

PLD & Programmer Info

PLD info

There are many types of PLD usable on these cards.

And there is a Gal table for each card.

Where the type tested with the Jedec file used and the programming device to be used.

In addition to the types stated in the tables, the speed -7 and -10 type has also been tested for some.

These types also work, but are not in the tables because of their power consumption.

The power consumption of an PLD depends on the species: GAL, ATF, PALCE, and the chip option.

But also depends on the chip speed and the signal frequency to be processed.

The manufacturers use the following options to indicate the power consumption

"H" for half and "Q" for quarter.

But sometimes other options such as "L" for low and "Z" for Zero.

Combinations also occur such as "QZ" and "QL".

PLD Current Table.

Type	Typ. Current		Current ~5Mhz ±10%
GAL16V8A-15LP	75mA	< 15Mhz Typ. Currents from tables 5Mhz > calculated Normalized table factor	70mA
GAL16V8B-15LP	75mA		70mA
GAL16V8D-15LP	75mA		70mA
GAL16V8D-25LP	75mA		70mA
GAL22V10B-15LP	90mA		88mA
GAL22V10D-15LP	90mA		88mA
GAL22V10D-25LP	75mA		73mA
ATF16V8B-15PC	55mA	< 20Mhz extracted from table ICC vs. Frequency 5Mhz >	50mA
ATF16V8B-25PC	55mA		50mA
ATF16V8BQL-15PC	20mA		10mA
ATF22V10B-15PC	65mA		60mA
ATF22V10C-15PC	70mA		66mA
ATF22V10CQZ-20PC	40mA		18mA
PALCE16V8-15PC	75mA	< 20Mhz extracted from table ICC vs. Frequency 5Mhz >	73mA
PALCE16V8-25PC	65mA		60mA
PALCE16V8H-15PC/4	55mA		52mA
PALCE16V8H-25PC	55mA		52mA
PALCE16V8Q-15PC/4	35mA		55mA
PALCE16V8Z-15	30mA		15mA
PALCE16V8Z-25	25mA		10mA
PALCE22V10H-15PC/4	60mA		50mA
PALCE22V10H-25PC/4	55mA		45mA
PALCE22V10Q-25PC	40mA		30mA

The ATF and PALCE chips are using less power then the GAL -chips.

For a cool running system you can go for the ATF16V8BQL-15PC and the ATF22C10CQZ-20PC chips.

For the PALCE chips avoid the PALCE22V10H-25 and PALCE22V10Q-25,
unless you have a good programming device.

The PALCE16V8H-25 and the PALCE22V10 -15 speed are no problem.

Programmer info

GALEP-4

Processes all PLDs without problems.

Xgpro TL866II Plus

Has the PALCE chips, not in the device list.
Sometimes an PLD gives an error on this programmer,
but it can be programmed on the Galep-4 and even on the Top2013.
All vector test files are also available for this programmer,
do these tests to make sure that the PLD works correctly!

TOP2013

Has the PALCE chips in the device list.
But the PALCE22V10H-25 and the PALCE22V10G-25 cannot be selected.
The -15 types can be programmed.

TOP3000

This type has been updated via Top3001 and Top3002 to Top3002E.
However, the Top3002 series no longer works with the old version 8.xx software
but needs version 9.21, a version that Windows-XP does not support.

TOP3002E

Has the PALCE chips in the device list.
But the PALCE22V10H-25 and the PALCE22V10G-25 let the programmer crash!
Fortunately, the TOP3002 and the PALCE chips remain intact.

TOP3100

Will try to test one soon.

Remarks:

The top programming devices are not so good. There are strange things in the software.
None of the TOP units tested is able to program an "Intel D27256" eprom,
they all stop programing at address 0253.
The galep-4 and even the Xgpro TL866II Plus do the D27256 without a problem.
The TOP units will program this chip if you select as i27C256-12.7V, the device list is a mess.

