



Apologies

mistakes!

for any



NECTAr	DRAGON
0.2 W	0.04 W
incl. elsewh.	0.2 W
1.4 W	1.4 W
0.8 W (A)	0.6 W (A)
2.6 W	2.2 W
300 W	
1200 W	
air	heat pipe / water
	NECTAr   0.2 W   incl. elsewh.   1.4 W   0.8 W (A)   2.6 W   300 W   1200 W   air





Component (all values per ch.)	NECTAr	DRAGON	
Module	234 g	< 215 g	~20% of tota
Skeleton + Skin	253 g	< 160 g	
Sandwich / cooling plate	131 g	< 270 g (2)	
Funnel plate	73 g	incl. elsewh.	
Window	42 g	< 38 g	
Lids / doors	37 g	< 107 g	
Power supply	27 g	< 81 g	
DAQ crates, cables	80 g	< 54 g	
Total	1030 g	< 980 g	

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Component (all values per ch.)	NECTAr	DRAGON
PMT, shield	170 €	190 €
HV	45€	80€
Preamps	incl. above	17€
Slow control board	n.a.	34 €
Pipeline board	79 €	131€
PCB		16 €
DRS4		32 €
Spartan-6		10 €
Amplifiers		18 €
Assembly		13€
Trigger	14 € + 17 € (BP)	36 € (A)
Total	325€	488 €

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## Common components





## Possible scenario: NECTAr in MST DRAGON in LST

CTA camera spare parts inventory



## Signal chain



Component	are / could be common	Reasons why different solutions might be defendable (other than history)
Funnels	could be	LST funnel offer better performance at much higher cost
PMT	are	{Select the best-QE PMTs for LST?}
HV & assoc. slow control	could be	none?
Preamps	could be	none?
Pipeline / Digitization	?	pipeline depth
Pixel-level trigger	are?	different timing characteristics of MST/LST showers
Camera-level trigger	are?	different timing characteristics of MST/LST showers
Readout / DAQ-interface	could be	required readout rate ??
Monitoring functions	could be	none?
Power supplies / power scheme	could be	none?



## Mechanics chain



Component	are / could be common	Reasons why different solutions might be defendable (other than history)
Overall mechanics concept	could be	weight / size ?
Cooling scheme	could be	differences in distribution of heat sources, weight
Funnel plate	could be	weight / size ?
Drawer mechanics	could be	PCB length ?? Weight if correlated to cost
Camera body scheme	could be	weight
Camera lid & actuators	could be	weight