



CTF3 30 GHz test structure parameters

9.2.2007
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30 GHz test structure parameters



CLIC

Type	Nds4_thin	Nds4_thick	Hds4_thick	Hds11_r1.2
$\Delta\phi$ [°]	150	150	150	60
d [mm]	0.5	1	1	0.55
Ellipse ratio	1	1	1	2
a [mm]	1.75	1.75	1.75	1.2
r_i [mm]	1.75	1.75	2.1	1.8
r_r [mm]	1.1	1.1	1.1	0.55
Q^{Cu}	5630	5250	4610	2350
v_g/c [%]	3.65	2.46	2.57	2.0
R'/Q [Linac Ω/m]	26200	25600	24500	41900
E_{surf}^{max}/E_a	2.6	2.2	2.4	1.7
H_{surf}^{max}/E_a [mA/V]	2.9	3.2	4.4	3.1
P_{in} [MW] @ 100MV/m	22.3	15.3	16.7	7.6
Predicted (P/C=const) performance @ 70ns, BDR= 10^{-3} for circular and hds (75% of circ)				
P_{in}^{max} [MW]	19.7	19.7	14.8	10.1
E_a^{max} [MV/m]	94	113	94	115
E_{surf}^{max} [MV/m]	244	250	226	196