						denter 1			Zenn (A) Distilier		Jac. Balance	19	has (C).B	and and and and and	-	Comment
				betrively light makes rate at this		dealers 1	- and a		Const Con 1915		-	-	ALC: NO		nalanal)	ng zenempinen, liek in referenze infolderument
		Channel	Threahald [bell, MeV or p.	Dranksisi Dia, naina hii par shan par	Shaping Loss	in the second	Table Inti Gene	Charge	Cate on time Cate (Integration time	Tes		ABC/DDT	Sample			
Estopolem	Region	Ceuri	•1	amond .	74146	valuej	muluian	12 al	time) joined	iline) resolution	n Timekin	bile.	Preparety J	ADC Inte		
MAPE	fami	03	0.85 w/	10°-3 per piael per sessonal (lona)				Stateg	value)						ra Gerela (ava prelaĝorn.ch)	Plast plate + 10 um, militie size + 18.80 mm a 30 mm, deteniar layeut down here high-lindus integratement/17112 , number - A characteristic here base biological down in terminent/17821
MAPS	Date	195	O-BE-WY	10°-3 per piael per sesand (lond)				of the set	value)							
MP-00	Earrel	30x-60x	-0.26keV	-1 [1]	-800 ms (2	(-20 ms[2]	-20 m [4]	3.6					some 10 -	**10 ENG8 (67~	nenes Breni (tanorassionaa@ena.b)	N sharvala per layer (1 layer quoted), Assume E.Nr4E, Evenhuiki S'signa_make
LGAD	Ranni -	248	0.5 MV	20 He / sharest	in .		30 yrs	2 These		10 ps	10	÷ –		24	nyu Ya (pulanyu)jula miu)	Assume SN + 20, Preshald is set at Evoluti, 102 Mile clash Assume SN + 30, Resolution is set at Evolution 102 Mile clash
															de la General de Contra de	COT number labors have beauthy lead reasons. Not sure what is meant by intervation time for this base of detender / electronics.
-	England	- 22	-11	- With the second											and a Carlos Last Wirelaw'	All single photon hits will be individually weasured and time stamped to before than "Klys. EICROC positing time is "20th (7) - 20th a scholar DCE are chosen by another analysis in the second and
				192 depending on sensor choice												Two parallel paths: 1. Police the efficient washed development; 2. Use HRIPO when it is available. The reflicit for effic
whice	Estimati	69613	10394	(mdfiOl)										2.0	ndun Helpheligges mist, Kanhel, Murad n Kaley Italier/Brug mist, Johns	sonsials of 68 modules. Each module has 1004 shannels with Severa Severa pixel sizes.
DIRC	Earrel	744	0294	100 Halshavnel										Lat	Garing (anti-Gring Bailty)	
														-	anis Proghenela (proghenela@incide.2)	sensors a reason of community more new newsars are moved to only integrate approx. Us of the slock where, which is what is indicated here as integration lime, Intrinsic DOP remeases with increasing integrated limit and decreases after arreading and
ence.	Panearti	200 h	6.5px	5.300 kHz.) shannal	-	_	_	_	_	00 ym	20	20	_	Pe	in Arterial (plates arterial (ta inte it)	the numbers reported have assume that together with the use of the maximal similar.
EENC	Eschenni	3000	0000 M	W probably	0 100	n inens	ine re			120pm	TOT + SQue	107+12		Ce	in Manue (manue@lab.org)	
delGam.	Barral															
								samples 1.					28He Fire	1at	hav, Maroj (rejashav@ari.gov), Maria Zurek	
		-4624000	000 hr// mm		1.05	in a l		-		-52-16		~			and and have been	ena or the more an an new measures value to be any or the holes rain (of the threshold) solar face + 5 keV
1.00	Sec.	-	reasond and (red		100-00	Call.		Sec. Sec. S		43.100 er						Importanti. The Thenhold is set on one maximal unit, which is it EPUIs or one light guide in our data model from EEC-mon this
						_		yeah [1								
				1.2hPartitik/a per channel, see				A loane						C (14 option Cire	The (hall physics arise state) Conset Visco	G.T. Dissoluted in E. Mell. Notes rate will carry approximately laster of 100 sentenisative edges. Assumed non-temperature, exposure 1018 stamP2 subter, 1010stamP2 team, samuslage ~1.8V Notes rate subter ~1.2 Mell, Inner ~64 Mell. Custering
PENC	Parauti	19000	D ISNer	and the second s	100-m	les es	les ra	skaler)					128109 1	TBC) (pr	enginterante)	weptrements draps Trease rules to 2
MICAL (per layer)	Entered	10000	3 p.n.175 Mil	10.14	26m	26m				120ye	TOT + BOys	101+12	2010-6	10 Tes	i hall shysin usa nis	Theododal for each issue layer (beamse 1028, layerse 10) - Values adopted from INCal.
Remove this line	Estimati	1034	0000 Nev 717	300										Les	eeli Xosaromuski (tosarimi@(t evol.co)	Integrated Developed of the unit attach is being maximal
		7682 (saint	6 Mel (depusite	· · · ·							TGL + 28pt	104.+10			· Late (spin@anke etc)	tereshold in set by dealer in see muses, which lose along a serie peaking line with return to baseline in 100m. Energy Breakold is set by dealer in see muses, which lose along a GeV in baseming for substrates from lover to solar setue. The
areas (artista)			125 Mell forante		-					+20pm	run' + Eige			** De	er vonsens inverseljenter niri	NAME FOR AN ON THE SAME PROBATION AND THE STANDARD POLICE.
shickle (ser unit), sinalate is he			every ville'													
rement	Revel .	(EM (second)	word)	layer rate of E										Jap Der	ni Anderson (dramasso@insinin mis)	response revenues or on same use provide and particle real in Volution, and for the second deviation company or all more to reading out each the individually and there all he no "source" structure, as resonanceshed during the HCal environ
Def all local second	from a	474.147	and and		-	-				1274	TCA + 20pt	100A+10		an New	test Soutido (nortest nortelog@nern.ah)	encoder on here 1950s is some land
	_										TCA + 28pt	104.+10		New	het Southy (notest southing are at)	
DICAL (ser unit)	Farmeri	61260	0.0000 keV	white the second s	20m	20m	_			100pm	TOT + EQu	01+100 s	10006	10 Pro	similar Each (famile@arre.ah)	anauring Elayers of W contained + C'12 Electricayers According to the Wester Contained and a second of 1 mars 1997 of a 37 and 1 mars (10) a statistical method on the strength of
ion (2) Tegger	Far Eastern	4 334	1 MV	0										Les Les	un Caniner (kinun perine @glespecar.uk)	meaning films pints revenue a local area of aloud 0 local
				due to high sharred somparay -												
RO MAPE	Far Personi	248	THE				_	_		_	_		_		Kins Janisch (spreisch@inl.gov)	Assuming 10um pixels, with 2000xm2 initial active area . Titely an overestimate at his point on channels
								magneticity								
								raniei.								
BOLGAD	Far Personi	200	1 keV		750pm	Mys	30-80pm	and a state		it Sign play					Alex Jordach (specials)@ini.pro)	the line + 305ps shaping line - 305ps 2.8, such information the state of the state
an average	In Issue		1100	100 KHz - assuming EPGh with a											Etc. Instants (standards Winstown)	Assession T-free one are controls. When T-initial area threaded in the circles instance in an in-
				and the second				nepatrily						_	can access by Antigers pay	consistent of the state of the state of the state of the state
								mainly, red.								
Second Second	In Issued		1000	Inst 12 he jacomage particle E r	-	No.	10.00	may impact		16.20					The lastest interimber and	Ellumpinels, 20am a 12am antice area, 6 layers - Brenchaids can be safter high since are are measuring beam arrange
					19495	194		and the						-	and an one page fungtion pay	server and and a server of any server of the
								state of								
				ine 10 he jamage particle II r				may impact		16.20pm						Hillum pixels, 10em a 20em active area, 4 layers - assume 20em sensor for analog information - rise time + 320ps, shaping
Con a setantian	ra forest	-	+ 640	rud CAV) Jam v 10 ha julih high itematulai ta	- Things	dan	ar light	and a		-				-	And an own paper (and give gos)	ana - adja 123
20C PWIKOS	Far Parami	636	1.MeV	high energy particle him)											Airs Joriah (sprink@ini.prv)	Assuming 2 Sum square stynists, 2020an2 inial area, threshold for photon lagging in a thu
200 76 8	Far Paranti	600	100 MeV	and all a											Yel Onto (percent)	Note a service support service or re-spaint site file fields is tight rough
20C Parliate	Far Forward	73	100 MeV	register						_					Yej Gela (pringhni prv)	

In all cases, GAQ will recent processed data banks containing information leading to descriptions of 3 numbers: a time, KAC surragate, and position (in detector accordinates) for each carried particle. Type VL-gend Althousable of the signal kines freeduling the wheeling on guide high Type VL-gend Althousable of the source of the situation of the situation wheeling of the situation of the situation of the situation of the situation performance of the situation of the situation of the situation performance of the situation of the digitation in a kindle in the situation of the situation of the digitation in a kindle in the situation of the situation of the digitation in a kindle in the situation of the situation of the digitation in a kindle in the situation of the situation of the situation of the digitation in a kindle in the situation of the situation of the situation of the digitation in a kindle in the situation of the s

Type (C) unique de seglene d'act sampling cycle. If the ALC aslans any gener than the forself of the ALC usive and consporting time are written to IAQ. The time/ALC are calculated by averaging or 16tmg are 11d fimeline.

iters needed to understand time response for each type

- Caggerd provider inside/for underland offer impacts & could by per

 All
 Receiver inform

 Mangine inside:
 Other information informat
- Card And Angel Card And Angel Card Ange

Plant of	Threadward C for R, for par	visualar applain in solution 7.7 Intrinsicilarly solution and all this Diversified	inin i	Tatlens	Lan M. Call	11 200		heen a	Maria Salationa.	Contant Samalamai)	Communi og ansempleren, læk in orleneren lækkingssemet						
Laingwien Region Cauci	57-00F	ward 200		maintine_starting		aatiinsi resolutio	Deskin	a ta	pawy ACCHIN								-

Plane of	Trenshald	nie (Herr Grannighten beiter Uns Hit op finalier opfisie in solaans P P etrimolokiek nales neis al Bin ferendeil	inin in in ini	ani diseona ini di Viya i Infanta Infanta	Terration of			hon a	Anna Stationers.	Cantant (cantantant)	Connegati ng angeongkana, kakia ndenana kakidanananat						
Laingwien Region Cauci	57-07-5	mand 20		mainten alaring		aatiine) maalada	e Deskin	in fa	ngaray ADCain								

Plana inter column 2 to 8, to	e particular optiale to column 7.9	Institution	The Colleges Course						
Temphois	berinsistiari suba taka ai bita Desing Isa Tak	Mini Calence Calend	International Constraints	n g. annonytions, lok in reference infiliateoreari					
ingolam Region Court al	second (/ Kitel and a	olution, sharing line) planting resolution Torabin. M	Property ACCells			 			

Loading order app	oximation of the	digitization model, p.	warreterized in th	a zano-suppression ti	veshold, integration time, and noise rate		
	Oraclass	damasi Gausa	Integration Tim	e Threshold	Intrinsicidark exise rate at this threshold	Contact	Consister The American Constant of Constan
ana	August .	Commen Could	(ma)	per, are crp.1	(Po, mose in per calls per second)	(reserved)	1. Beneficient and a construction
MAPS	Marrel	179					
MAPS .	Disks	190				Laura Lioneta (aura gotela@cem.ch)	
MPGO	Barrel	20x-40x	50-1000	-0.25keV	0	Francesco Bossù (tancesco bossu@cea.tt)	N channels per layer (1 layer quase), Assume Still 400, Insensor-9 Tooles
LGAD	Barrel	2.4M		5 0.5 keV	30	Zhenyu Ye (yezhenyu@uic.edu)	Assume Sin Y 25, threshold is set at Sholes, 100 MHz clock
LGAD	Forward	2.94		5 0.5 keV	30	Zhenyu Ye (yezhenyu@uic.edu)	Assume Sin * 25, threshold is set al "Index, 100 MHz clock
ряюсн	Rackward	-71k	TED	-0.5p.e.	-100Hzithannel	Aissander Kiselev (syk@bril.gov)	Colours and a set of human is set of human is set of human is a s
mRICH	Backward		22	050A	TED depending on sensor choices (as dRICH)	Xaochun He Ishe@gau.edu), Rachel, Murad	The participant : Takes the SRD and development 2 takes MMMD and a search and the SRD and
			-			Gran Maloy (Intiruffour etc), Jocher	
DIRC	Barrel	766	100 ms	020.0.	100 Hzichannel	Schwiening (Lachwening@gsl.de)	
dikachi	Forward	220 K	2.5 m	45pe.	1-100 kHz / channel	Roberto Preghenella (preghenella@bo.infn.it) Platro Antoniol (platro antonioli@bo.infn.it)	Amon's water and a conclusion and a financiane water and a conclusion and a financiane water and a conclusion and a financiane water and a conclusion and a con
SEMC	Backward	30	80 .	e0 5000 kal	r probably I	0 Carlos Munoz (munoz@jiab.org)	
Scidiose	Barrel						
1	0	SOOM plants (3.54	Peaking time - 1 yet, latency < 6	al have		Jadhav, Manoj (mjadhav@ani.gov), Maria Zurek	to d f the month we will true measured data for (d to) of the solar ang of the
		area couple)	(0.4 4.62)	ability had a set		(www.fine.for)	A PERSON AND A PER
SciSPo	Rami	22	60 100 ns	madout unit (not fiber)			Report in structures and constructions and which is given to construct the structure of the
FEMC	Forward	110	. ,	00 3000 keV	1.2%4z-6464z per channel, see comments	Gerand Visser (prisser)@indiana.edu) Oleg Taai taai@physics.ucla.edu	Ng pana ng pang pang pang pang pang pang
bHCAL (per layer)	Backward	103	80 1	00 3 p.e./170 keV	10 Hz	Leszek Kosarzewski (kosarles@fil.cvut.cz). Oleg Tasi tasi@physics.ucta.edu	Translat for each traver tager (preservitie), legrent 1)
Remove this line	Rackward	10	25 1	00 5000 MeV ???	999	Leszek Kosarzewski (kosarles@fjf.cvut.cz)	Integrated threehold of the unit which is being readout
cHCAL (per layer)	Rame	7680 (scint files)	100ns integratio / Sev ns resolution	a 25 MeV (-75 keV deposited in scint)	few tens of Hz	John Lajoie (lajoie@iastate.edu) Densk Anderson (dmaxxc@iastate.edu)	Thember the main King day, which have an used and a subsequence parts of the subsequence
cHCAL (per unit), obsolete: to be removed	Barrel	1536 (towers)	100ns integratio few ns resolution	125 MeV (town energy, -4 MeV deposited in scint)	layer rate x S	John Lajoie (lajoie@iastate.edu) Derek Anderson (dmaxxc@iastate.edu)	
SHCAL (per layer)	Forward	6011	60 75-100	500 keV		Norbert Noviziky (norbert.noviziky@cerrs.ch), Friederika Bock (flock@cerrs.ch)	anuntris ve tans 69kh it news layer
Safet inerusit	Ecount	417	00 75-100	5000 km/r		Norbert Novbry (notert novbly @cers.ch). Eriederike Enck (fronkiftnern.ch)	samonin 6 linux of W control 4 a 91% Soal Inum
Ine Of Texas	Exclusion Contractor	214	10100	10 1 kg/r	0	Simon Gardner Almon partner@planner.ac.ukt	and control of the co
ine del Versee id.e	L. Confination		-			instantial simulation still have all	
ner os ragger (ca			- 516		 war is right sharring scoopericy - he zero-s. 	Augusta providences of central	
BO MAPS	Far Forward	2.59				Alex Jentsch (alentach@bril.cov)	This load on channels
RELGAD	Far Forward	2928	515			Alex Jentech (alentach@bril.cov)	Assumito SQUan Guess, with 660cm2 active area
					100 kHz - assuming SIPMs with a large	and the second se	Assuming 2.6cm square crystals, 665cm2 tatal area, threshold for photon tagging
BB PSWO4	Far Forward	105	40ns	1 M/V	radiation load. low < 10 hz (with high threshold for high	Alex Jentsch (ajentsch@bril.gov)	E + Au Dúba palak, Simo Kala wa ka Ayan. Twataliska ta ta inter tipi.
Roman (Pots)	Far Forward	558K	515	1 MWV	energy particle hits)	Alex Jentsch (ajentach@bril.gov)	since we are measuring beam-energy momenta
Off Momentum	Far Forward	320k	áns.	1 MeV	low < 10 hz (with high threshold for high energy particle hits)	Alex Jentsch (ajentsch@bril.gov)	Billing Junet, Horn X June annu, Alagen
200 81404	Exc Ecoward		4744	1 844	low < 10 hz (with high threehold for high	Alex Sentech (signaturbalited erect)	Assuming 2.1cm space dynamic, second to proton tagging in a set
ZDC WSI	Far Forward	72000	10016	12 MeV	regiptie	Yuli Goto (acto@bril.cov)	Note is a condense seguiple converts the signal to as if the threaded is
ZDC Pb/Si	Far Forward	43200	20005	100 MeV	regigie	Yuli Goto (potodbaril.pov)	
200 Bulleter	Ex Ecoward	22	1000	100 MeV	registria	Vull Crate (antiphted prov)	
AND PRODUCTS	ParParente	14	7,018	100.007	in paper	THE GAM (BANKEN FRAM)	

										_
										_

[1] This is understood to be the noise in absence of beam. In principle, increasing detector gain, per channel threshold can be set sufficiently high to discriminate efficiently signal from noise. Further noise rate reduction will depend on complexity of ZS algorithms incorporated in the readout electronics chain (e.g. TOT discrimination, clustering).

[2] Typical; Depends on programmable peaking time (\sim 3x). Targeted peaking time range 50-500 ns; Also, in the case of MPGD the shaping time is more TOT rather then FWHM

- [3] Determined by detector performance
- [4] Determined by detector performance
- [5] Typical; Programmable in (sub-)multiples of system clock

[6] 12-bit ADC with targeted ENOB at least 10. Allows finding the operational parameters ensuring acceptable S/N ratio and high dynamic range (ideally, MIP to threshold ratio of 10, threshold to noise ratio of 6 and max signal to MIP ratio of 16)