

Table 1: Existing and Planned Insertion Devices (as of 2/22/21)

*not yet installed

Keff value for Helical mode is $\text{Sqrt}[K_y^2 + K_x^2]$

Beam Line	Type	Design	Beamport	Location	Length [m]	Period [mm]	Peak Field [T]	Mag Gap [mm]	Vac Aper [mm]	Front End Aperture [mm]	Fund. [eV]	Total Power [kW]
CSX/IOS	EPU49	PPM	Low- β_x	23-ID	4 (2x2)	49	0.57 (heli) 0.94 (Lin) 0.72 (vlin) 0.41 (45d)	11.5	8.0	0.6 x 0.6	230 (heli) 180 (Lin) 285 (vlin) 400 (45d)	7.3 (heli) 9.9 (Lin) 5.5 (vlin) 1.7 (45d)
IXS	IVU22	Hybrid	High- β_x	10-ID	6 (2x3) center	22	0.76	7.4	7.2	0.5 x 0.3	1802	4.7x2
HXN	IVU20	Hybrid	Low- β_x	3-ID	3	20	1.03	5.2	5.0	0.5 x 0.3	1620	8.0
CHX	IVU20	Hybrid	Low- β_x	11-ID	3	20	1.03	5.2	5.0	0.5 x 0.3	1620	8.0
SRX/(XFN)	IVU21	Hybrid	Low- β_x	5-ID	1.5 downstream	21	0.90	6.4	6.2	0.5 x 0.3	1570	3.6
XPD/PDF	DW100	Hybrid	High- β_x	28-ID	6.8 (2x3.4)	100	1.8	15.0	11.5	1.1 x 0.15		64.5
ESM	EPU105/ EPU57	PPM	High- β_x	21-ID	2.7(downstream) /1.4 (upstream) no canting	105/57	0.74/0.57 (heli) 0.90 (vlin) 1.14/0.83 (Lin)	16.0		0.7 x 0.7		4.22/1.2 (heli) 4.22/0.86(vlin) 10.1/2.0 (Lin)
SIX	EPU57	PPM	High- β_x	2-ID	7.0 (2x3.5)	57	0.57 (heli) 0.83 (Lin)	16.0		0.3 x 0.3		4.4 (heli) x2 6.8 (Lin) x2
ISR	IVU23	Hybrid	High- β_x	4-ID	2.8	23	0.95	6.2	6.0	0.5 x 0.3		7.2
SMI	IVU23	Hybrid	High- β_x	12-ID	2.8	23	0.95	6.2	6.0	0.5 x 0.3		7.2
FXI	DW100	Hybrid	High- β_x	18-ID	6.8 (2x3.4)	100		15.0	11.5	1.1 x 0.15		64.5
ISS+XFP	DW100	Hybrid	High- β_x	8-ID	6.8 (2x3.4)	100		15.0	11.5	0.8 x 0.3		64.5
LIX	IVU23	Hybrid	High- β_x	16-ID	2.8	23	1.02	5.7	5.5	0.5 x 0.3		8.3
FMX/AMX	IVU21	Hybrid	Low- β_x	17-ID	1.5	21	0.90	6.4	6.2	0.5 x 0.3		3.6
SST	U42	Hybrid	Low- β_x	7-ID	1.6 (upsteam)	42	0.82	11.5	8.0			3.2
	EPU60	PPM	Low- β_x	7-ID	0.89 (downstream)	60	0.73 (heli) 1.02 (Lin)	11.5	8.0			1.8 (heli) 2.7 (Lin)
NYX	IVU18	Hybrid	Low- β_x	19-ID	1.0 (upstream)	18	0.95	5.6	5.4			2.5
HEX*	SCW70	SC	Low- β_x	27-ID	1.1	70	4.3	15	10			55
CDI*	IVU18	Hybrid	Low- β_x	9-ID	2.4	18		4.63	4.4		1660	9.0
ARI*	EPU70	PPM	Low- β_x	29-ID	1.9 (upstream)	70	1.15 (Lin) 0.75 (heli) 0.98 (vlin)	11.5	8.0			7.88 (Lin) 6.48 (heli) 5.38 (vlin)
SXN*	EPU50	PPM	Low- β_x	29-ID	1.9 (downstream)	50	0.98 (Lin) 0.60 (heli) 0.76 (vlin)	11.5	8.0			5.205 (Lin) 3.919 (heli) 3.092 (vlin)