DOC227

MIDAS

Register Definitions for the LeCroy 4434 Scaler

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Registers for the LeCroy 4434 Scaler module

This document should be read in conjunction with the document **EDOC210** which describes the **Register Server** implementation for **CAMAC**.

This is a 32 Channel Latching Scaler module with CAMAC data readout.

All register attributes include -c (crate address) and -n (station address)

Registers using the **xCAMAC** class of the **CAMAC** Register Server

Command Register write by f(16) a(0)

The Command Register is a 16-bit word which controls the channel readout.

bits 0-4 (5 bits)	FA	First Address to be read.
bit 5	LD	Load - if LD=1 performs a load if switch LAD (Latching Disable) = OFF.
bit 6	CL	Clear - if CL=1 clears all the 32 scalers
bit 7	RD	Readout Enable - if RD=1 prepares the module for readout.
bits 8-12 (5 bits)	RN	Readout Number - defines how many channels (minus 1) have to be read out starting from the address FA.
bit 15	T	Test - if T=1 inhibits signal inputs and increments all scalers.

lc4434#*.command attributes -a 0 -f 16 -w 16 -p wo -l 0 -b 0
lc4434#*.command.FA attributes -a 0 -f 16 -w 16 -p wo -l 5 -b 0
lc4434#*.command.RN attributes -a 0 -f 16 -w 16 -p wo -l 5 -b 8
lc4434#*.command.T attributes -a 0 -f 16 -w 16 -p wo -l 1 -b 15
lc4434#*.command.LD attributes -a 0 -f 16 -w 16 -p wo -l 1 -b 5
lc4434#*.command.CL attributes -a 0 -f 16 -w 16 -p wo -l 1 -b 6
lc4434#*.command.RD attributes -a 0 -f 16 -w 16 -p wo -l 1 -b 7

Channel data read by f(0) a(0)

Generates readout of the selected register value (channel) via the **CAMAC** dataway.

lc4434#*.data attributes -a 0 -f 0 -w 16 -p ro -l 0 -b 0 -z x

Channel data **read by f(0) a(2)**

Sequential data readout of the channel values with auto-increment of the address.

lc4434#*.data++ attributes -a 2 -f 0 -w 16 -p ro -l 0 -b 0 -z x

Registers using the **cCAMAC** class of the **CAMAC** Register Server

These registers do not require data and have no initial value. However read-register operations may return Q and X as data.

test LAM **read by f(8) a(0)**

returns Q=1 if the module LAM is set

lc4434#*.testlam attributes -a 0 -f 8

test and clear LAM **read by f(10) a(0)**

returns Q=1 if the module LAM is set and clears it

lc4434#*.test+clrlam attributes -a 0 -f 10