# Zentel SDRAM IC, DIMM & SLC NAND Flash IC Overview 2025

| Type | Density | Config | Voltage | Package | Base Part Number | Speed options end suffixes | Industrial Grade Price adder | Automotive Temp Price adder | MoQ - Tray | | MoQ - Tape&Reel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | click for datasheet | @ appropriate CAS Latency | | | Inner Box | Outer Box | Inner Box | Outer Box |
| SDRAM | 64Mb | 4Mx16 | 3.3V | TSOPII-54 | A3V64S40GTP | -60 = 166MHz @CL3 (Note) (Note) Cover "-70 = 143MHz @CL3" & "-75 = 133MHz @CL3" | 30 % | NA | 1.080 | 6.480 | 1.000 | 5.000 |
| SDRAM | 128Mb | 8Mx16 | 3.3V | TSOPII-54 | A3V28S40JTP | | 30 % | NA | 1.080 | 6.480 | 1.000 | 5.000 |
| SDRAM | 256Mb | 16Mx16 | 3.3V | TSOPII-54 | A3V56S40GTP | | 30 % | NA | 1.080 | 6.480 | 1.000 | 5.000 |
| SDRAM | 256Mb | 32Mx8 | 3.3V | TSOPII-54 | A3V56S30GTP | | 30 % | NA | 1.080 | 6.480 | 1.000 | 5.000 |
| DDR | 128Mb | 8Mx16 | 2.5V | TSOPII-66 | A3S28D40JTP | -50 = 200MHz @CL3 (Note) (Note) Cover "-60 = 166MHz @CL2.5" & "-75 = 133MHz @CL2" | 30 % | NA | 1.080 | 6.480 | 1.000 | 5.000 |
| DDR | 256Mb | 16Mx16 | 2.5V | TSOPII-66 | A3S56D40GTP | | 30 % | NA | 1.080 | 6.480 | 1.000 | 5.000 |
| DDR | 512Mb | 32Mx16 | 2.5V | TSOPII-66 | A3S12D40GTP | | 30 % | NA | 1.080 | 6.480 | 1.000 | 5.000 |
| DDR2 | 256Mb | 16Mx16 | 1.8V | FBGA-84 | A3R56E40ABF | AH = 1066 @CL7, 8E = 800 @CL5 | 30 % | 60 % | 2.000 | 12.000 | 2.000 | 10.000 |
| DDR2 | 512Mb | 32Mx16 | 1.8V | FBGA-84 | A3R12E40DBF | | 30 % | 60 % | 2.000 | 12.000 | 2.000 | 10.000 |
| DDR2 | 512Mb | 64Mx8 | 1.8V | FBGA-60 | A3R12E30DBF | | 30 % | 60 % | 2.420 | 14.520 | 2.000 | 10.000 |
| DDR2 | 1Gb | 64Mx16 | 1.8V | FBGA-84 | A3R1GE40JBF | | 30 % | 60 % | 2.000 | 12.000 | 2.500 | 12.500 |
| DDR2 | 1Gb | 128Mx8 | 1.8V | FBGA-60 | A3R1GE30JBF | | 30 % | 60 % | 2.420 | 14.520 | 2.000 | 10.000 |
| DDR2 | 2Gb | 128Mx16 | 1.8V | FBGA-84 | A3R2GE43JBF | | NA | NA | 2.000 | 12.000 | 2.000 | 10.000 |
| DDR3 | 1Gb | 64Mx16 | 1.5V | FBGA-96 | A3T1GF40CBF | HP = 1866 @CL13, GM = 1600 @CL11 | 30 % | 60 % | 1.900 | 11.400 | 2.000 | 10.000 |
| DDR3 | 1Gb | 128Mx8 | 1.5V | FBGA-78 | A3T1GF30CBF | HP = 1866 @CL13, GM = 1600 @CL11 | 30 % | 60 % | 2.200 | 13.200 | 2.000 | 10.000 |
| DDR3L | 1Gb | 64Mx16 | 1.35V/1.5V | FBGA-96 | A3T1GF40CBF | GML = 1600 @CL11 | 30 % | 60 % | 1.900 | 11.400 | 2.000 | 10.000 |
| DDR3L | 1Gb | 128Mx8 | 1.35V/1.5V | FBGA-78 | A3T1GF30CBF | GML = 1600 @CL11 | 30 % | 60 % | 2.200 | 13.200 | 2.000 | 10.000 |
| DDR3L | 2Gb | 128Mx16 | 1.35V/1.5V | FBGA-96 | A3T2GF40CBF | HP = 1866 @CL13 | 30 % | NA | 2.090 | 12.540 | 2.000 | 10.000 |
| DDR3L | 2Gb | 256Mx8 | 1.35V/1.5V | FBGA-78 | A3T2GF30CBF | HP = 1866 @CL13 | 30 % | NA | 2.420 | 14.520 | 2.000 | 10.000 |
| DDR3 | 2Gb | 128Mx16 | 1.5V | FBGA-96 | A3T2GF40CBF | JR = 2133 @ CL14 | 30 % | NA | 2.090 | 12.540 | 2.000 | 10.000 |
| DDR3L | 2Gb | 128Mx16 | 1.35V/1.5V | FBGA-96 | A3T2GF40CBF | JRL = 2133 @ CL14 | 30 % | NA | 2.090 | 12.540 | 2.000 | 10.000 |
| DDR3 | 2Gb | 256Mx8 | 1.5V | FBGA-78 | A3T2GF30CBF | JR = 2133 @ CL14 | 30 % | NA | 2.420 | 14.520 | 2.000 | 10.000 |
| DDR3L | 2Gb | 256Mx8 | 1.35V/1.5V | FBGA-78 | A3T2GF30CBF | JRL = 2133 @ CL14 | 30 % | NA | 2.420 | 14.520 | 2.000 | 10.000 |
| DDR3L | 4Gb | 256Mx16 | 1.35V/1.5V | FBGA-96 | A3T4GF40BBF | HP = 1866 @CL13 | 30 % | NA | 2.090 | 12.540 | 2.000 | 10.000 |
| DDR3L | 4Gb | 512Mx8 | 1.35V/1.5V | FBGA-78 | A3T4GF30BBF | HP = 1866 @CL13 | 30 % | NA | 2.420 | 14.520 | 2.000 | 10.000 |
| DDR3 | 4Gb | 256Mx16 | 1.5V | FBGA-96 | A3T4GF40BBF | JR = 2133 @ CL14 | 30 % | NA | 2.090 | 12.540 | 2.000 | 10.000 |
| DDR3L | 4Gb | 256Mx16 | 1.35V/1.5V | FBGA-96 | A3T4GF40BBF | JRL = 2133 @ CL14 | 30 % | NA | 2.090 | 12.540 | 2.000 | 10.000 |
| DDR3 | 4Gb | 512Mx8 | 1.5V | FBGA-78 | A3T4GF30BBF | JR = 2133 @ CL14 | 30 % | NA | 2.420 | 14.520 | 2.000 | 10.000 |
| DDR3L | 4Gb | 512Mx8 | 1.35V/1.5V | FBGA-78 | A3T4GF30BBF | JRL = 2133 @ CL14 | 30 % | NA | 2.420 | 14.520 | 2.000 | 10.000 |
| DDR3L | 4Gb ECC | 256M×16 | 1.35V/1.5V | FBGA-96 | A3T4GF40CBF | GM = 1600 @CL11, HP = 1866 @CL13 | 30 % | 60 % | 1.900 | 11.400 | 2.000 | 10.000 |
| DDR3L | 4Gb ECC | 512M × 8 | 1.35V/1.5V | FBGA-78 | A3T4GF30CBF | GM = 1600 @CL11, HP = 1866 @CL13 | 30 % | 60 % | 2.200 | 13.200 | 2.000 | 10.000 |
| DDR3L | 8Gb | 512Mx16 | 1.35V/1.5V | FBGA-96 | A3T8GF43BBF | HPL = 1866 @CL13 | 30 % | NA | 1.900 | 11.400 | 2.000 | 10.000 |
| DDR3L | 8Gb | 1Gx8 | 1.35V/1.5V | FBGA-78 | A3T8GF33BBF | HPL = 1866 @CL13 | 30 % | NA | 2.200 | 13.200 | 2.000 | 10.000 |
| DDR4 | 4Gb | 256Mx16 | 1.2V | FBGA-96 | A3F4GH40ABF | WD = 2666 @CL19 | 30 % | NA | 2.090 | 12.540 | 2.000 | 10.000 |
| DDR4 | 4Gb | 256Mx16 | 1.2V | FBGA-96 | A3F4GH40ABF | WD = 2666 @CL19, WC = 3200 @CL22 | NA | NA | 2.090 | 12.540 | N/A | N/A |
| DDR4 | 8Gb | 512Mx16 | 1.2V | FBGA-96 | A3F8GH40BBF | KD = 2666 @CL19, MC = 3200 @CL22 | NA | NA | 2.090 | 12.540 | N/A | N/A |
| | | | | | | | | | | | | |
| LPDDR4 | 4Gb | 2x 64Mx32 | 1.8V/1.1 | FBGA-200 | A8N4GH50BBA | PM = 3733 @WL/RL:18/36 | NA | NA | 1.200 | 7.200 | N/A | N/A |
| LPDDR4 | 8Gb | 2x 128Mx32 | 1.8V/1.1 | FBGA-200 | A8N8GH52ABF | PK = 3733 @WL/RL:16/32 | NA | NA | 1.200 | 7.200 | N/A | N/A |
| | | | | | | | | | | | | |
| LPDDR4x | 16Gb | 2x 256Mx32 | 1.8V/1.1/0.6 | FBGA-200 | A8XAGH50ABA | PM = 3733 @WL/RL:18/36 | NA | NA | 1.200 | 7.200 | N/A | N/A |
| LPDDR4x | 32Gb | 2x 512Mx32 | 1.8V/1.1/0.6 | FBGA-200 | A8XBGH52ABA | PM = 3733 @WL/RL:18/36 | NA | NA | 1.200 | 7.200 | N/A | N/A |
| Nand flash | PPI 1Gb | 128 M x 8 | 3.3 V | TSOP-48 | ANV1GA30ATS-BI | Page Size : (2048 + 64) bytes | 0 % | NA | 960 | 5.760 | N/A | N/A |
| Nand flash | PPI 2Gb | 256 M x 8 | 3.3 V | TSOP-48 | ANV2GA30ATS-BI | Page Size : (2048 + 128) bytes | 0 % | NA | 960 | 5.760 | N/A | N/A |
| Nand flash | SPI 1Gb | 128 M x 8 | 3.3 V | LGA8 | ANV1GCP0CLG-BI | Page Size : (2048 + 64) bytes | 0 % | NA | 4.800 | 28.800 | N/A | N/A |
| Nand flash | SPI 2Gb | 256 M x 8 | 3.3 V | LGA8 | ANV2GCP0CLG-BI | Page Size : (2048 + 128) bytes | 0 % | NA | 4.800 | 28.800 | N/A | N/A |
| Nand flash | SPI 1Gb | 128 M x 8 | 1.8 V | WSON8 | ANR1GCP0BWS-BI | Page Size : (2048 + 64) bytes | 0 % | NA | 4.800 | 28.800 | N/A | N/A |
| Nand flash | SPI 2Gb | 256 M x 8 | 1.8 V | WSON8 | ANR2GCP0BWS-BI | Page Size : (2048 + 128) bytes | 0 % | NA | 4.800 | 28.800 | N/A | N/A |
| DDR3 Module | 2GB SODIMM | 256 M x 8 | 1.35V | 204-pin | A6T2GF3SACA-HP | HP = 1866 @CL13 | NA | NA | 100 | 300 | N/A | N/A |
| DDR3 Module | 4GB SODIMM | 512 M x 8 | 1.35V | 204-pin | A6T4GF3SACA-HP | HP = 1866 @CL13 | NA | NA | 100 | 300 | N/A | N/A |
| DDR4 Module | 8GB SODIMM | 1Gx8 | 1.2V | 260-Pin | A6F8GH3SBCA-MC | MC = 3200 @CL22 | NA | NA | 100 | 300 | N/A | N/A |
| DDR4 Module | 16GB SODIMM | 2Gx8 (1Rx8) | 1.2V | 260-Pin | A6FAGH3SACA-MC | MC = 3200 @CL22 | NA | NA | 100 | 300 | N/A | N/A |
| DDR4 Module | 16GB SODIMM | 1Gx8 (2Rx8) | 1.2V | 260-Pin | A6FAGH3DBCA-MC | MC = 3200 @CL22 | NA | NA | 100 | 300 | N/A | N/A |
| | | | | | | | | | | | | |
| DDR4 Module | 8GB UDIMM | 1Gx8 | 1.2V | 288-Pin | A6F8GH3SBAA-MC | MC = 3200 @CL22 | NA | NA | 100 | 300 | N/A | N/A |
| DDR4 Module | 16GB UDIMM | 2Gx8 (1Rx8) | 1.2V | 288-Pin | A6FAGH3SAAA-MC | MC = 3200 @CL22 | NA | NA | 100 | 300 | N/A | N/A |
| DDR4 Module | 16GB UDIMM | 1Gx8 (2Rx8) | 1.2V | 288-Pin | A6FAGH3DBAA-MC | MC = 3200 @CL22 | NA | NA | 100 | 300 | N/A | N/A |