

CLIC MB Injector Summary Tables

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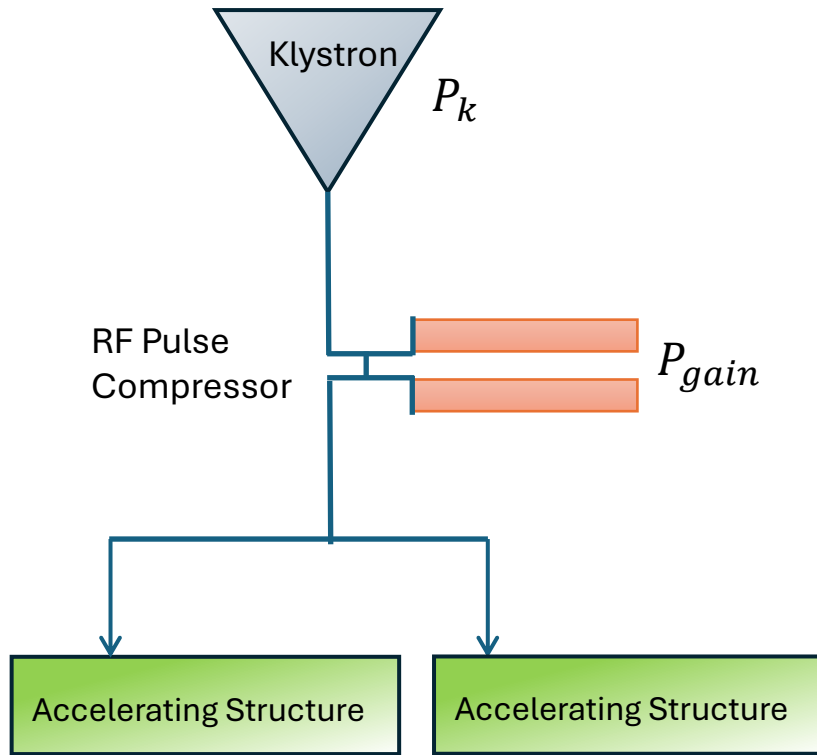
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CLIC Booster, e^- and e^+ Injector Linac Structure Parameters

$f = 2 \text{ GHz}$, Length = 3m, Phase advance = $2\pi/3$, $Q_{0,SLED} = 2e5$, $T_{\text{klystron}} = 5 \text{ us}$

	Booster and e^- Injector Linac		e^+ Injector Linac
Avg. Aperture	18 mm		22 mm
Delta	3 mm		2 mm
Entr., exit aperture	21 mm \rightarrow 5 mm		24 mm \rightarrow 20 mm
Iris thickness	3.26 mm \rightarrow 4.06 mm		8.46 mm \rightarrow 8.46 mm
Vg (% c)	4.21 \rightarrow 1.39		4.44 \rightarrow 2.50
r/Q (kOhm/m)	2.58 \rightarrow 3.22		2.21 \rightarrow 2.57
Q	19799 \rightarrow 19519		18619 \rightarrow 18490
Filling time	416 ns		300 ns
SLED coupling	14		14
Integral of WT (V/pC/mm/m)	9.15		10.13
Klystron power per structure	31 MW		31 MW
SLED Power Gain	3.78		4.22
Linac type	Booster Linac	e^- Injector Linac	e^+ Injector Linac
Nominal Bunch Charge	0.83 nC	1 nC	1 nC
Loaded Voltage	50.20 MV	46.69 MV	43.42 MV
Loaded G_{avg}	16.73 MV/m	15.56 MV/m	14.47 MV/m
E_{max}	96 MV/m	96 MV/m	49 MV/m
$S_{c,max}$	951 mW/ μm^2	951 mW/ μm^2	329 mW/ μm^2

CLIC Booster, e^- and e^+ Injector Linac RF Module



	Booster and e^- Injector Linac		e^+ Injector Linac
Structure Avg. Aperture	18 mm		22 mm
Klystron power per structure	31 MW		31 MW
Linac type	Booster Linac	e^- Injector Linac	e^+ Injector Linac
ΔE	6.14 GeV	2.66 GeV	2.66 GeV
Nominal Bunch Charge	0.83 nC	1 nC	1 nC
Loaded G_{avg}	16.73 MV/m	15.56 MV/m	14.47 MV/m
Number of structures (Spare ones)	124 (4)	58 (2)	64 (2)
Number of klystrons (Spare ones)	62 (2)	29 (1)	32 (1)