

Pynq-Z1™ Statement of Volatility

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 This document applies to the Pynq-Z1 rev. F.X

This document lists the location, purpose, capacity, volatility and (re)programmability of memory devices that may be installed on the Pynq-Z1 (SKU: 6003-410-017). The terms programmable and erasable refer to normal means of access available to the public. It does not include reverse-engineering or any other attempts to extract data from these devices.

The content of this document is provided for information purposes only.

Volatile Memory

IC	Memory Purpose	User programmable	User removable	Size	Reset procedure
XC7Z020-1CLG400C	Programmable Logic Cells	Yes	No	85120 cells	Remove power for 60 seconds
XC7Z020-1CLG400C	Block RAM	Yes	No	5040 Kib	Remove power for 60 seconds
XC7Z020-1CLG400C	L1 Cache	Yes	No	32 KB Instruction and 32 KB data per processor. There are two processors.	Remove power for 60 seconds
XC7Z020-1CLG400C	L2 Cache	Yes	No	512 KB shared between both processors.	Remove power for 60 seconds
XC7Z020-1CLG400C	On-chip Memory	Yes	No	256 KB	Remove power for 60 seconds
MT41K128M16[HA LY TW]-125, IS43TR16256A(L)-125KBL, IS43TR16256BL-107MBL, or V73CBG04168RDJ[J11 K13]	DDR3 Program / Data memory	Yes	No	4 Gib	Remove power for 60 seconds
RTL8211F-CG	Ethernet Transceiver	Yes	No	N/A	Remove power for 60 seconds
TUSB1210BRHBR	USB OTG Transceiver	Yes	No	N/A	Remove power for 60 seconds
SPK0833LM4H-B	Sigma-delta modulator flip-flop	No	No	N/A	Remove power for 60 seconds

Non-Volatile Memory

IC	Memory Purpose	Technology	User programmable	User removable	Size	Reset procedure
93LC56BT-I/OT	USB ID and Configuration	EEPROM	Yes	No	2 KiB	Available through support forum upon request
W25Q128JV[P S]IM	FPGA configuration, data storage	FLASH	Yes	No	128 Mib	Electrically erasable; Use iMPACT or Vivado Software Tools available from Xilinx
W25Q128JV[P S]IM	OTP / Security Register regions (Ethernet MAC Address)	FLASH	Yes, once	No	3 x 256 B	Non-erasable
Micro SD card slot	Data storage	FLASH	Yes	Yes	Varies	Remove SD card and clear through routine OS functions
TPS65400RGZ	PMIC configuration	N/A	No	No	N/A	Non-erasable
XC7Z020-1CLG400C	On-chip memory BootROM; Factory programmed with boot procedures	N/A	No	No	128 KiB	Non-erasable
XC7Z020-1CLG400C	eFUSE Registers for AES decryption, identifiers, and control	eFUSE	Yes, once	No	366 bits	Non-erasable