

Ethernet

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1 Introduction

2 Fast command

Ethernet use 8b10b (like usb) using several patterns for the same value allowing differential coding. Meta patterns called “K characters” are use to indicate start and end of frame. The called “DAQ v2” use its own “k character” to embed fast command (a single 10b byte) in the trames (LDA<->DIF links only).

Note that this coding (no returns to 0) allow to embed a clock, but this is not used in Calice project (which use a CCC card).

Display input and output rate every 4 seconds :

```
$ ifstate -nb -i eth6 4
```

3 Gigabit

LDA are delivered with Optical Mezzanines without SGMI for rate négociation. In order to change it for an Electrical Mezzanine, we must ensure that is is “SFP/1250” compliant, but not “SFP/10-100-1250” for instance.

```
# ethtool eth6
Port: FIBRE
Link detected: yes
```