

CAMAC TTL/NIM translator

Module Description Document

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1 Introduction

1.1 The goals of the module

The module is intended to perform a level translation between TTL signals and NIM signals with the capability to have both direct and inverted signals.

1.2 Logic levels

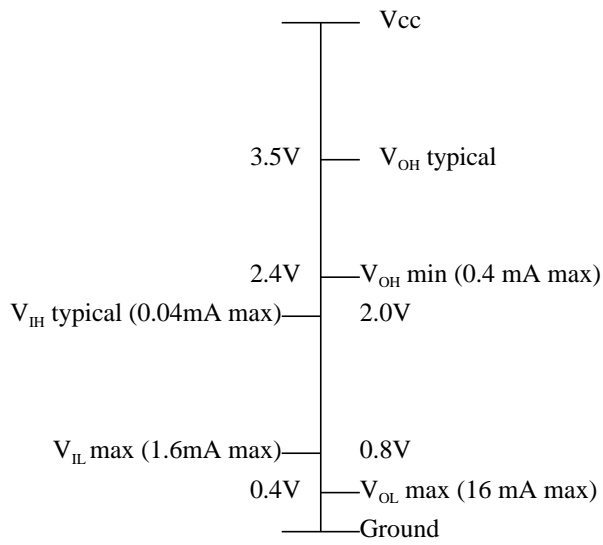


Fig 1 : TTL levels

	Output drive current into 50 Omhs	Receiver Input Voltage Response
Logic 1	-14 mA to -18mA	-1.8Vmin to -0.6V max
Logic 0	-1.0mA to +1.0 mA	-0.2Vmin to +1.0Vmax

Fig 2 : NIM levels

1.3 System block diagrams

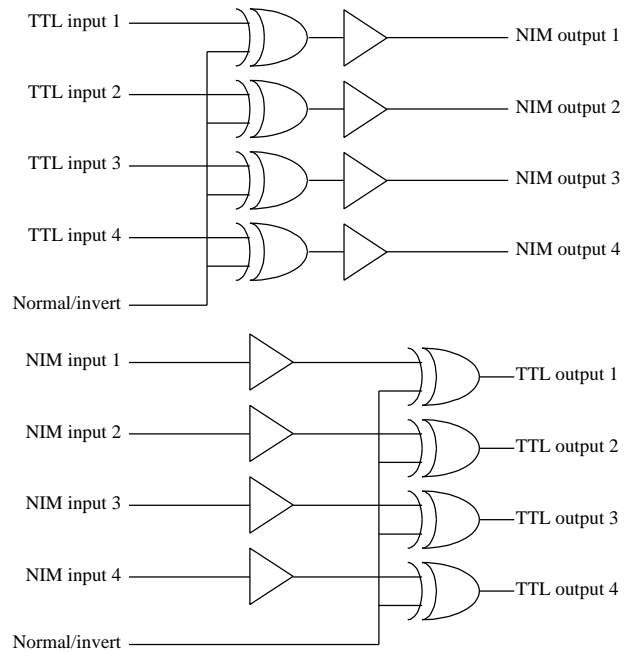


Fig 3 : Translator bolck diagram

3 Front panel

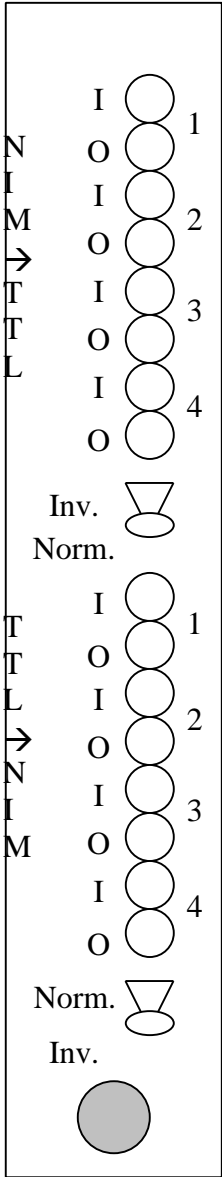


Fig 6 : Module Front panel

4 Pulse shape

4.1 TTL to NIM in Normal position

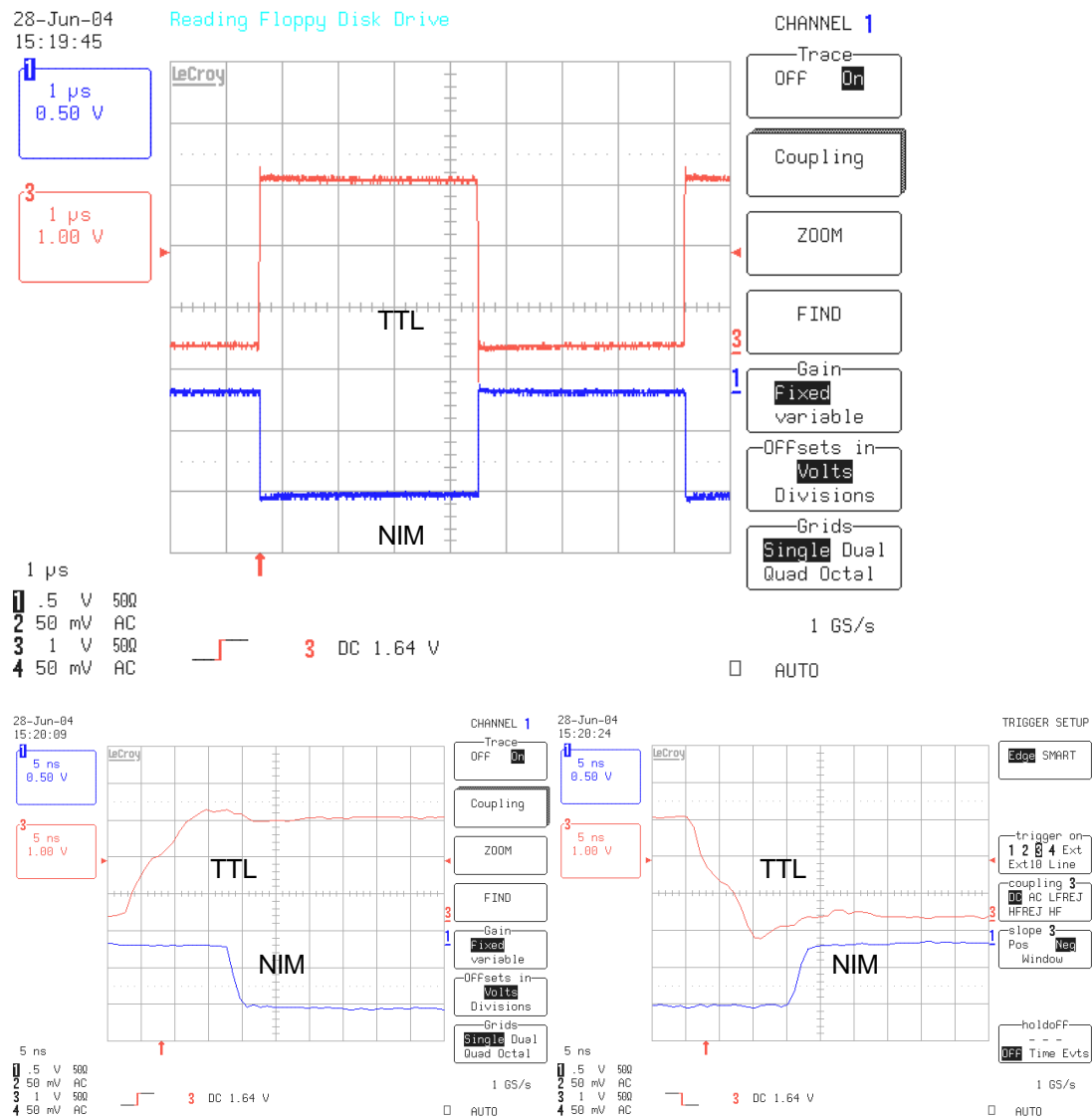


Fig 7 : Pulse shapes for TTL to NIM obtained with front panel switch in normal position (including rising and falling edges)

4.2 TTL to NIM in inverted position

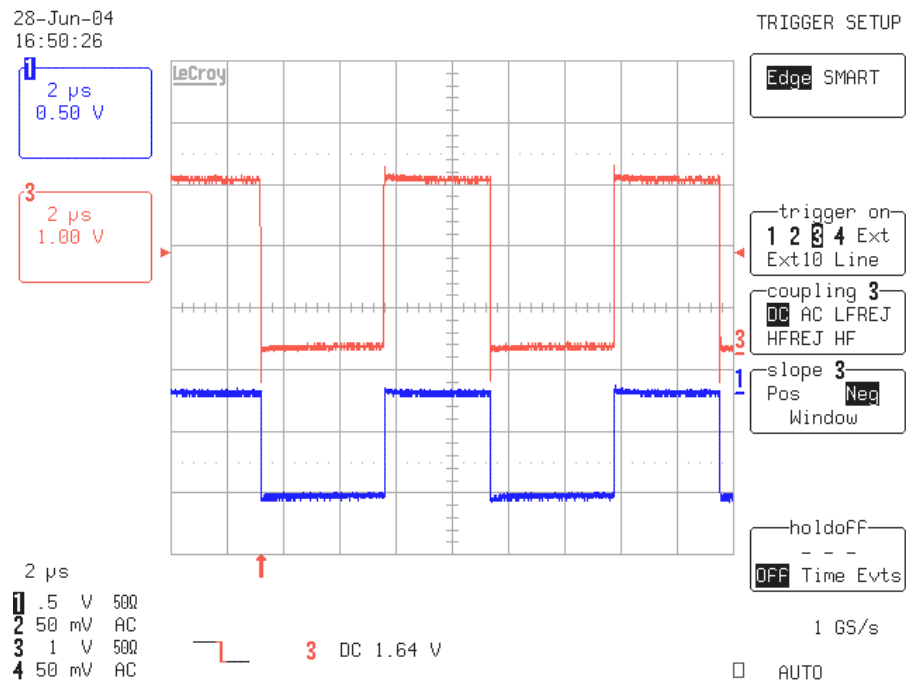
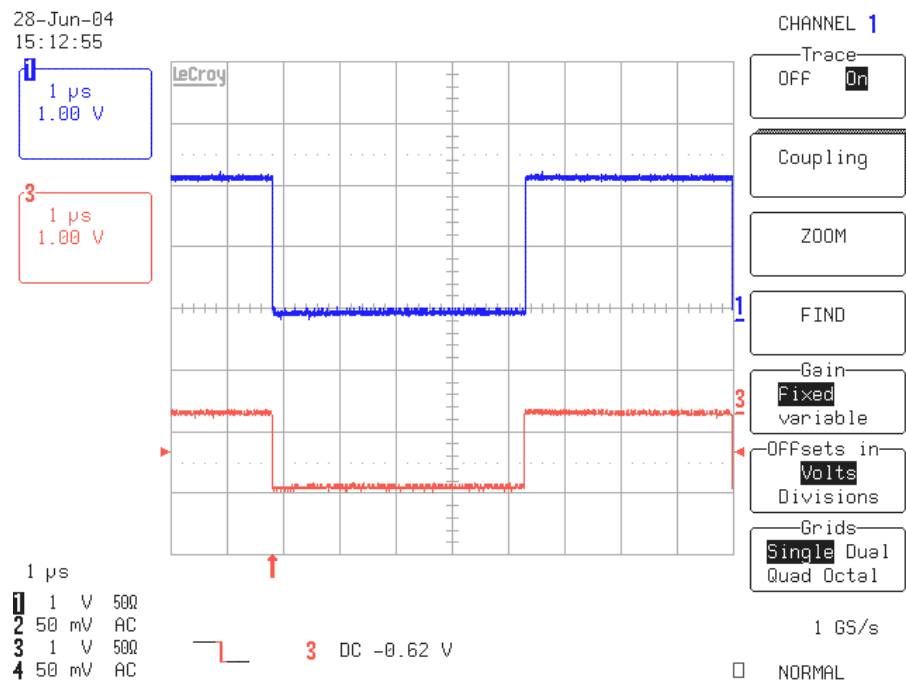


Fig 8 : Pulse shape obtained with front panel switch in inverted position

4.3 NIM to TTL in inverted position



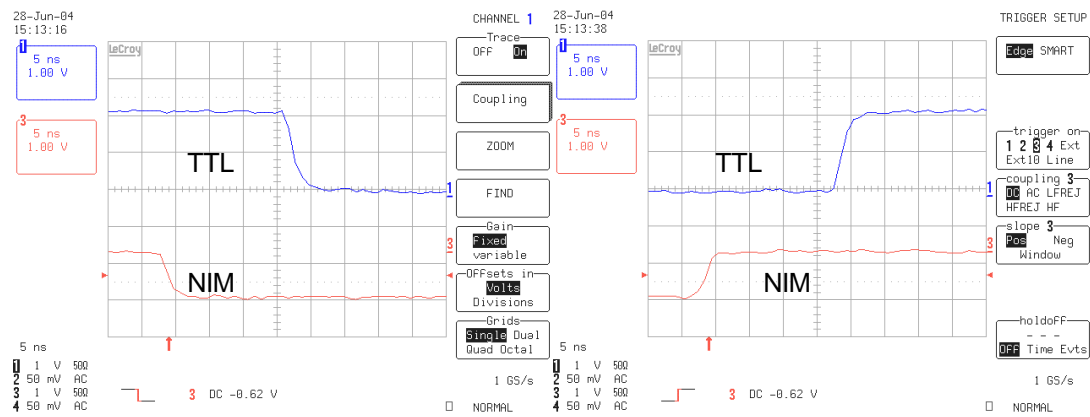


Fig 9 : Pulse shape obtained with front panel switch in inverted position

4.4 NIM to TTL in normal position

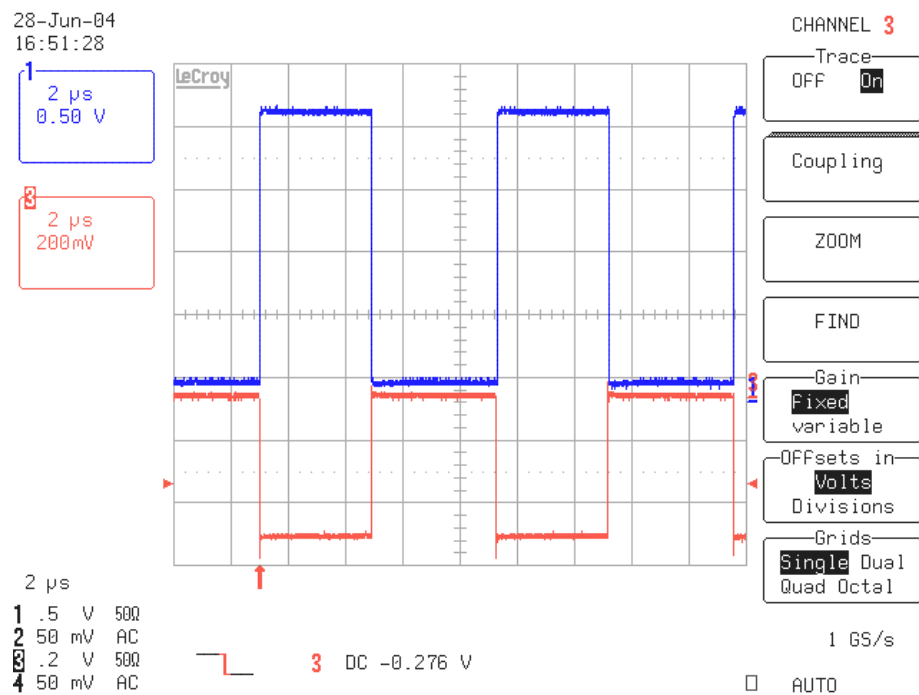


Fig 10 : Pulse shape obtained with front panel switch in normal position

5 Schematics

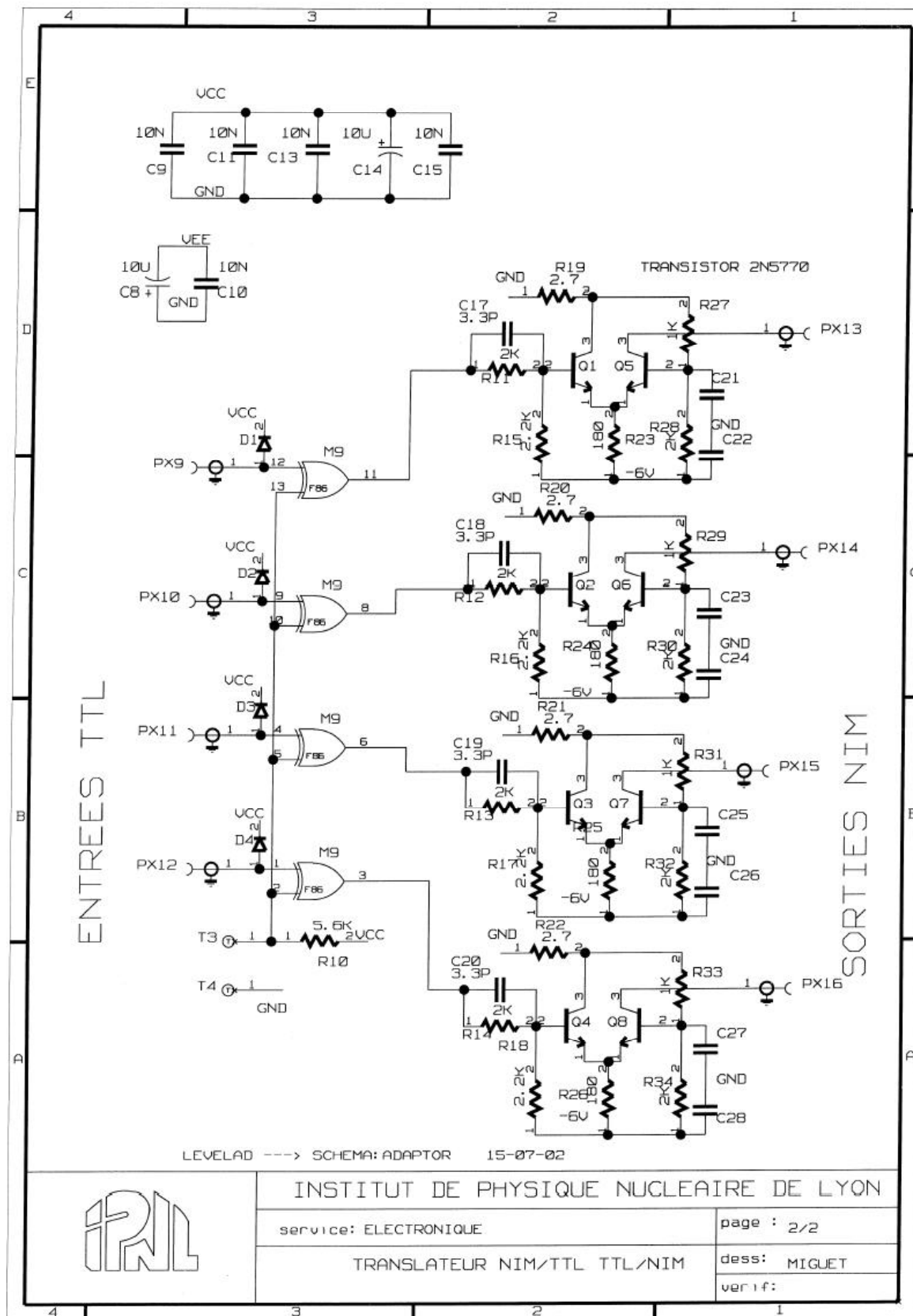


Fig 11 : Schematics (1/2)

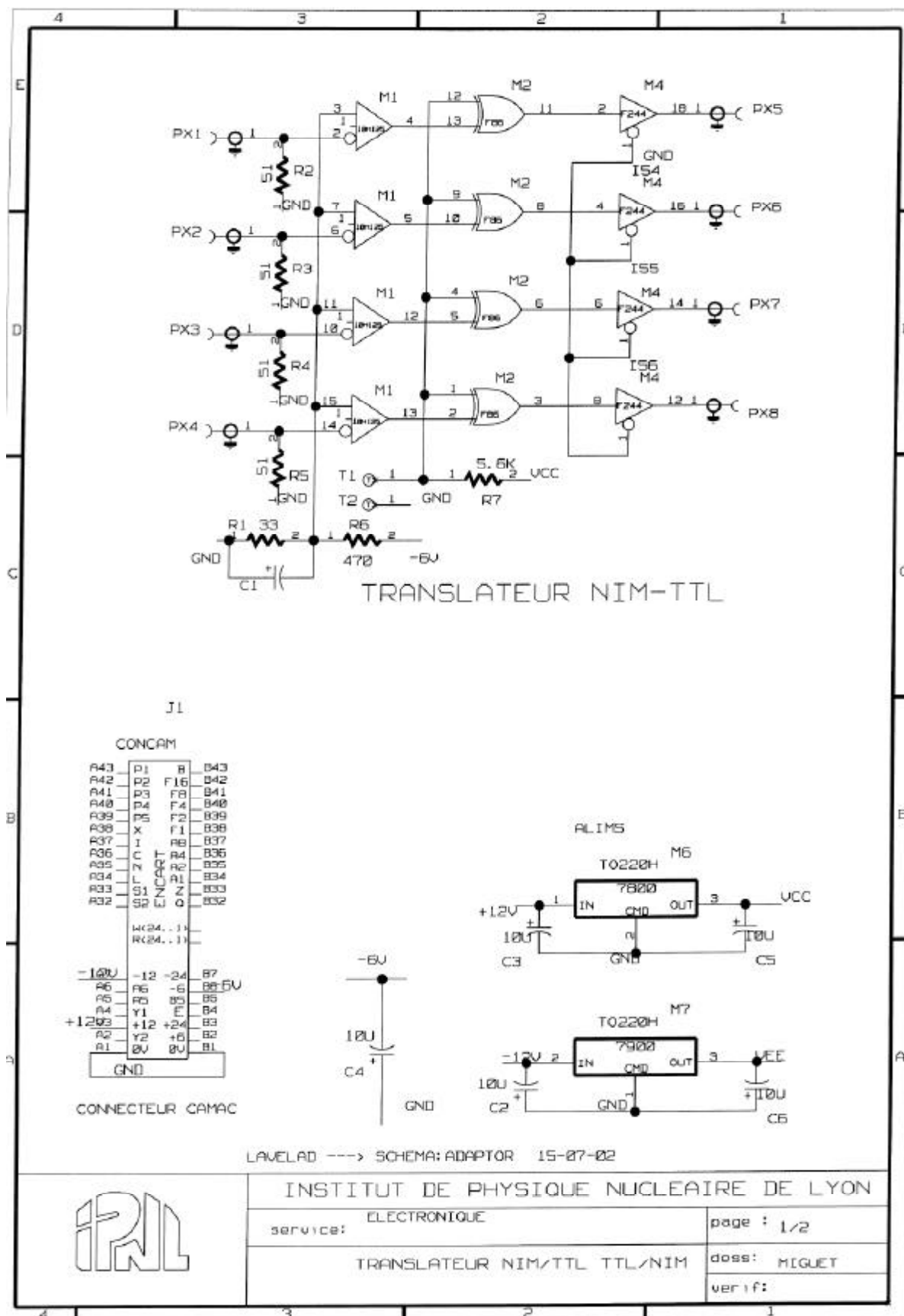


Fig 12 : Schematics (2/2)

6 Components overlay

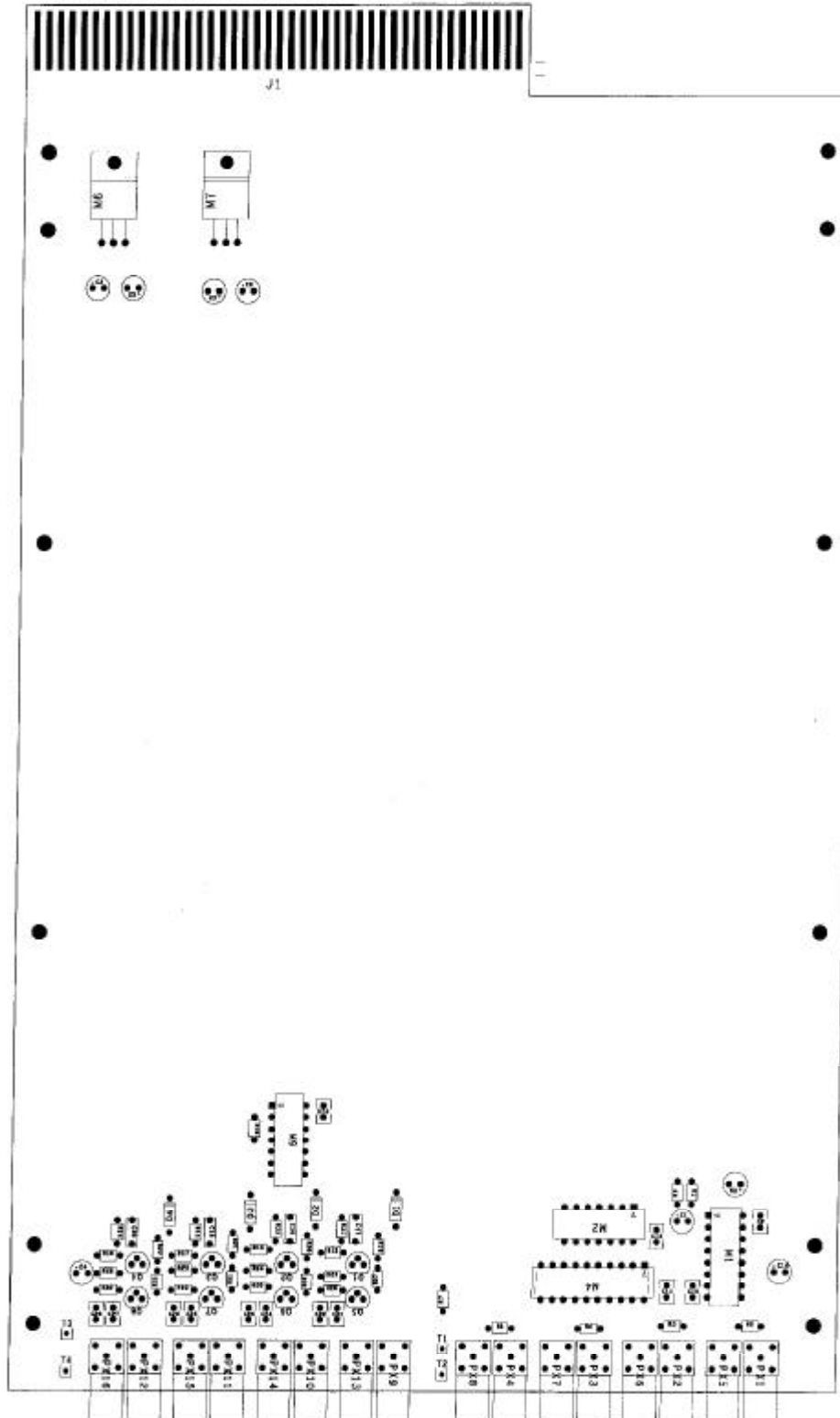


Fig 13 : Overlay