Table 1. The tracking performance of case 1 in CEUS mode under different tracking method and tracking frame length setting.

CASE 1 TRACKING SPEED AND ACCURACY OF CEUS											
Tracking Method		FPS	Tracking Frame Length								
			30	60	90	120	150	180	210	240	270
Key Points	KTL	13.63	0.930	0.803	0.770	0.695	0.622	0.523	0.562	0.473	0.356
	FAST	14.15	0.894	0.804	0.771	0.695	0.625	0.524	0.562	0.475	0.364
	BRISK	11.24	0.893	0.803	0.770	0.693	0.622	0.523	0.564	0.511	0.359
	SURF	15.28	0.892	0.802	0.767	0.693	0.621	0.521	0.563	0.471	0.356
	MSER	12.11	0.892	0.801	0.768	0.692	0.621	0.522	0.559	0.471	0.356
	ORB	10.55	0.927	0.799	0.764	0.690	0.618	0.518	0.558	0.465	0.347
CARD 256		4.35	0.852	0.906	0.895	0.889	0.894	0.877	0.903	0.843	0.865
CARD 128		5.25	0.852	0.906	0.895	0.889	0.894	0.877	0.903	0.843	0.865

Table 2. The tracking performance of case 1 in US mode under different tracking method and tracking frame length setting.

CASE 1 TRACKING SPEED AND ACCURACY OF US											
Tracking Method		FPS	Tracking Frame Length								
			30	60	90	120	150	180	210	240	270
Key Points	KTL	10.51	0.929	0.801	0.769	0.693	0.623	0.523	0.569	0.473	0.360
	FAST	11.28	0.895	0.807	0.773	0.701	0.628	0.527	0.575	0.519	0.371
	BRISK	9.06	0.894	0.805	0.772	0.701	0.627	0.525	0.571	0.516	0.367
	SURF	12.31	0.891	0.800	0.766	0.692	0.623	0.522	0.566	0.470	0.354
	MSER	10.88	0.894	0.805	0.772	0.700	0.627	0.525	0.570	0.517	0.360
	ORB	9.09	0.888	0.797	0.764	0.690	0.618	0.519	0.557	0.465	0.347
CARD 256		3.81	0.919	0.923	0.911	0.892	0.892	0.894	0.873	0.901	0.851
CARD 128		4.58	0.919	0.923	0.911	0.892	0.892	0.894	0.873	0.901	0.851

Table 3. The tracking performance of case 2 in CEUS mode under different tracking method and tracking frame length setting.

CASE 1 TRACKING SPEED AND ACCURACY OF CEUS											
Tracking Method		FPS	Tracking Frame Length								
			30	60	90	120	150	180	210	240	270
Key Points	KTL	7.28	0.936	0.833	0.755	0.720	0.643	0.520	0.623	0.561	0.500
	FAST	8.00	0.878	0.825	0.749	0.716	0.640	0.517	0.623	0.556	0.500
	BRISK	6.88	0.880	0.828	0.752	0.718	0.641	0.519	0.624	0.558	0.501
	SURF	7.93	0.886	0.831	0.754	0.719	0.642	0.519	0.620	0.561	0.499
	MSER	8.01	0.884	0.830	0.753	0.718	0.640	0.519	0.622	0.561	0.499
	ORB	6.68	0.887	0.831	0.755	0.718	0.641	0.518	0.618	0.560	0.497
CARD 256		2.99	0.962	0.958	0.950	0.936	0.960	0.906	0.955	0.915	0.967
CARD 128		3.49	0.958	0.963	0.942	0.938	0.931	0.868	0.946	0.913	0.968

Table 4. The tracking performance of case 2 in US mode under different tracking method and tracking frame length setting.

CASE 1 TRACKING SPEED AND ACCURACY OF US											
Tracking Method		FPS	Tracking Frame Length								
			30	60	90	120	150	180	210	240	270
Key Points	KTL	4.44	0.936	0.831	0.753	0.718	0.640	0.518	0.621	0.559	0.498
	FAST	7.87	0.881	0.829	0.752	0.718	0.641	0.519	0.624	0.558	0.500
	BRISK	6.90	0.883	0.831	0.754	0.718	0.641	0.518	0.623	0.559	0.499
	SURF	7.55	0.885	0.829	0.752	0.717	0.639	0.517	0.620	0.559	0.498
	MSER	7.75	0.883	0.828	0.750	0.714	0.637	0.516	0.619	0.556	0.497
	ORB	6.36	0.884	0.829	0.753	0.716	0.638	0.516	0.618	0.558	0.497
CARD 256		2.72	0.962	0.958	0.950	0.936	0.960	0.907	0.955	0.915	0.967
CARD 128		3.13	0.962	0.958	0.950	0.936	0.960	0.906	0.955	0.915	0.968