	68.35	64.37	82.93	56.56	92.15	64.60	81.46
Energy	88.79	43.36	76.62	62.14	73.14	68.26	82.78	46.37	76.69	59.99	40.03	94.65	73.01	62.46
GEN	94.41	28.58	87.36	**50.14**	85.44	**56.12**	89.07	42.70	91.18	40.67	65.53	89.10	85.50	51.22
ReAct	80.15	68.51	62.81	81.64	58.01	86.14	74.11	63.78	66.68	76.46	40.92	96.90	63.78	78.91
DICE	80.47	66.61	67.78	76.60	63.51	83.42	75.38	60.53	63.90	75.45	28.18	98.10	63.20	76.78
ViM	<u>95.26</u>	27.62	80.81	63.22	75.83	67.38	<u>91.30</u>	41.21	93.06	37.38	**75.79**	**84.55**	85.34	53.56
ASH-S	47.01	90.66	65.40	80.89	65.26	84.48	65.48	73.95	49.06	89.75	39.32	98.05	55.26	86.30
OptFS	81.08	63.02	79.33	68.12	78.40	71.79	77.54	66.22	79.82	65.97	54.35	89.95	75.09	70.84
Mahalanobis	93.42	37.82	85.24	67.94	83.65	69.50	88.05	59.79	92.25	43.33	<u>74.92</u>	89.00	86.25	61.23
CIDER	92.20	42.15	85.38	64.35	84.20	67.99	86.39	60.76	90.58	48.55	72.00	87.30	85.13	61.85
PALM	76.82	61.79	64.24	74.81	60.14	78.74	76.63	61.32	72.94	68.00	64.48	<u>86.85</u>	69.21	71.92
CARef	95.11	<u>26.30</u>	<u>87.61</u>	54.21	<u>85.49</u>	59.71	91.18	<u>38.62</u>	**93.30**	<u>35.97</u>	73.52	89.70	<u>87.70</u>	<u>50.75</u>
CADRef	**95.35**	**24.23**	**87.82**	<u>52.19</u>	**85.68**	<u>58.26</u>	**91.38**	**37.06**	<u>93.29</u>	**35.75**	72.87	89.45	**87.73**	**49.49**

Table 16. Results of OOD detection on ImageNet-1k benchmark with MaxViT-T. ↑ indicates that higher values are better, while ↓ indicates that lower values are better. All values are percentages, with the best and second-best results being **highlighted** and <u>underlined</u>, respectively.