

**GLOSSARY OF CONFIGURATION
PARAMETERS FOR THE T2K MODULE
RELATIVELY TO THE DAQT2K SOFTWARE**

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Parameters definition for DAQ DCC software control

<i>Parameter names</i>	<i>Value</i>	<i>Parent Name</i>	<i>Notes</i>
isActive	False True	FEM FEC ASIC Channel	The hardware component where the parameter belongs is activated or note for the DAQ software. It applies to FEM, FEC, ASIC and Channel part.
acqType	<i>calibration</i> standard	FEM	It allows to process standard acquisition or to do calibration of electronic channel.
scaOffset	[0x0, 0x1FF]	FEM MODULE	Number of cells before reading the sample
pedestalActive	False True	FEM MODULE	Activate the calculus of pedestals inside the FEM .
cmdRead	areq, dreq	FEM MODULE	To choose between the command areq or dreq. At this time, areq has some problem. It is better to stay with dreq even it slows down the acquisition.
readMode	space, time	FEM MODULE	To choose between reading all cells of one channel (time) etc ... or reading one cell of all channel (space)
compress	False True	FEM MODULE	To compress data relatively with the applied threshold.
trigger	external internal	FEM MODULE	To choose between external trigger (PMT) or software trigger (internal)
isReadClockMask	False True	FEM MODULE	Stop the reading clock when sca is writing
isWriteClockMask	False True	FEM MODULE	Stop the writing clock when sca is reading
divideScaClockBy	[0x2, 0x10]	FEM MODULE	Divide the 100MHz FEM clock to create the sca reference clock(25 MHz typique)
nTimeBuckets	[0x0, 0x1FF]	FEM MODULE	Number of cells to read out

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nClocksBeforeStop	[0x0, 0xFFFF]	FEM MODULE	Delay before the stop signal arrives
delayWriteReadClock	[0x0, 0xFFFF]	FEM MODULE	Delay between the read and write signal of the sca.
powerDown	False True	FEC	Authorize or not the FEC to receive the 4V power supply.
doPACIgx2	False True	ASIC	Double the current of the preamplifier of the AFTER Asic.
gain	120, 240 , 360, 600	ASIC	To Choose the gain of each channel
peakingTime	100, 200 , 400, 500, 600, 700, 900, 1000, 1100, 200, 1400, 500, 1600, 700, 1900, 2000	ASIC	To Choose the peaking time of each channel
asicMode	calibration, functional, nothing , test	ASIC	To choose the way AFTER acquire data. In physics experiment, it must NOTHING
doMaxPowerWrite	False True	ASIC	Not an issue. Keep it false.
doPowerDownRead	False True	ASIC	Not an issue. Keep it false.
doAlternativePower	False True	ASIC	Not an issue. Keep it false.
reg2	0xA000	ASIC	Not an issue. Keep 0xA000.
isTestActive	False True	Channel	Plug an input capacitor for Asic testing.
threshold	+ 511 - 512	Channel	Put the threshold value for compress mode
pedestal	[0 512]	Channel	Put the value to add to reach the common pedestal value
transferFunctionSlope	3.5	Channel	Only information for the transfert function
transferFunctionAbscisse	12	Channel	Only information for the transfert function
addrField id =0 addrField id =1 addrField id =2 addrField id =3		NETWORK IpNode	Give the Ip Adress of the local and remote device.
port	[1025 , 32768]	NETWORK IpNode	Give the port number to communicate

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replyTimeout	= "[10, 10000]" >	NETWORK	Time before having a time out error
maxRetries	= "[0, 10000]" >	NETWORK	Nb of reply after a timeout response of the UDP protocol
udpSocketRcvBufferSize	= "[0x40, 0x4000]"	NETWORK	Buffer size of the UDP receiver
receiveBufferSize	= "[0x100, 0x10000]" >	NETWORK	Data Buffer size for one event.
nEvents	= 100	FEM	In Electronic calibration process, it defines the number of points per selected amplitudes (mean)
pulserDelay	= 0xD0	FEM MODULE	It defines the delay between the sca_write signal and the pulser start signal
tabMode	= false	FEC GENERATOR	Select between an amplitudes list or a linear incrementation of the amplitude
Amplitude id="0" range="[0x0, 0x3FFF]"	= 0x1	FEC GENERATOR	It give an amplitude value. Id number gives the place order in the sequence. Range specifies the limitation of the authorized values.
amplitudeStart range="[0x0, 0x3FFF]" >	= 0x3FFF	FEC GENERATOR	It gives the start value of the amplitude DAC pulser
amplitudeStart range="[0x0, 0x3FFF]" >	= 0x0000	FEC GENERATOR	It give the final value of the amplitude DAC Pulser
amplitudeIncr	= 0xFFF	FEC GENERATOR	It defines the increment to add from the start and the stop DAC pulser amplitude.