

## **INTRODUCTION TO CIRCUIT DESCRIPTIONS**

**7**

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## 7.0 INTRODUCTION TO CIRCUIT DESCRIPTIONS

### 7.1 GENERAL

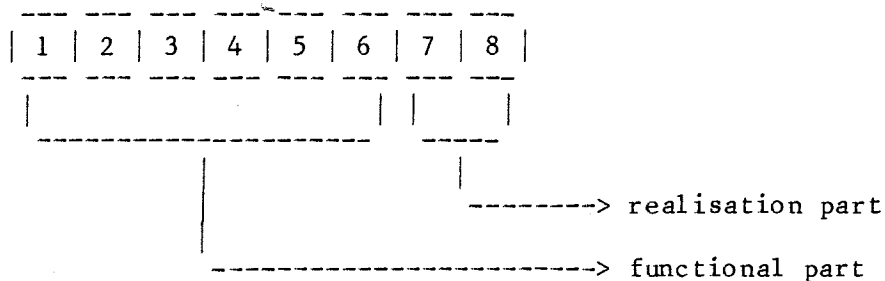
The functioning of the circuits is explained in chapter 8.0 "CIRCUIT DESCRIPTION" per unit in the sequence of the unit numbers (A ..). Every unit section contains the circuit description, the lay-out of the p.c.b., the circuit diagram(s) and a signal-name list, indicating the signal sources and signal flow.

### 7.2 EXPLANATION OF SIGNAL NAME SET UP

#### 7.2.1 Signal names

Signal names consists of 2 parts:

- a functional part of maximal 6 characters
- a realisation part of 2 characters



The realisation part is optional. If it is used then the functional parts should consist of 6 characters. If necessary dummy's (minus signs) are used in the functional part, to make it 6 characters long.

The first character of the realisation part has the following meaning:

- H: active high signal
- L: active low signal
- X: irrelevant (e.g. counter outputs)

The second character of the realisation part is used to identify signal levels:

- A: analogue
- E: ECL -4,5V or -5,2V
- T: TTL 5V or HCT
- X: other levels

Example: I L 0 7 - - L T

-----> TTL signal						-----> low active	
-----> dummy's						-----> Interrupt Level 7	

Sometimes the functional part can also be used for a serial number e.g. to indicate a buffered version of a signal.

Example: CHPT--Ø1

### 7.2.2 Signal name list

Each unit description in chapter 8.0 "CIRCUIT DESCRIPTIONS" contains a list with the signal names used in that unit given in alphabetical order.

Behind each name, a description is given and is mentioned on which unit the signal is generated.

Only if the signal is generated on the unit itself, the other units on which the signal is used (signal destination(s)) are mentioned, otherwise a minus sign is filled in.

If the signal flows over more units in sequence, the path is indicated.

Example: The battery voltage (BAVO) comes from unit A66 via A20, A19 and A12 to A6. On unit A66 is indicated: A20-A19-A12-A6.

Some signals may have more signal sources, because the sources have open collector output circuits, or 3-state output circuits.

In this case the sources are mentioned, separated with a plus (+) sign.

As signal source is always indicated, the unit where the signal is generated.

Example: On units A20, A19, A12 and A6, unit A66 is indicated as source.

A number of power supply lines and ground lines, which are generated on POWER 1 unit A19, are not mentioned on the signal name lists because they appear in almost every unit.

These signal names can be found on the signal name list of POWER 1 unit A19 itself, and are in the destination column indicated with "general".

Power supply lines, which are derived from the power supply lines mentioned above, are also not mentioned in the list.

The destinations of the data-bus and address-bus lines from the microprocessor system on MICROPROCESSOR unit A6 are also indicated with "general", because almost all units are involved. This is also done for the signals UPRD--LT (microprocessor read) and UPWR--LT (microprocessor write).