
Design Simulation Results



CELL: BD2SCARUDQPCH_EXT_CSF_1V8_FC_OUTER

TIMING

Arc: IO-ZI

Dependancy: HYST

| Delay/Transition | Mode | Slope(nS) | Load(pF) | Min(nS) | Max(nS) |
|------------------|------|-----------|----------|-----------|----------|
| RiseDelay | 0 | 1.66 | 0.2 | 0.447264 | 7.21779 |
| RiseDelay | 1 | 1.66 | 0.2 | 0.762229 | 8.03791 |
| FallDelay | 0 | 1.66 | 0.2 | 0.534676 | 7.93263 |
| FallDelay | 1 | 1.66 | 0.2 | 0.828589 | 9.36177 |
| RiseTransition | 0 | 1.66 | 0.2 | 0.0133307 | 0.149889 |
| RiseTransition | 1 | 1.66 | 0.2 | 0.0128825 | 0.149967 |
| FallTransition | 0 | 1.66 | 0.2 | 0.0224635 | 0.142756 |
| FallTransition | 1 | 1.66 | 0.2 | 0.0230111 | 0.14395 |

TIMING

Arc: A-IO

Dependancy: LOWEMI

| Delay/Transition | Mode | Slope(nS) | Load(pF) | Min(nS) | Max(nS) |
|------------------|------|-----------|----------|----------|---------|
| RiseDelay | 0 | 0.1 | 15 | 1.43091 | 4.13899 |
| RiseDelay | 1 | 0.1 | 15 | 1.68164 | 4.92613 |
| FallDelay | 0 | 0.1 | 15 | 1.36632 | 3.63763 |
| FallDelay | 1 | 0.1 | 15 | 1.67271 | 4.66117 |
| RiseTransition | 0 | 0.1 | 15 | 0.666604 | 1.87787 |
| RiseTransition | 1 | 0.1 | 15 | 0.713407 | 2.04565 |
| FallTransition | 0 | 0.1 | 15 | 0.740164 | 1.93952 |
| FallTransition | 1 | 0.1 | 15 | 0.792833 | 2.12225 |

LEAKAGE

Rail: vdde1v8

Dependancy: PUN PDN PUN15K LOWEMI HYST

| Leakpower | Mode | Min(uW) | Max(uW) |
|-----------|------|---------|---------|
|-----------|------|---------|---------|



| | | | |
|---------|-------|-----------|-------|
| Leakage | 0010X | 0.0002652 | 3.873 |
| Leakage | 00110 | 0.0002652 | 3.873 |
| Leakage | 00111 | 0.0002652 | 3.922 |
| Leakage | 0110X | 0.0002573 | 71.19 |
| Leakage | 01110 | 0.0002573 | 71.19 |
| Leakage | 01111 | 0.0002652 | 71.19 |
| Leakage | 10100 | 0.0007192 | 77.6 |
| Leakage | 10101 | 0.00073 | 77.6 |
| Leakage | 1011X | 0.00073 | 77.6 |
| Leakage | 110XX | 0.0002652 | 246.7 |
| Leakage | 11100 | 0.0002573 | 3.835 |
| Leakage | 11101 | 0.0002652 | 3.873 |
| Leakage | 1111X | 0.0002652 | 3.873 |

LEAKAGE

Rail: vdd

Dependancy: PUN PDN PUN15K LOWEMI HYST

| Leakpower | Mode | Min(uW) | Max(uW) |
|-----------|-------|-----------|---------|
| Leakage | 00100 | 0.0001756 | 6.182 |
| Leakage | 00101 | 0.0001766 | 6.182 |
| Leakage | 00110 | 0.0001766 | 6.182 |
| Leakage | 00111 | 0.0001766 | 6.303 |
| Leakage | 011XX | 0.0001759 | 6.182 |
| Leakage | 10100 | 0.0001756 | 6.104 |
| Leakage | 10101 | 0.0001766 | 6.104 |
| Leakage | 1011X | 0.0001766 | 6.104 |
| Leakage | 1100X | 0.0001769 | 6.182 |
| Leakage | 11010 | 0.0001769 | 6.182 |
| Leakage | 11011 | 0.0001769 | 6.237 |
| Leakage | 11101 | 0.0001767 | 6.182 |
| Leakage | 11111 | 0.0001766 | 6.182 |
| Leakage | 111X0 | 0.0001756 | 6.182 |



CELL: BD4SCARUDQPCH_EXT_CSF_1V8_FC_OUTER

TIMING

Arc: A-IO

Dependancy: LOWEMI

| Delay/Transition | Mode | Slope(nS) | Load(pF) | Min(nS) | Max(nS) |
|------------------|------|-----------|----------|----------|---------|
| RiseDelay | 0 | 0.1 | 15 | 1.02522 | 2.997 |
| RiseDelay | 1 | 0.1 | 15 | 1.21386 | 3.53714 |
| FallDelay | 0 | 0.1 | 15 | 0.986742 | 2.76364 |
| FallDelay | 1 | 0.1 | 15 | 1.19542 | 3.40437 |
| RiseTransition | 0 | 0.1 | 15 | 0.379531 | 1.09472 |
| RiseTransition | 1 | 0.1 | 15 | 0.418482 | 1.21203 |
| FallTransition | 0 | 0.1 | 15 | 0.407378 | 1.098 |
| FallTransition | 1 | 0.1 | 15 | 0.454266 | 1.25167 |

TIMING

Arc: IO-ZI

Dependancy: HYST

| Delay/Transition | Mode | Slope(nS) | Load(pF) | Min(nS) | Max(nS) |
|------------------|------|-----------|----------|-----------|----------|
| RiseDelay | 0 | 1.66 | 0.2 | 0.447868 | 7.13672 |
| RiseDelay | 1 | 1.66 | 0.2 | 0.759173 | 8.02996 |
| FallDelay | 0 | 1.66 | 0.2 | 0.535446 | 7.87317 |
| FallDelay | 1 | 1.66 | 0.2 | 0.825915 | 9.32356 |
| RiseTransition | 0 | 1.66 | 0.2 | 0.0132034 | 0.149826 |
| RiseTransition | 1 | 1.66 | 0.2 | 0.01326 | 0.14993 |
| FallTransition | 0 | 1.66 | 0.2 | 0.0229455 | 0.141224 |
| FallTransition | 1 | 1.66 | 0.2 | 0.0224286 | 0.140521 |

LEAKAGE

Rail: vdde1v8

Dependancy: PUN PDN PUN15K LOWEMI HYST

| Leakpower | Mode | Min(uW) | Max(uW) |
|-----------|------|---------|---------|
|-----------|------|---------|---------|



| | | | |
|---------|-------|-----------|-------|
| Leakage | 0010X | 0.0002831 | 4.944 |
| Leakage | 00110 | 0.0002831 | 4.944 |
| Leakage | 00111 | 0.0002849 | 4.944 |
| Leakage | 01100 | 0.0002751 | 71.19 |
| Leakage | 01110 | 0.0002773 | 71.19 |
| Leakage | 011X1 | 0.0002831 | 71.19 |
| Leakage | 10100 | 0.0007364 | 77.6 |
| Leakage | 10101 | 0.0007485 | 77.6 |
| Leakage | 1011X | 0.0007485 | 77.6 |
| Leakage | 1100X | 0.0002831 | 246.7 |
| Leakage | 11010 | 0.0002831 | 246.7 |
| Leakage | 11011 | 0.0002849 | 246.7 |
| Leakage | 11100 | 0.0002773 | 4.944 |
| Leakage | 11101 | 0.0002831 | 4.944 |
| Leakage | 1111X | 0.0002831 | 4.944 |

LEAKAGE

Rail: vdd

Dependancy: PUN PDN PUN15K LOWEMI HYST

| Leakpower | Mode | Min(uW) | Max(uW) |
|-----------|-------|-----------|---------|
| Leakage | 00100 | 0.0001762 | 6.183 |
| Leakage | 00101 | 0.000177 | 6.183 |
| Leakage | 00110 | 0.000177 | 6.183 |
| Leakage | 00111 | 0.000177 | 6.234 |
| Leakage | 011XX | 0.0001764 | 6.183 |
| Leakage | 10100 | 0.0001762 | 6.106 |
| Leakage | 10101 | 0.000177 | 6.106 |
| Leakage | 1011X | 0.000177 | 6.106 |
| Leakage | 1100X | 0.0001774 | 6.183 |
| Leakage | 11010 | 0.0001774 | 6.183 |
| Leakage | 11011 | 0.0001774 | 6.234 |
| Leakage | 11101 | 0.0001772 | 6.183 |



| | | | |
|---------|-------|-----------|-------|
| Leakage | 11111 | 0.000177 | 6.183 |
| Leakage | 111X0 | 0.0001762 | 6.183 |



CELL: BD6SCARUDQPCH_EXT_CSF_1V8_FC_OUTER

TIMING

Arc: A-IO

Dependancy: LOWEMI

| Delay/Transition | Mode | Slope(nS) | Load(pF) | Min(nS) | Max(nS) |
|------------------|------|-----------|----------|----------|----------|
| RiseDelay | 0 | 0.1 | 15 | 0.892854 | 2.63704 |
| RiseDelay | 1 | 0.1 | 15 | 1.12266 | 3.33916 |
| FallDelay | 0 | 0.1 | 15 | 0.913371 | 2.60726 |
| FallDelay | 1 | 0.1 | 15 | 1.14565 | 3.31932 |
| RiseTransition | 0 | 0.1 | 15 | 0.307579 | 0.896901 |
| RiseTransition | 1 | 0.1 | 15 | 0.359861 | 1.07097 |
| FallTransition | 0 | 0.1 | 15 | 0.323393 | 0.887359 |
| FallTransition | 1 | 0.1 | 15 | 0.3799 | 1.06593 |

TIMING

Arc: IO-ZI

Dependancy: HYST

| Delay/Transition | Mode | Slope(nS) | Load(pF) | Min(nS) | Max(nS) |
|------------------|------|-----------|----------|-----------|----------|
| RiseDelay | 0 | 1.66 | 0.2 | 0.448772 | 7.21228 |
| RiseDelay | 1 | 1.66 | 0.2 | 0.758065 | 7.92928 |
| FallDelay | 0 | 1.66 | 0.2 | 0.537755 | 8.27306 |
| FallDelay | 1 | 1.66 | 0.2 | 0.833044 | 9.45813 |
| RiseTransition | 0 | 1.66 | 0.2 | 0.0132714 | 0.149806 |
| RiseTransition | 1 | 1.66 | 0.2 | 0.0129789 | 0.146255 |
| FallTransition | 0 | 1.66 | 0.2 | 0.02293 | 0.141279 |
| FallTransition | 1 | 1.66 | 0.2 | 0.022886 | 0.141311 |

LEAKAGE

Rail: vdde1v8

Dependancy: PUN PDN PUN15K LOWEMI HYST

| Leakpower | Mode | Min(uW) | Max(uW) |
|-----------|------|---------|---------|
|-----------|------|---------|---------|



| | | | |
|---------|-------|-----------|-------|
| Leakage | 0010X | 0.0002922 | 5.64 |
| Leakage | 00110 | 0.0002922 | 5.64 |
| Leakage | 00111 | 0.0003005 | 5.64 |
| Leakage | 01100 | 0.0002846 | 71.19 |
| Leakage | 01101 | 0.0002857 | 71.19 |
| Leakage | 0111X | 0.0002922 | 71.19 |
| Leakage | 101XX | 0.000743 | 77.6 |
| Leakage | 1100X | 0.0002922 | 246.7 |
| Leakage | 11010 | 0.0002922 | 246.7 |
| Leakage | 11011 | 0.0003005 | 246.7 |
| Leakage | 111XX | 0.0002922 | 5.64 |

LEAKAGE

Rail: vdd

Depandancy: PUN PDN PUN15K LOWEMI HYST

| Leakpower | Mode | Min(uW) | Max(uW) |
|-----------|-------|-----------|---------|
| Leakage | 0010X | 0.0001771 | 6.181 |
| Leakage | 00110 | 0.0001771 | 6.181 |
| Leakage | 00111 | 0.0001771 | 6.208 |
| Leakage | 011XX | 0.0001764 | 6.181 |
| Leakage | 101XX | 0.0001771 | 6.1 |
| Leakage | 1100X | 0.0001774 | 6.181 |
| Leakage | 11010 | 0.0001774 | 6.181 |
| Leakage | 11011 | 0.0001774 | 6.208 |
| Leakage | 111X0 | 0.0001759 | 6.181 |
| Leakage | 111X1 | 0.0001771 | 6.181 |



CELL: BD8SCARUDQPCH_EXT_CSF_1V8_FC_OUTER

TIMING

Arc: IO-ZI

Dependancy: HYST

| Delay/Transition | Mode | Slope(nS) | Load(pF) | Min(nS) | Max(nS) |
|------------------|------|-----------|----------|-----------|----------|
| RiseDelay | 0 | 1.66 | 0.2 | 0.447215 | 7.14164 |
| RiseDelay | 1 | 1.66 | 0.2 | 0.759298 | 7.93883 |
| FallDelay | 0 | 1.66 | 0.2 | 0.536066 | 8.01118 |
| FallDelay | 1 | 1.66 | 0.2 | 0.82557 | 9.3469 |
| RiseTransition | 0 | 1.66 | 0.2 | 0.0132789 | 0.149889 |
| RiseTransition | 1 | 1.66 | 0.2 | 0.01299 | 0.150011 |
| FallTransition | 0 | 1.66 | 0.2 | 0.0229306 | 0.140664 |
| FallTransition | 1 | 1.66 | 0.2 | 0.0230707 | 0.140639 |

TIMING

Arc: A-IO

Dependancy: LOWEMI

| Delay/Transition | Mode | Slope(nS) | Load(pF) | Min(nS) | Max(nS) |
|------------------|------|-----------|----------|----------|----------|
| RiseDelay | 0 | 0.1 | 15 | 0.818095 | 2.41985 |
| RiseDelay | 1 | 0.1 | 15 | 1.06316 | 3.16957 |
| FallDelay | 0 | 0.1 | 15 | 0.828862 | 2.37239 |
| FallDelay | 1 | 0.1 | 15 | 1.02849 | 2.99117 |
| RiseTransition | 0 | 0.1 | 15 | 0.258856 | 0.757567 |
| RiseTransition | 1 | 0.1 | 15 | 0.317556 | 0.948951 |
| FallTransition | 0 | 0.1 | 15 | 0.266236 | 0.731051 |
| FallTransition | 1 | 0.1 | 15 | 0.314719 | 0.900292 |

LEAKAGE

Rail: vdde1v8

Dependancy: PUN PDN PUN15K LOWEMI HYST

| Leakpower | Mode | Min(uW) | Max(uW) |
|-----------|------|---------|---------|
|-----------|------|---------|---------|



| | | | |
|---------|-------|-----------|-------|
| Leakage | 0010X | 0.0002945 | 6.574 |
| Leakage | 00110 | 0.0002945 | 6.574 |
| Leakage | 00111 | 0.0003026 | 6.574 |
| Leakage | 01100 | 0.0002868 | 71.19 |
| Leakage | 01101 | 0.0002945 | 71.19 |
| Leakage | 0111X | 0.0002945 | 71.19 |
| Leakage | 10100 | 0.0007347 | 77.6 |
| Leakage | 10101 | 0.0007464 | 77.6 |
| Leakage | 1011X | 0.0007464 | 77.6 |
| Leakage | 1100X | 0.0002945 | 246.7 |
| Leakage | 11010 | 0.0002945 | 246.7 |
| Leakage | 11011 | 0.0003026 | 246.7 |
| Leakage | 111XX | 0.0002945 | 6.574 |

LEAKAGE

Rail: vdd

Dependency: PUN PDN PUN15K LOWEMI HYST

| Leakpower | Mode | Min(uW) | Max(uW) |
|-----------|-------|-----------|---------|
| Leakage | 00100 | 0.0001756 | 6.18 |
| Leakage | 00101 | 0.0001766 | 6.18 |
| Leakage | 0011X | 0.0001766 | 6.18 |
| Leakage | 011XX | 0.0001759 | 6.18 |
| Leakage | 10100 | 0.0001756 | 6.104 |
| Leakage | 10101 | 0.0001766 | 6.104 |
| Leakage | 1011X | 0.0001766 | 6.104 |
| Leakage | 1100X | 0.000177 | 6.18 |
| Leakage | 11010 | 0.000177 | 6.18 |
| Leakage | 11011 | 0.000177 | 6.239 |
| Leakage | 11101 | 0.0001768 | 6.18 |
| Leakage | 11111 | 0.0001766 | 6.18 |
| Leakage | 111X0 | 0.0001756 | 6.18 |

