

ALTERA CPLDs



MAX V

MAX V architecture integrates previously external functions, such as flash, RAM, oscillators, and phase-locked loops

Features:

- Flash Memory: 8192 bits

For quantities greater than listed, call for quote.

| MOUSER STOCK NO. | Altera Part No. | Package | Logic Elements | Typical Equivalent Macrocells | Speed Grade | No. of I/Os | Delay Time tpdf(1) Max (ns) | Internal Voltage Supply (V) | Operating Temperature Range (°C) | Price Each | |
|--------------------|-----------------|----------|----------------|-------------------------------|-------------|-------------|-----------------------------|-----------------------------|----------------------------------|------------|---|
| | | | | | | | | | | 1 | 5 |
| 989-5M40ZE64C5N | 5M40ZE64C5N | EQFP-64 | 40 | 32 | -5 | 54 | 7.5 | 1.8 | 0 to 85 | | |
| 989-5M80ZE64C5N | 5M80ZE64C5N | EQFP-64 | 80 | 64 | -5 | 54 | 7.5 | 1.8 | 0 to 85 | | |
| 989-5M80ZE64I5N | 5M80ZE64I5N | EQFP-64 | 80 | 64 | -5 | 54 | 7.5 | 1.8 | -40 to 100 | | |
| 989-5M80ZM64C5N | 5M80ZM64C5N | MBGA-64 | 80 | 64 | -5 | 30 | 7.5 | 1.8 | 0 to 85 | | |
| 989-5M80ZT100C5N | 5M80ZT100C5N | TQFP-100 | 80 | 64 | -5 | 79 | 7.5 | 1.8 | 0 to 85 | | |
| 989-5M160ZE64C5N | 5M160ZE64C5N | EQFP-64 | 160 | 128 | -5 | 54 | 7.5 | 1.8 | 0 to 85 | | |
| 989-5M160ZT100C5N | 5M160ZT100C5N | TQFP-100 | 160 | 128 | -5 | 79 | 7.5 | 1.8 | 0 to 85 | | |
| 989-5M240ZT100C5N | 5M240ZT100C5N | TQFP-100 | 240 | 192 | -5 | 79 | 7.5 | 1.8 | 0 to 85 | | |
| 989-5M240ZT144C5N | 5M240ZT144C5N | TQFP-144 | 240 | 192 | -5 | 114 | 7.5 | 1.8 | 0 to 85 | | |
| 989-5M570ZF256C5N | 5M570ZF256C5N | FBGA-256 | 570 | 440 | -5 | 159 | 9 | 1.8 | 0 to 85 | | |
| 989-5M570ZT100C5N | 5M570ZT100C5N | TQFP-100 | 570 | 440 | -5 | 74 | 9 | 1.8 | 0 to 85 | | |
| 989-5M570ZT100I5N | 5M570ZT100I5N | TQFP-100 | 570 | 440 | -5 | 74 | 9 | 1.8 | -40 to 100 | | |
| 989-5M1270ZF256C5N | 5M1270ZF256C5N | FBGA-256 | 1270 | 980 | -5 | 211 | 6.2 | 1.8 | 0 to 85 | | |
| 989-5M1270ZF256I5N | 5M1270ZF256I5N | FBGA-256 | 1270 | 980 | -5 | 211 | 6.2 | 1.8 | -40 to 100 | | |
| 989-5M1270ZT144C5N | 5M1270ZT144C5N | TQFP-144 | 1270 | 980 | -5 | 114 | 6.2 | 1.8 | 0 to 85 | | |
| 989-5M2210ZF256C4N | 5M2210ZF256C4N | FBGA-256 | 2210 | 1700 | -4 | 203 | 7 | 1.8 | 0 to 85 | | |
| 989-5M2210ZF256C5N | 5M2210ZF256C5N | FBGA-256 | 2210 | 1700 | -5 | 203 | 7 | 1.8 | 0 to 85 | | |
| 989-5M2210ZF256I5N | 5M2210ZF256I5N | FBGA-256 | 2210 | 1700 | -5 | 203 | 7 | 1.8 | -40 to 100 | | |

MAX II

Low cost, low power CPLDs

For quantities greater than listed, call for quote.

| MOUSER STOCK NO. | Altera Part No. | Package | Logic Elements | Typical Equivalent Macrocells | Speed Grade | No. of I/Os | Delay Time tpdf(1) Max (ns) | Internal Voltage Supply (V) | Operating Temperature Range (°C) | Price Each | |
|---------------------|-----------------|----------|----------------|-------------------------------|-------------|-------------|-----------------------------|-----------------------------|----------------------------------|------------|---|
| | | | | | | | | | | 1 | 5 |
| 989-EPM1270F256C5N | EPM1270F256C5N | FBGA-256 | 1270 | 980 | -5 | 212 | 6.2 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM1270F256I5N | EPM1270F256I5N | FBGA-256 | 1270 | 980 | -5 | 212 | 6.2 | 2.5, 3.3 | -40 to 100 | | |
| 989-EPM1270GF256I5N | EPM1270GF256I5N | FBGA-256 | 1270 | 980 | -5 | 212 | 6.2 | 1.8 | -40 to 100 | | |
| 989-EPM1270GT144C5N | EPM1270GT144C5N | TQFP-144 | 1270 | 980 | -5 | 116 | 6.2 | 1.8 | 0 to 85 | | |
| 989-EPM1270M256C5N | EPM1270M256C5N | MBGA-256 | 1270 | 980 | -5 | 212 | 6.2 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM1270T144C3N | EPM1270T144C3N | LQFP-144 | 1270 | 980 | -3 | 116 | 6.2 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM1270T144C5N | EPM1270T144C5N | LQFP-144 | 1270 | 980 | -5 | 116 | 6.2 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM1270T144I5N | EPM1270T144I5N | LQFP-144 | 1270 | 980 | -5 | 116 | 6.2 | 2.5, 3.3 | -40 to 100 | | |
| 989-EPM2210F256C3N | EPM2210F256C3N | BGA-256 | 2210 | 1700 | -3 | 204 | 7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM2210F256C5N | EPM2210F256C5N | FBGA-256 | 2210 | 1700 | -5 | 204 | 7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM2210F256I5N | EPM2210F256I5N | FBGA-256 | 2210 | 1700 | -5 | 204 | 7 | 2.5, 3.3 | -40 to 100 | | |
| 989-EPM2210F324C3N | EPM2210F324C3N | FBGA-324 | 2210 | 1700 | -3 | 272 | 7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM2210F324C4N | EPM2210F324C4N | BGA-324 | 2210 | 1700 | -4 | 272 | 7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM2210F324C5N | EPM2210F324C5N | FBGA-324 | 2210 | 1700 | -5 | 272 | 7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM2210GF256C3N | EPM2210GF256C3N | FBGA-256 | 2210 | 1700 | -3 | 204 | 7 | 1.8 | 0 to 85 | | |
| 989-EPM2210GF256C5N | EPM2210GF256C5N | FBGA-256 | 2210 | 1700 | -5 | 204 | 7 | 1.8 | 0 to 85 | | |
| 989-EPM240F100C4N | EPM240F100C4N | FBGA-100 | 240 | 192 | -4 | 80 | 4.7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM240F100C5N | EPM240F100C5N | FBGA-100 | 240 | 192 | -5 | 80 | 4.7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM240F100I5N | EPM240F100I5N | LBGA-100 | 240 | 192 | -5 | 80 | 4.7 | 2.5, 3.3 | -40 to 100 | | |
| 989-EPM240GF100I5N | EPM240GF100I5N | LBGA-100 | 240 | 192 | -5 | 80 | 4.7 | 1.8 | -40 to 100 | | |
| 989-EPM240GT100C5N | EPM240GT100C5N | TQFP-100 | 240 | 192 | -5 | 80 | 7.7 | 1.8 | 0 to 85 | | |
| 989-EPM240GT100I5N | EPM240GT100I5N | TQFP-100 | 240 | 192 | -5 | 80 | 4.7 | 1.8 | -40 to 100 | | |
| 989-EPM240M100C4N | EPM240M100C4N | MBGA-100 | 240 | 192 | -4 | 80 | 4.7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM240M100I5N | EPM240M100I5N | MBGA-100 | 240 | 192 | -5 | 80 | 4.7 | 2.5, 3.3 | -40 to 100 | | |
| 989-EPM240T100C3N | EPM240T100C3N | TQFP-100 | 240 | 192 | -3 | 80 | 4.7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM240T100C4N | EPM240T100C4N | TQFP-100 | 240 | 192 | -4 | 80 | 4.7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM240T100C5N | EPM240T100C5N | TQFP-100 | 240 | 192 | -5 | 80 | 4.7 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM240T100I5N | EPM240T100I5N | TQFP-100 | 240 | 192 | -5 | 80 | 4.7 | 2.5, 3.3 | -40 to 100 | | |
| 989-EPM240ZM100C6N | EPM240ZM100C6N | TQFP-100 | 240 | 192 | -6 | 80 | 7.5 | 1.8 | 0 to 85 | | |
| 989-EPM240ZM100I8N | EPM240ZM100I8N | TQFP-100 | 240 | 192 | -8 | 80 | 7.5 | 1.8 | -40 to 100 | | |
| 989-EPM240ZM68C7N | EPM240ZM68C7N | MBGA-100 | 240 | 192 | -7 | 54 | 7.5 | 1.8 | 0 to 85 | | |
| 989-EPM570F100C5N | EPM570F100C5N | FBGA-100 | 570 | 440 | -5 | 76 | 5.4 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM570F100I5N | EPM570F100I5N | LBGA-100 | 570 | 440 | -5 | 76 | 5.4 | 2.5, 3.3 | -40 to 100 | | |
| 989-EPM570F256C5N | EPM570F256C5N | FBGA-256 | 570 | 440 | -5 | 160 | 5.4 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM570F256I5N | EPM570F256I5N | FBGA-256 | 570 | 440 | -5 | 160 | 5.4 | 2.5, 3.3 | -40 to 100 | | |
| 989-EPM570GF256C5N | EPM570GF256C5N | FBGA-256 | 570 | 440 | -5 | 160 | 5.4 | 1.8 | 0 to 85 | | |
| 989-EPM570M100C5N | EPM570M100C5N | MBGA-100 | 570 | 440 | -5 | 76 | 5.4 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM570T100C3N | EPM570T100C3N | TQFP-100 | 570 | 440 | -3 | 76 | 5.4 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM570T100C5N | EPM570T100C5N | TQFP-100 | 570 | 440 | -5 | 76 | 5.4 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM570T100I5N | EPM570T100I5N | TQFP-100 | 570 | 440 | -5 | 76 | 5.4 | 2.5, 3.3 | -40 to 100 | | |
| 989-EPM570T144C5N | EPM570T144C5N | TQFP-100 | 570 | 440 | -5 | 116 | 5.4 | 2.5, 3.3 | 0 to 85 | | |
| 989-EPM570T144I5N | EPM570T144I5N | TQFP-144 | 570 | 440 | -5 | 116 | 5.4 | 2.5, 3.3 | -40 to 100 | | |

MAX 3000A

For quantities greater than listed, call for quote.

| MOUSER STOCK NO. | Altera Part No. | Package | Logic Elements | Typical Equivalent Macrocells | Speed Grade | No. of Gates | No. of I/Os | Delay Time tpdf(1) Max (ns) | Internal Voltage Supply (V) | Operating Temperature Range (°C) | Price Each | |
|----------------------|-------------------|----------|----------------|-------------------------------|-------------|--------------|-------------|-----------------------------|-----------------------------|----------------------------------|------------|---|
| | | | | | | | | | | | 1 | 5 |
| 989-EPM3032ATC44-10N | EPM3032ATC44-10N | TQFP-44 | 2 | 32 | -10 | 600 | 34 | 10 | 3.3 | 0 to 85 | | |
| 989-EPM3032ATC44-4N | EPM3032ATC44-4N | TQFP-44 | 2 | 32 | -4 | 600 | 34 | 4.5 | 3.3 | 0 to 85 | | |
| 989-EPM3032ATI44-10N | EPM3032ATI44-10N | TQFP-44 | 2 | 32 | -10 | 600 | 34 | 10 | 3.3 | -40 to 100 | | |
| 989-EPM3064ALC44-10N | EPM3064ALC44-10N | PLCC-44 | 4 | 64 | -10 | 1250 | 34 | 10 | 3.3 | 0 to 85 | | |
| 989-EPM3064ATC10010N | EPM3064ATC100-10N | TQFP-100 | 4 | 64 | -10 | 1250 | 66 | 10 | 3.3 | 0 to 85 | | |
| 989-EPM3064ATC44-10N | EPM3064ATC44-10N | TQFP-44 | 4 | 64 | -10 | 1250 | 34 | 10 | 3.3 | 0 to 85 | | |
| 989-EPM3064ATC44-4N | EPM3064ATC44-4N | TQFP-44 | 4 | 64 | -4 | 1250 | 34 | 4.5 | 3.3 | 0 to 85 | | |
| 989-EPM3064ATI10010N | EPM3064ATI100-10N | TQFP-100 | 4 | 64 | -10 | 1250 | 66 | 10 | 3.3 | -40 to 100 | | |
| 989-EPM3064ATI44-10N | EPM3064ATI44-10N | TQFP-44 | 4 | 64 | -10 | 1250 | 34 | 10 | 3.3 | -40 to 100 | | |
| 989-EPM3128ATC10010N | EPM3128ATC100-10N | TQFP-100 | 8 | 128 | -10 | 2500 | 80 | 10 | 3.3 | 0 to 85 | | |
| 989-EPM3128ATC100-5N | EPM3128ATC100-5N | TQFP-100 | 8 | 128 | -5 | 2500 | 80 | 5 | 3.3 | 0 to 85 | | |
| 989-EPM3128ATC100-7N | EPM3128ATC100-7N | TQFP-100 | 8 | 128 | -7 | 2500 | 80 | 7.5 | 3.3 | 0 to 85 | | |
| 989-EPM3128ATC144-5N | EPM3128ATC144-5N | TQFP-144 | 8 | 128 | -5 | 2500 | 96 | 5 | 3.3 | 0 to 85 | | |
| 989-EPM3128ATI10010N | EPM3128ATI100-10N | TQFP-100 | 8 | 128 | -10 | 2500 | 80 | 10 | 3.3 | -40 to 100 | | |
| 989-EPM3256AQC20810N | EPM3256AQC208-10N | PQFP-208 | 16 | 256 | -10 | 5000 | 158 | 10 | 3.3 | 0 to 85 | | |
| 989-EPM3256ATC14410N | EPM3256ATC144-10N | TQFP-144 | 16 | 256 | -10 | 5000 | 116 | 10 | 3.3 | 0 to 85 | | |
| 989-EPM3256ATC144-7N | EPM3256ATC144-7N | TQFP-144 | 16 | 256 | -7 | 5000 | 116 | 7.5 | 3.3 | 0 to 85 | | |