

SOS Dataset Results

1.1 ResNet encoder

1.1.1 Metric: recall, step: train

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.910235	0.941897	0.917568	0.954423	0.872494	0.931345	0.959464	0.914306	0.946080	0.972603	0.946299	0.966568	0.931555
UNet++	0.914022	0.934696	0.913811	0.929064	0.903089	0.946944	0.956995	0.913144	0.938823	0.974795	0.948015	0.945283	0.935576
UNet3p	0.969188	0.976865	0.967857	0.979237	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.953172	0.949560	0.919648	0.937981	0.903918	0.951190	0.963848	0.948796	0.956615	0.975599	0.962061	0.961629	0.941164
PSPNet	0.962848	0.963605	0.960299	0.963423	0.950095	0.963123	0.964709	0.963675	0.963935	0.937591	0.964096	0.965376	0.963798
FPN	0.969726	0.980658	0.975876	0.981839	0.956859	0.981486	0.981435	0.980361	0.981744	0.982989	0.981700	0.982144	0.980220
DeepLabV3+	0.961982	0.967997	0.967036	0.969315	0.933396	0.969859	0.973369	0.968761	0.967745	0.971843	0.970001	0.970108	0.967074
MA-Net	0.868537	0.945950	0.844402	0.942510	0.866174	0.832377	0.900322	0.943375	0.831897	0.968513	0.854408	0.842085	0.906709

1.1.2 Metric: recall, step: valid

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.878756	0.844931	0.871779	0.864526	0.898260	0.870328	0.861637	0.885755	0.878911	0.847624	0.882833	0.864110	0.595378
UNet++	0.843048	0.867600	0.839924	0.879596	0.870840	0.866260	0.838912	0.895999	0.875640	0.875593	0.890826	0.863879	0.745119
UNet3p	0.853943	0.845808	0.868461	0.856795	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.866458	0.862021	0.866200	0.887738	0.853117	0.873676	0.847996	0.881022	0.874223	0.870214	0.871684	0.872795	0.498447
PSPNet	0.857589	0.865283	0.870750	0.859030	0.874597	0.843851	0.848996	0.868652	0.869419	0.871418	0.870238	0.870025	0.759528
FPN	0.863406	0.862230	0.849671	0.858426	0.882611	0.856263	0.828322	0.867495	0.852346	0.846506	0.850470	0.851877	0.747913
DeepLabV3+	0.862408	0.861753	0.881699	0.861153	0.871916	0.861789	0.843215	0.858353	0.881324	0.847433	0.874104	0.866873	0.777128
MA-Net	0.910326	0.900663	0.868756	0.886219	0.902295	0.884727	0.844219	0.864752	0.843247	0.857891	0.880727	0.852480	0.886260

1.1.3 Metric: recall, step: test

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.872894	0.855034	0.871916	0.862826	0.887002	0.875059	0.869107	0.888769	0.870077	0.823328	0.881179	0.832727	0.870077
UNet++	0.860253	0.869473	0.842291	0.875151	0.873273	0.868081	0.798946	0.892199	0.885457	0.841016	0.894275	0.838073	0.842785
UNet3p	0.859218	0.833496	0.862223	0.854468	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.876183	0.828251	0.836124	0.852823	0.850448	0.868025	0.830713	0.859897	0.865414	0.852967	0.860197	0.860654	0.888002
PSPNet	0.860511	0.864710	0.868137	0.861308	0.874142	0.832997	0.845774	0.872181	0.862886	0.839192	0.864025	0.854378	0.847898
FPN	0.861582	0.870806	0.841985	0.842413	0.868835	0.851418	0.829827	0.857850	0.855990	0.822008	0.845196	0.825444	0.823576
DeepLabV3+	0.857618	0.864672	0.888295	0.864237	0.864861	0.858381	0.842033	0.862416	0.877785	0.837114	0.877141	0.865288	0.887186
MA-Net	0.910706	0.886123	0.887512	0.830574	0.902189	0.864404	0.851625	0.839417	0.845932	0.834415	0.860666	0.897949	0.845068

1.1.4 Metric: precision, step: train

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.920198	0.944910	0.925226	0.955723	0.900641	0.936529	0.960049	0.921869	0.948294	0.972986	0.948230	0.967483	0.936681
UNet++	0.923243	0.937958	0.923128	0.934373	0.915099	0.948871	0.957896	0.922431	0.941681	0.975415	0.949643	0.946996	0.939253
UNet3p	0.969453	0.976962	0.968174	0.979566	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.954060	0.950361	0.925428	0.941238	0.916211	0.952715	0.964130	0.950638	0.957220	0.976043	0.962537	0.962238	0.944103
PSPNet	0.962066	0.962931	0.959888	0.962926	0.950061	0.962399	0.964018	0.963107	0.963356	0.935187	0.963774	0.964810	0.963227
FPN	0.970667	0.980832	0.976380	0.981968	0.959318	0.981620	0.981514	0.980659	0.981778	0.983207	0.981788	0.982391	0.980377
DeepLabV3+	0.961424	0.966914	0.966279	0.968737	0.937792	0.969176	0.972741	0.968125	0.967207	0.970932	0.969343	0.969254	0.966563
MA-Net	0.894408	0.949753	0.873893	0.947818	0.889574	0.866341	0.908791	0.947514	0.867859	0.969354	0.883882	0.873926	0.914887

1.1.5 Metric: precision, step: valid

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.918972	0.950605	0.949268	0.937661	0.942220	0.947010	0.933443	0.944178	0.952850	0.930123	0.941987	0.932415	0.656140
UNet++	0.958910	0.938222	0.965087	0.939729	0.940376	0.950807	0.945673	0.948135	0.944197	0.920015	0.885587	0.927805	0.627386
UNet3p	0.938657	0.947816	0.935783	0.951054	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.947020	0.942152	0.947177	0.930269	0.943109	0.937877	0.938304	0.947445	0.931013	0.931060	0.942529	0.943178	0.869318
PSPNet	0.954201	0.953730	0.946414	0.949427	0.939142	0.963601	0.958569	0.954217	0.955389	0.933582	0.956952	0.953659	0.952692
FPN	0.944080	0.943241	0.953338	0.947105	0.944775	0.945344	0.945735	0.949246	0.948405	0.937738	0.957738	0.949052	0.922378
DeepLabV3+	0.950800	0.950045	0.942554	0.951122	0.952554	0.947622	0.946750	0.945830	0.946046	0.949088	0.941662	0.948088	0.902715
MA-Net	0.898804	0.921337	0.939331	0.942180	0.922136	0.955866	0.938929	0.956993	0.907649	0.906987	0.958962	0.970142	0.442751

1.1.6 Metric: precision, step: test

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.840213	0.835184	0.829460	0.813924	0.834129	0.819322	0.810777	0.820185	0.829153	0.818009	0.817187	0.822487	0.753173
UNet++	0.847025	0.831264	0.855951	0.828374	0.841313	0.831068	0.839058	0.833257	0.826782	0.823364	0.794669	0.821490	0.801187
UNet3p	0.830980	0.840981	0.835586	0.840637	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.821743	0.836121	0.847283	0.827802	0.844417	0.821637	0.810563	0.832886	0.832359	0.822371	0.833380	0.830720	0.751250
PSPNet	0.819596	0.827815	0.828020	0.821835	0.829457	0.845230	0.818335	0.839552	0.833085	0.834243	0.829208	0.831828	0.830903
FPN	0.826531	0.814829	0.841207	0.826805	0.836185	0.831913	0.832536	0.841092	0.832990	0.834365	0.845951	0.847993	0.825827
DeepLabV3+	0.839929	0.835414	0.814274	0.836748	0.852173	0.840259	0.837169	0.834040	0.829497	0.830092	0.826216	0.840066	0.775951
MA-Net	0.772170	0.806453	0.848199	0.830843	0.816445	0.850131	0.833059	0.863117	0.871429	0.786053	0.849970	0.839752	0.810995

1.1.7 Metric: flscore, step: train

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.915189	0.943401	0.921381	0.955073	0.886344	0.933930	0.959756	0.918072	0.947186	0.972795	0.947263	0.967025	0.934111
UNet++	0.918609	0.936324	0.918446	0.931711	0.909055	0.947906	0.957445	0.917764	0.940250	0.975105	0.948828	0.946139	0.937411
UNet3p	0.969320	0.976913	0.968015	0.979402	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.953616	0.949961	0.922529	0.939607	0.910023	0.951952	0.963989	0.949716	0.956917	0.975821	0.962299	0.961933	0.942631
PSPNet	0.962457	0.963268	0.960094	0.963174	0.950078	0.962761	0.964363	0.963391	0.963645	0.936388	0.963935	0.965093	0.963512
FPN	0.970196	0.980745	0.976128	0.981903	0.958087	0.981553	0.981474	0.980510	0.981761	0.983098	0.981744	0.982268	0.980298
DeepLabV3+	0.961703	0.967455	0.966658	0.969026	0.935589	0.969517	0.973055	0.968443	0.967476	0.971387	0.969672	0.969680	0.966818
MA-Net	0.881283	0.947848	0.858894	0.945156	0.877718	0.849019	0.904536	0.945440	0.849498	0.968933	0.868896	0.857710	0.910780

1.1.8 Metric: flscore, step: valid

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.898414	0.894658	0.908875	0.899610	0.919715	0.907051	0.896104	0.914034	0.914388	0.886959	0.911451	0.896964	0.624284
UNet++	0.897254	0.901530	0.898166	0.908669	0.904273	0.906567	0.889099	0.921330	0.908627	0.897254	0.888199	0.894702	0.681203
UNet3p	0.894299	0.893911	0.900866	0.901467	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.904949	0.900307	0.904881	0.908506	0.895859	0.904639	0.890868	0.913027	0.901725	0.899609	0.905723	0.906622	0.633601
PSPNet	0.903319	0.907356	0.907007	0.901969	0.905721	0.899759	0.900461	0.909426	0.910379	0.901430	0.911537	0.909925	0.845214
FPN	0.901943	0.900918	0.898524	0.900588	0.912636	0.898601	0.883143	0.906531	0.897814	0.889790	0.900922	0.897843	0.826033
DeepLabV3+	0.904449	0.903748	0.911111	0.903904	0.910453	0.902670	0.891988	0.899970	0.912539	0.895384	0.906626	0.905664	0.835227
MA-Net	0.904528	0.910883	0.902666	0.913343	0.912108	0.918922	0.889059	0.908537	0.874264	0.881756	0.918181	0.907513	0.590503

1.1.9 Metric: flscore, step: test

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.856242	0.844992	0.850159	0.837662	0.859754	0.846274	0.838930	0.853101	0.849122	0.820660	0.847978	0.827575	0.807415
UNet++	0.853588	0.849939	0.849066	0.851120	0.856995	0.849171	0.818511	0.861721	0.855114	0.832097	0.841535	0.829698	0.821460
UNet3p	0.844863	0.837222	0.848695	0.847496	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.848090	0.832167	0.841666	0.840126	0.847422	0.844194	0.820514	0.846176	0.848565	0.837389	0.846576	0.845422	0.813922
PSPNet	0.839555	0.845860	0.847604	0.841109	0.851213	0.839069	0.831828	0.855555	0.847724	0.836710	0.846259	0.842952	0.839314
FPN	0.843693	0.841888	0.841596	0.834536	0.852197	0.841552	0.831179	0.849388	0.844334	0.828140	0.845573	0.836567	0.824700
DeepLabV3+	0.848681	0.849791	0.849675	0.850270	0.858470	0.849224	0.839594	0.847991	0.852958	0.833589	0.850917	0.852491	0.827848
MA-Net	0.835736	0.844413	0.867410	0.830709	0.857178	0.857208	0.842240	0.851102	0.858491	0.809512	0.855285	0.867876	0.827681

1.1.10 Metric: m_iou, step: train

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.886366	0.922361	0.894101	0.937776	0.851653	0.910083	0.944046	0.889922	0.927323	0.961775	0.927421	0.953889	0.910316
UNet++	0.890642	0.913141	0.890439	0.907226	0.878775	0.928269	0.940946	0.889579	0.918238	0.964957	0.929483	0.925935	0.914559
UNet3p	0.957013	0.967451	0.955231	0.970902	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.935827	0.930968	0.895510	0.917408	0.879985	0.933622	0.949758	0.930660	0.940234	0.965944	0.947473	0.946981	0.921351
PSPNet	0.947672	0.948770	0.944488	0.948646	0.931111	0.948084	0.950254	0.948938	0.949283	0.913109	0.949678	0.951246	0.949102
FPN	0.958216	0.972770	0.966369	0.974383	0.941827	0.973894	0.973785	0.972443	0.974184	0.976051	0.974160	0.974892	0.972148
DeepLabV3+	0.946656	0.954453	0.953371	0.956602	0.912211	0.957273	0.962124	0.955805	0.954488	0.959831	0.957484	0.957494	0.953592
MA-Net	0.845551	0.928223	0.819605	0.924704	0.841243	0.808580	0.873083	0.925057	0.809212	0.956489	0.831147	0.818352	0.880810

1.1.11 Metric: m_iou, step: valid

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.861895	0.859460	0.876249	0.864505	0.889140	0.873928	0.860109	0.882242	0.883134	0.849258	0.878970	0.861056	0.580566
UNet++	0.862968	0.866818	0.864374	0.875467	0.870218	0.873556	0.852719	0.891452	0.875670	0.860591	0.847367	0.858101	0.606588
UNet3p	0.858320	0.858424	0.865881	0.867490	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.871408	0.865601	0.871335	0.874716	0.860417	0.870508	0.854304	0.881188	0.866609	0.864097	0.872080	0.873197	0.618623
PSPNet	0.869864	0.874663	0.873842	0.867993	0.871881	0.866164	0.866718	0.877181	0.878394	0.866417	0.879877	0.877753	0.805078
FPN	0.867655	0.866389	0.864145	0.866223	0.880567	0.863774	0.845905	0.873428	0.863026	0.853020	0.867217	0.863098	0.783216
DeepLabV3+	0.871023	0.870144	0.878589	0.870390	0.878333	0.868723	0.856125	0.865419	0.880517	0.860218	0.873115	0.872323	0.790909
MA-Net	0.867819	0.877065	0.868237	0.881288	0.878614	0.888853	0.852251	0.876257	0.833204	0.841638	0.888092	0.875702	0.424656

1.1.12 Metric: m_iou, step: test

Models	ResNet34	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR	+MR+DAL	+MR+DAL	+MR+DAL	+MR+DAL
Models	ResNet34	(add)	(cat)	(max)	(rand)	(alpha)	(alpha+pos)	(MLP)	(CNN)	(Channel)	(Spatial)	(Gated)	(Multi)
UNet	0.801297	0.788341	0.793161	0.777443	0.804407	0.787480	0.778298	0.795063	0.791987	0.760454	0.789009	0.768192	0.735267
UNet++	0.799234	0.793170	0.795384	0.794061	0.802274	0.792306	0.761268	0.806499	0.798235	0.773010	0.778412	0.770241	0.758597
UNet3p	0.787627	0.780828	0.792403	0.791770	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.789806	0.774876	0.786356	0.782110	0.792177	0.785576	0.759159	0.789306	0.791823	0.778424	0.789806	0.788194	0.741205
PSPNet	0.780311	0.788261	0.790178	0.782298	0.794313	0.783333	0.771986	0.800451	0.791009	0.779385	0.788887	0.785691	0.781682
FPN	0.785743	0.782081	0.785500	0.776060	0.796308	0.784205	0.773357	0.793884	0.787334	0.770459	0.790376	0.781040	0.765722
DeepLabV3+	0.792963	0.793573	0.790418	0.794274	0.805265	0.793596	0.782834	0.791429	0.796235	0.775531	0.793534	0.797141	0.760559
MA-Net	0.768021	0.783479	0.814848	0.772632	0.799027	0.803616	0.785097	0.798436	0.807485	0.744010	0.801467	0.814329	0.766556

1.2 ResNet+SE encoder

1.2.1 Metric: recall, step: train

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.950398	0.957650	0.919417	0.925668	0.876892	0.926647	0.965681	0.934848	0.947631	0.970013	0.946349	0.967955	0.933281
UNet++	0.905086	0.949418	0.927465	0.959196	0.903934	0.966690	0.968649	0.955854	0.960702	0.979909	0.956980	0.977407	0.942257
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.953931	0.969468	0.963501	0.966447	0.880911	0.964737	0.974048	0.967323	0.963842	0.976798	0.970447	0.972670	0.965032
PSPNet	0.961698	0.963902	0.961107	0.963170	0.951215	0.963969	0.968081	0.960217	0.963742	0.964074	0.963600	0.964663	0.962586
FPN	0.979661	0.981200	0.976938	0.981449	0.953726	0.982112	0.982068	0.981129	0.981617	0.982525	0.981789	0.980335	0.977970
DeepLabV3+	0.970197	0.973382	0.965076	0.973523	0.943389	0.971775	0.974422	0.974208	0.972337	0.972951	0.972837	0.972304	0.970290
MA-Net	0.971782	0.973528	0.966247	0.971380	0.871981	0.972745	0.976982	0.973695	0.973297	0.973942	0.976544	0.971141	0.971823

1.2.2 Metric: recall, step: valid

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.855980	0.848344	0.905809	0.874778	0.878849	0.898607	0.871016	0.903019	0.876404	0.876542	0.860342	0.859190	0.167207
UNet++	0.867147	0.889785	0.894421	0.885154	0.893835	0.856056	0.859722	0.872221	0.875613	0.857796	0.878303	0.863599	0.995823
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.872589	0.859989	0.872533	0.875680	0.890256	0.854036	0.870417	0.878018	0.893615	0.862151	0.858838	0.866770	0.290677
PSPNet	0.860942	0.869799	0.869465	0.864520	0.883548	0.861238	0.853763	0.878084	0.879655	0.876676	0.868898	0.873757	0.942282
FPN	0.848664	0.864064	0.862455	0.847950	0.868955	0.846227	0.850146	0.854686	0.866448	0.849731	0.873547	0.847830	0.865340
DeepLabV3+	0.859212	0.867116	0.873277	0.858561	0.839619	0.844815	0.846399	0.865261	0.859833	0.846718	0.872557	0.861780	0.474229
MA-Net	0.863433	0.851358	0.879873	0.870487	0.902342	0.868502	0.848953	0.874001	0.862741	0.876206	0.879652	0.872752	0.544350

1.2.3 Metric: recall, step: test

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.865652	0.863853	0.890681	0.875335	0.882059	0.875680	0.865779	0.893125	0.866843	0.857424	0.859368	0.843678	0.843620
UNet++	0.856914	0.880728	0.869004	0.881642	0.891592	0.853885	0.862189	0.860764	0.866082	0.846121	0.879590	0.860631	0.897277
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.875485	0.838764	0.864770	0.872037	0.887928	0.848868	0.873608	0.863502	0.879006	0.833157	0.860211	0.848425	0.855766
PSPNet	0.858679	0.876288	0.865718	0.869173	0.877747	0.865780	0.853553	0.876901	0.879224	0.840161	0.838061	0.850391	0.897518
FPN	0.857964	0.867232	0.849553	0.851305	0.858001	0.843711	0.855134	0.858678	0.864095	0.812677	0.871108	0.831996	0.868957
DeepLabV3+	0.869472	0.872345	0.866360	0.854908	0.821643	0.853283	0.856063	0.866449	0.863781	0.818848	0.866032	0.849743	0.825197
MA-Net	0.846991	0.848661	0.862921	0.865680	0.902570	0.858326	0.843727	0.857108	0.844287	0.827681	0.874376	0.858823	0.824837

1.2.4 Metric: precision, step: train

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.951529	0.958634	0.926345	0.932565	0.899222	0.931840	0.966355	0.938145	0.949200	0.970425	0.947917	0.968679	0.937665
UNet++	0.917142	0.950555	0.932533	0.960018	0.917483	0.967411	0.969109	0.956707	0.961268	0.980326	0.957695	0.978175	0.944464
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.954838	0.969956	0.963829	0.966827	0.903164	0.965258	0.974519	0.967531	0.964311	0.977282	0.970683	0.973313	0.965550
PSPNet	0.961172	0.963225	0.960348	0.962458	0.950773	0.963344	0.967422	0.959656	0.963070	0.963276	0.962856	0.963871	0.961686
FPN	0.979818	0.981380	0.977287	0.981580	0.956814	0.982154	0.982186	0.981338	0.981653	0.982824	0.981966	0.980627	0.978407
DeepLabV3+	0.969652	0.972865	0.964643	0.973006	0.945159	0.971216	0.973774	0.973617	0.971611	0.972440	0.972105	0.971703	0.969562
MA-Net	0.971972	0.973905	0.966944	0.971793	0.897088	0.973241	0.977119	0.974207	0.973723	0.974226	0.976810	0.971333	0.972494

1.2.5 Metric: precision, step: valid

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.953265	0.957634	0.924339	0.951635	0.954583	0.943394	0.941836	0.932808	0.944775	0.932173	0.950442	0.940119	0.648706
UNet++	0.955008	0.946224	0.936126	0.941641	0.931541	0.959786	0.940807	0.951970	0.945668	0.924345	0.952298	0.940294	0.341466
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.944611	0.951887	0.942517	0.944864	0.933491	0.955364	0.935401	0.940833	0.936528	0.949438	0.947034	0.951341	0.927654
PSPNet	0.956417	0.927733	0.945499	0.950158	0.937068	0.952079	0.959088	0.956024	0.940933	0.945555	0.959256	0.948101	0.382316
FPN	0.954405	0.942989	0.947806	0.953795	0.949041	0.956660	0.950340	0.952871	0.947013	0.944109	0.946115	0.956302	0.761457
DeepLabV3+	0.940530	0.951946	0.952263	0.949498	0.939036	0.959615	0.943587	0.955704	0.955258	0.945906	0.948668	0.942107	0.951062
MA-Net	0.943398	0.958153	0.939480	0.943564	0.923790	0.938963	0.947810	0.947272	0.952426	0.941154	0.936833	0.947450	0.880921

1.2.6 Metric: precision, step: test

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.841022	0.842765	0.819948	0.835524	0.844090	0.833606	0.821337	0.818910	0.842825	0.810452	0.856101	0.836969	0.800889
UNet++	0.850392	0.828902	0.841726	0.825442	0.819596	0.859422	0.829927	0.842747	0.841007	0.836082	0.834179	0.835281	0.757194
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.825655	0.845363	0.841763	0.829894	0.837356	0.839374	0.828062	0.837839	0.819355	0.849099	0.848830	0.846856	0.833845
PSPNet	0.842545	0.838296	0.845950	0.843375	0.824622	0.847122	0.836660	0.839196	0.828379	0.846617	0.855009	0.843894	0.699844
FPN	0.846870	0.832460	0.849291	0.856957	0.840838	0.852043	0.844135	0.849567	0.839796	0.836774	0.837799	0.854771	0.803015
DeepLabV3+	0.830506	0.839571	0.843498	0.836934	0.850042	0.852653	0.831474	0.848027	0.846428	0.834801	0.846782	0.840606	0.843819
MA-Net	0.853799	0.858550	0.844595	0.846374	0.819663	0.836535	0.859709	0.850357	0.860554	0.837620	0.834854	0.840352	0.843520

1.2.7 Metric: flscore, step: train

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.950963	0.958142	0.922868	0.929104	0.887917	0.929236	0.966018	0.936494	0.948415	0.970219	0.947132	0.968317	0.935468
UNet++	0.911074	0.949986	0.929992	0.959607	0.910658	0.967050	0.968879	0.956280	0.960985	0.980117	0.957337	0.977791	0.943359
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.954384	0.969712	0.963665	0.966637	0.891899	0.964998	0.974283	0.967427	0.964076	0.977040	0.970565	0.972991	0.965291
PSPNet	0.961435	0.963563	0.960727	0.962814	0.950994	0.963656	0.967751	0.959936	0.963406	0.963675	0.963228	0.964267	0.962136
FPN	0.979739	0.981290	0.977112	0.981514	0.955268	0.982133	0.982127	0.981233	0.981635	0.982675	0.981878	0.980481	0.978189
DeepLabV3+	0.969924	0.973124	0.964859	0.973264	0.944273	0.971495	0.974098	0.973912	0.971974	0.972696	0.972471	0.972004	0.969925
MA-Net	0.971877	0.973717	0.966595	0.971587	0.884356	0.972993	0.977050	0.973951	0.973510	0.974084	0.976677	0.971237	0.972158

1.2.8 Metric: flscore, step: valid

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.902007	0.899682	0.914980	0.911590	0.915152	0.920456	0.905043	0.917672	0.909306	0.903502	0.903151	0.897835	0.265881
UNet++	0.908959	0.917137	0.914798	0.912524	0.912299	0.904958	0.898438	0.910352	0.909293	0.889828	0.913805	0.900316	0.508551
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.907172	0.903607	0.906176	0.908957	0.911361	0.901863	0.901740	0.908341	0.914569	0.903691	0.900782	0.907089	0.442651
PSPNet	0.906171	0.897832	0.905889	0.905318	0.909521	0.904383	0.903366	0.915398	0.909263	0.909814	0.911844	0.909412	0.543938
FPN	0.898434	0.901803	0.903119	0.897763	0.907234	0.898061	0.897455	0.901112	0.904941	0.894438	0.908384	0.898805	0.810081
DeepLabV3+	0.898034	0.907553	0.911061	0.901743	0.886549	0.898563	0.892354	0.908236	0.905037	0.893568	0.909022	0.900155	0.632883
MA-Net	0.901646	0.901604	0.908701	0.905554	0.912940	0.902359	0.895662	0.909163	0.905368	0.907520	0.907342	0.908568	0.672896

1.2.9 Metric: flscore, step: test

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.853159	0.853179	0.853852	0.854966	0.862657	0.854126	0.842973	0.854409	0.854665	0.833277	0.857732	0.840310	0.821699
UNet++	0.853641	0.854029	0.855148	0.852617	0.854079	0.856644	0.845751	0.851661	0.853361	0.841072	0.856283	0.847766	0.821305
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.849840	0.842051	0.853112	0.850444	0.861901	0.844095	0.850226	0.850477	0.848133	0.841053	0.854482	0.847639	0.844663
PSPNet	0.850535	0.856871	0.855720	0.856080	0.850356	0.856349	0.845022	0.857634	0.853045	0.843377	0.846450	0.847130	0.786450
FPN	0.852381	0.849490	0.849422	0.854122	0.849333	0.847857	0.849599	0.854098	0.851772	0.824550	0.854129	0.843229	0.834685
DeepLabV3+	0.849542	0.855644	0.854777	0.845825	0.835601	0.852968	0.843589	0.857139	0.855016	0.826747	0.856299	0.845150	0.834404
MA-Net	0.850381	0.853577	0.853660	0.855918	0.859121	0.847291	0.851643	0.853719	0.852343	0.832621	0.854158	0.849487	0.834074

1.2.10 Metric: m_iou, step: train

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.932303	0.941881	0.895968	0.903914	0.853331	0.904046	0.952516	0.913362	0.928935	0.958243	0.927241	0.955647	0.912055
UNet++	0.881285	0.931008	0.905013	0.943847	0.880809	0.953920	0.956412	0.939384	0.945700	0.971898	0.940799	0.968671	0.922291
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.936852	0.957550	0.949320	0.953354	0.858114	0.951128	0.963823	0.954428	0.949878	0.967629	0.958714	0.962047	0.951526
PSPNet	0.946295	0.949170	0.945337	0.948156	0.932319	0.949297	0.954862	0.944274	0.948958	0.949320	0.948716	0.950123	0.947237
FPN	0.971370	0.973529	0.967728	0.973841	0.938062	0.974703	0.974695	0.973450	0.974008	0.975460	0.974348	0.972402	0.969220
DeepLabV3+	0.957831	0.962219	0.950930	0.962413	0.923483	0.959983	0.963559	0.963304	0.960638	0.961631	0.961320	0.960680	0.957831
MA-Net	0.960513	0.963043	0.953301	0.960117	0.849175	0.962048	0.967642	0.963366	0.962759	0.963547	0.967126	0.959635	0.960903

1.2.11 Metric: m_iou, step: valid

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.868254	0.865748	0.882280	0.879662	0.884156	0.890122	0.871224	0.886097	0.876522	0.868804	0.869455	0.862558	0.416187
UNet++	0.876660	0.886161	0.882736	0.880259	0.879410	0.872118	0.863312	0.878180	0.876557	0.852184	0.882393	0.865501	0.200667
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.873940	0.870079	0.872622	0.876106	0.878378	0.868199	0.866897	0.875134	0.882477	0.870043	0.866449	0.874212	0.509194
PSPNet	0.873387	0.861782	0.872448	0.872025	0.876347	0.871014	0.870185	0.884531	0.876255	0.877180	0.880367	0.876834	0.310898
FPN	0.864100	0.867425	0.869268	0.863277	0.874260	0.863788	0.862717	0.867171	0.871398	0.858816	0.875484	0.864642	0.747280
DeepLabV3+	0.862818	0.874803	0.879055	0.867729	0.849370	0.864541	0.856358	0.875826	0.871969	0.857910	0.876394	0.865418	0.624424
MA-Net	0.867263	0.868046	0.875492	0.871936	0.879736	0.867849	0.860467	0.876487	0.872209	0.874161	0.873698	0.875780	0.647664

1.2.12 Metric: m_iou, step: test

Models	ResNet34+SE	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.798000	0.798245	0.795857	0.799269	0.808957	0.798083	0.784220	0.796319	0.799890	0.772286	0.804913	0.783568	0.758791
UNet++	0.799709	0.797332	0.800282	0.795290	0.796056	0.804096	0.788438	0.796578	0.798219	0.784261	0.800546	0.791353	0.749938
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.792277	0.786523	0.798043	0.793532	0.807244	0.787935	0.793038	0.794645	0.789501	0.785930	0.800443	0.792722	0.787806
PSPNet	0.795322	0.801746	0.801451	0.801523	0.792693	0.802293	0.788572	0.802711	0.796174	0.788100	0.792440	0.791794	0.701104
FPN	0.797890	0.792845	0.794961	0.801027	0.793790	0.793601	0.794505	0.800110	0.796319	0.767096	0.798646	0.788951	0.772563
DeepLabV3+	0.792633	0.800552	0.800099	0.789474	0.780281	0.799245	0.786326	0.803280	0.800733	0.769082	0.802195	0.789232	0.778234
MA-Net	0.796556	0.800615	0.799007	0.801723	0.801674	0.791005	0.798633	0.799791	0.799496	0.775552	0.798287	0.793895	0.777849

1.3 ResNet+CBAM

1.3.1 Metric: recall, step: train

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.980243	0.974091	0.965117	0.979237	0.929723	0.978467	0.982397	0.977532	0.980159	0.980311	0.974348	0.981983	0.978242
UNet++	0.978147	0.978988	0.968528	0.979933	0.958987	0.978133	0.985277	0.981116	0.980485	0.978997	0.980928	0.982821	0.980527
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.976972	0.976264	0.975254	0.976148	0.951881	0.976420	0.977833	0.977457	0.977223	0.976760	0.976465	0.972616	0.977332
PSPNet	0.964219	0.966774	0.961695	0.965362	0.955354	0.964367	0.949916	0.964508	0.964672	0.963852	0.964406	0.963559	0.964171
FPN	0.982746	0.981737	0.979884	0.982362	0.964067	0.982945	0.983772	0.982774	0.983302	0.982965	0.982768	0.982168	0.981721
DeepLabV3+	0.975481	0.975201	0.972227	0.974701	0.961506	0.974184	0.977568	0.976566	0.975710	0.977641	0.974761	0.976170	0.975270
MA-Net	0.979985	0.970475	0.976715	0.980032	0.941157	0.979792	0.980880	0.981056	0.981065	0.966836	0.980543	0.978943	0.976042

1.3.2 Metric: recall, step: valid

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.843979	0.868471	0.864205	0.850198	0.897253	0.858746	0.832749	0.866140	0.853116	0.857973	0.862058	0.850409	0.117808
UNet++	0.848986	0.841863	0.869161	0.856681	0.855853	0.857017	0.824170	0.853494	0.860671	0.850862	0.874176	0.855355	0.886486
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.847268	0.861654	0.851790	0.862124	0.882057	0.852142	0.836323	0.860557	0.854093	0.853080	0.865230	0.857576	0.420759
PSPNet	0.849209	0.859715	0.849986	0.866767	0.832838	0.853936	0.854518	0.841458	0.857028	0.843062	0.872003	0.854057	0.916019
FPN	0.849144	0.859795	0.855611	0.846325	0.877521	0.850512	0.863507	0.848747	0.850706	0.845241	0.858167	0.862789	0.799840
DeepLabV3+	0.849535	0.843535	0.835205	0.857477	0.863129	0.839388	0.845047	0.860191	0.860767	0.834610	0.856718	0.844893	0.203494
MA-Net	0.859893	0.862208	0.841869	0.853035	0.882745	0.843740	0.832365	0.876881	0.863643	0.870298	0.861076	0.870303	0.851698

1.3.3 Metric: recall, step: test

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.851411	0.856621	0.853954	0.854755	0.885248	0.852840	0.851704	0.869229	0.854899	0.855004	0.858397	0.859105	0.723782
UNet++	0.855845	0.844545	0.858175	0.853155	0.850368	0.871439	0.841499	0.847220	0.851227	0.838225	0.864869	0.863751	0.842466
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.855762	0.864883	0.856755	0.867571	0.872243	0.862188	0.852465	0.863749	0.856630	0.843266	0.870429	0.855679	0.844001
PSPNet	0.854678	0.876145	0.859178	0.868482	0.848539	0.861757	0.860088	0.850230	0.871542	0.827751	0.877252	0.848998	0.883437
FPN	0.868095	0.871216	0.852781	0.858049	0.883739	0.857284	0.865316	0.865000	0.859747	0.825344	0.863850	0.856243	0.857444
DeepLabV3+	0.859357	0.848769	0.841817	0.869576	0.868473	0.857747	0.846872	0.858489	0.856241	0.824185	0.858121	0.847527	0.753770
MA-Net	0.870519	0.861938	0.851965	0.853335	0.861912	0.848043	0.854966	0.875907	0.850027	0.845149	0.855398	0.869256	0.874127

1.3.4 Metric: precision, step: train

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.980739	0.974831	0.965851	0.979964	0.935011	0.979157	0.982883	0.978388	0.980810	0.980808	0.974901	0.982678	0.978930
UNet++	0.979026	0.979592	0.969161	0.980555	0.960193	0.979006	0.985598	0.981533	0.981149	0.979461	0.981553	0.983327	0.981229
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.977588	0.976802	0.975899	0.976625	0.953352	0.976844	0.978359	0.977855	0.977752	0.977264	0.977277	0.973723	0.977817
PSPNet	0.963721	0.966117	0.961167	0.964852	0.954855	0.963562	0.951943	0.963739	0.963962	0.963107	0.963725	0.962843	0.963463
FPN	0.982835	0.981799	0.979957	0.982492	0.965322	0.982986	0.983734	0.982905	0.983445	0.983250	0.982867	0.982201	0.981846
DeepLabV3+	0.974989	0.974572	0.971420	0.974001	0.961100	0.973669	0.976960	0.975836	0.975265	0.977230	0.974216	0.975596	0.974712
MA-Net	0.979975	0.972402	0.976771	0.980195	0.946967	0.979894	0.981025	0.981111	0.981113	0.967305	0.980666	0.979173	0.976353

1.3.5 Metric: precision, step: valid

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.957729	0.952112	0.942242	0.955077	0.931448	0.953554	0.955583	0.948021	0.963874	0.947454	0.955658	0.957559	0.982633
UNet++	0.958093	0.965696	0.954805	0.966941	0.943239	0.935039	0.962139	0.960227	0.957944	0.946694	0.943072	0.950121	0.400129
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.956958	0.952248	0.956140	0.956555	0.943313	0.954738	0.945154	0.958281	0.955412	0.946481	0.955288	0.957401	0.986128
PSPNet	0.962307	0.952946	0.953827	0.953411	0.968933	0.960490	0.953322	0.965280	0.956244	0.958918	0.947831	0.961527	0.483839
FPN	0.950258	0.947281	0.964003	0.951534	0.950239	0.960656	0.937205	0.960105	0.959967	0.953313	0.957967	0.958268	0.916903
DeepLabV3+	0.954645	0.961854	0.962537	0.954153	0.956609	0.962543	0.945817	0.960062	0.957877	0.946717	0.957535	0.956757	0.988617
MA-Net	0.956984	0.937747	0.961508	0.960344	0.928585	0.966859	0.946300	0.940859	0.956028	0.946092	0.958128	0.948323	0.623835

1.3.6 Metric: precision, step: test

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.851133	0.845207	0.833480	0.842849	0.827703	0.838400	0.846497	0.831804	0.847743	0.841655	0.838018	0.845415	0.825176
UNet++	0.845518	0.853536	0.845629	0.847481	0.846003	0.835970	0.853307	0.848112	0.846240	0.850639	0.836079	0.836732	0.836059
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.836750	0.836711	0.836503	0.842558	0.831155	0.828928	0.848260	0.834754	0.840845	0.849230	0.836500	0.852102	0.843191
PSPNet	0.848764	0.836843	0.845646	0.832386	0.856051	0.848759	0.844540	0.851900	0.837303	0.855542	0.830530	0.851315	0.796725
FPN	0.845669	0.844085	0.847987	0.847326	0.836299	0.853279	0.825356	0.849220	0.849650	0.851338	0.846657	0.852860	0.845444
DeepLabV3+	0.841596	0.851289	0.865839	0.848013	0.839441	0.850356	0.839126	0.838075	0.845262	0.840015	0.844922	0.836893	0.875160
MA-Net	0.840702	0.828483	0.851484	0.851152	0.833546	0.857031	0.853199	0.830514	0.846570	0.841961	0.846573	0.841390	0.837634

1.3.7 Metric: flscore, step: train

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.980491	0.974461	0.965484	0.979600	0.932360	0.978812	0.982640	0.977960	0.980484	0.980560	0.974625	0.982330	0.978586
UNet++	0.978586	0.979290	0.968845	0.980244	0.959590	0.978570	0.985437	0.981324	0.980817	0.979229	0.981241	0.983074	0.980878
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.977280	0.976533	0.975577	0.976386	0.952616	0.976632	0.978096	0.977656	0.977488	0.977011	0.976871	0.973169	0.977575
PSPNet	0.963970	0.966445	0.961431	0.965107	0.955104	0.963964	0.950928	0.964123	0.964317	0.963480	0.964065	0.963201	0.963817
FPN	0.982791	0.981768	0.979920	0.982427	0.964694	0.982966	0.983753	0.982839	0.983373	0.983108	0.982818	0.982185	0.981783
DeepLabV3+	0.975235	0.974886	0.971823	0.974351	0.961303	0.973927	0.977264	0.976201	0.975488	0.977435	0.974488	0.975883	0.974991
MA-Net	0.979980	0.971438	0.976743	0.980113	0.944053	0.979843	0.980952	0.981083	0.981089	0.967071	0.980605	0.979058	0.976198

1.3.8 Metric: flscore, step: valid

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.897263	0.908370	0.901538	0.899591	0.914031	0.903670	0.889947	0.905233	0.905119	0.900496	0.906448	0.900808	0.210392
UNet++	0.900246	0.899538	0.909972	0.908478	0.897424	0.894329	0.887826	0.903720	0.906706	0.896223	0.907318	0.900251	0.551383
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.898778	0.904688	0.900953	0.906888	0.911657	0.900527	0.887414	0.906794	0.901916	0.897357	0.908032	0.904743	0.589845
PSPNet	0.902228	0.903933	0.898917	0.908027	0.895746	0.904084	0.901220	0.899126	0.903922	0.897266	0.908337	0.904611	0.633215
FPN	0.896860	0.901421	0.906579	0.895851	0.912433	0.902235	0.898848	0.900998	0.902040	0.896030	0.905325	0.908026	0.854380
DeepLabV3+	0.899028	0.898817	0.894362	0.903235	0.907468	0.896757	0.892597	0.907387	0.906730	0.887135	0.904325	0.897352	0.337515
MA-Net	0.905844	0.898393	0.897720	0.903514	0.905085	0.901114	0.885683	0.907744	0.907490	0.906614	0.907013	0.907639	0.720172

1.3.9 Metric: flscore, step: test

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.851272	0.850876	0.843593	0.848760	0.855509	0.845559	0.849093	0.850105	0.851306	0.848277	0.848085	0.852205	0.771160
UNet++	0.850650	0.849017	0.851855	0.850308	0.848180	0.853336	0.847362	0.847666	0.848726	0.844387	0.850231	0.850027	0.839250
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.846149	0.850564	0.846508	0.854882	0.851203	0.845231	0.850357	0.849004	0.848664	0.846238	0.853127	0.853886	0.843596
PSPNet	0.851711	0.856043	0.852358	0.850051	0.852278	0.855209	0.852243	0.851064	0.854080	0.841417	0.853252	0.850155	0.837843
FPN	0.856736	0.857436	0.850377	0.852654	0.859365	0.855277	0.844864	0.857037	0.854669	0.838139	0.855167	0.854548	0.851402
DeepLabV3+	0.850384	0.850027	0.853659	0.858659	0.853710	0.854036	0.842981	0.848159	0.850716	0.832025	0.851470	0.842177	0.809942
MA-Net	0.855351	0.844880	0.851725	0.852242	0.847492	0.852513	0.854082	0.852607	0.848295	0.843552	0.850963	0.855096	0.855492

1.3.10 Metric: m_iou, step: train

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.972418	0.964071	0.951790	0.971181	0.908061	0.970086	0.975414	0.968905	0.972409	0.972513	0.964295	0.974982	0.969773
UNet++	0.969774	0.970749	0.956366	0.972075	0.943830	0.969751	0.979327	0.973578	0.972872	0.970663	0.973463	0.976019	0.972957
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.967962	0.966929	0.965609	0.966725	0.934504	0.967065	0.969092	0.968481	0.968249	0.967590	0.967398	0.962296	0.968370
PSPNet	0.949724	0.953083	0.946289	0.951265	0.937793	0.949712	0.932270	0.949928	0.950192	0.949056	0.949850	0.948679	0.949513
FPN	0.975621	0.974194	0.971622	0.975114	0.950725	0.975865	0.976966	0.975689	0.976436	0.976065	0.975659	0.974775	0.974216
DeepLabV3+	0.965128	0.964646	0.960430	0.963908	0.946118	0.963324	0.967931	0.966460	0.965478	0.968170	0.964098	0.966022	0.964791
MA-Net	0.971704	0.959926	0.967215	0.971890	0.923266	0.971514	0.973058	0.973240	0.973248	0.953946	0.972574	0.970425	0.966464

1.3.11 Metric: m_iou, step: valid

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.862912	0.875795	0.867067	0.865499	0.881528	0.870246	0.854290	0.871804	0.872525	0.866134	0.873678	0.867073	0.407691
UNet++	0.866438	0.866016	0.877872	0.876697	0.862262	0.858129	0.852233	0.870667	0.874109	0.861059	0.874028	0.865998	0.356028
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.864647	0.871388	0.867166	0.874253	0.879294	0.866585	0.850748	0.874232	0.868265	0.862376	0.875558	0.871734	0.597613
PSPNet	0.869008	0.870525	0.864635	0.875452	0.861753	0.871115	0.867325	0.865510	0.870693	0.862981	0.875522	0.871796	0.482315
FPN	0.862014	0.867220	0.874273	0.860907	0.880613	0.868928	0.863576	0.867436	0.868660	0.861218	0.872458	0.875709	0.812147
DeepLabV3+	0.864812	0.864962	0.859795	0.869762	0.874951	0.862586	0.856775	0.875036	0.874133	0.850525	0.871243	0.862962	0.460898
MA-Net	0.873026	0.863072	0.863656	0.870429	0.870483	0.867933	0.848837	0.874415	0.874947	0.873351	0.874486	0.874708	0.630411

1.3.12 Metric: m_iou, step: test

Models	ResNet34+CBAM	+MR (add)	+MR (cat)	+MR (max)	+MR (rand)	+MR (alpha)	+MR (alpha+pos)	+MR (MLP)	+MR (CNN)	+MR+DAL (Channel)	+MR+DAL (Spatial)	+MR+DAL (Gated)	+MR+DAL (Multi)
UNet	0.797204	0.796034	0.786605	0.793428	0.798801	0.789382	0.794254	0.793425	0.796822	0.792749	0.792064	0.797515	0.714171
UNet++	0.795827	0.795040	0.797158	0.795700	0.793201	0.797530	0.793219	0.792908	0.793823	0.789687	0.794141	0.794006	0.782320
UNet3p	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LinkNet	0.789799	0.794590	0.790154	0.800095	0.794537	0.787738	0.795851	0.792626	0.793064	0.791504	0.797371	0.800187	0.787897
PSPNet	0.797392	0.800636	0.797711	0.793446	0.798897	0.801235	0.797445	0.797071	0.798527	0.787109	0.796700	0.796007	0.774836
FPN	0.802540	0.803117	0.795839	0.798246	0.804261	0.801860	0.786836	0.803314	0.800749	0.783118	0.800928	0.801007	0.796639
DeepLabV3+	0.795034	0.795865	0.801541	0.804968	0.798401	0.800139	0.786708	0.792152	0.795866	0.775249	0.796647	0.785549	0.757111
MA-Net	0.800374	0.787297	0.797741	0.798267	0.790820	0.799270	0.800535	0.795989	0.793397	0.787691	0.796301	0.800181	0.800129