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Zentel offers parallel and serial SLC NAND Flash ICs for reliable Firmware

Firmware such as BIOS, EFI or UEFI used to be a domain of the more expensive NOR Flash ICs which were running into memory density or footprint constraints and moved to serial connectivity but this way dropped a key feature of direct code execution especially versus serial versions of Single-Level-Cell NAND Flash with a comparable typical 10 years data retention and endurance of 100,000 program/erase cycles as a likewise reliable cost-down alternative all covering a full industrial temperature range from -40°C to +85°C in memory densities of 1 or 2 GigaBit for 1.8V supply in compact WSON8 or 3.3V in LGA8 lead-less chip carrier packages both with a 6 x 8 mm footprint but also ONFI1.0 standard compliant 3.3V parallel versions in conventional 48TSOP1 12 x 20 mm SMT packages.

Individual part numbers are

- SPI 1.8V : ANR1GCP0BWS-BI for 1Gb or ANR2GCP0BWS-BI for 2Gb
- SPI 3.3V : ANV1GCP0CLG-BI for 1Gb or ANV2GCP0CLG-BI for 2Gb
- PPI 3.3V : ANV1GA30ATS-BI for 1Gb or ANV2GA30ATS-BI for 2Gb

SPI 1.8V key features:

- Standard, Dual and Quad SPI
- Read/Write access frequency option
- Internal data move page with ECC
- Bad-Block mapping management not required
- Low Power Consumption – 5mA

SPI 3.3V additional cyber-security features:

- On-chip ECC correction Program
- One Time Programmable (OTP) area
- Serial number (unique ID option - customizable)
- Volatile and Permanent Block Protection

Zentel is a pioneer in the development and production of cyber-resilient DRAM memory chips and modules. The company was founded in 2003 as a Japanese memory chip design center by the wafer manufacturer Powerchip from Taiwan and in 2006 took over further processing of the chips such as packaging, quality assurance and worldwide marketing and logistics of the encapsulated chips - more recently also for 1 and 2 GigaBit Single-Level-Cell NAND Flash ICs for firmware, BIOS, EFI or UEFI applications and DDR4 DRAM modules as well as first cyber-resilient 2 and 4 GigaByte DDR3L SODIMMs.