Table 1. Quantitative results of different SOTA methods. Results for the metrics of $Params(M)$, $FLOPs(G)$, FPS, $IoU(\%)$, $Pd(\%)$ and $Fa(10^{-5})$ in different datasets are presented. The best results are in red, the second best results are in green, and the third best results are in blue.

Method	$Params\downarrow$	$FLOPs\downarrow$	SIRST				NUDT-SIRST				IRSTD-1K			
			$FPS\uparrow$	$IoU\uparrow$	$Pd\uparrow$	$Fa\downarrow$	$FPS\uparrow$	$IoU\uparrow$	$Pd\uparrow$	$Fa\downarrow$	$FPS\uparrow$	$IoU\uparrow$	$Pd\uparrow$	$Fa\downarrow$
Top-Hat [29]	-	-	-	7.142	79.841	10120.03	-	20.724	78.408	1667.04	-	10.062	75.108	14320.03
Max-Median [8]	-	-	-	1.168	30.196	553.32	-	4.201	58.413	368.88	-	7.003	65.213	597.31
WSLCM [12]	-	-	-	1.021	80.987	458461.64	-	0.848	74.574	523916.33	-	0.989	70.026	150270.84
TLLCM [11]	-	-	-	11.034	79.473	72.68	-	7.059	62.014	461.18	-	5.357	63.966	49.28
IPI [10]	-	-	-	25.674	85.551	114.7	-	17.758	74.486	412.3	-	27.923	81.374	161.83
NRAM [46]	-	-	-	12.164	74.523	138.52	-	6.931	56.403	192.67	-	15.249	70.677	169.26
RIPT [4]	-	-	-	11.048	79.077	226.12	-	29.441	91.85	3443.03	-	14.106	77.548	283.1
PSTNN [45]	-	-	-	22.401	77.953	291.09	-	14.848	66.132	441.7	-	24.573	71.988	352.61
MSLSTIPT [32]	-	-	-	10.302	82.128	11310.02	-	8.341	47.399	881.02	-	11.432	79.027	1524.004
ISNet [47]	0.966	30.618	19	70.491	95.057	6.798	24	81.236	97.778	0.634	13	61.852	90.236	3.156
DNA-Net [21]	4.697	14.261	21	76.169	97.338	1.454	33	93.331	99.153	0.549	12	65.466	94.276	1.615
UIU-Net [42]	50.540	54.426	16	76.187	95.057	1.077	32	92.393	97.989	0.356	26	64.200	89.226	2.517
AGPCNet [49]	12.360	43.181	14	69.730	94.677	1.604	15	73.910	97.672	2.321	14	61.382	84.014	2.057
MTU-Net [41]	8.221	99.437	10	69.081	97.719	3.500	15	79.024	97.884	2.874	9	61.401	90.416	2.874
MSHNet [24]	4.065	6.110	31	75.116	92.015	2.257	47	85.416	97.566	1.841	24	65.268	91.919	1.845
WDNet (Ours)	0.054	1.050	119	76.929	96.578	2.751	146	83.546	99.153	1.579	60	64.467	90.572	2.725