University of Oslo Department of Informatics

IN5180 Analog Microelectronics Design

Lab 2



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1 Task 1: Design of a two stage operational amplifier

1.1 Specification and agenda

The goal of this task is to design an operational amplifier (opamp) with given specifications:

- Supply voltage (VDD) = 1.2 V
- External ideal reference current source 30 μ A
- Differential to single ended gain above > 100 V/V
- Unity gain frequency (UGF) > 10 MHz
- Phase margin (PM) > 65 degrees
- Common Source Rejection Ratio (CMRR) > 40 dB
- Power Supply Rejection Ratio (PSRR) > 50 dB

The design into has been split to 2 parts: the differential stage and the common source (CS) stage. Each stage is designed separately maximizing amplification and keeping bandwidth above 10 MHz. After that we are going to tune the output voltage of the differential stage to the operational point of the CS stage. The next step is to find a proper compensation elements to satisfy PM requirements. Then, the CMRR and PSRR are studied with final tuning of the opamp circuit.

1.2 General consideration for the design

We have chosen an opamp design with the p-channel input stage since in this case the second stage has an n-channel input transistor which maximize the transconductance of the second stage and, hence, high frequency performance [1]. The length of all transistors are equal to 130 nm as double minimum length of the TSMC65 process [2]. The width of each MOSFET is split to several fingers for a compact layout with proper performance.

We decided to use a capacitive load of 5 pF because it is close to expected capacitance of the membrane which is a dominant load for the opamp.

The main current mirror used for driving the circuit is shown in Fig. 1. We choose a total width of 1μ m for the diode-connected pFET as adequate value convenient for calculation.

Our initial plan was to utilize the $\frac{g_m}{I_D}$ approach to estimate geometry for the amplifying transistors in both differential and CS stages. However, we received inadequate values for the widths of the MOSFET and decided to rely on the hand calculation (the square law model) complimented by the Cadence simulation.

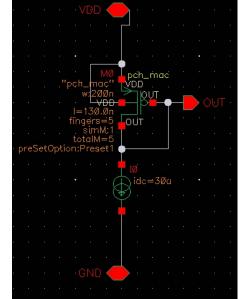


Figure 1

A few equations to be noted [1, 3]:

$$A_v = g_m r_{out},\tag{1}$$

where A_v is a voltage gain of an CS amplifier, r_{out} is an output resistance, g_m is a transconductance of the amplifying MOSFET.

$$r_{ds} = \frac{L}{(\lambda L)I_D} \tag{2}$$

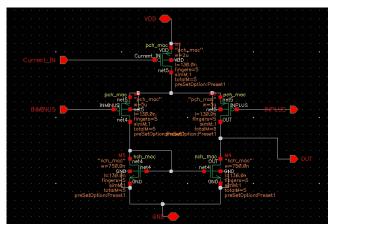
where r_{ds} is a drain to source resistance, λ is a output impedance constant, L is a channel length, I_D is a drain-to-source current, and (λL) - is a process parameter (0.1 and 0.15 μ m/V for NMOS and PMOS, respectively, in the 45nm-process)

The square law model:

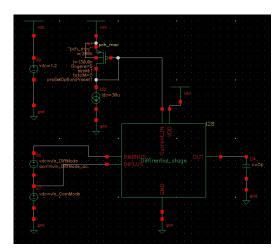
$$g_m = \sqrt{2\mu C_{ox}(\frac{W}{L})I_D},\tag{3}$$

where μ is a carrier mobility, C_{ox} is a oxide layer capacitance, W is a width and L is the length of the channel.

1.3 Differential stage







(b) Testbench

Figure 2: Differential stage and its testbench

The differential stage with p-channel input transistors is shown in Fig. 2a. Transistor M1 acts as a current source, M2 and M6 is an amplifying MOSFETs, while M4 and M5 is a current mirror in the differential stage.

If we take a look on Eqs. (1), (2), (3) we can notice that the lower current is associated with higher gain. However, the UGF can be estimated as $UGF = \frac{g_m}{2\pi C_L}$, meaning that the higher current supply is necessary for a proper high frequency behaviour. Thus, we select W(M1) as 10 times of M0 in Fig. 1 to supply 300 μ A.

The testbench for the differential stage is shown in Fig. 2b. The voltage source V7 is a common-mode input voltage, while V8 is responsible for the differential signal. The branch of the current-mirror common for both differential and CS stages is presented by transistor M1 and current source I32 similar to Fig. 1. The voltage source V9 provides is a power supply for the circuit, 5 pF capacitor is chosen as load.

We can estimate the required width of the amplifying transistors M2 and M6 using the square root model. The output resistance is equal to $(r_{ds6}||r_{ds4})$ and the differential gain of the differential pair can be determined similar to Eq. (1) as:

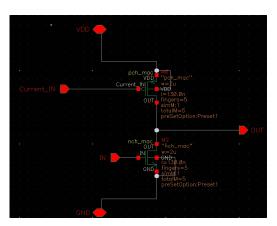
$$A_{v1} = g_{m1}(r_{ds2}||r_{ds4}) (4)$$

The resistance of the MOSFET in saturation can be roughly found using Eq. (4) with I_d is equal to 300/2=150 μ A. Therefore, $(r_{ds6}||r_{ds4})\approx 3500$ Ohm and, if we'd like to obtain gain of $A_v=20$ V/V, the transconductance should be $g_{m6}=A_v/(r_{ds6}||r_{ds4})\approx 5.7$ mS. The overdrive voltage can be expressed as $V_{eff}=\frac{2I_{D1}/g_{m1}}{2}\approx 0.05$ V and $W=\frac{2I_{D1}L}{\mu_n C_{ox}V_{eff}}\approx 11$ μ m. Upon Cadence simulation, we correct the total widths W(M6) and W(M2) to 25 μ m to obtain a proper voltage gain. The widths of M4 and M5 were optimized to get a output DC voltage optimal for the next CS stage and are discussed in Sec. 1.5.

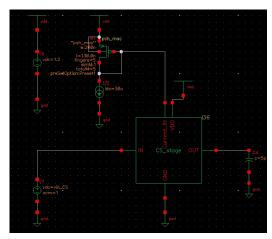
A suitable DC common mode voltage V_{cm} is chosen using Parametric Analysis in Cadence when V_{cm} varies from 300 to 900 mV with an increment of 10 mV while AC-analysis is performed for each step. It revealed

that the optimal for our circuit value of V_{cm} is 480 mV because it gives a maximum UFG about 20 MHz and relatively high gain about 17 V/V.

1.4 Common-source stage



(a) Schematics of the common-source stage



(b) Testbench

Figure 3: Common-source stage and its testbench

The schematics of the CS stage is shown in Fig. 3a. Transistor M0 is a current source with a total width of 10 μ m to supply about 300 μ A of current to transistor M2. The latter is responsible for the amplification in the CS stage.

When we began to design this stage, we planed to refer to $\frac{g_m}{I_D}$ method. However, the values we got for W_2 were above $700\mu m$, which is not considered to be adequate. Thus, we abandoned this method and turned back to square law model. Similar to hand calculation in 1.3, the optimum value for W_2 is found to be 4.5 μ m for a expected voltage gain of 20. The testbench for the CS stage is very similar to that for the differential stage and is shown in Fig. 3b. Varying input DC voltage on the voltage supply V7, we can get a voltage gain on the output. However, we should take into account that while the amplification is higher in sub-threshold region, the bandwidth is higher in saturation. In addition to that, we can avoid some unpredictable behavior of the circuit keeping all the transistors saturated. Because of these considerations, the final width W_2 was chosen to be 10 μ m. In this case, the operation point for M2 is above threshold voltage ($V_{th} = 525 \text{ mV}$) and equal to 570 mV. The final gain for this stage is 14.5 V/V and UGF is 66 MHz.

1.5 Two stage opamp. Stability and compensation

Firstly, we are going to combine both stages together and optimize the output DC voltage from the differential part to coincide with operational point of the CS stage. As discussed in the previous sub-chapter, the operational point for the CS stage is 570 mV. We found that the most efficient way to get this value on the output of the differential stage is to optimize the widths of transistors M4 and M5 in the current mirror in Fig. 2a. As it shown in Fig. 2a, the desired values for total widths W4 and W5 is 3.75 μ m.

The total gain and UGF are presented in Fig. 4. The total gain is about 210 V/V (46.44 dB) and UGF is close to 500 MHz without a compensation circuit. That is a good result well above the required specs in Ch. 1.2. The especial attention was paid to verify that all the transistors operate in saturation with selected operation point and MOSFET parameters.

Now let us build a compensation circuit to get a desired stability and Phase Margin. The whole opamp with a compensation circuit is shown in Fig. 5. The compensation circuit consists of R_c and C_c in a feedback loop between input and output of the CS stage. The testbench to perform stability test ("stb"-analysis in Cadence)

is shown in Fig. 6. The opamp there is in voltage follower configuration with a probe IPRB0 breaking the feedback loop.

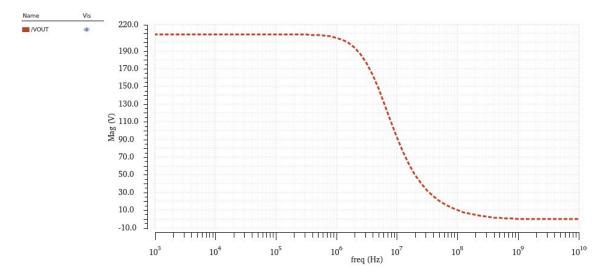


Figure 4: AC-analysis of the two stage opamp without compensation.

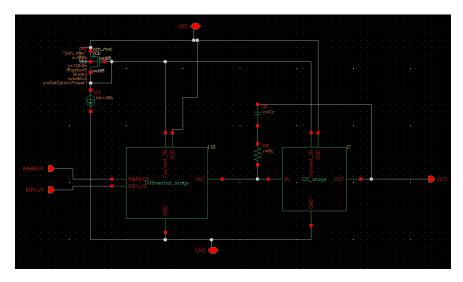


Figure 5: Schematics of the two stage opamp with the compensation circuit consisting of R_c and C_c

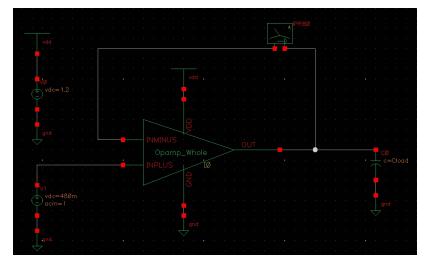


Figure 6: The two stage opamp with compensation circuit in voltage follower configuraion.

As a starting point, we plot the Bode plot for our opamp without compensation as shown in Fig. 7a. Despite the superior bandwidth of 608 MHz, we can see that PM is only 30.8°. We can distinguish two poles with frequencies about 5 MHz and 1 GHz and one zero giving phase growth above 10 GHz (LHPZ). We are going to utilize a procedure discussed in the lectures to split poles to get suitable PM [3]. The first pole will get much lower frequency while the second one will go below 0 dB to eliminate its contribution the amplifier performance. However, there is a trade-off between the stability and the bandwidth of the opamp.

The procedure for capacitive compensation is presented below.

- 1. First, the resistor is set to 0 Ohm and we tune only C_c . Starting with $C_C' = (\beta \frac{g_{m1}}{g_{m7}})C_L$ setting unit gain frequency close to second pole. $g_{m7} = 1.16\text{mS}$ (from the cadence simulation) $g_{m1} = 2.225\text{mS}$ (from the cadence simulation) $\beta = 1$ (voltage follower configuration) $C_L = 5$ pF
- 2. By simulating in cadence, find frequency with -125° phase shift (called A'), this is the unit gain frequency ω_t target.
- 3. Choose new C_C such that ω_t is unit-gain frequency of L(s)
 - $C_C = C'_C A'$ phase margin
 - Simulate for several times.

The following values are obtained:

- $C_{c1} = 0.52C_L = 2.6 \text{ pF}, w_{t1} = 31 \text{ MHz}, A_1 = 1.73 \text{ V/V}$
- $C_{c2} = C_{c1} \times A_1 = 4.498 \text{ pF}, w_{t2} = 24.5 \text{ MHz}, A_2 = 1.43 \text{ V/V}$
- $C_{c3} = C_{c2} \times A_2 = 6.43 \text{ pF}, w_{t3} = 20 \text{ MHz}, A_3 = 1.25 \text{ V/V}$
- $C_{c4} = C_{c3} \times A_3 = 8.04 \text{ pF}, w_{t4} = 17.35 \text{ MHz}, A_4 = 1.184 \text{ V/V}$
- $C_{c5} = C_{c4} \times A_4 = 9.52 \text{ pF}, w_{t5} = 16 \text{ MHz}, A_5 = 1.117 \text{ V/V}$
- $C_{c6} = C_{c5} \times A_5 = 10.63 \text{ pF}, w_{t6} = 15.3 \text{ MHz}, A_6 = 1.08 \text{ V/V}$
- $C_{c7} = C_{c6} \times A_6 = 11.5 \text{ pF}, w_{t7} = 13.95 \text{ MHz}, A_1 = 1.0 \text{ V/V}$ and it is a final value for C_c

The result of the capacitive compensation is shown in Fig. 7b. We can observe that capacitive compensation allowed achieving PM about 60° . However, we had to pay by much lower UGF equal to 13.5 MHz. The specs requires PM above 65° . One of the possible way to get higher PM is an introduction of a resistor (labelled as R_c) in the compensation circuit. The common procedure for that is listed below:

- 1. Choose $R_C = \frac{1}{1.7\omega_* C_C}$ giving phase margin of $85^{\circ}(+30^{\circ})$ leaving 5° for variations.
- 2. Replace R_C with transistor $R_C = \frac{1}{\mu_n C_{ox}(\frac{W}{L}V_{eff})}$.

We have tried to use formula above to find R_c . However, we obtained a quite high resistance of 3.6 kOhm which disturbed the phase of the opamp significantly. To avoid it, we decided to perform stability test using Parametric Analysis in Cadence sweeping R_c from 0 to 1000 Ohm and choosing appropriate value. The best-fitting R_c is found to be 600 Ohm. The Bode plot for the opamp with capacitive-resistive compensation is shown in Fig. 7c. After the final compensation the PM is about 90°. The UGF is not affected by the resistive compensation and still equal to 13 MHz. The resulted PM is well above the required 65° from specs. We estimated in Cadence that the designed opamp can drive much higher capacitive load with acceptable PM. Only $C_L = 20$ pF can decrease PM to 65°.

The next task in this lab is to develop comparator. The easiest way to do that is to make a cascade of opamps. However, the bandwidth of comparator BW_{tot} is significantly lower than that of single opamp BW and defined as $BW_{tot} = BW\sqrt{2^{1/N} - 1}$, where N is a total number of opamps in the cascade. Hence, it is beneficial to sacrifice some PM to get a higher BW of the opamp. To do that, we decided to reduce C_c and increase R_c . In addition to higher BW we also save an area occupied by the capacitor. The final Bode plot of opamp with the updated compensation is shown in Fig. 7d. In this configuration, the UGF is 45 MHz and the PM is 76° which is also above the required specification of 65°.

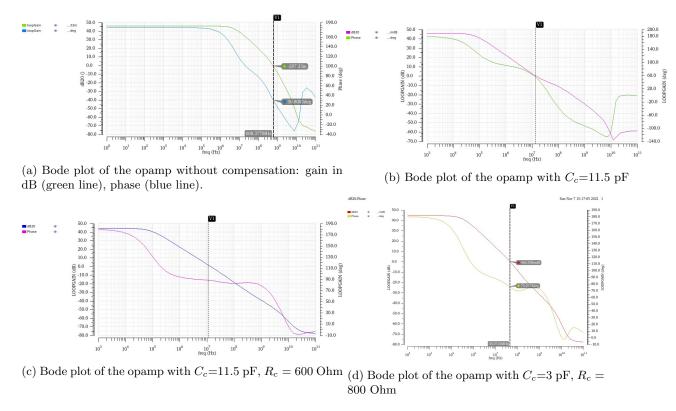


Figure 7: Bode plot of the opamp at different stages of compensation

1.6 Common mode and power supply and rejection ratios

The common mode rejection ratio (CMRR) is a parameter defined as a ratio of differential-mode gain to the common-mode gain: CMRR illustrates an ability of the opamp to reject common mode signals: CMRR = $20\log_{10}\frac{A_d}{A_{CM}}$. The power supply rejection ratio is a similar term defined as a ratio of differential-mode gain to the gain of power supply voltage variation PSRR = $20\log_{10}\frac{A_d}{A_{vdd}}$.

To study CMRR and PSRR, we build a testbench shown in Fig. 8. Then, we perform "xf"-analysis in Cadence to investigate an impact of each voltage supply on the output voltage for our opamp. We use two separated voltage sources for VDD and GND to distinguish their PSRR. To optimize PSRR and CMRR, we decided to vary the DC operational point V_{cm} . In this case we sacrifice a bit of gain, but it helps to improve CMRR and PSRR. The results are presented in Fig. 9. CMRR improved from 41 dB to 48 dB, PSRR(vdd) increase from 42 dB to 53 dB, while PSRR(gnd) drops from 50 dB to 47 dB. We also sacrificed only 2 dB in differential gain (from $A_{diff} = 46$ dB for $V_{cm} = 480$ mV to $A_{diff} = 44$ dB for $V_{cm} = 350$ mV).

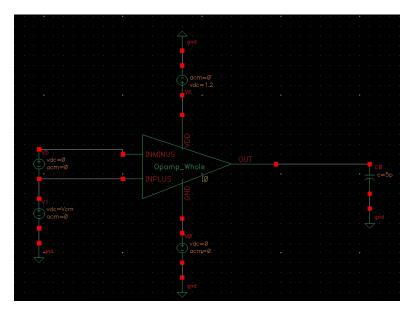


Figure 8: Testbench for CMRR- and PSRR-analysis

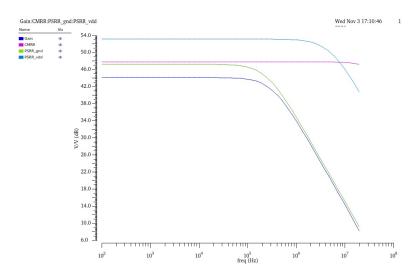


Figure 9: Gain, CMRR and PSRR for the opamp.

1.7 Slew rate, Output Swing, Settling time and Power Consumption of the opamp

We performed a transient analysis of the opamp in the voltage follower configuration to study output swing, slew rate and settling time. The results are shown in Fig. 10. While we keep V_{dd} at 1.2 V we applied an input voltage above V_{dd} to study maximum output voltage. The latter is fount to be almost equal to 1.2 V (see Fig. 10a). The response of the voltage follower to step function is shown in Fig. 10b. There is a 30% overshoot for the output voltage but it stabilizes during 36 ns (margin 2% of the final value) which is fast enough for our goal in next task. The slew rate is about 28 V/ μ S which is also a satisfying result. The power consumption in case of the pulsed input voltage is demonstrated in Fig. 10c.

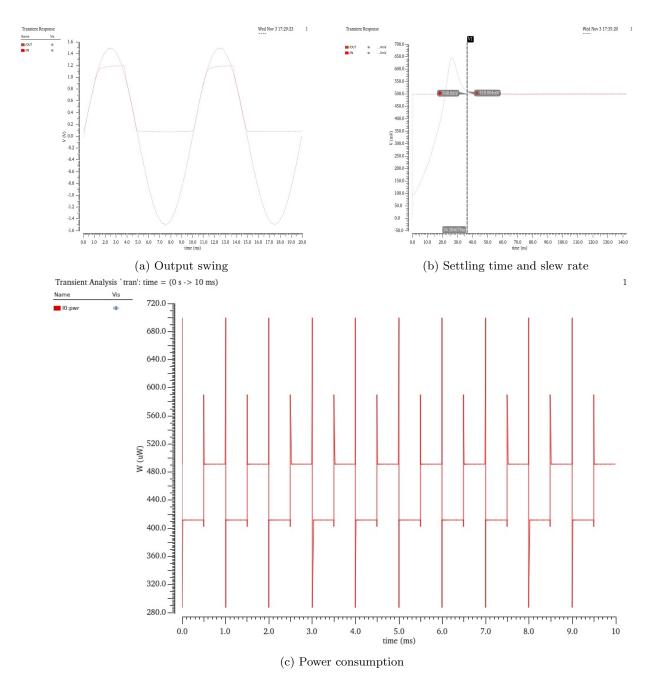


Figure 10: Transient analysis of the opamp

1.8 The final specs for the designed opamp

- Supply voltage (VDD) = 1.2 V
- External ideal reference current source 30 μA
- Differential to single ended gain above 161 V/V (44.145 dB)
- Unity gain frequency (UGF)= 45 MHz
- Phase margin (PM)= 75° for $C_L = 5 \text{pF}$
- CMRR= 47.8 dB
- PSRR = 53.2 dB for VDD; PSRR = 47.2 dB for GND
- Slew Rate 28 V/ μ s
- Settling time 36 ns for 500 mV input step

The gain of the opamp should be high enough to provide a required sensitivity for the neural model. PM is important for stability during driving capacitive load of membrane. The opamp is intended to be used in the comparator design and should be fast enough to deal with μ s-pulses. Slew rate, BW, and settling time reflects the speed of the opamp.

1.9 The layout, DRC and LVS reports for the 2-stage opamp

In this section, we are going to present the layout and its relevant checks, the DRC and LVS reports (to be enclosed in the appendix). Eight MOSFET are placed in the left part of the layout while resistor *rnondwo* and huge capacitor *crtmom* are on the right. The capacitor occupies most of the silicon area. Thus, even a capacitor of 3 pF requires a lot of space on the chip.

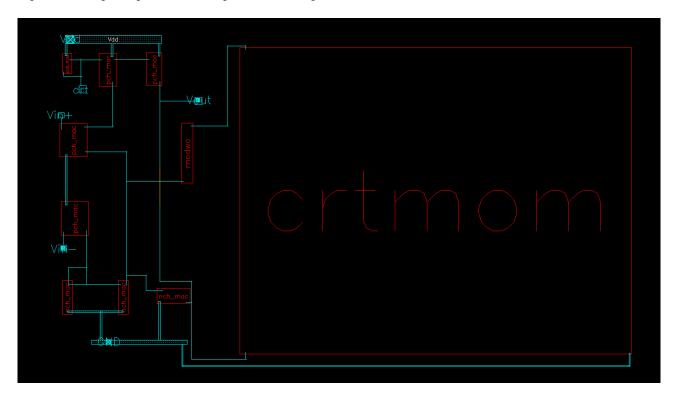


Figure 11: Layout view for 2 stage opamp, including both differential and common source stages.

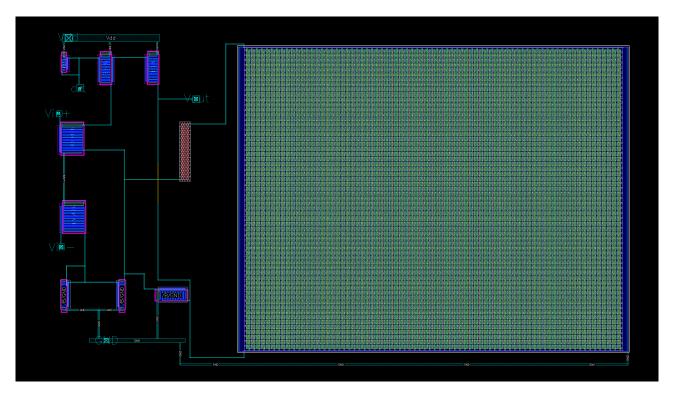


Figure 12: Layout view for 2 stage opamp, including both differential and common source stages.

2 Task 2: Design of comparator

We have chosen to develop a comparator based on the opamp from the previous task. We considered two possible schematics: a clocked opamp-based comparator and a regular opamp-based circuit.

2.1 The clocked comparator

The clocked comparator schematics is shown in Fig. 13. The circuit is based on the schematics from Fig.10.11 in Ref. [1]. This design helps to dimish the input offset. The main clock ϕ_2 connects the input to the cascade of opamps during the comparison phase when both opamps are in open loop configuration. The clocks ϕ_1 , ϕ_1 , ϕ_{11} , ϕ_{111} are activated during the reset phase when the input voltage is disconnected and both opamps are in voltage follower configuration with input connected to the ground via capacitor. These clocks have a different durations to eliminate the charge-injection effects. The timing of all clocks are shown in Fig. 14a.

The output voltage OUT2 from this comparator is shown in Fig. 14b together with the main clock phi2. During first 1 ms the input voltage V_{in} is 500 nV lower than the reference voltage and the OUT2 is about 0 during the clock comparison phase (when phi2 = 1.2 V). Between the clock cycle time the output voltage OUT2 demonstrates some pattern but this signal is not "recorded" since phi2 = 0 V. During next 1 ms V_{in} is 500 nV higher then the reference voltage and the OUT2 = 1.2 V during the comparison phase meaning than device has a sensitivity about 500 nV. Between the clock cycle time the output voltage has the same pattern which is again not recorded. This clocked design has a bit higher sensitivity that the the regular opamp-based circuit but has a lower operational speed (the clock period is $10 \mu s$). In general, the clock period can be decrease but the procedure is complicated because of difficulty of tuning four different clocks. Thus, we have chosen to continue with a regular opamp-based circuit.

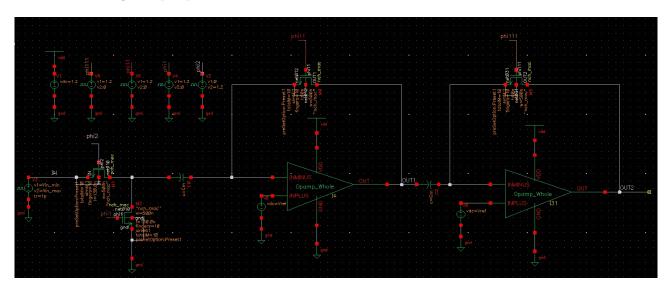


Figure 13: Clocked comparator with two opamps

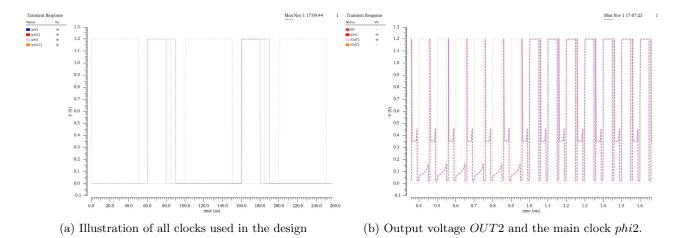
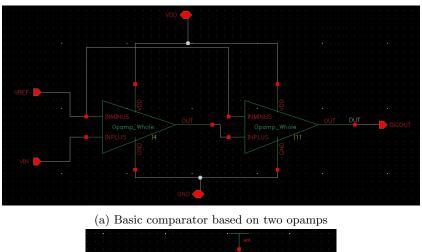
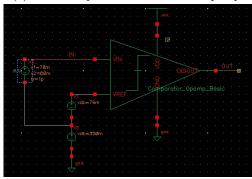


Figure 14: Results for the clocked comparator.

2.2 The non-clocked opamp-based comparator

The easier approach is just to connect two opamps in cascade as shown in Fig. 15a. We should take into account that both inputs should be also connected to common mode voltage of 350 mV (operation point for our opamp). This circuit simply amplifies the difference between inputs up to maximum output voltage 1.2 V if VIN > VREF or to 0 V if VIN < VREF. The testbench for this comparator is presented in Fig. 15b. The sensitivity of this schematics is below 1 mV meaning that the device distinguishes 1 mV-difference between VIN and VREF as shown in transient analysis in Fig. 16. The input voltage is a pulses from 78 to 80 mV while the reference voltage is 79 mV with a period of 3 ms. The speed is good enough to record pulses with period of $1\mu s$. These specifications is enough for application with the neural model in Task 3.





(b) Testbench for the basic comparator

Figure 15: Basic comparator and its testbench.

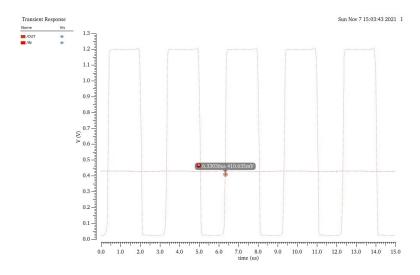


Figure 16: The performance of basic comparator circuit

The power consumption of the designed comparator is comparable with the consumption of two opamp. As it shown in Fig. 17, it is up to 900 mW.

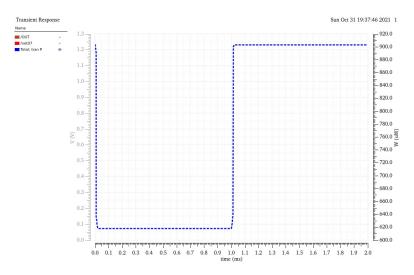
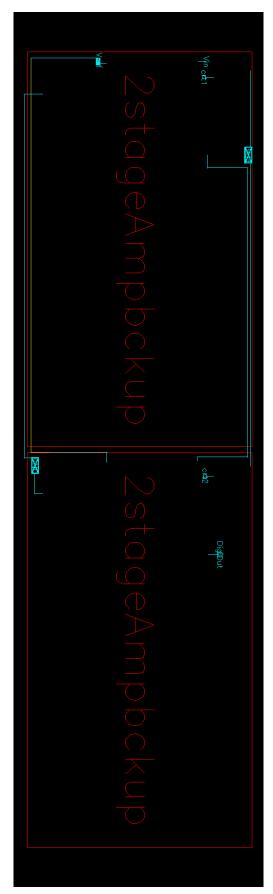
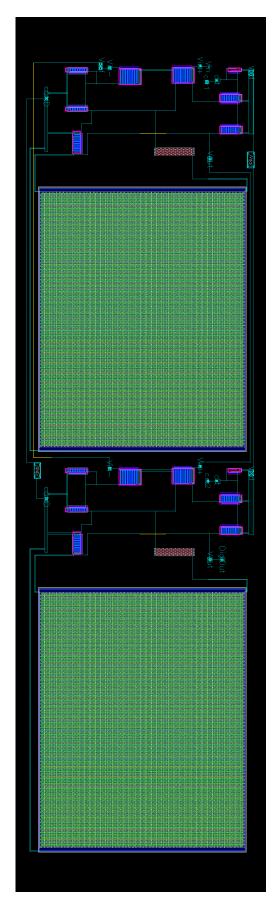


Figure 17: Power concumption of the comparator

2.3 The layout, DRC and LVS reports for the non-clocked comparator.

In this section, we are going to present the layout and its relevant checks, the DRC and LVS reports (to be enclosed in the appendix). The design of non-clocked comparator is just two opamp connected in series and it is reflected in its layout.





(a) Layout connection view for comparator.

(b) Layout detail view for comparator.

Figure 18: Layout for the comparator

3 Task 3: The neural model

In this task we are going to implement the neural model the opamp and the comparator we designed in the previous chapters.

3.1 The design and schematic

The schematics of Integrate and Fire Neuron is based on the circuit from Ref. [4] The circuit is shown in Fig. 19. Two pulsed current sources mimick the neural stimulus from two synapses. The opamp is connected in integrating configuration with the membrane capacitance of 5 pF. The comparator fire the spike and short the loop of opamp via nFET M0. The reference voltage is 80 mV while the common mode voltage is 350 mV for both comparator and opamp. It means that the comparator should send the High signal as soon as voltage on IN-terminal exceeds 430 mV.

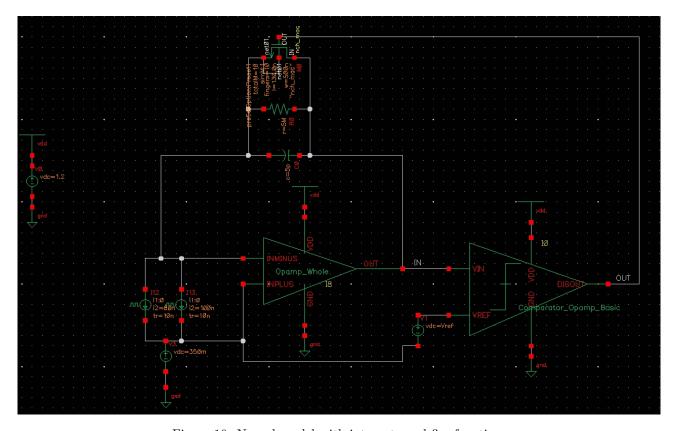


Figure 19: Neural model with integrate and fire function.

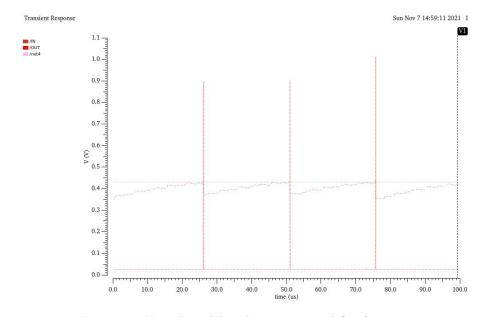


Figure 20: Neural model with integrate and fire function.

The results of the transient simulation is shown in Fig. 20. We can see that the schematics works exactly as we expected. Every pulse from the current sources are integrated by the opamp that manifests as steps on the OUT graph. As soon as integrated signal on terminal IN reaches 430 mV (the reference voltage on the comparator, /net4 in Fig. 20) the spike from the comparator resets voltage back to the common mode value of 350 mV.

3.2 The layout, DRC and LVS reports for the neural model (excluding spike generation)

In this section, we are going to present the layout and its relevant checks, the DRC and LVS reports (to be enclosed in the appendix). The design of the neural model is a connection of the 2-stage OpAmp and the comparator.



Figure 21: Layout connection view for the neural model.

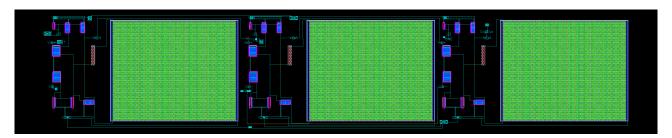


Figure 22: Layout detail view for the neural model.

References

- [1] Tony Ch. Carusone, David A. Johns, Kenneth W. Martin, *Analog Integrated Circuit Design*. Wiley, Inc., Inc., Printed in the USA, 2012.
- [2] Taiwan Semiconductor Manufacturing Co, https://europractice-ic.com/mpw-prototyping/asics/tsmc/ https://www.tsmc.com/english/dedicatedFoundry/technology
- [3] Kristian Gjertsen Kjelgård Lecture notes in IN5180 Analog Microelectronics Design. University of Oslo, 2021
- [4] Bibhu Datta Sahoo, Ring oscillator based sub-1V leaky integrate-and-fire neuron circuit. Scientific Reports 7, 2017.

4 Appendix

4.1 Workload distribution

Task distribution								
Tasks	Kun Zhu	Illia Ilia Kolevatov						
Differential stage	Secondary	√Main						
Common-source stage	√Main	Secondary						
Compensation	Secondary	√Main						
Comparator	Secondary	√Main						
Neuron spike circuit		√Main						
Layout	√Main							
DRC report	√Main							
LVS report	√Main							

4.2 The DRC results

For the DRC checks, the following rules are excluded:

- \bullet Density checks.
- DOD*
- DPO*
- DM*
- ESD*
- PO.R8

The DRC report start from the next line.

```
Neuron 1000
NET_AREA_RATIO_RDBS
0 0 35 Nov 12 15:40:12 2021
M1.DN.6.M1.density 0
{\tt M1.DN.6.M2.density} 0
M2.DN.6.M2.density 0
{\tt M1.DN.6.M3.density} 0
M2.DN.6.M3.density 0
M3.DN.6.M3.density 0
M2.DN.6.M4.density\ 0
M3.DN.6.M4.density 0
M4.DN.6.M4.density 0
{\tt M3.DN.6.M5.density} 0
M4.DN.6.M5.density 0
M5.DN.6.M5.density 0
M4.DN.6.M6.density 0
M5.DN.6.M6.density 0
M5.DN.6.M7.density 0
MOM.A.1.rep 0
MOM.A.2.rep 0
```

IND.DN.1L.M1.density 0

- IND.DN.1H.M1.density 0
- IND.DN.1L.M2.density 0
- IND.DN.1H.M2.density 0
- IND.DN.1L.M3.density 0
- IND.DN.1H.M3.density 0
- IND.DN.1L.M4.density 0
- IND.DN.1H.M4.density 0
- IND.DN.1L.M5.density 0
- IND.DN.1H.M5.density 0
- IND.DN.1L.M6.density 0
- IND.DN.1H.M6.density 0
- IND.DN.1L.M7.density 0
- IND.DN.1H.M7.density 0
- IND.DN.1L.M8.density 0
- IND.DN.1H.M8.density 0
- IND.DN.1L.M9.density 0
- IND.DN.1H.M9.density 0

4.3 The DRC summary

=== CALIBRE::DRC-H SUMMARY REPORT Execution Date/Time: Fri Nov 12 15:40:10 2021 Calibre Version: v2020.4_15.9 Thu Oct 1 15:09:27 PDT 2020 Rule File Pathname: /uio/hume/student-u52/kunzh/cadence617_tsmc65rf_oa/_calibre.drc_ Rule File Title: Layout System: GDS Layout Path(s): Neuron.calibre.db Layout Primary Cell: Neuron Current Directory: /uio/hume/student-u52/kunzh/cadence617_tsmc65rf_oa User Name: Maximum Results/RuleCheck: 1000 Maximum Result Vertices: 4096 DRC Results Database: Neuron.drc.results (ASCII) Layout Depth: ALL Text Depth: PRIMARY Summary Report File: Neuron.drc.summary (REPLACE) ACUTE = YES SKEW = YES ANGLED = NO OFFGRID = YES Geometry Flagging: NONSIMPLE POLYGON = YES NONSIMPLE PATH = NO Excluded Cells: CheckText Mapping: ALL TEXT Layers: MEMORY-BASED Keep Empty Checks: NO --- RUNTIME WARNINGS Cell name parameter for INSIDE CELL operation not located. Cell name parameter for NOT INSIDE CELL operation not located. for INSIDE CELL operation not located. Cell name parameter Cell name parameter for NOT INSIDE CELL operation not located. Cell name parameter for INSIDE CELL operation not located. Cell name parameter for NOT INSIDE CELL operation not located. PROJECTING constraint only supported with PARALLEL ONLY - setting PARALLEL ONLY. PROJECTING constraint only supported with PARALLEL ONLY - setting PARALLEL ONLY. PROJECTING constraint only supported with PARALLEL ONLY - setting PARALLEL ONLY. PROJECTING constraint only supported with PARALLEL ONLY - setting PARALLEL ONLY. PROJECTING constraint only supported with PARALLEL ONLY - setting PARALLEL ONLY. PROJECTING constraint only supported with PARALLEL ONLY - setting PARALLEL ONLY. PROJECTING constraint only supported with PARALLEL ONLY - setting PARALLEL ONLY. PROJECTING constraint only supported with PARALLEL ONLY - setting PARALLEL ONLY. --- ORIGINAL LAYER STATISTICS LAYER FWCUi TOTAL Original Geometry Count = 0

LAYER FWALi TOTAL Original Geometry Count = 0

```
LAYER SRAMDMY_5 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER SRAMDMY_4 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER M8_NEW ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER DUM8_NEW ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NOUSEM8_OLD ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NOUSEM8_NEW ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER M9_NEW ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER DUM9_NEW ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NOUSEM9_OLD ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NOUSEM9_NEW ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER VIA7_NEW ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NOUSEV7_OLD ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NOUSEV7_NEW ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER VIA8_NEW ...... TOTAL Original Geometry Count = 0
LAYER NOUSEV8_OLD ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NOUSEV8_NEW ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER VIA9_NEW ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER DOD ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER ODi ...... TOTAL Original Geometry Count = 111 (348)
LAYER DPO ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER POi ...... TOTAL Original Geometry Count = 279 (960)
LAYER DUM1 ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER M1i ...... TOTAL Original Geometry Count = 466 (1372)
LAYER DUM2 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER M2i ...... TOTAL Original Geometry Count = 134 (409)
LAYER DUM3 ..... TOTAL Original Geometry Count = 0
LAYER M3i ...... TOTAL Original Geometry Count = 159 (486)
LAYER DUM4 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER M4i ...... TOTAL Original Geometry Count = 129 (396)
LAYER DUM5 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER M5i ...... TOTAL Original Geometry Count = 159 (486)
LAYER DUM6 ..... TOTAL Original Geometry Count = 0
LAYER M6i ...... TOTAL Original Geometry Count = 129 (396)
LAYER DUM7 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER M7i ...... TOTAL Original Geometry Count = 159
                                                        (486)
LAYER SRAMDMY ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER DNWi ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NWi ...... TOTAL Original Geometry Count = 5
                                                         (18)
LAYER OD_18i ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER OD_25i ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER OD_33i ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER OD_DECAP ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER PPi ...... TOTAL Original Geometry Count = 12
                                                         (42)
LAYER NPi ...... TOTAL Original Geometry Count = 12
                                                         (39)
LAYER CBi ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER CB2i ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER RPOi ...... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER NT_Ni ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER POFUSE ...... TOTAL Original Geometry Count = 0
                                                         (0)
```

```
LAYER FUSELINK ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER PMi ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER PM1i ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER PM2i ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER VTH_Ni ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER VTH_Pi ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER VTL_Ni ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER VTL_Pi ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER UHVT_Ni ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER UHVT_Pi ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER CBDi ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER UBMi ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER RH ...... TOTAL Original Geometry Count = 1
                                                        (3)
LAYER ESD3 ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER VARi ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER APi ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER Cu_PPIi ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER CBMi ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER CTMi ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER RVi ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER DCOi ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER HVD_P ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER HVD_N_nw ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER BJTDMY ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER LMARK ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER SRM ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER TCDDMY ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER SRAMDMY_1 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER OD1Ti ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER CLDDi ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER CROWNi ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER P3i ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER SNCTi ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER LUPWDMY ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER VDDDMY ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER VSSDMY ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER M1_real ..... TOTAL Original Geometry Count = 466 (1372)
LAYER DM1_0 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER M2_real ...... TOTAL Original Geometry Count = 134 (409)
LAYER DM2_0 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER M3_real ...... TOTAL Original Geometry Count = 159 (486)
LAYER DM3_0 ..... TOTAL Original Geometry Count = 0
LAYER M4_real ..... TOTAL Original Geometry Count = 129 (396)
LAYER DM4_0 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER M5_real ...... TOTAL Original Geometry Count = 159 (486)
LAYER DM5_0 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER M6_real ...... TOTAL Original Geometry Count = 129 (396)
LAYER DM6_0 ..... TOTAL Original Geometry Count = 0
LAYER M7_real ...... TOTAL Original Geometry Count = 159 (486)
```

```
LAYER DM7_0 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER M8_OLD ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER DUM8_OLD ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER M9_OLD ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER DUM9_OLD ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER mVTLi ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NCap_NTNi ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER COi ...... TOTAL Original Geometry Count = 615 (2310)
LAYER VIA1i ...... TOTAL Original Geometry Count = 378 (2264)
LAYER VIA2i ...... TOTAL Original Geometry Count = 374 (2244)
LAYER VIA3i ...... TOTAL Original Geometry Count = 376 (2256)
LAYER VIA4i ...... TOTAL Original Geometry Count = 374 (2244)
LAYER VIA5i ...... TOTAL Original Geometry Count = 376 (2256)
LAYER VIA6i ...... TOTAL Original Geometry Count = 374 (2244)
LAYER WBDMY ...... TOTAL Original Geometry Count = 0
                                                          (0)
LAYER INDDMY ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER NWDMY ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER RFDMY ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER RPDMY ..... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER SDI ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER PMDMY ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER SEALRING: ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER LOGO ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER CSRDMY ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER OD25_33 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER OD25_18 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER POBLK ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER ODBLK ...... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER ESD2DMY ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER ESD1DMY ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER EMPTYi ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER CTMDMY ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER INDDMY_MD ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER MOMDMY_2 ..... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER MOMDMY_1 ..... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER MOMDMY_3 ..... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER MOMDMY_4 ..... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER MOMDMY_5 ..... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER MOMDMY_6 ..... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER MOMDMY_7 ..... TOTAL Original Geometry Count = 1
                                                         (3)
LAYER MOMDMY_8 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER MOMDMY_9 ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER MOMDMY_AP ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER INDDMY_COIL ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER IND_CTAP ..... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER DIODMY ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER RRuleAnalog ...... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER excludeRRuleAnalog ... TOTAL Original Geometry Count = 0
                                                         (0)
LAYER SBDDMY ..... TOTAL Original Geometry Count = 0
                                                         (0)
```

```
LAYER CTMDMY_10 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER CTMDMY_15 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER CTMDMY_20 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER CDUDMY ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER CO_PUSH ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER RTMOMDMY ...... TOTAL Original Geometry Count = 1
                                                        (3)
LAYER VIA7_OLD ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER VIA8_OLD ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER VIA9_OLD ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER RAM1TDMY ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEM1 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEM2 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEM3 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEM4 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEM5 ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEM6 ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEM7 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEM8 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEM9 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEOD ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOTUSEPO ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEM1 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEM2 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEM3 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEM4 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEM5 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEM6 ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEM7 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEV1 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEV2 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEV3 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEV4 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEV5 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NOUSEV6 ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER NWi_OTHERS ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER ODi_OTHERS ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER ODi_SRAM ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER ODi_RFDRAIN ...... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER POi_OTHERS ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER POi_SRAM ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER COi_OTHERS ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER COi_SRAM ..... TOTAL Original Geometry Count = 0
                                                        (0)
LAYER MOMDMY_ALL ..... TOTAL Original Geometry Count = 8
                                                        (24)
-----
--- RULECHECK RESULTS STATISTICS
RULECHECK G.1:UBMi ...... TOTAL Result Count = 0 (0)
```

RULECHECK G.1:PMi	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK G.1:PM2i						
RULECHECK G.1:Cu_PPIi						
RULECHECK G.1:DNWi						
RULECHECK G.1:NWi	TOTAL	Result	Count	=	0	(0)
RULECHECK G.1:OD_18i	TOTAL	Result	Count	=	0	(0)
RULECHECK G.1:OD_25i	TOTAL	Result	Count	=	0	(0)
RULECHECK G.1:OD25_33						
RULECHECK G.1:OD25_18						
RULECHECK G.1:OD_33i						
RULECHECK G.1:OD_DECAP						
RULECHECK G.1:PPi						
RULECHECK G.1:NPi	TOTAL	Result	Count	=	0	(0)
RULECHECK G.1:CBi	TOTAL	Result	Count	=	0	(0)
RULECHECK G.1:RPOi	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK G.1:NT_Ni						
RULECHECK G.1:NCap_NTNi	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK G.1:FWALi						
RULECHECK G.1:FWCUi	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK G.1:POFUSE						
RULECHECK G.1:FUSELINK						
RULECHECK G.1:PM1i						
RULECHECK G.1:SEALRINGi						
RULECHECK G.1:VTH_Ni						
RULECHECK G.1:VTH_Pi						
RULECHECK G.1:VTL_Ni						
RULECHECK G.1:VTL_Pi						
RULECHECK G.1:UHVT_Ni						
RULECHECK G.1:UHVT_Pi						
RULECHECK G.1:RH	TOTAL	Result	Count	=	0	(0)
RULECHECK G.1:ESD3						
RULECHECK G.1:VARi						
RULECHECK G.1:APi	_					,
RULECHECK G.1:CBMi						
RULECHECK G.1:CTMi						
RULECHECK G.1:RVi	_					,
RULECHECK G.1:DCOi						
RULECHECK G.1:HVD_P						
RULECHECK G.1:HVD_N_nw						
RULECHECK G.1:BJTDMY						
RULECHECK G.1:NWDMY						
RULECHECK G.1:RPDMY						
RULECHECK G.1:PMDMY						
RULECHECK G.1:SDI						
RULECHECK G.1:ESD1DMY						
RULECHECK G.1:ESD2DMY						
RULECHECK G.1:SRM						
RULECHECK G.1:CDUDMY						
RULECHECK G.1:TCDDMY	TUTAL	Kesult	Count	=	0	(0)

RULECHECK	G.1:LOGO	TOTAL	Result	Count	=	0	(0)
	G.1:INDDMY						
	G.1:CTMDMY						
	G.1:CTMDMY_10						
	G.1:CTMDMY_15						
	G.1:CTMDMY_20						
	G.1:MOMDMY_1						
	G.1:MOMDMY_2						
	G.1:MOMDMY_3						
	G.1:MOMDMY_4						
	G.1:MOMDMY_5						
	G.1:MOMDMY_6						
	G.1:MOMDMY_7						
	G.1:MOMDMY_8						
	G.1:MOMDMY_9						
	G.1:MOMDMY_AP						
	G.1:RTMOMDMY						
	G.1:RFDMY						
	G.1:WBDMY						
	G.1:DIODMY						
RULECHECK	G.1:SRAMDMY	TOTAL	Result	Count	=	0	(0)
	G.1:SRAMDMY_4						
	G.1:SRAMDMY_5						
	G.1:SRAMDMY_1						
RULECHECK	G.1:OD1Ti	TOTAL	Result	Count	=	0	(0)
	G.1:CLDDi						
	G.1:CROWNi						
	G.1:P3i						
	G.1:SNCTi						
	G.1:LUPWDMY						
	G.1:VDDDMY						
	G.1:VSSDMY						
	G.1:M1i						
	G.1:M1_real						
	G.1:DM1_0						
	G.1:DUM1						
	G.1:M2i						
	G.1:M2_real						
	G.1:DM2_0						
	G.1:DUM2						
	G.1:M3i						
	G.1:M3_real						
	G.1:DM3_0						
	G.1:DUM3						
	G.1:M4i						
	G.1:M4_real						
	G.1:DM4_0						
	G.1:DUM4						
RULECHECK	G.1:M5i	TUTAL	Kesult	Count	=	0	(0)

	G.1:M5_real						
	G.1:DM5_0						
	G.1:DUM5						
	G.1:M6i						
	G.1:M6_real						
	G.1:DM6_0						
	G.1:DUM6						
	G.1:M7i						
	G.1:M7_real						
	G.1:DM7_0						
	G.1:DUM7						
	G.1:M8_OLD						
	G.1:M8_NEW						
	G.1:DUM8_OLD						
	G.1:DUM8_NEW						
	G.1:M9_OLD						
	G.1:M9_NEW						
	G.1:DUM9_OLD						
	G.1:DUM9_NEW						
	G.1:VIA1i						
	G.1:VIA2i						
	G.1:VIA3i						
	G.1:VIA5i						
	G.1:VIA6i						
	G.1:VIA7_OLD						
	G.1:VIA7_NEW						
	G.1:VIA8_OLD						
	G.1:VIA8_NEW						
	G.1:VIA9_OLD						
	G.1:VIA9_NEW						
	G.1:ODi						
	G.1:DOD						
	G.1:DPO						
	G.1:mVTLi						
	G.1:CO						
	G.1:PO	_					,
	G.2:DNWi						
	G.2:NWi						
	G.2:OD_18i						
	G.2:OD_25i						
	G.2:OD25_33						
	G.2:0D25_18						
	G.2:OD_33i						
	G.2:OD_DECAP						
	G.2:PPi						
	G.2:NPi						
RULECHECK	G.2:COi	TOTAL	Result	Count	=	0	(0)
	G.2:CO_PUSH						

	G.2:CBi						
	G.2:CB2i						
	G.2:RPOi						
	G.2:NT_Ni						
	G.2:NCap_NTNi						
	G.2:FWALi						
	G.2:FWCUi						
	G.2:POFUSE						
	G.2:FUSELINK						
	G.2:PMi						
	G.2:PM1i						
	G.2:PM2i						
	G.2:SEALRINGi						
	G.2:VTH_Ni						
	G.2:VTH_Pi						
	G.2:VTL_Ni						
	G.2:VTL_Pi						
	G.2:UHVT_Ni						
	G.2:UHVT_Pi						
	G.2:CBDi						
	G.2:UBMi						
	G.2:RH						
	G.2:ESD3						
	G.2:VARi						
	G.2:APi						
	G.2:Cu_PPIi						
	G.2:CBMi						
	G.2:CTMi						
	G.2:RVi						
	G.2:DCOi						
	G.2:HVD_P						
	G.2:HVD_N_nw						
	G.2:BJTDMY						
	G.2:NWDMY						
	G.2:RPDMY						
	G.2:PMDMY						
	G.2:SDI						
	G.2:ESD1DMY						
	G.2:ESD2DMY						
	G.2:SRM						
	G.2:CDUDMY						
	G.2:TCDDMY						
	G.2:LOGO						
	G.2:INDDMY						
	G.2:CTMDMY						
	G.2:CTMDMY_10						
	G.2:CTMDMY_15						
	G.2:CTMDMY_20						
RULECHECK	G.2:MOMDMY_1	TUTAL	Result	Count	=	0	(0)

RULECHECK G.2:MOMDMY_2	TOTAL	Result	Count	=	0	(0)
RULECHECK G.2:MOMDMY_3						
RULECHECK G.2:MOMDMY_4						
RULECHECK G.2:MOMDMY_5						
RULECHECK G.2:MOMDMY_6						
RULECHECK G.2:MOMDMY_7						
RULECHECK G.2:MOMDMY_8						
RULECHECK G.2:MOMDMY_9						
RULECHECK G.2:MOMDMY_AP						
RULECHECK G.2:RTMOMDMY						
RULECHECK G.2:RFDMY						
RULECHECK G.2:WBDMY						
RULECHECK G.2:DIODMY						
RULECHECK G.2:SRAMDMY						
RULECHECK G.2:SRAMDMY_4						
RULECHECK G.2:SRAMDMY_5						
RULECHECK G.2:SRAMDMY_1						
RULECHECK G.2:RAM1TDMY						
RULECHECK G.2:OD1Ti						
RULECHECK G.2:CLDDi						
RULECHECK G.2:CROWNi						
RULECHECK G.2:P3i						
RULECHECK G.2:SNCTi						
RULECHECK G.2:LUPWDMY						
RULECHECK G.2:VDDDMY						
RULECHECK G.2:VSSDMY						
RULECHECK G.2:M1i						
RULECHECK G.2:M1_real						
RULECHECK G.2:DM1_0						
RULECHECK G.2:DUM1						
RULECHECK G.2:M2i						
RULECHECK G.2:M2_real						
RULECHECK G.2:DM2_0						
RULECHECK G.2:DUM2						
RULECHECK G.2:M3i						
RULECHECK G.2:M3_real						
RULECHECK G.2:DUM3						
RULECHECK G.2:M4i						
RULECHECK G.2:M4_real						
RULECHECK G.2:DM4_10						
RULECHECK G.2:DUM4						
RULECHECK G.2:M5i						
RULECHECK G.2:M5_real						
RULECHECK G.2:DM5_0						
RULECHECK G.2:DUM5						
RULECHECK G.2:M6i						
RULECHECK G.2:M6_real						
RULECHECK G.2:DM6_0						
					•	/

RULECHECK	G.2:DUM6	TOTAL	Result	Count	=	0	(0)
RULECHECK	G.2:M7i	TOTAL	Result	${\tt Count}$	=	0	(0)
	G.2:M7_real						
	G.2:DM7_0						
	G.2:DUM7						
	G.2:M8_OLD						
	G.2:M8_NEW						
	G.2:DUM8_OLD						
	G.2:DUM8_NEW						
	G.2:M9_OLD						
	G.2:M9_NEW						
	G.2:DUM9_OLD						
	G.2:DUM9_NEW						
	G.2:VIA1i						
	G.2:VIA2i						
	G.2:VIA3i						
	G.2:VIA4i						
	G.2:VIA5i						
	G.2:VIA6i						
	G.2:VIA7_OLD						
	G.2:VIA7_NEW						
	G.2:VIA8_OLD						
	G.2:VIA8_NEW						
	G.2:VIA9_OLD						
	G.2:VIA9_NEW						
	G.2:ODi						
	G.2:DOD						
	G.2:POi						
	G.2:DPO						
	G.2:mVTLi						
	G.3:DNWi						
	G.3:NWi						
	G.3:OD_18i						
	G.3:OD_25i						
	G.3:OD25_33						
	G.3:OD25_18						
	G.3:OD_33i						
	G.3:OD_DECAP						
	G.3:PPi						
	G.3:NPi						
	G.3:COi						
	G.3:CO_PUSH						
	G.3:CBi						
	G.3:RPOi						
	G.3:NT_Ni						
	G.3:NCap_NTNi						
	G.3:FWALi						
	G.3:FWCUi						
RULECHECK	G.3:POFUSE	TUTAL	Kesult	Count	=	U	(0)

RULECHECK	G.3:FUSELINK	TOTAL	Result	Count	=	0	(0)
	G.3:SEALRINGi						
	G.3:VTH_Ni						
	G.3:VTH_Pi						
	G.3:VTL_Ni						
	G.3:VTL_Pi						
	G.3:UHVT_Ni						
	G.3:UHVT_Pi						
	G.3:RH						
	G.3:ESD3						
	G.3:VARi						
	G.3:APi						
	G.3:CBMi						
	G.3:CTMi						
	G.3:RVi						
	G.3:DCOi						
	G.3:HVD_P						
	G.3:HVD_N_nw						
	G.3:BJTDMY						
	G.3:NWDMY						
	G.3:RPDMY						
	G.3:SDI						
	G.3:ESD1DMY						
	G.3:ESD2DMY						
	G.3:SRM						
	G.3:CDUDMY						
	G.3:TCDDMY						
	G.3:LOGO						
	G.3:INDDMY						
	G.3:CTMDMY						
	G.3:CTMDMY_10						
	G.3:CTMDMY_15						
	G.3:CTMDMY_20						
	G.3:MOMDMY_1						
	G.3:MOMDMY_2						
	G.3:MOMDMY_3						
	G.3:MOMDMY_4						
	G.3:MOMDMY_5						
	G.3:MOMDMY_6						
	G.3:MOMDMY_7						
	G.3:MOMDMY_8						
	G.3:MOMDMY_9						
	G.3:MOMDMY_AP						
	G.3:RTMOMDMY						
	G.3:RFDMY						
	G.3:WBDMY						
	G.3:DIODMY						
	G.3:SRAMDMY						
RULECHECK	G.3:SRAMDMY_4	TUTAL	Result	Count	=	0	(0)

	G.3:SRAMDMY_5						
	G.3:SRAMDMY_1						
	G.3:RAM1TDMY						
	G.3:OD1Ti						
	G.3:CLDDi						
	G.3:CROWNi						
	G.3:P3i						
	G.3:SNCTi						
	G.3:LUPWDMY						
	G.3:VDDDMY						
	G.3:VSSDMY						
	G.3:M1i						
	G.3:M1_real						
	G.3:DM1_0						
	G.3:DUM1						
	G.3:M2i						
	G.3:M2_real						
	G.3:DM2_0						
	G.3:DUM2						
	G.3:M3i						
	G.3:M3_real						
	G.3:DM3_0						
	G.3:DUM3						
	G.3:M4i						
	G.3:M4_real						
	G.3:DM4_0						
	G.3:DUM4						
	G.3:M5i						
	G.3:M5_real						
	G.3:DM5_0						
	G.3:DUM5						
	G.3:M6i						
	G.3:M6_real						
	G.3:DM6_0						
	G.3:M7i						
	G.3:M7_real						
	G.3:DM7_0						
	G.3:DUM7						
	G.3:M8_OLD						
	G.3:M8_NEW						
	G.3:DUM8_OLD						
	G.3:M9_OLD						
	G.3:M9_NEW						
	G.3:M9_NEW						
	G.3:DUM9_NEW						
	G.3:VIA1i						
	G.3:VIA2i						
TOPEOUEON	U.O.VIRZI	IOIAL	11COUT!	Jount	_	U	(0)

RULECHECK	G.3:VIA3i	TOTAL	Result	Count	=	0	(0)
RULECHECK	G.3:VIA4i	TOTAL	Result	Count	=	0	(0)
	G.3:VIA5i						
	G.3:VIA6i						
	G.3:VIA7_OLD						
RULECHECK	G.3:VIA7_NEW	TOTAL	Result	Count	=	0	(0)
	G.3:VIA8_OLD						
RULECHECK	G.3:VIA8_NEW	TOTAL	Result	Count	=	0	(0)
RULECHECK	G.3:VIA9_OLD	TOTAL	Result	Count	=	0	(0)
	G.3:VIA9_NEW						
	G.3:ODi						
	G.3:DOD						
RULECHECK	G.3:P0i	TOTAL	Result	Count	=	0	(0)
	G.3:DPO						
RULECHECK	G.3:mVTLi	TOTAL	Result	Count	=	0	(0)
	G.4:ODi						
RULECHECK	G.4:P0i	TOTAL	Result	Count	=	0	(0)
RULECHECK	G.4:VTH_Ni	TOTAL	Result	Count	=	0	(0)
	G.4:VTH_Pi						
	G.4:VTL_Ni						
RULECHECK	G.4:VTL_Pi	TOTAL	Result	Count	=	0	(0)
	G.4:PPi						
	G.4:NPi						
	G.4:M1i						
RULECHECK	G.4:M2i	TOTAL	Result	Count	=	0	(0)
	G.4:M3i						
	G.4:M4i						
	G.4:M5i						
	G.4:M6i						
	G.4:M7i	_					,
	G.5:NOTUSEM1						
	G.5:NOTUSEM2						
	G.5:NOTUSEM3						
	G.5:NOTUSEM4						
	G.5:NOTUSEM5						
	G.5:NOTUSEM6						
	G.5:NOTUSEM7						
	G.5:NOTUSEM8						
	G.5:NOTUSEM9						
	G.5:NOTUSEOD						
	G.5:NOTUSEPO						
	USER_GUIDE.M1						
	USER_GUIDE.M2						
	USER_GUIDE.M3						
	USER_GUIDE.M4						
	USER_GUIDE.M5						
	USER_GUIDE.M6						
	USER_GUIDE.M7						
KULECHECK	USER_GUIDE.M8	IUTAL	кеsu⊥t	Count	=	U	(0)

USER_GUIDE.M9				
USER_GUIDE.VIA1				
USER_GUIDE.VIA2				
USER_GUIDE.VIA3				
USER_GUIDE.VIA4				
USER_GUIDE.VIA5				
USER_GUIDE.VIA6				
USER_GUIDE.VIA7				
USER_GUIDE.VIA8				
USER_GUIDE.2				
NW_DATATYPE:WARNING1				
OD_DATATYPE:WARNING1				
OD_DATATYPE:WARNING2				
OD_DATATYPE:WARNING3				
PO_DATATYPE:WARNING1				
PO_DATATYPE:WARNING2				
CO_DATATYPE:WARNING1				
CO_DATATYPE:WARNING2				
NW.W.1				
NW.S.1				
NW.S.2				
NW.S.3				
NW.S.4				
NW.S.5				
NW.S.6				
NW.S.7				
NW.EN.1				
NW.EN.2				
NW.EN.3				
NW.A.1				
NW. A. 2				
NW. A. 3				
NW.A.4	_			,
NWROD.W.1				
NWROD.S.1				
	_			
NWROD.EN.1	_			
NWROD.O.1	_			
NWROD.O.2	_			,
NWROD.R.4				
NWROD.R.5				,
NWROD.R.6				
NWROD.R.7				
NWRSTI.EN.1				
NWRSTI.EN.2				
NWRSTI.EX.1				
NWRSTI.O.1				
NT_N.W.1				
 =		 	-	,

	NT_N.W.2.1						
	NT_N.W.2.2						
	NT_N.W.3						
	NT_N.W.4						
	NT_N.W.5						
	NT_N.S.1						
	NT_N.S.2						
	NT_N.S.3						
	NT_N.EN.1						
	NT_N.EX.1						
	NT_N.A.1						
	NT_N.A.2						
	NT_N.A.3						
	NT_N.A.4						
	NT_N.R.1						
	NT_N.R.2						
	NT_N.R.3						
	DNW.W.1						
	DNW.S.2						
	DNW.S.4						
	DNW.S.5						
	DNW.EN.3						
	DNW. 0.1						
	DNW.R.5						
	OD.W.1						
	OD.W.2						
	OD.W.3						
	OD.W.4						
	OD.S.1						
	OD.S.2						
	OD.S.3						
	OD.S.3.1						
	OD.S.4						
RULECHECK	OD.S.5	TOTAL	Result	Count	=	0	(0)
	OD.A.1						
RULECHECK	OD.A.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	OD.L.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	OD.L.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	OD.R.1	NOT E	XECUTED				
RULECHECK	DOD.W.1	NOT E	XECUTED				
RULECHECK	DOD.S.1	NOT E	XECUTED				
RULECHECK	DOD.S.2	NOT E	XECUTED				
RULECHECK	DOD.S.3	NOT E	XECUTED				
RULECHECK	DOD.S.5	NOT E	XECUTED				
RULECHECK	DOD.S.6	NOT E	XECUTED				
RULECHECK	DOD.S.7	NOT E	XECUTED				
RULECHECK	DOD.S.7.1	NOT E	XECUTED				

RULECHECK	DOD.S.8	NOT EXECUTED
	DOD.S.9	
	DOD.S.10	
	DOD.EN.1	
RULECHECK	DOD.EN.2	NOT EXECUTED
	OD.DN.1:L	
RULECHECK	OD.DN.1:H	NOT EXECUTED
	OD.DN.2:L	
	OD.DN.2:H_IO	
	OD.DN.2:H_CORE	
	OD.DN.3:L	
	OD.DN.3:H_IO	
	OD.DN.3:H_CORE	
	DOD.R.1	
	DOD.R.3	
	OD2.W.1	
	OD2.W.2	
	OD2.S.1	
	OD2.S.2	
	OD2.S.3	
	OD2.S.4	
	OD2.S.5	
	OD2.S.6	
	OD2.S.7	
	OD2.EN.1	
	OD2.EX.1	
	OD2.EX.3	
	OD2.0.1	
	OD2.R.1	
	0D25_33.W.2	
	OD25_33.R.1	
	OD25_18.W.1	
	OD25_18.R.1	
	PO.W.1	
	PO.S.1	
RULECHECK	PO.S.2	TOTAL Result Count = 0 (0)
RULECHECK	PO.W.2	TOTAL Result Count = 0 (0)
RULECHECK	PO.W.3	TOTAL Result Count = 0 (0)
RULECHECK	PO.W.4	TOTAL Result Count = 0 (0)
RULECHECK	PO.W.5	TOTAL Result Count = 0 (0)
RULECHECK	PO.S.2.1	TOTAL Result Count = 0 (0)
RULECHECK	PO.S.3	TOTAL Result Count = 0 (0)
RULECHECK	PO.S.4	TOTAL Result Count = 0 (0)
RULECHECK	PO.S.4.1	TOTAL Result Count = 0 (0)
RULECHECK	PO.S.5	TOTAL Result Count = 0 (0)
RULECHECK	PO.S.6	TOTAL Result Count = 0 (0)
RULECHECK	PO.S.7	TOTAL Result Count = 0 (0)

RULECHECK PO.S.9	TOTAL Result Count = 0 (0)
RULECHECK PO.S.10	TOTAL Result Count = 0 (0)
RULECHECK PO.S.15	NOT EXECUTED
RULECHECK PO.S.16	TOTAL Result Count = 0 (0)
RULECHECK PO.EX.1	TOTAL Result Count = 0 (0)
RULECHECK PO.EX.2	TOTAL Result Count = 0 (0)
RULECHECK PO.EX.3	TOTAL Result Count = 0 (0)
RULECHECK PO.L.1	TOTAL Result Count = 0 (0)
RULECHECK PO.A.1	TOTAL Result Count = 0 (0)
RULECHECK PO.A.1.1	TOTAL Result Count = 0 (0)
RULECHECK PO.A.2	TOTAL Result Count = 0 (0)
RULECHECK PO.DN.1:L	NOT EXECUTED
RULECHECK PO.DN.1:H	NOT EXECUTED
RULECHECK PO.DN.2	NOT EXECUTED
RULECHECK PO.DN.3	NOT EXECUTED
RULECHECK PO.R.1	TOTAL Result Count = 0 (0)
RULECHECK PO.R.4	TOTAL Result Count = 0 (0)
RULECHECK PO.R.6	TOTAL Result Count = 0 (0)
RULECHECK PO.R.8	NOT EXECUTED
RULECHECK DPO.W.1	NOT EXECUTED
RULECHECK DPO.S.1	NOT EXECUTED
RULECHECK DPO.S.2	NOT EXECUTED
RULECHECK DPO.S.3	NOT EXECUTED
RULECHECK DPO.S.5	NOT EXECUTED
RULECHECK DPO.S.6	NOT EXECUTED
RULECHECK DPO.S.6.1	NOT EXECUTED
RULECHECK DPO.S.8	NOT EXECUTED
RULECHECK DPO.S.9	NOT EXECUTED
RULECHECK DPO.EN.1	NOT EXECUTED
RULECHECK DPO.R.1	NOT EXECUTED
RULECHECK DPO.R.3	NOT EXECUTED
RULECHECK DTCD.W.1	TOTAL Result Count = 0 (0)
RULECHECK DTCD.R.1	TOTAL Result Count = 0 (0)
RULECHECK DTCD.R.2	TOTAL Result Count = 0 (0)
RULECHECK DTCD.R.3	TOTAL Result Count = 0 (0)
RULECHECK VTH_N.W.1	TOTAL Result Count = 0 (0)
RULECHECK VTH_N.S.1	TOTAL Result Count = 0 (0)
RULECHECK VTH_N.S.2VTH_N.S.2.1	TOTAL Result Count = 0 (0)
RULECHECK VTH_N.S.3	TOTAL Result Count = 0 (0)
RULECHECK VTH_N.EN.1VTH_N.EN.2	TOTAL Result Count = 0 (0)
RULECHECK VTH_N.A.1	TOTAL Result Count = 0 (0)
RULECHECK VTH_N.A.2	TOTAL Result Count = 0 (0)
RULECHECK VTH_N.R.1	TOTAL Result Count = 0 (0)
RULECHECK VTH_N.R.2	TOTAL Result Count = 0 (0)
RULECHECK VTH_P.W.1	TOTAL Result Count = 0 (0)
RULECHECK VTH_P.S.1	TOTAL Result Count = 0 (0)
RULECHECK VTH_P.S.2VTH_P.S.2.1	TOTAL Result Count = 0 (0)
RULECHECK VTH_P.S.3	TOTAL Result Count = 0 (0)
RULECHECK VTH_P.EN.1VTH_P.EN.2	TOTAL Result Count = 0 (0)

RULECHECK	VTH_P.A.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	VTH_P.A.2	TOTAL	Result	Count	=	0	(0)
	VTH_P.R.1						
	VTH_P.R.2						
	VTL_N.W.1						
	VTL_N.S.1						
	VTL_N.S.2VTL_N.S.2.1						
	VTL_N.S.3						
	VTL_N.EN.1VTL_N.EN.2						
	VTL_N.A.1						
	VTL_N.A.2						
	VTL_N.R.1						
	VTL_N.R.2						
	VTL_P.W.1						
	VTL_P.S.1						
	VTL_P.S.2VTL_P.S.2.1						
	VTL_P.S.3						
	VTL_P.EN.1VTL_P.EN.2						
RULECHECK	VTL_P.A.1	TOTAL	Result	Count	=	0	(0)
	VTL_P.A.2						
RULECHECK	VTL_P.R.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	VTL_P.R.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	mVTL.EN.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	mVTL.S.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	mVTL.R.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.W.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.S.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.S.2	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.S.4	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.S.5	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.S.6	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.S.7	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.EN.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.EX.1	NOT EX	KECUTED				
RULECHECK	PP.EX.2	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.EX.3	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.EX.4	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.0.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.A.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.A.2	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	PP.A.3	TOTAL	Result	Count	=	0	(0)
RULECHECK	PP.R.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	PP.R.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	NP.W.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	NP.S.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	NP.S.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	NP.S.4	TOTAL	Result	Count	=	0	(0)
RULECHECK	NP.S.5	TOTAL	Result	Count	=	0	(0)
RULECHECK	NP.S.6	TOTAL	Result	Count	=	0	(0)

RULECHECK NP.S.7	TOTAL Result Count = 0 (0)
RULECHECK NP.EX.1	TOTAL Result Count = 0 (0)
RULECHECK NP.EX.2	TOTAL Result Count = 0 (0)
RULECHECK NP.EX.3	TOTAL Result Count = 0 (0)
RULECHECK NP.EX.4	TOTAL Result Count = 0 (0)
RULECHECK NP.O.1	TOTAL Result Count = 0 (0)
RULECHECK NP.A.1	TOTAL Result Count = 0 (0)
RULECHECK NP.A.2	TOTAL Result Count = 0 (0)
RULECHECK NP.A.3	TOTAL Result Count = 0 (0)
RULECHECK NP.R.1	TOTAL Result Count = 0 (0)
RULECHECK LDN.EX.1	TOTAL Result Count = 0 (0)
RULECHECK LDN.EX.1:DCO	TOTAL Result Count = 0 (0)
RULECHECK LDN.O.1	TOTAL Result Count = 0 (0)
RULECHECK LDP.EX.1	TOTAL Result Count = 0 (0)
RULECHECK LDP.EX.1:DCO	TOTAL Result Count = 0 (0)
RULECHECK LDP.0.2	TOTAL Result Count = 0 (0)
RULECHECK VT.S.1	TOTAL Result Count = 0 (0)
RULECHECK VT.EX.2	TOTAL Result Count = 0 (0)
RULECHECK RPO.W.1	TOTAL Result Count = 0 (0)
RULECHECK RPO.S.1	TOTAL Result Count = 0 (0)
RULECHECK RPO.S.2	TOTAL Result Count = 0 (0)
RULECHECK RPO.S.3	TOTAL Result Count = 0 (0)
RULECHECK RPO.S.4	TOTAL Result Count = 0 (0)
RULECHECK RPO.S.5	TOTAL Result Count = 0 (0)
RULECHECK RPO.EX.1	TOTAL Result Count = 0 (0)
RULECHECK RPO.EX.1.1	TOTAL Result Count = 0 (0)
RULECHECK RPO.EX.2	TOTAL Result Count = 0 (0)
RULECHECK RPO.A.1	TOTAL Result Count = 0 (0)
RULECHECK RPO.A.2	TOTAL Result Count = 0 (0)
RULECHECK RPO.R.1	TOTAL Result Count = 0 (0)
RULECHECK RES.8	TOTAL Result Count = 0 (0)
RULECHECK RES.10	TOTAL Result Count = 0 (0)
RULECHECK RES.11	TOTAL Result Count = 0 (0)
RULECHECK RES.21	TOTAL Result Count = 0 (0)
RULECHECK RES.22	TOTAL Result Count = 0 (0)
RULECHECK RES.12g	
RULECHECK RES.13g	
RULECHECK VAR.W.1	
RULECHECK VAR.W.4	TOTAL Result Count = 0 (0)
RULECHECK VAR.S.1	
RULECHECK VAR.EN.1	TOTAL Result Count = 0 (0)
RULECHECK VAR.R.1	
RULECHECK VAR.R.2	
RULECHECK VAR.R.3	
RULECHECK VAR.R.4	
RULECHECK VAR.R.5	
RULECHECK HVD_N.W.1	
RULECHECK HVD_N.W.2	
RULECHECK HVD_N.S.1	TOTAL Result Count = 0 (0)

RULECHECK	HVD_N.S.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	HVD_N.S.3	TOTAL	Result	${\tt Count}$	=	0	(0)
	HVD_N.S.4						
	HVD_N.S.5						
RULECHECK	HVD_N.S.6	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_N.EX.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_N.O.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_N.L.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_N.A.1	TOTAL	Result	${\tt Count}$	=	0	(0)
	HVD_N.A.2						
	HVD_N.R.1						
RULECHECK	HVD_N.R.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	HVD_N.R.3	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_N.R.4	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_N.R.6	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_P.W.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_P.W.2	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_P.S.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_P.S.2	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_P.S.4	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_P.S.5	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	HVD_P.EX.1	TOTAL	Result	${\tt Count}$	=	0	(0)
	HVD_P.EN.1						
RULECHECK	HVD_P.O.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	HVD_P.L.1	TOTAL	Result	Count	=	0	(0)
	HVD_P.A.1						
	HVD_P.A.2						
	HVD_P.R.1						
RULECHECK	HVD_P.R.2	TOTAL	Result	Count	=	0	(0)
	HVD_P.R.3						
	HVD_P.R.4						
RULECHECK	HVD_P.R.6	TOTAL	Result	Count	=	0	(0)
	GR.R.1						
	GR.R.7GR.R.8						
	GR.R.10GR.R.11						
	GR.R.13						
	GR.R.14						
	BV.W.1g						
	BV.W.2g						
	BV.R.1g						
	CO.W.1						
	CO.W.2						
	CO.S.1						
	CO.S.2						
	CO.S.2.1						
	CO.S.2.2						
	CO.S.3						
	CO.S.4						
RULECHECK	CO.S.5	TOTAL	Result	Count	=	0	(0)

	CO.S.6					
	CO.EN.1					
	CO.EN.1.1					
	CO.EN.2					
	CO.EN.3CO.EN.4					
	M1.W.1					
	M1.W.2					
	M1.W.3					
RULECHECK	M1.S.1	TOTAL Result	Count	=	0	(0)
	M1.S.2					
RULECHECK	M1.S.2.1	TOTAL Result	Count	=	0	(0)
RULECHECK	M1.S.3	TOTAL Result	Count	=	0	(0)
RULECHECK	M1.S.4	TOTAL Result	Count	=	0	(0)
	M1.S.5					
RULECHECK	M1.S.6	TOTAL Result	${\tt Count}$	=	0	(0)
RULECHECK	M1.EN.1	TOTAL Result	${\tt Count}$	=	0	(0)
RULECHECK	M1.EN.2M1.EN.3	TOTAL Result	${\tt Count}$	=	0	(0)
RULECHECK	M1.EN.4	TOTAL Result	${\tt Count}$	=	0	(0)
RULECHECK	M1.A.1	TOTAL Result	${\tt Count}$	=	0	(0)
RULECHECK	M1.A.2	TOTAL Result	${\tt Count}$	=	0	(0)
RULECHECK	M1.DN.1	NOT EXECUTED				
RULECHECK	M1.DN.1.1	NOT EXECUTED				
RULECHECK	M1.DN.2	NOT EXECUTED				
RULECHECK	M1.DN.4	NOT EXECUTED				
RULECHECK	VIA1.W.1	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.W.2	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.S.1	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.S.2	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.S.3	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.EN.1	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.EN.2VIA1.EN.3	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.R.2VIA1.R.3	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.R.4:M1	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.R.4:M2	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.R.5:M1	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.R.5:M2	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.R.6:M1	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.R.6:M2	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA1.R.11	TOTAL Result	Count	=	0	(0)
RULECHECK	M2.W.1	TOTAL Result	Count	=	0	(0)
RULECHECK	M2.W.2	TOTAL Result	Count	=	0	(0)
RULECHECK	M2.W.3	TOTAL Result	Count	=	0	(0)
	M2.S.1					
	M2.S.2					
	M2.S.2.1					
	M2.S.3					
	M2.S.4					
	M2.S.5					
	M2.EN.1					
					-	,

RULECHECK	M2.EN.2M2.EN.3	TOTAL Result	Count	=	0	(0)
RULECHECK	M2.A.1	TOTAL Result	Count	=	0	(0)
	M2.A.2					
RULECHECK	M2.S.6	TOTAL Result	Count	=	0	(0)
RULECHECK	M2.DN.1	NOT EXECUTED				
RULECHECK	M2.DN.1.1	NOT EXECUTED				
	M2.DN.2					
RULECHECK	M2.DN.4	NOT EXECUTED				
RULECHECK	VIA2.W.1	TOTAL Result	Count	=	0	(0)
RULECHECK	VIA2.W.2	TOTAL Result	Count	=	0	(0)
	VIA2.S.1					
	VIA2.S.2					
RULECHECK	VIA2.S.3	TOTAL Result	Count	=	0	(0)
	VIA2.EN.1					
	VIA2.EN.2VIA2.EN.3					
	VIA2.R.2VIA2.R.3					
RULECHECK	VIA2.R.4:M2	TOTAL Result	Count	=	0	(0)
	VIA2.R.4:M3	_				,
	VIA2.R.5:M2					
	VIA2.R.5:M3					
RULECHECK	VIA2.R.6:M2	TOTAL Result	Count	=	0	(0)
	VIA2.R.6:M3					
	VIA2.R.11					
	M3.W.1					
	M3.W.2					
	M3.W.3					
	M3.S.1					
	M3.S.2					
	M3.S.2.1					
	M3.S.3					
	M3.S.4					
	M3.S.5					
	M3.EN.1					
	M3.EN.2M3.EN.3					
	M3.A.1					
	M3.A.2					
	M3.S.6		Count	-	0	(0)
	M3.DN.1					
	M3.DN.1.1					
	M3.DN.2					
	M3.DN.4					
	M1.DN.5		a		^	(0)
	M1.DN.6					
	VIA3.W.1					
	VIA3.W.2					
	VIA3.S.1					
	VIA3.S.2					
	VIA3.S.3					
KULECHECK	VIA3.EN.1	IUIAL Kesult	Count	=	U	(0)

RULECHECK VIA3.EN.2VIA3.EN.3	TOTAL Result Count = 0 (0)
RULECHECK VIA3.R.2VIA3.R.3	TOTAL Result Count = 0 (0)
RULECHECK VIA3.R.4:M3	TOTAL Result Count = 0 (0)
RULECHECK VIA3.R.4:M4	TOTAL Result Count = 0 (0)
RULECHECK VIA3.R.5:M3	TOTAL Result Count = 0 (0)
RULECHECK VIA3.R.5:M4	TOTAL Result Count = 0 (0)
RULECHECK VIA3.R.6:M3	TOTAL Result Count = 0 (0)
RULECHECK VIA3.R.6:M4	TOTAL Result Count = 0 (0)
RULECHECK VIA3.R.11	TOTAL Result Count = 0 (0)
RULECHECK M4.W.1	TOTAL Result Count = 0 (0)
RULECHECK M4.W.2	TOTAL Result Count = 0 (0)
RULECHECK M4.W.3	TOTAL Result Count = 0 (0)
RULECHECK M4.S.1	TOTAL Result Count = 0 (0)
RULECHECK M4.S.2	TOTAL Result Count = 0 (0)
RULECHECK M4.S.2.1	TOTAL Result Count = 0 (0)
RULECHECK M4.S.3	TOTAL Result Count = 0 (0)
RULECHECK M4.S.4	TOTAL Result Count = 0 (0)
RULECHECK M4.S.5	TOTAL Result Count = 0 (0)
RULECHECK M4.EN.1	TOTAL Result Count = 0 (0)
RULECHECK M4.EN.2M4.EN.3	TOTAL Result Count = 0 (0)
RULECHECK M4.A.1	TOTAL Result Count = 0 (0)
RULECHECK M4.A.2	TOTAL Result Count = 0 (0)
RULECHECK M4.S.6	TOTAL Result Count = 0 (0)
RULECHECK M4.DN.1	NOT EXECUTED
RULECHECK M4.DN.1.1	NOT EXECUTED
RULECHECK M4.DN.2	NOT EXECUTED
RULECHECK M4.DN.4	NOT EXECUTED
RULECHECK M2.DN.5	NOT EXECUTED
RULECHECK M2.DN.6	TOTAL Result Count = 0 (0)
RULECHECK VIA4.W.1	TOTAL Result Count = 0 (0)
RULECHECK VIA4.W.2	TOTAL Result Count = 0 (0)
RULECHECK VIA4.S.1	TOTAL Result Count = 0 (0)
RULECHECK VIA4.S.2	TOTAL Result Count = 0 (0)
RULECHECK VIA4.S.3	TOTAL Result Count = 0 (0)
RULECHECK VIA4.EN.1	TOTAL Result Count = 0 (0)
RULECHECK VIA4.EN.2VIA4.EN.3	TOTAL Result Count = 0 (0)
RULECHECK VIA4.R.2VIA4.R.3	TOTAL Result Count = 0 (0)
RULECHECK VIA4.R.4:M4	TOTAL Result Count = 0 (0)
RULECHECK VIA4.R.4:M5	TOTAL Result Count = 0 (0)
RULECHECK VIA4.R.5:M4	TOTAL Result Count = 0 (0)
RULECHECK VIA4.R.5:M5	TOTAL Result Count = 0 (0)
RULECHECK VIA4.R.6:M4	TOTAL Result Count = 0 (0)
RULECHECK VIA4.R.6:M5	TOTAL Result Count = 0 (0)
RULECHECK VIA4.R.11	TOTAL Result Count = 0 (0)
RULECHECK M5.W.1	TOTAL Result Count = 0 (0)
RULECHECK M5.W.2	TOTAL Result Count = 0 (0)
RULECHECK M5.W.3	TOTAL Result Count = 0 (0)
RULECHECK M5.S.1	
RULECHECK M5.S.2	TOTAL Result Count = 0 (0)

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RULECHECK M5.S.2.1 ...... TOTAL Result Count = 0 (0)
RULECHECK M5.EN.2_M5.EN.3 ..... TOTAL Result Count = 0 (0)
RULECHECK M5.DN.1 ...... NOT EXECUTED
RULECHECK M5.DN.1.1 ...... NOT EXECUTED
RULECHECK M5.DN.2 ..... NOT EXECUTED
RULECHECK M5.DN.4 ...... NOT EXECUTED
RULECHECK M3.DN.5 ...... NOT EXECUTED
RULECHECK M3.DN.6 ...... TOTAL Result Count = 0 (0)
RULECHECK VIA5.W.1 ...... TOTAL Result Count = 0 (0)
RULECHECK VIA5.W.2 ...... TOTAL Result Count = 0 (0)
RULECHECK VIA5.S.2 ..... TOTAL Result Count = 0 (0)
RULECHECK VIA5.S.3 ..... TOTAL Result Count = 0 (0)
RULECHECK VIA5.EN.1 ...... TOTAL Result Count = 0 (0)
RULECHECK VIA5.EN.2__VIA5.EN.3 ...... TOTAL Result Count = 0 (0)
RULECHECK VIA5.R.2__VIA5.R.3 ..... TOTAL Result Count = 0 (0)
RULECHECK VIA5.R.4:M5 ...... TOTAL Result Count = 0 (0)
RULECHECK VIA5.R.4:M6 ...... TOTAL Result Count = 0 (0)
RULECHECK VIA5.R.5:M5 ..... TOTAL Result Count = 0 (0)
RULECHECK VIA5.R.5:M6 ...... TOTAL Result Count = 0 (0)
RULECHECK VIA5.R.6:M5 ...... TOTAL Result Count = 0 (0)
RULECHECK VIA5.R.6:M6 ...... TOTAL Result Count = 0 (0)
RULECHECK M6.W.1 ...... TOTAL Result Count = 0 (0)
RULECHECK M6.W.2 ...... TOTAL Result Count = 0 (0)
RULECHECK M6.W.3 ...... TOTAL Result Count = 0 (0)
RULECHECK M6.S.2.1 ...... TOTAL Result Count = 0 (0)
RULECHECK M6.S.5 ...... TOTAL Result Count = 0 (0)
RULECHECK M6.EN.2_M6.EN.3 ..... TOTAL Result Count = 0 (0)
RULECHECK M6.A.1 ...... TOTAL Result Count = 0 (0)
RULECHECK M6.S.6 ...... TOTAL Result Count = 0 (0)
RULECHECK M6.DN.1 ...... NOT EXECUTED
RULECHECK M6.DN.1.1 ...... NOT EXECUTED
RULECHECK M6.DN.2 ...... NOT EXECUTED
RULECHECK M6.DN.4 ...... NOT EXECUTED
RULECHECK M4.DN.5 ...... NOT EXECUTED
```

RULECHECK	M4.DN.6	TOTAL	Result	Count	=	0	(0)
RULECHECK	VIA6.W.1	TOTAL	Result	${\tt Count}$	=	0	(0)
RULECHECK	VIA6.W.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	VIA6.S.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	VIA6.S.2	TOTAL	Result	Count	=	0	(0)
	VIA6.S.3						
RULECHECK	VIA6.EN.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	VIA6.EN.2VIA6.EN.3	TOTAL	Result	Count	=	0	(0)
RULECHECK	VIA6.R.2VIA6.R.3	TOTAL	Result	Count	=	0	(0)
	VIA6.R.4:M6						
RULECHECK	VIA6.R.4:M7	TOTAL	Result	Count	=	0	(0)
RULECHECK	VIA6.R.5:M6	TOTAL	Result	Count	=	0	(0)
RULECHECK	VIA6.R.5:M7	TOTAL	Result	Count	=	0	(0)
	VIA6.R.6:M6						
RULECHECK	VIA6.R.6:M7	TOTAL	Result	Count	=	0	(0)
RULECHECK	VIA6.R.11	TOTAL	Result	Count	=	0	(0)
RULECHECK	M7.W.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	M7.W.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	M7.W.3	TOTAL	Result	Count	=	0	(0)
RULECHECK	M7.S.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	M7.S.2	TOTAL	Result	Count	=	0	(0)
RULECHECK	M7.S.2.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	M7.S.3	TOTAL	Result	Count	=	0	(0)
RULECHECK	M7.S.4	TOTAL	Result	Count	=	0	(0)
RULECHECK	M7.S.5	TOTAL	Result	Count	=	0	(0)
	M7.EN.1						
RULECHECK	M7.EN.2M7.EN.3	TOTAL	Result	Count	=	0	(0)
	M7.A.1						
RULECHECK	M7.A.2	TOTAL	Result	Count	=	0	(0)
	M7.S.6	_		Count	=	0	(0)
	M7.DN.1						
RULECHECK	M7.DN.1.1	NOT E	XECUTED				
RULECHECK	M7.DN.2	NOT E	XECUTED				
	M7.DN.4						
	M5.DN.5						
	M5.DN.6						
RULECHECK	VIA7.W.1	TOTAL	Result	Count	=	0	(0)
	VIA7.W.2						
RULECHECK	VIA7.S.1	TOTAL	Result	Count	=	0	(0)
	VIA7.S.2						
RULECHECK	VIA7.EN.1	TOTAL	Result	Count	=	0	(0)
	VIA7.EN.2						
	VIA7.R.2						
	VIA7.R.3:M7						
	VIA7.R.3:M8						
	VIA7.EN.3						
	VIA7.EN.4						
	VIA7.S.3						
RULECHECK	VIA7.S.4	TOTAL	Result	Count	=	0	(0)

RULECHECK VIA7.S.5	TOTAL Result Count = 0 (0)
RULECHECK VIA7.R.7	TOTAL Result Count = 0 (0)
RULECHECK M8.W.1	TOTAL Result Count = 0 (0)
RULECHECK M8.W.2	TOTAL Result Count = 0 (0)
RULECHECK M8.S.1	TOTAL Result Count = 0 (0)
RULECHECK M8.S.2	TOTAL Result Count = 0 (0)
RULECHECK M8.S.3	TOTAL Result Count = 0 (0)
RULECHECK M8.EN.1	TOTAL Result Count = 0 (0)
RULECHECK M8.EN.2	TOTAL Result Count = 0 (0)
RULECHECK M8.A.1	TOTAL Result Count = 0 (0)
RULECHECK M8.A.2	TOTAL Result Count = 0 (0)
RULECHECK M8.DN.1	NOT EXECUTED
RULECHECK M8.DN.1.1	NOT EXECUTED
RULECHECK M8.DN.2	NOT EXECUTED
RULECHECK M8.DN.4	NOT EXECUTED
RULECHECK M8.EN.3	TOTAL Result Count = 0 (0)
RULECHECK M8.DN.5:L	NOT EXECUTED
RULECHECK M8.DN.5:H	NOT EXECUTED
RULECHECK M8.W.4	TOTAL Result Count = 0 (0)
RULECHECK M8.S.4	TOTAL Result Count = 0 (0)
RULECHECK VIA8.W.1	TOTAL Result Count = 0 (0)
RULECHECK VIA8.W.2	TOTAL Result Count = 0 (0)
RULECHECK VIA8.S.1	TOTAL Result Count = 0 (0)
RULECHECK VIA8.S.2	TOTAL Result Count = 0 (0)
RULECHECK VIA8.EN.5	TOTAL Result Count = 0 (0)
RULECHECK VIA8.R.8	
RULECHECK VIA8.R.3:M8	
RULECHECK VIA8.R.3:M9	
RULECHECK M9.W.1	
RULECHECK M9.W.2	
RULECHECK M9.S.1	
RULECHECK M9.EN.1	
RULECHECK M9.A.1	
RULECHECK M9.A.2	
RULECHECK M9.DN.1:L	
RULECHECK M9.DN.1:H	
RULECHECK M9.DN.2:L	
RULECHECK M9.DN.2:H	
RULECHECK CTM.W.2	
RULECHECK CTM.EN.1	
RULECHECK CBM.W.1	
RULECHECK CBM.W.2	
RULECHECK CBM.S.1	
RULECHECK CBM.S.2	
RULECHECK CBM.S.3	
RULECHECK CBM.EN.2	
	(0)

RULECHECK	CBM.R.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.2:M1	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.2:M2	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.2:M3	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.2:M4	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.2:M5	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.2:M6	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.2:M7	TOTAL	Result	Count	=	0	(0)
	MOM.A.1						
RULECHECK	MOM.S.3:M1	TOTAL	Result	Count	=	0	(0)
	MOM.S.3:M2						
RULECHECK	MOM.S.3:M3	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.3:M4	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.3:M5	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.3:M6	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.3:M7	TOTAL	Result	Count	=	0	(0)
	MOM.S.4:VIA1						
RULECHECK	MOM.S.4:VIA2	TOTAL	Result	Count	=	0	(0)
	MOM.S.4:VIA3						
RULECHECK	MOM.S.4:VIA4	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.4:VIA5	TOTAL	Result	Count	=	0	(0)
RULECHECK	MOM.S.4:VIA6	TOTAL	Result	Count	=	0	(0)
	MOM.A.2						
RULECHECK	IND.W.1	TOTAL	Result	Count	=	0	(0)
RULECHECK	IND.W.2:M2	TOTAL	Result	Count	=	0	(0)
RULECHECK	IND.W.2:M3	TOTAL	Result	Count	=	0	(0)
	IND.W.2:M4						
	IND.W.2:M5						
	IND.W.2:M6						
	IND.W.2:M7						
	IND.W.3:M8						
	IND.S.1						
	IND.S.2:M2						
	IND.S.2:M3						
	IND.S.2:M4						
	IND.S.2:M5						
	IND.S.2:M6						
	IND.S.2:M7						
	IND.S.3:M8						
	IND.S.4:M1						
	IND.S.5:M1						
	IND.S.4:M2						
	IND.S.5:M2						
	IND.S.4:M3						
	IND.S.5:M3						
	IND.S.4:M4						
	IND.S.5:M4						
RULECHECK	IND.S.4:M5	TUTAL	Kesult	Count	=	0	(0)

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RULECHECK IND.S.4:M7 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.S.4:M8 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.W.4:M2 ..... TOTAL Result Count = 0 (0)
RULECHECK IND.W.4:M3 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.W.4:M4 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.W.4:M5 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.W.4:M6 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.W.4:M7 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.W.6:M8 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.W.6:M9 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.W.7 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.1:M1 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.1:M2 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.1:M3 ..... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.1:M4 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.1:M5 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.1:M6 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.1:M7 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.1:M8 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.1:M9 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.R.8:M1 ..... TOTAL Result Count = 0 (0)
RULECHECK IND.R.8:M2 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.R.8:M3 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.R.8:M7 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.R.8:M9 ..... TOTAL Result Count = 0 (0)
RULECHECK IND.R.1 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.R.2_IND.R.3:VIA7 ..... TOTAL Result Count = 0 (0)
RULECHECK IND.R.2__IND.R.3:VIA8 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.R.4 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.R.13 ...... TOTAL Result Count = 0 (0)
RULECHECK IND.R.6 ..... TOTAL Result Count = 0 (0)
RULECHECK IND.DN.6 ...... NOT EXECUTED
RULECHECK IND.DN.9 ..... NOT EXECUTED
RULECHECK IND.DN.7:M1 ..... NOT EXECUTED
RULECHECK IND.DN.7:M2 ..... NOT EXECUTED
RULECHECK IND.DN.7:M3 ..... NOT EXECUTED
RULECHECK IND.DN.7:M4 ...... NOT EXECUTED
RULECHECK IND.DN.7:M5 ..... NOT EXECUTED
RULECHECK IND.DN.7:M6 ...... NOT EXECUTED
```

RULECHECK	IND.DN.7:M7	NOT EXECUTED
RULECHECK	IND.DN.7:M8	NOT EXECUTED
RULECHECK	IND.DN.8:M1	NOT EXECUTED
RULECHECK	IND.DN.8:M2	NOT EXECUTED
RULECHECK	IND.DN.8:M3	NOT EXECUTED
RULECHECK	IND.DN.8:M4	NOT EXECUTED
RULECHECK	IND.DN.8:M5	NOT EXECUTED
RULECHECK	IND.DN.8:M6	NOT EXECUTED
RULECHECK	IND.DN.8:M7	NOT EXECUTED
RULECHECK	IND.DN.8:M8	NOT EXECUTED
RULECHECK	IND_MD.DN.11:L_M1	NOT EXECUTED
RULECHECK	IND_MD.DN.11:H_M1	NOT EXECUTED
RULECHECK	IND_MD.DN.11:L_M2	NOT EXECUTED
RULECHECK	IND_MD.DN.11:H_M2	NOT EXECUTED
RULECHECK	IND_MD.DN.11:L_M3	NOT EXECUTED
RULECHECK	IND_MD.DN.11:H_M3	NOT EXECUTED
RULECHECK	IND_MD.DN.11:L_M4	NOT EXECUTED
	IND_MD.DN.11:H_M4	
RULECHECK	IND_MD.DN.11:L_M5	NOT EXECUTED
RULECHECK	IND_MD.DN.11:H_M5	NOT EXECUTED
	IND_MD.DN.11:L_M6	
RULECHECK	IND_MD.DN.11:H_M6	NOT EXECUTED
RULECHECK	IND_MD.DN.11:L_M7	NOT EXECUTED
RULECHECK	IND_MD.DN.11:H_M7	NOT EXECUTED
RULECHECK	IND_MD.DN.11:L_M8	NOT EXECUTED
RULECHECK	IND_MD.DN.11:H_M8	NOT EXECUTED
RULECHECK	IND_MD.DN.11:L_M9	NOT EXECUTED
RULECHECK	IND_MD.DN.11:H_M9	NOT EXECUTED
RULECHECK	IND_MD.DN.10:M1	NOT EXECUTED
RULECHECK	IND_MD.DN.10:M2	NOT EXECUTED
	IND_MD.DN.10:M3	
RULECHECK	IND_MD.DN.10:M4	NOT EXECUTED
RULECHECK	IND_MD.DN.10:M5	NOT EXECUTED
RULECHECK	IND_MD.DN.10:M6	NOT EXECUTED
RULECHECK	IND_MD.R.17:VIA1	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.R.17:VIA2	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.R.17:VIA3	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.R.17:VIA4	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.R.17:VIA5	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.R.17:VIA6	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.W.1	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.W.2:M2	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.W.2:M3	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.W.2:M4	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.W.2:M5	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.W.2:M6	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.W.2:M7	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.W.3:M8	TOTAL Result Count = 0 (0)
RULECHECK	IND_MD.W.4:M1	TOTAL Result Count = 0 (0)

```
RULECHECK IND_MD.W.4:M2 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.W.4:M3 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.W.4:M4 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.W.4:M5 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.W.4:M6 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.W.4:M7 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.W.7 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.2:M2 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.2:M3 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.2:M4 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.2:M5 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.2:M6 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.2:M7 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.3:M8 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.4:M1 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.5:M1 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.4:M2 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.5:M2 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.4:M3 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.5:M3 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.4:M4 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.5:M4 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.4:M5 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.5:M5 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.4:M6 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.5:M6 ...... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.4:M7 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.5:M7 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.4:M8 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.S.5:M8 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.2__IND_MD.R.3:VIA7 ... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.2__IND_MD.R.3:VIA8 ... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.13:M1 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.13:M2 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.13:M3 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.13:M4 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.13:M5 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.13:M6 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.13:M7 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.13:M8 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.R.13:M9 ..... TOTAL Result Count = 0 (0)
RULECHECK IND_MD.DN.6 ...... NOT EXECUTED
RULECHECK IND_MD.DN.9 ...... NOT EXECUTED
RULECHECK IND_MD.DN.7:M1 ..... NOT EXECUTED
RULECHECK IND_MD.DN.7:M2 ..... NOT EXECUTED
RULECHECK IND_MD.DN.7:M3 ..... NOT EXECUTED
RULECHECK IND_MD.DN.7:M4 ..... NOT EXECUTED
RULECHECK IND_MD.DN.7:M5 ..... NOT EXECUTED
```

RULECHECK	IND_MD.DN.7:M6	NOT	EXECUTED
RULECHECK	IND_MD.DN.7:M7	NOT	EXECUTED
RULECHECK	IND_MD.DN.7:M8	NOT	EXECUTED
RULECHECK	IND_MD.DN.8:M1	NOT	EXECUTED
RULECHECK	IND_MD.DN.8:M2	NOT	EXECUTED
RULECHECK	IND_MD.DN.8:M3	NOT	EXECUTED
RULECHECK	IND_MD.DN.8:M4	NOT	EXECUTED
RULECHECK	IND_MD.DN.8:M5	NOT	EXECUTED
RULECHECK	IND_MD.DN.8:M6	NOT	EXECUTED
RULECHECK	IND_MD.DN.8:M7	NOT	EXECUTED
RULECHECK	IND_MD.DN.8:M8	NOT	EXECUTED
RULECHECK	CSR.R.1:DNWi	NOT	EXECUTED
RULECHECK	CSR.R.1:NWi	NOT	EXECUTED
RULECHECK	CSR.R.1:OD_18i	NOT	EXECUTED
RULECHECK	CSR.R.1:OD_25i	NOT	EXECUTED
RULECHECK	CSR.R.1:OD25_33	NOT	EXECUTED
RULECHECK	CSR.R.1:OD25_18	NOT	EXECUTED
	CSR.R.1:OD_33i		EXECUTED
	CSR.R.1:OD_DECAP		EXECUTED
RULECHECK	CSR.R.1:PPi	NOT	EXECUTED
RULECHECK	CSR.R.1:NPi	NOT	EXECUTED
RULECHECK	CSR.R.1:COi	NOT	EXECUTED
RULECHECK	CSR.R.1:CO_PUSH	NOT	EXECUTED
RULECHECK	CSR.R.1:CBi	NOT	EXECUTED
RULECHECK	CSR.R.1:CB2i	NOT	EXECUTED
RULECHECK	CSR.R.1:RPOi	NOT	EXECUTED
RULECHECK	CSR.R.1:NT_Ni	NOT	EXECUTED
RULECHECK	CSR.R.1:NCap_NTNi	NOT	EXECUTED
RULECHECK	CSR.R.1:FWALi	NOT	EXECUTED
RULECHECK	CSR.R.1:FWCUi	NOT	EXECUTED
RULECHECK	CSR.R.1:POFUSE	NOT	EXECUTED
RULECHECK	CSR.R.1:FUSELINK	NOT	EXECUTED
RULECHECK	CSR.R.1:PMi	NOT	EXECUTED
RULECHECK	CSR.R.1:PM1i	NOT	EXECUTED
RULECHECK	CSR.R.1:PM2i	NOT	EXECUTED
RULECHECK	CSR.R.1:SEALRINGi	NOT	EXECUTED
RULECHECK	CSR.R.1:VTH_Ni	NOT	EXECUTED
RULECHECK	CSR.R.1:VTH_Pi	NOT	EXECUTED
RULECHECK	CSR.R.1:VTL_Ni	NOT	EXECUTED
RULECHECK	CSR.R.1:VTL_Pi	NOT	EXECUTED
RULECHECK	CSR.R.1:UHVT_Ni	NOT	EXECUTED
	CSR.R.1:UHVT_Pi		
	CSR.R.1:CBDi		
RULECHECK	CSR.R.1:UBMi	NOT	EXECUTED
	CSR.R.1:RH		EXECUTED
	CSR.R.1:ESD3	_	EXECUTED
	CSR.R.1:VARi		
	CSR.R.1:APi		
RULECHECK	CSR.R.1:Cu_PPIi	NOT	EXECUTED

RULECHECK	CSR.R.1:CBMi	NOT	EXECUTED
RULECHECK	CSR.R.1:CTMi	NOT	EXECUTED
RULECHECK	CSR.R.1:RVi	NOT	EXECUTED
RULECHECK	CSR.R.1:DCOi	NOT	EXECUTED
RULECHECK	CSR.R.1:HVD_P	NOT	EXECUTED
RULECHECK	CSR.R.1:HVD_N_nw	NOT	EXECUTED
RULECHECK	CSR.R.1:BJTDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:NWDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:RPDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:PMDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:SDI	NOT	EXECUTED
RULECHECK	CSR.R.1:ESD1DMY	NOT	EXECUTED
RULECHECK	CSR.R.1:ESD2DMY	NOT	EXECUTED
RULECHECK	CSR.R.1:LMARK	NOT	EXECUTED
RULECHECK	CSR.R.1:SRM	NOT	EXECUTED
RULECHECK	CSR.R.1:CSRDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:CDUDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:TCDDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:LOGO	NOT	EXECUTED
RULECHECK	CSR.R.1:INDDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:CTMDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:CTMDMY_10	NOT	EXECUTED
RULECHECK	CSR.R.1:CTMDMY_15	NOT	EXECUTED
RULECHECK	CSR.R.1:CTMDMY_20	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_1	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_2	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_3	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_4	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_5	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_6	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_7	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_8	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_9	NOT	EXECUTED
RULECHECK	CSR.R.1:MOMDMY_AP	NOT	EXECUTED
RULECHECK	CSR.R.1:RTMOMDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:RFDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:WBDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:DIODMY	NOT	EXECUTED
RULECHECK	CSR.R.1:SRAMDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:SRAMDMY_4	NOT	EXECUTED
RULECHECK	CSR.R.1:SRAMDMY_5	NOT	EXECUTED
RULECHECK	CSR.R.1:SRAMDMY_1	NOT	EXECUTED
RULECHECK	CSR.R.1:RAM1TDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:OD1Ti	NOT	EXECUTED
RULECHECK	CSR.R.1:CLDDi	NOT	EXECUTED
RULECHECK	CSR.R.1:CROWNi	NOT	EXECUTED
RULECHECK	CSR.R.1:P3i	NOT	EXECUTED
RULECHECK	CSR.R.1:SNCTi	NOT	EXECUTED
RULECHECK	CSR.R.1:LUPWDMY	NOT	EXECUTED

RULECHECK	CSR.R.1:VDDDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:VSSDMY	NOT	EXECUTED
RULECHECK	CSR.R.1:M1i	NOT	EXECUTED
RULECHECK	CSR.R.1:M1_real	NOT	EXECUTED
RULECHECK	CSR.R.1:DM1_0	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM1	NOT	EXECUTED
RULECHECK	CSR.R.1:M2i	NOT	EXECUTED
RULECHECK	CSR.R.1:M2_real	NOT	EXECUTED
RULECHECK	CSR.R.1:DM2_0	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM2	NOT	EXECUTED
	CSR.R.1:M3i		
	CSR.R.1:M3_real		
RULECHECK	CSR.R.1:DM3_0	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM3	NOT	EXECUTED
RULECHECK	CSR.R.1:M4i	NOT	EXECUTED
RULECHECK	CSR.R.1:M4_real	NOT	EXECUTED
RULECHECK	CSR.R.1:DM4_0	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM4	NOT	EXECUTED
RULECHECK	CSR.R.1:M5i	NOT	EXECUTED
RULECHECK	CSR.R.1:M5_real	NOT	EXECUTED
RULECHECK	CSR.R.1:DM5_0	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM5	NOT	EXECUTED
RULECHECK	CSR.R.1:M6i	NOT	EXECUTED
RULECHECK	CSR.R.1:M6_real	NOT	EXECUTED
RULECHECK	CSR.R.1:DM6_0	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM6	NOT	EXECUTED
RULECHECK	CSR.R.1:M7i	NOT	EXECUTED
RULECHECK	CSR.R.1:M7_real	NOT	EXECUTED
RULECHECK	CSR.R.1:DM7_0	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM7	NOT	EXECUTED
RULECHECK	CSR.R.1:M8_OLD	NOT	EXECUTED
RULECHECK	CSR.R.1:M8_NEW	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM8_OLD	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM8_NEW	NOT	EXECUTED
RULECHECK	CSR.R.1:M9_OLD	NOT	EXECUTED
RULECHECK	CSR.R.1:M9_NEW	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM9_OLD	NOT	EXECUTED
RULECHECK	CSR.R.1:DUM9_NEW	NOT	EXECUTED
RULECHECK	CSR.R.1:VIA1i	NOT	EXECUTED
RULECHECK	CSR.R.1:VIA2i	NOT	EXECUTED
RULECHECK	CSR.R.1:VIA3i	NOT	EXECUTED
RULECHECK	CSR.R.1:VIA4i	NOT	EXECUTED
RULECHECK	CSR.R.1:VIA5i	NOT	EXECUTED
RULECHECK	CSR.R.1:VIA6i	NOT	EXECUTED
RULECHECK	CSR.R.1:VIA7_OLD	NOT	EXECUTED
	CSR.R.1:VIA7_NEW		
RULECHECK	CSR.R.1:VIA8_OLD	NOT	EXECUTED
	CSR.R.1:VIA8_NEW		
RULECHECK	CSR.R.1:VIA9_OLD	NOT	EXECUTED

	CSR.R.1:VIA9_NEW					
	CSR.R.1:0Di					
	CSR.R.1:DOD					
	CSR.R.1:P0i					
	CSR.R.1:DPO					
	CSR.R.1:mVTLi					
	CSR.R.1:INDDMY_COIL					
	CSR.R.1:INDDMY_MD					
	CSR.R.1:INDDMY_HD					
	CSR.R.2:A					
	CSR.R.2:B					
	CSR.R.2:C					
	CSR.R.2:D					
	CSR.R.2:E					
	CSR.R.2:F					
	CSR.S.1					
	CSR.EN.1					
	CSR.S.2					
	CSR.EN.2					
	CSR.S.4					
	CSR.EN.4		Count	=	0	(0)
	CSR.R.3:CO					
	CSR.R.3:VIA1					
	CSR.R.3:VIA2					
	CSR.R.3:VIA3					
	CSR.R.3:VIA4					
	CSR.R.3:VIA5					
	CSR.R.3:VIA6					
	CSR.R.3:VIA7					
	CSR.R.3:VIA8					
	CSR.W.1					
	CSR.W.2					
	CSR.L.1					
	CSR.EN.5.1					
	CSR.EN.6.1:M1i					
	CSR.EN.6.1:M2i					
	CSR.EN.6.1:M3i					
	CSR.EN.6.1:M4i					
	CSR.EN.6.1:M5i					
	CSR.EN.6.1:M6i					
	CSR.EN.6.1:M7i					
	CSR.EN.6.1:M8i					
	CSR.EN.6.1:M9i					
	CSR.EN.6.1:APi					
	CSR.EN.7:VIA1					
	CSR.EN.7:VIA2					
	CSR.EN.7:VIA3					
	CSR.EN.7:VIA4					
RULECHECK	CSR.EN.7:VIA5	TOTAL Result	Count	=	0	(0)

RULECHECK CSR.EN.7:VIA6	
RULECHECK CSR.EN.7:VIA7	
RULECHECK CSR.EN.7:VIA8	
RULECHECK CSR.EN.8	
RULECHECK SR.S.1	
RULECHECK SR.S.1:M1	
RULECHECK SR.S.1:M2	
RULECHECK SR.S.1:M3	
RULECHECK SR.S.1:M4	TOTAL Result Count = 0 (0)
RULECHECK SR.S.1:M5	
RULECHECK SR.S.1:M6	
RULECHECK SR.S.1:M7	
RULECHECK SR.S.1:M8	
RULECHECK SR.S.1:M9	
RULECHECK SR.S.1:AP	
RULECHECK SR.AP: WARNING	
RULECHECK SR.CB2:WARNING	TOTAL Result Count = 0 (0)
RULECHECK SR.CB:WARNING	
RULECHECK SR.CBD_RV:WARNING	
RULECHECK SR.UBM: WARNING	
RULECHECK SR.CO_VIA:WARNING	TOTAL Result Count = 0 (0)
RULECHECK SR.R.1	
RULECHECK SR.EN.1	TOTAL Result Count = 0 (0)
RULECHECK CDU.R.1	TOTAL Result Count = 0 (0)
RULECHECK CDU.R.2	TOTAL Result Count = 0 (0)
RULECHECK CDU: WARNING1	
RULECHECK CDU: WARNING2	
RULECHECK DM1.W.1	
RULECHECK DM1.W.2	
RULECHECK DM1.S.1	
RULECHECK DM1.S.2	
RULECHECK DM1.S.3	
RULECHECK DM1.S.3.1	
RULECHECK DM1.S.4	
RULECHECK DM1.S.5	
RULECHECK DM1.S.5.1	
RULECHECK DM1.S.7	
RULECHECK DM1.S.8	
RULECHECK DM1.S.10	
RULECHECK DM1.EN.1	
RULECHECK DM1.A.1	
RULECHECK DM1.A.2	
RULECHECK DM1.R.1	
RULECHECK DM1.R.3	
RULECHECK DM1_O.R.1	
RULECHECK DM2.W.1	
RULECHECK DM2.W.2	
RULECHECK DM2.S.1	
RULECHECK DM2.S.2	NOT EXECUTED

RULECHECK	DM2.S.3	NOT	EXECUTED
RULECHECK	DM2.S.3.1	NOT	EXECUTED
RULECHECK	DM2.S.4	NOT	EXECUTED
RULECHECK	DM2.S.5	NOT	EXECUTED
RULECHECK	DM2.S.5.1	NOT	EXECUTED
RULECHECK	DM2.S.7	NOT	EXECUTED
RULECHECK	DM2.S.8	NOT	EXECUTED
RULECHECK	DM2.S.10	NOT	EXECUTED
RULECHECK	DM2.EN.1	NOT	EXECUTED
RULECHECK	DM2.A.1	NOT	EXECUTED
RULECHECK	DM2.A.2	NOT	EXECUTED
	DM2.R.1	_	
	DM2.R.3		
	DM2_0.R.1		
RULECHECK	DM3.W.1	NOT	EXECUTED
RULECHECK	DM3.W.2	NOT	EXECUTED
RULECHECK	DM3.S.1	NOT	EXECUTED
RULECHECK	DM3.S.2	NOT	EXECUTED
RULECHECK	DM3.S.3	NOT	EXECUTED
RULECHECK	DM3.S.3.1	NOT	EXECUTED
RULECHECK	DM3.S.4	NOT	EXECUTED
RULECHECK	DM3.S.5	NOT	EXECUTED
	DM3.S.5.1		
RULECHECK	DM3.S.7	NOT	EXECUTED
RULECHECK	DM3.S.8	NOT	EXECUTED
RULECHECK	DM3.S.10	NOT	EXECUTED
RULECHECK	DM3.EN.1	NOT	EXECUTED
RULECHECK	DM3.A.1	NOT	EXECUTED
RULECHECK	DM3.A.2	NOT	EXECUTED
RULECHECK	DM3.R.1	NOT	EXECUTED
RULECHECK	DM3.R.3	NOT	EXECUTED
	DM3_0.R.1		
RULECHECK	DM4.W.1	NOT	EXECUTED
RULECHECK	DM4.W.2	NOT	EXECUTED
RULECHECK	DM4.S.1	NOT	EXECUTED
RULECHECK	DM4.S.2	NOT	EXECUTED
RULECHECK	DM4.S.3	NOT	EXECUTED
RULECHECK	DM4.S.3.1	NOT	EXECUTED
RULECHECK	DM4.S.4	NOT	EXECUTED
RULECHECK	DM4.S.5	NOT	EXECUTED
RULECHECK	DM4.S.5.1	NOT	EXECUTED
RULECHECK	DM4.S.7	NOT	EXECUTED
	DM4.S.8		
RULECHECK	DM4.S.10	NOT	EXECUTED
RULECHECK	DM4.EN.1	NOT	EXECUTED
	DM4.A.1		
RULECHECK	DM4.A.2	NOT	EXECUTED
	DM4.R.1	_	
RULECHECK	DM4.R.3	NOT	EXECUTED

RULECHECK	DM4_0.R.1	NOT	EXECUTED
RULECHECK	DM5.W.1	NOT	EXECUTED
RULECHECK	DM5.W.2	NOT	EXECUTED
RULECHECK	DM5.S.1	NOT	EXECUTED
RULECHECK	DM5.S.2	NOT	EXECUTED
RULECHECK	DM5.S.3	NOT	EXECUTED
RULECHECK	DM5.S.3.1	NOT	EXECUTED
RULECHECK	DM5.S.4	NOT	EXECUTED
RULECHECK	DM5.S.5	NOT	EXECUTED
RULECHECK	DM5.S.5.1	NOT	EXECUTED
RULECHECK	DM5.S.7	NOT	EXECUTED
RULECHECK	DM5.S.8	NOT	EXECUTED
RULECHECK	DM5.S.10	NOT	EXECUTED
RULECHECK	DM5.EN.1	NOT	EXECUTED
RULECHECK	DM5.A.1	NOT	EXECUTED
RULECHECK	DM5.A.2	NOT	EXECUTED
RULECHECK	DM5.R.1	NOT	EXECUTED
RULECHECK	DM5.R.3	NOT	EXECUTED
RULECHECK	DM5_0.R.1	NOT	EXECUTED
RULECHECK	DM6.W.1	NOT	EXECUTED
RULECHECK	DM6.W.2	NOT	EXECUTED
RULECHECK	DM6.S.1	NOT	EXECUTED
RULECHECK	DM6.S.2	NOT	EXECUTED
RULECHECK	DM6.S.3	NOT	EXECUTED
RULECHECK	DM6.S.3.1	NOT	EXECUTED
RULECHECK	DM6.S.4	NOT	EXECUTED
RULECHECK	DM6.S.5	NOT	EXECUTED
RULECHECK	DM6.S.5.1	NOT	EXECUTED
RULECHECK	DM6.S.7	NOT	EXECUTED
RULECHECK	DM6.S.8	NOT	EXECUTED
RULECHECK	DM6.S.10	NOT	EXECUTED
RULECHECK	DM6.EN.1	NOT	EXECUTED
RULECHECK	DM6.A.1	NOT	EXECUTED
RULECHECK	DM6.A.2	NOT	EXECUTED
RULECHECK	DM6.R.1	NOT	EXECUTED
RULECHECK	DM6.R.3	NOT	EXECUTED
RULECHECK	DM6_0.R.1	NOT	EXECUTED
RULECHECK	DM7.W.1	NOT	EXECUTED
RULECHECK	DM7.W.2	NOT	EXECUTED
RULECHECK	DM7.S.1	NOT	EXECUTED
RULECHECK	DM7.S.2	NOT	EXECUTED
RULECHECK	DM7.S.3	NOT	EXECUTED
RULECHECK	DM7.S.3.1	NOT	EXECUTED
RULECHECK	DM7.S.4	NOT	EXECUTED
RULECHECK	DM7.S.5	NOT	EXECUTED
RULECHECK	DM7.S.5.1	NOT	EXECUTED
RULECHECK	DM7.S.7	NOT	EXECUTED
RULECHECK	DM7.S.8	NOT	EXECUTED
RULECHECK	DM7.S.9	NOT	EXECUTED

RULECHECK	DM7.S.10	NOT EXECUTED
RULECHECK	DM7.EN.1	NOT EXECUTED
RULECHECK	DM7.A.1	NOT EXECUTED
RULECHECK	DM7.A.2	NOT EXECUTED
RULECHECK	DM7.R.1	NOT EXECUTED
RULECHECK	DM7.R.3	NOT EXECUTED
RULECHECK	DM7_0.R.1	NOT EXECUTED
RULECHECK	DM8.W.1	NOT EXECUTED
RULECHECK	DM8.W.2	NOT EXECUTED
RULECHECK	DM8.S.1	NOT EXECUTED
RULECHECK	DM8.S.2	NOT EXECUTED
RULECHECK	DM8.S.3	NOT EXECUTED
RULECHECK	DM8.S.4	NOT EXECUTED
RULECHECK	DM8.S.5	NOT EXECUTED
RULECHECK	DM8.S.5.1	NOT EXECUTED
RULECHECK	DM8.S.7	NOT EXECUTED
RULECHECK	DM8.S.8	NOT EXECUTED
RULECHECK	DM8.EN.1	NOT EXECUTED
RULECHECK	DM8.A.1	NOT EXECUTED
RULECHECK	DM8.A.2	NOT EXECUTED
RULECHECK	DM8.R.1	NOT EXECUTED
RULECHECK	DM8.R.3	NOT EXECUTED
RULECHECK	DM9.W.1	NOT EXECUTED
RULECHECK	DM9.W.2	NOT EXECUTED
RULECHECK	DM9.S.1	NOT EXECUTED
RULECHECK	DM9.S.2	NOT EXECUTED
RULECHECK	DM9.S.3	NOT EXECUTED
RULECHECK	DM9.S.4	NOT EXECUTED
RULECHECK	DM9.S.5	NOT EXECUTED
RULECHECK	DM9.S.5.1	NOT EXECUTED
	DM9.S.7	
RULECHECK	DM9.S.8	NOT EXECUTED
RULECHECK	DM9.EN.1	NOT EXECUTED
RULECHECK	DM9.A.1	NOT EXECUTED
RULECHECK	DM9.A.2	NOT EXECUTED
RULECHECK	DM9.R.1	NOT EXECUTED
RULECHECK	DM9.R.3	NOT EXECUTED
RULECHECK	RV.W.1.WB	TOTAL Result Count = 0 (0)
RULECHECK	RV.S.1.WB	TOTAL Result Count = 0 (0)
RULECHECK	RV.S.3.WB	TOTAL Result Count = 0 (0)
RULECHECK	RV.EN.1.WB	TOTAL Result Count = 0 (0)
RULECHECK	RV.R.1.WB	TOTAL Result Count = 0 (0)
RULECHECK	AP.W.1.WB	TOTAL Result Count = 0 (0)
RULECHECK	AP.W.2.WB	TOTAL Result Count = 0 (0)
RULECHECK	AP.S.1.WB	TOTAL Result Count = 0 (0)
RULECHECK	AP.S.2.WB	TOTAL Result Count = 0 (0)
RULECHECK	AP.S.3.WB	TOTAL Result Count = 0 (0)
RULECHECK	AP.EN.1.WB	TOTAL Result Count = 0 (0)
RULECHECK	AP.EN.2.WB	TOTAL Result Count = 0 (0)

RULECHECK	AP.DN.1:L	NOT EXECUTED
	AP.DN.1:H	
	FUSE_WARN.1	
	FUSE_WARN.2	
RULECHECK	FUSE_WARN.3	TOTAL Result Count = 0 (0)
	FU.L.1.1	
RULECHECK	FU.S.1	TOTAL Result Count = 0 (0)
RULECHECK	LW.W.1	TOTAL Result Count = 0 (0)
RULECHECK	LW.L.1	TOTAL Result Count = 0 (0)
RULECHECK	LW.EN.1	TOTAL Result Count = 0 (0)
RULECHECK	LW.EN.2	TOTAL Result Count = 0 (0)
RULECHECK	LOGO.S.1	TOTAL Result Count = 0 (0)
RULECHECK	LOGO.0.1	TOTAL Result Count = 0 (0)
RULECHECK	LUP.1g	TOTAL Result Count = 0 (0)
RULECHECK	LUP.2g	TOTAL Result Count = 0 (0)
	LUP.3.1.1g	
RULECHECK	LUP.3.1.2g	TOTAL Result Count = 0 (0)
	LUP.3.2.1g	
RULECHECK	LUP.3.2.2g	TOTAL Result Count = 0 (0)
	LUP.3.3.1g	
RULECHECK	LUP.3.3.2g	TOTAL Result Count = 0 (0)
	LUP.3.4.1g	
	LUP.3.4.2g	
	LUP.3.5.1g	
	LUP.3.5.2g	
	LUP.4g	
	LUP.5.1.1g	
	LUP.5.1.2g	
	LUP.5.2.1g	
	LUP.5.2.2g	
	LUP.5.3.1g	
	LUP.5.3.2g	
	LUP.5.4.1g	
	LUP.5.4.2g	
	LUP.5.5.1g	
	LUP.5.5.2g	
	LUP.6	
	ESD.WARN.1	
	ESD.WARN.2	
	ESD.1g	
	ESD.3g	
	ESD.4g	
	ESD.5g	
	ESD.6g	
	ESD.7g ESD.12g	
	ESD.12g ESD.16g	
	ESD.17g	
	ESD.18g	
	0	- ·

RULECHECK ESD.19g	NOT EXECUTED
RULECHECK ESD.20g	NOT EXECUTED
RULECHECK ESD.21g	NOT EXECUTED
RULECHECK ESD.22g	NOT EXECUTED
RULECHECK ESD.23g	NOT EXECUTED
RULECHECK ESD.27g	NOT EXECUTED
RULECHECK ESD.28g	NOT EXECUTED
RULECHECK ESD.30g	NOT EXECUTED
RULECHECK ESD.32g	NOT EXECUTED
RULECHECK ESD.33g	NOT EXECUTED
RULECHECK ESD.34g	NOT EXECUTED
RULECHECK ESD.37g	NOT EXECUTED
RULECHECK ESD.47g	NOT EXECUTED
RULECHECK ESD.48g	NOT EXECUTED
RULECHECK ESD.49g	NOT EXECUTED
RULECHECK ESD.50g	NOT EXECUTED
RULECHECK ESD.51g	NOT EXECUTED
RULECHECK ESD.52g	NOT EXECUTED
RULECHECK ESD.55g	NOT EXECUTED
RULECHECK ESD.56g	NOT EXECUTED
RULECHECK ESD.57g	NOT EXECUTED
RULECHECK ESD.58g	NOT EXECUTED
RULECHECK ESD.59g	NOT EXECUTED
RULECHECK ESD.60g	NOT EXECUTED
RULECHECK ESD.61g	NOT EXECUTED
RULECHECK ESD.62g	NOT EXECUTED
RULECHECK ESD.63g	NOT EXECUTED
RULECHECK ESD.64g	NOT EXECUTED
RULECHECK ESD.65g	NOT EXECUTED
RULECHECK ESD.66g	
RULECHECK ESD.72g	
RULECHECK ESDIMP.W.1	NOT EXECUTED
RULECHECK ESDIMP.S.1	
RULECHECK ESDIMP.S.2	
RULECHECK ESDIMP.EN.1	
RULECHECK ESDIMP.A.1	NOT EXECUTED
RULECHECK ESDIMP.A.2	
RULECHECK ESDIMP.R.1	
RULECHECK ESDIMP.EN.1:R	
RULECHECK SRAM.W.1	
RULECHECK SRAM.S.1	
RULECHECK SRAM.S.2	
RULECHECK SRAM.EN.1	
RULECHECK SRAM.EX.1	
RULECHECK SRAM.O.1	
RULECHECK SRAM.R.12	
RULECHECK SRAM.R.13	
RULECHECK SRAM.R.15	
RULECHECK SRAM.R.17	TOTAL Result Count = 0 (0)

RULECHECK SRAM.A.1	TOTAL Result Count = 0 (0)
RULECHECK NW.S.1:SRM_SRAMDMY	TOTAL Result Count = 0 (0)
RULECHECK OD.S.1:SRM_SRAMDMY	TOTAL Result Count = 0 (0)
RULECHECK PO.S.1:SRM_SRAMDMY	TOTAL Result Count = 0 (0)
RULECHECK NP.S.1:SRM_SRAMDMY	TOTAL Result Count = 0 (0)
RULECHECK PP.S.1:SRM_SRAMDMY	TOTAL Result Count = 0 (0)
RULECHECK CO.S.1:SRM_SRAMDMY	TOTAL Result Count = 0 (0)
RULECHECK M1.S.1:SRM_SRAMDMY	TOTAL Result Count = 0 (0)
RULECHECK VIA1.S.1:SRM_SRAMDMY	TOTAL Result Count = 0 (0)
RULECHECK WLD.R.1	TOTAL Result Count = 0 (0)
RULECHECK WLD.R.2	TOTAL Result Count = 0 (0)
RULECHECK WLD.R.3	TOTAL Result Count = 0 (0)
RULECHECK WLD.R.6	TOTAL Result Count = 0 (0)
RULECHECK WLD.R.7	TOTAL Result Count = 0 (0)
RULECHECK PO.S.14m	TOTAL Result Count = 0 (0)
RULECHECK PO.EN.1m	TOTAL Result Count = 0 (0)
RULECHECK PO.EN.2m	TOTAL Result Count = 0 (0)
RULECHECK PO.EN.3m	TOTAL Result Count = 0 (0)
RULECHECK BJT.R.1	TOTAL Result Count = 0 (0)
RULECHECK BJT.R.8	TOTAL Result Count = 0 (0)
RULECHECK RES.2m:OD	
RULECHECK RES.2m:PO	TOTAL Result Count = 0 (0)
RULECHECK NWROD.R.1m	
RULECHECK NWRSTI.R.1m	TOTAL Result Count = 0 (0)
RULECHECK SBD.W.1SBD.W.1.1	TOTAL Result Count = 0 (0)
RULECHECK SBD.W.2_SBD.W.2.1	
RULECHECK SBD.W.3	TOTAL Result Count = 0 (0)
RULECHECK SBD.W.4	
RULECHECK SBD.S.1	TOTAL Result Count = 0 (0)
RULECHECK SBD.E.1	TOTAL Result Count = 0 (0)
RULECHECK SBD.E.1.1	TOTAL Result Count = 0 (0)
RULECHECK SBD.E.2	TOTAL Result Count = 0 (0)
RULECHECK SBD.E.2.1	
RULECHECK SBD.E.2.2	TOTAL Result Count = 0 (0)
RULECHECK SBD.E.3	
RULECHECK SBD.O.1	TOTAL Result Count = 0 (0)
RULECHECK SBD.R.2	
RULECHECK SBD.R.3	TOTAL Result Count = 0 (0)
RULECHECK SBD.R.4	
RULECHECK SBD.R.5	TOTAL Result Count = 0 (0)
RULECHECK SBD.R.6	
RULECHECK _VAR.R.2	
RULECHECK _VAR.R.5	
RULECHECK VAR.R.6	
RULECHECK VAR.R.7	
RULECHECK VAR.R.8	TOTAL Result Count = 0 (0)

--- RULECHECK RESULTS STATISTICS (BY CELL)

--- SUMMARY

TOTAL CPU Time: 1
TOTAL REAL Time: 1

TOTAL Original Layer Geometries: 5976 (25347)

TOTAL DRC RuleChecks Executed: 1293
TOTAL DRC Results Generated: 0 (0)

4.4 The LVS report

REPORT FILE NAME: Neuron.lvs.report

LAYOUT NAME: /uio/hume/student-u52/kunzh/cadence617_tsmc65rf_oa/Neuron.sp ('Neuron')

SOURCE NAME: /uio/hume/student-u52/kunzh/cadence617_tsmc65rf_oa/Neuron.src.net ('Neuron')

RULE FILE: /uio/hume/student-u52/kunzh/cadence617_tsmc65rf_oa/_calibre.lvs_

CREATION TIME: Wed Nov 10 19:33:13 2021

CURRENT DIRECTORY: /uio/hume/student-u52/kunzh/cadence617_tsmc65rf_oa

USER NAME: kunzh

CALIBRE VERSION: v2020.4_15.9 Thu Oct 1 15:09:27 PDT 2020

OVERALL COMPARISON RESULTS

o LVS Setup:

// LVS COMPONENT TYPE PROPERTY
// LVS COMPONENT SUBTYPE PROPERTY
// LVS PIN NAME PROPERTY
LVS POWER NAME

"AHVDD" "AHVDDB" "AHVDDG" "AHVDDR" "AHVDDWELL" "AVDD" "AVDDB" "AVDDB

G" "AVDDG" "AVDDR"

"AVDWELL" "DHVDD" "DVDD" "HVDDWELL" "TACVDD" "TAVD33" "TAVD33PST" "T AVDD" "TAVDDPST"

"TVDD" "VD33" "VDD" "VDD5V" "VDDESD" "VDDG" "VDDM" "VDDPST" "VDDSA"

"VDWELL" LVS GROUND NAME "AGND" "AHVSS" "AHVSSB" "AHVSSG" "AHVSSR" "AHVSSUB" "AVSS" "AVSSB" " AVSSBG" "AVSSG" "AVSSR" "AVSSUB" "DHVSS" "DVSS" "GND" "HVSSUB" "TAVSS" "TAVSSPST" "T VSS" "VS33" "VSS" "VSSESD" "VSSG" "VSSM" "VSSPST" "VSSUB" LVS CELL SUPPLY NO LVS RECOGNIZE GATES ALL // LVS HCELL REPORT LVS IGNORE PORTS NO LVS CHECK PORT NAMES YES LVS IGNORE TRIVIAL NAMED PORTS NO LVS BUILTIN DEVICE PIN SWAP YES LVS ALL CAPACITOR PINS SWAPPABLE YES LVS DISCARD PINS BY DEVICE NO LVS SOFT SUBSTRATE PINS NO LVS INJECT LOGIC YES LVS EXPAND UNBALANCED CELLS YES LVS FLATTEN INSIDE CELL NO LVS EXPAND SEED PROMOTIONS LVS PRESERVE PARAMETERIZED CELLS NO LVS GLOBALS ARE PORTS YES LVS REVERSE WL NO LVS SPICE PREFER PINS YES LVS SPICE SLASH IS SPACE YES LVS SPICE ALLOW FLOATING PINS YES // LVS SPICE ALLOW INLINE PARAMETERS LVS SPICE ALLOW UNQUOTED STRINGS NΩ LVS SPICE CONDITIONAL LDD LVS SPICE CULL PRIMITIVE SUBCIRCUITS NO // LVS SPICE EXCLUDE CELL SOURCE // LVS SPICE EXCLUDE CELL LAYOUT LVS SPICE IMPLIED MOS AREA NO

LVS SPICE REDEFINE PARAM NO LVS SPICE REPLICATE DEVICES NΩ LVS SPICE SCALE X PARAMETERS NO LVS SPICE STRICT WL NO // LVS SPICE OPTION LVS STRICT SUBTYPES NΩ LVS EXACT SUBTYPES NO LAYOUT CASE NO SOURCE CASE NO LVS COMPARE CASE NO LVS COMPARE CASE STRICT NO LVS DOWNCASE DEVICE NO LVS REPORT MAXIMUM 50 LVS PROPERTY RESOLUTION MAXIMUM 65536 // LVS SIGNATURE MAXIMUM

// LVS SPICE MULTIPLIER NAME LVS SPICE OVERRIDE GLOBALS

// LVS REPORT OPTION
LVS REPORT UNITS
// LVS NON USER NAME PORT
// LVS NON USER NAME NET
// LVS NON USER NAME INSTANCE
// LVS IGNORE DEVICE PIN
// LVS PREFER NETS FILTER SOURCE
// LVS PREFER NETS FILTER LAYOUT
LVS PREFER PORT NETS

// LVS FILTER UNUSED OPTION

LVS EXPAND ON ERROR

NO NO

YES

NO

RESISTOR "rm1" "rm10" "rm2" "rm3" "rm4" "rm5" "rm6" "rm7" "rm8" "rm9 LVS DEVICE TYPE " "rnodl" "rnodl_m" "rnods" "rnods_m" "rnodwo" "rnodwo_m" "rnpolyl" "rnpolyl_m" "rnpolys" "rnpolys_m" "rnpolywo" "rnpolywo_m" "rnwod" "rnwod_m" "rnws ti" "rnwsti_m" "rpodl" "rpodl_m" "rpods" "rpods_m" "rpodwo" "rpodwo_m" "rp polyl" "rppolyl_m" "rppolyl_rf" "rppolyl_rf_rdk" "rppolys" "rppolys_m" "rppoly "rppolys_rf_rdk" "rppolywo" "rppolywo_m" "rppolywo_rf" "rpp olywo_rf_rdk" [POS=PLUS NEG=MINUS] SOURCE LAYOUT // Reduction LVS REDUCE SERIES MOS NO LVS REDUCE PARALLEL MOS YES LVS REDUCE SEMI SERIES MOS NO LVS REDUCE SPLIT GATES NO LVS REDUCE PARALLEL BIPOLAR YES LVS REDUCE SERIES CAPACITORS YES LVS REDUCE PARALLEL CAPACITORS YES LVS REDUCE SERIES RESISTORS YES LVS REDUCE PARALLEL RESISTORS YES LVS REDUCE PARALLEL DIODES YES LVS REDUCE rnwsti_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rnwsti_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rnwod_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rnwod_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rpodwo_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rpodwo_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rnodwo_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rnodwo_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rpodl_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rpodl_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rnod1_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rnodl_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rpods_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rpods_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rnods_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rnods_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rppolys_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rppolys_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rnpolys_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rnpolys_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rppolyl_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rppolyl_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rnpolyl_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rnpolyl_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rppolywo_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rppolywo_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rnpolywo_m PARALLEL [TOLERANCE 1r 0] LVS REDUCE rnpolywo_m SERIES PLUS MINUS [TOLERANCE wr 0] LVS REDUCE rppolyl_rf PARALLEL NO LVS REDUCE rppolyl_rf SERIES PLUS MINUS NO

// Device Type Map

LVS REDUCE rppolyl_rf_rdk PARALLEL NO

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LVS REDUCE rppolyl_rf_rdk SERIES PLUS MINUS NO
LVS REDUCE rppolys_rf PARALLEL NO
LVS REDUCE rppolys_rf SERIES PLUS MINUS NO
LVS REDUCE rppolys_rf_rdk PARALLEL NO
LVS REDUCE rppolys_rf_rdk SERIES PLUS MINUS NO
LVS REDUCE rppolywo_rf PARALLEL NO
LVS REDUCE rppolywo_rf SERIES PLUS MINUS NO
LVS REDUCE rppolywo_rf_rdk PARALLEL NO
LVS REDUCE rppolywo_rf_rdk SERIES PLUS MINUS NO
LVS REDUCTION PRIORITY
LVS SHORT EQUIVALENT NODES
// Filter
LVS FILTER D(pnwdio) OPEN LAYOUT
// Trace Property
TRACE PROPERTY lddp(pch_hv25_spw) 1 1 0
TRACE PROPERTY lddp(pch_hv25_spw) w w 0
TRACE PROPERTY lddn(nch_hv25_snw) 1 1 0
TRACE PROPERTY lddn(nch_hv25_snw) w w 0
TRACE PROPERTY mn(nch) 1 1 0
TRACE PROPERTY mn(nch) w w 0
TRACE PROPERTY mn(nch_18) 1 1 0
TRACE PROPERTY mn(nch_18) w w 0
TRACE PROPERTY mn(nch_18_dnw) 1 1 0
TRACE PROPERTY mn(nch_18_dnw) w w 0
TRACE PROPERTY mn(nch_25) 1 1 0
TRACE PROPERTY mn(nch_25) w w 0
TRACE PROPERTY mn(nch_25_dnw) 1 1 0
TRACE PROPERTY mn(nch_25_dnw) w w 0
TRACE PROPERTY mn(nch_25_dnwod) 1 1 0
TRACE PROPERTY mn(nch_25_dnwod) w w 0
TRACE PROPERTY mn(nch_25_dnwud) 1 1 0
TRACE PROPERTY mn(nch_25_dnwud) w w 0
TRACE PROPERTY mn(nch_25od) 1 1 0
TRACE PROPERTY mn(nch_25od) w w 0
TRACE PROPERTY mn(nch_25od28) 1 1 0
TRACE PROPERTY mn(nch_25od28) w w 0
TRACE PROPERTY mn(nch_25od28_dnw) 1 1 0
TRACE PROPERTY mn(nch_25od28_dnw) w w 0
TRACE PROPERTY mn(nch_25ud) 1 1 0
TRACE PROPERTY mn(nch_25ud) w w 0
TRACE PROPERTY mn(nch_33) 1 1 0
TRACE PROPERTY mn(nch_33) w w 0
TRACE PROPERTY mn(nch_33_dnw) 1 1 0
TRACE PROPERTY mn(nch_33_dnw) w w 0
TRACE PROPERTY mn(nch_dnw) 1 1 0
TRACE PROPERTY mn(nch_dnw) w w 0
TRACE PROPERTY mn(nch_dnw_1tr) 1 1 0
TRACE PROPERTY mn(nch_dnw_1tr) w w 0
TRACE PROPERTY mn(nch_dnw_w) 1 1 0
TRACE PROPERTY mn(nch_dnw_w) w w 0
TRACE PROPERTY mn(nch_dnw_w_lvt) 1 1 0
TRACE PROPERTY mn(nch_dnw_w_lvt) w w 0
TRACE PROPERTY mn(nch_esd18) 1 1 0
TRACE PROPERTY mn(nch_esd18) w w 0
TRACE PROPERTY mn(nch_esd18_dnw) 1 1 0
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TRACE PROPERTY mn(nch_esd18_dnw) w w 0

```
TRACE PROPERTY mn(nch_hvt) 1 1 0
TRACE PROPERTY mn(nch_hvt) w w 0
TRACE PROPERTY mn(nch_hvt_dnw) 1 1 0
TRACE PROPERTY mn(nch_hvt_dnw) w w 0
TRACE PROPERTY mn(nch_lpg) 1 1 0
TRACE PROPERTY mn(nch_lpg) w w 0
TRACE PROPERTY mn(nch_lpghvt) 1 1 0
TRACE PROPERTY mn(nch_lpghvt) w w 0
TRACE PROPERTY mn(nch_lpgna) 1 1 0
TRACE PROPERTY mn(nch_lpgna) w w 0
TRACE PROPERTY mn(nch_lvt) 1 1 0
TRACE PROPERTY mn(nch_lvt) w w 0
TRACE PROPERTY mn(nch_lvt_dnw) 1 1 0
TRACE PROPERTY mn(nch_lvt_dnw) w w 0
TRACE PROPERTY mn(nch_mlvt) 1 1 0
TRACE PROPERTY mn(nch_mlvt) w w 0
TRACE PROPERTY mn(nch_mlvt_dnw) 1 1 0
TRACE PROPERTY mn(nch_mlvt_dnw) w w 0
TRACE PROPERTY mn(nch_na) 1 1 0
TRACE PROPERTY mn(nch_na) w w 0
TRACE PROPERTY mn(nch_na18) 1 1 0
TRACE PROPERTY mn(nch_na18) w w 0
TRACE PROPERTY mn(nch_na25) 1 1 0
TRACE PROPERTY mn(nch_na25) w w 0
TRACE PROPERTY mn(nch_na25od) 1 1 0
TRACE PROPERTY mn(nch_na25od) w w 0
TRACE PROPERTY mn(nch_na25ud) 1 1 0
TRACE PROPERTY mn(nch_na25ud) w w 0
TRACE PROPERTY mn(nch_na33) 1 1 0
TRACE PROPERTY mn(nch_na33) w w 0
TRACE PROPERTY mn(nch_timer) 1 1 0
TRACE PROPERTY mn(nch_timer) w w 0
TRACE PROPERTY mn(nch_uhvt) 1 1 0
TRACE PROPERTY mn(nch_uhvt) w w 0
TRACE PROPERTY mn(nch_uhvt_dnw) 1 1 0
TRACE PROPERTY mn(nch_uhvt_dnw) w w 0
TRACE PROPERTY mn(nch_ulvt) 1 1 0
TRACE PROPERTY mn(nch_ulvt) w w 0
TRACE PROPERTY mn(nch_ulvt_dnw) 1 1 0
TRACE PROPERTY mn(nch_ulvt_dnw) w w 0
TRACE PROPERTY mn(nch_w) 1 1 0
TRACE PROPERTY mn(nch_w) w w 0
TRACE PROPERTY mn(nch_w_lvt) 1 1 0
TRACE PROPERTY mn(nch_w_lvt) w w 0
TRACE PROPERTY mn(nchpd_dphcsr) 1 1 0
TRACE PROPERTY mn(nchpd_dphcsr) w w 0
TRACE PROPERTY mn(nchpd_dpsr) 1 1 0
TRACE PROPERTY mn(nchpd_dpsr) w w 0
TRACE PROPERTY mn(nchpd_hvtdphcsr) 1 1 0
TRACE PROPERTY mn(nchpd_hvtdphcsr) w w 0
TRACE PROPERTY mn(nchpd_hvtdpsr) 1 1 0
TRACE PROPERTY mn(nchpd_hvtdpsr) w w 0
TRACE PROPERTY mn(nchpd_hvtsr) 1 1 0
TRACE PROPERTY mn(nchpd_hvtsr) w w 0
TRACE PROPERTY mn(nchpd_lpgdpsr) 1 1 0
TRACE PROPERTY mn(nchpd_lpgdpsr) w w 0
TRACE PROPERTY mn(nchpd_lpgsr) 1 1 0
TRACE PROPERTY mn(nchpd_lpgsr) w w 0
TRACE PROPERTY mn(nchpd_lpgtpsr) 1 1 0
TRACE PROPERTY mn(nchpd_lpgtpsr) w w 0
TRACE PROPERTY mn(nchpd_sr) 1 1 0
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TRACE PROPERTY mn(nchpd_sr) w w 0
TRACE PROPERTY mn(nchpd_ulpdpsr) 1 1 0
TRACE PROPERTY mn(nchpd_ulpdpsr) w w 0
TRACE PROPERTY mn(nchpd_ulpsr) 1 1 0
TRACE PROPERTY mn(nchpd_ulpsr) w w 0
TRACE PROPERTY mn(nchpd_wisr) 1 1 0
TRACE PROPERTY mn(nchpd_wisr) w w 0
TRACE PROPERTY mn(nchpd_wosr) 1 1 0
TRACE PROPERTY mn(nchpd_wosr) w w 0
TRACE PROPERTY mn(nchpg_dphcsr) 1 1 0
TRACE PROPERTY mn(nchpg_dphcsr) w w 0
TRACE PROPERTY mn(nchpg_dpsr) 1 1 0
TRACE PROPERTY mn(nchpg_dpsr) w w 0
TRACE PROPERTY mn(nchpg_hvtdphcsr) 1 1 0
TRACE PROPERTY mn(nchpg_hvtdphcsr) w w 0
TRACE PROPERTY mn(nchpg_hvtdpsr) 1 1 0
TRACE PROPERTY mn(nchpg_hvtdpsr) w w 0
TRACE PROPERTY mn(nchpg_hvtsr) 1 1 0
TRACE PROPERTY mn(nchpg_hvtsr) w w 0
TRACE PROPERTY mn(nchpg_lpgdpsr) 1 1 0
TRACE PROPERTY mn(nchpg_lpgdpsr) w w 0
TRACE PROPERTY mn(nchpg_lpgsr) 1 1 0
TRACE PROPERTY mn(nchpg_lpgsr) w w 0
TRACE PROPERTY mn(nchpg_lpgtpsr) 1 1 0
TRACE PROPERTY mn(nchpg_lpgtpsr) w w 0
TRACE PROPERTY mn(nchpg_sr) 1 1 0
TRACE PROPERTY mn(nchpg_sr) w w 0
TRACE PROPERTY mn(nchpg_ulpdpsr) 1 1 0
TRACE PROPERTY mn(nchpg_ulpdpsr) w w 0
TRACE PROPERTY mn(nchpg_ulpsr) 1 1 0
TRACE PROPERTY mn(nchpg_ulpsr) w w 0
TRACE PROPERTY mn(nchpg_wisr) 1 1 0
TRACE PROPERTY mn(nchpg_wisr) w w 0
TRACE PROPERTY mn(nchpg_wosr) 1 1 0
TRACE PROPERTY mn(nchpg_wosr) w w 0
TRACE PROPERTY mp(pch) 1 1 0
TRACE PROPERTY mp(pch) w w 0
TRACE PROPERTY mp(pch_18) 1 1 0
TRACE PROPERTY mp(pch_18) w w 0
TRACE PROPERTY mp(pch_25) 1 1 0
TRACE PROPERTY mp(pch_25) w w 0
TRACE PROPERTY mp(pch_25od) 1 1 0
TRACE PROPERTY mp(pch_25od) w w 0
TRACE PROPERTY mp(pch_25od28) 1 1 0
TRACE PROPERTY mp(pch_25od28) w w 0
TRACE PROPERTY mp(pch_25ud) 1 1 0
TRACE PROPERTY mp(pch_25ud) w w 0
TRACE PROPERTY mp(pch_33) 1 1 0
TRACE PROPERTY mp(pch_33) w w 0
TRACE PROPERTY mp(pch_edc) 1 1 0
TRACE PROPERTY mp(pch_edc) w w 0
TRACE PROPERTY mp(pch_hvt) 1 1 0
TRACE PROPERTY mp(pch_hvt) w w 0
TRACE PROPERTY mp(pch_1pg) 1 1 0
TRACE PROPERTY mp(pch_lpg) w w 0
TRACE PROPERTY mp(pch_lpghvt) 1 1 0
TRACE PROPERTY mp(pch_lpghvt) w w 0
TRACE PROPERTY mp(pch_lvt) 1 1 0
TRACE PROPERTY mp(pch_lvt) w w 0
TRACE PROPERTY mp(pch_mlvt) 1 1 0
TRACE PROPERTY mp(pch_mlvt) w w 0
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TRACE PROPERTY mp(pch_timer) 1 1 0
TRACE PROPERTY mp(pch_timer) w w 0
TRACE PROPERTY mp(pch_uhvt) 1 1 0
TRACE PROPERTY mp(pch_uhvt) w w 0
TRACE PROPERTY mp(pch_ulvt) 1 1 0
TRACE PROPERTY mp(pch_ulvt) w w 0
TRACE PROPERTY mp(pch_w) 1 1 0
TRACE PROPERTY mp(pch_w) w w 0
TRACE PROPERTY mp(pch_w_lvt) 1 1 0
TRACE PROPERTY mp(pch_w_lvt) w w 0
TRACE PROPERTY mp(pchpu_dphcsr) 1 1 0
TRACE PROPERTY mp(pchpu_dphcsr) w w 0
TRACE PROPERTY mp(pchpu_dpsr) 1 1 0
TRACE PROPERTY mp(pchpu_dpsr) w w 0
TRACE PROPERTY mp(pchpu_hvtdphcsr) 1 1 0
TRACE PROPERTY mp(pchpu_hvtdphcsr) w w 0
TRACE PROPERTY mp(pchpu_hvtdpsr) 1 1 0
TRACE PROPERTY mp(pchpu_hvtdpsr) w w 0
TRACE PROPERTY mp(pchpu_hvtsr) 1 1 0
TRACE PROPERTY mp(pchpu_hvtsr) w w 0
TRACE PROPERTY mp(pchpu_lpgdpsr) 1 1 0
TRACE PROPERTY mp(pchpu_lpgdpsr) w w 0
TRACE PROPERTY mp(pchpu_lpgsr) 1 1 0
TRACE PROPERTY mp(pchpu_lpgsr) w w 0
TRACE PROPERTY mp(pchpu_lpgtpsr) 1 1 0
TRACE PROPERTY mp(pchpu_lpgtpsr) w w 0
TRACE PROPERTY mp(pchpu_sr) 1 1 0
TRACE PROPERTY mp(pchpu_sr) w w 0
TRACE PROPERTY mp(pchpu_ulpdpsr) 1 1 0
TRACE PROPERTY mp(pchpu_ulpdpsr) w w 0
TRACE PROPERTY mp(pchpu_ulpsr) 1 1 0
TRACE PROPERTY mp(pchpu_ulpsr) w w 0
TRACE PROPERTY mp(pchpu_wisr) 1 1 0
TRACE PROPERTY mp(pchpu_wisr) w w 0
TRACE PROPERTY mp(pchpu_wosr) 1 1 0
TRACE PROPERTY mp(pchpu_wosr) w w 0
TRACE PROPERTY q(npn10) a a 0
TRACE PROPERTY q(npn10_s) a a 0
TRACE PROPERTY q(npn2) a a 0
TRACE PROPERTY q(npn2_s) a a 0
TRACE PROPERTY q(npn5) a a 0
TRACE PROPERTY q(npn5_s) a a 0
TRACE PROPERTY q(pnp10) a a 0
TRACE PROPERTY q(pnp10_s) a a 0
TRACE PROPERTY q(pnp2) a a 0
TRACE PROPERTY q(pnp2_s) a a 0
TRACE PROPERTY q(pnp5) a a 0
TRACE PROPERTY q(pnp5_s) a a 0
TRACE PROPERTY d(ndio) a a 0
TRACE PROPERTY d(ndio 18) a a 0
TRACE PROPERTY d(ndio_25) a a 0
TRACE PROPERTY d(ndio_25od) a a 0
TRACE PROPERTY d(ndio_25od28) a a 0
TRACE PROPERTY d(ndio_25ud) a a 0
TRACE PROPERTY d(ndio_33) a a 0
TRACE PROPERTY d(ndio_esd) a a 0
TRACE PROPERTY d(ndio_hvt) a a 0
TRACE PROPERTY d(ndio_lpg) a a 0
TRACE PROPERTY d(ndio_lpghvt) a a 0
TRACE PROPERTY d(ndio_lpgna) a a 0
TRACE PROPERTY d(ndio_lvt) a a 0
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TRACE PROPERTY d(ndio_mlvt) a a 0
TRACE PROPERTY d(ndio_na) a a 0
TRACE PROPERTY d(ndio_na18) a a 0
TRACE PROPERTY d(ndio_na25) a a 0
TRACE PROPERTY d(ndio_na25od) a a 0
TRACE PROPERTY d(ndio_na25ud) a a 0
TRACE PROPERTY d(ndio_na33) a a 0
TRACE PROPERTY d(ndio_uhvt) a a 0
TRACE PROPERTY d(ndio_w) a a 0
TRACE PROPERTY d(nwdio) a a 0
TRACE PROPERTY d(nwdio_18) a a 0
TRACE PROPERTY d(nwdio_25) a a 0
TRACE PROPERTY d(nwdio_33) a a 0
TRACE PROPERTY d(pdio) a a 0
TRACE PROPERTY d(pdio_18) a a 0
TRACE PROPERTY d(pdio_25) a a 0
TRACE PROPERTY d(pdio_25od) a a 0
TRACE PROPERTY d(pdio_25od28) a a 0
TRACE PROPERTY d(pdio_25ud) a a 0
TRACE PROPERTY d(pdio_33) a a 0
TRACE PROPERTY d(pdio_hvt) a a 0
TRACE PROPERTY d(pdio_lpg) a a 0
TRACE PROPERTY d(pdio_lpghvt) a a 0
TRACE PROPERTY d(pdio_lvt) a a 0
TRACE PROPERTY d(pdio_mlvt) a a 0
TRACE PROPERTY d(pdio_uhvt) a a 0
TRACE PROPERTY d(pdio_w) a a 0
TRACE PROPERTY crtmom_rf nv nv 0
TRACE PROPERTY crtmom_rf nh nh 0
TRACE PROPERTY crtmom_rf s s 0
TRACE PROPERTY crtmom_rf w w 0
TRACE PROPERTY crtmom_rf stm stm 0
TRACE PROPERTY crtmom_rf spm spm 0
TRACE PROPERTY crtmom_rf_rdk nv nv 0
TRACE PROPERTY crtmom_rf_rdk nh nh 0
TRACE PROPERTY crtmom_rf_rdk s s 0
TRACE PROPERTY crtmom_rf_rdk w w 0
TRACE PROPERTY crtmom_rf_rdk stm stm 0
TRACE PROPERTY crtmom_rf_rdk spm spm 0
TRACE PROPERTY crtmom nv nv 0
TRACE PROPERTY crtmom nh nh 0
TRACE PROPERTY crtmom s s 0
TRACE PROPERTY crtmom w w 0
TRACE PROPERTY crtmom stm stm 0
TRACE PROPERTY crtmom spm spm 0
TRACE PROPERTY crtmom_2t nv nv 0
TRACE PROPERTY crtmom_2t nh nh 0
TRACE PROPERTY crtmom_2t s s 0
TRACE PROPERTY crtmom_2t w w 0
TRACE PROPERTY crtmom_2t stm stm 0
TRACE PROPERTY crtmom_2t spm spm 0
TRACE PROPERTY crtmom_mx nv nv 0
TRACE PROPERTY crtmom_mx nh nh 0
TRACE PROPERTY crtmom_mx s s 0
TRACE PROPERTY crtmom_mx w w 0
TRACE PROPERTY crtmom_mx stm stm 0
TRACE PROPERTY crtmom_mx spm spm 0
TRACE PROPERTY crtmom_mx mf mf 0
TRACE PROPERTY fmom nr nr 0
TRACE PROPERTY fmom lr lr 0
TRACE PROPERTY fmom s s 0
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TRACE PROPERTY fmom w w 0
TRACE PROPERTY fmom stm stm 0
TRACE PROPERTY fmom spm spm 0
TRACE PROPERTY fmom_mx nr nr 0
TRACE PROPERTY fmom_mx lr lr 0
TRACE PROPERTY fmom_mx s s 0
TRACE PROPERTY fmom_mx w w 0
TRACE PROPERTY fmom_mx stm stm 0
TRACE PROPERTY fmom_mx spm spm 0
TRACE PROPERTY fmom_mx mf mf 0
TRACE PROPERTY lincap lr lr 0
TRACE PROPERTY lincap wr wr 0
TRACE PROPERTY lincap mr mr 0
TRACE PROPERTY lincap_25 lr lr 0
TRACE PROPERTY lincap_25 wr wr 0
TRACE PROPERTY lincap_25 mr mr 0
TRACE PROPERTY lincap_rf lr lr 0
TRACE PROPERTY lincap_rf wr wr 0
TRACE PROPERTY lincap_rf br br 0
TRACE PROPERTY lincap_rf gr gr 0
TRACE PROPERTY lincap_rf_25 lr lr 0
TRACE PROPERTY lincap_rf_25 wr wr 0
TRACE PROPERTY lincap_rf_25 br br 0
TRACE PROPERTY lincap_rf_25 gr gr 0
TRACE PROPERTY lowcpad_d15 lt lt 0
TRACE PROPERTY lowcpad_d15 wt wt 0
TRACE PROPERTY lowcpad_d15 lay lay 0
TRACE PROPERTY lowcpad_d23 lt lt 0
TRACE PROPERTY lowcpad_d23 wt wt 0
TRACE PROPERTY lowcpad_d23 lay lay 0
TRACE PROPERTY mimcap_sin lt lt 0
TRACE PROPERTY mimcap_sin wt wt 0
TRACE PROPERTY mimcap_sin mimflag mimflag 0
TRACE PROPERTY mimcap_sin_3t 1t 1t 0
TRACE PROPERTY mimcap_sin_3t wt wt 0
TRACE PROPERTY mimcap_sin_3t lay lay 0
TRACE PROPERTY mimcap_sin_3t mimflag mimflag 0
TRACE PROPERTY mimcap_um_sin_rf lt lt 0
TRACE PROPERTY mimcap_um_sin_rf wt wt 0
TRACE PROPERTY mimcap_um_sin_rf mimflag mimflag 0
TRACE PROPERTY mimcap_woum_sin_rf lt lt 0
TRACE PROPERTY mimcap_woum_sin_rf wt wt 0
TRACE PROPERTY mimcap_woum_sin_rf lay lay 0
TRACE PROPERTY mimcap_woum_sin_rf mimflag mimflag 0
TRACE PROPERTY moscap_rf lr lr 0
TRACE PROPERTY moscap_rf wr wr 0
TRACE PROPERTY moscap_rf br br 0
TRACE PROPERTY moscap_rf gr gr 0
TRACE PROPERTY moscap_rf18 lr lr 0
TRACE PROPERTY moscap_rf18 wr wr 0
TRACE PROPERTY moscap_rf18 br br 0
TRACE PROPERTY moscap_rf18 gr gr 0
TRACE PROPERTY moscap_rf18_nw lr lr 0
TRACE PROPERTY moscap_rf18_nw wr wr 0
TRACE PROPERTY moscap_rf18_nw br br 0
TRACE PROPERTY moscap_rf18_nw gr gr 0
TRACE PROPERTY moscap_rf25 lr lr 0
TRACE PROPERTY moscap_rf25 wr wr 0
TRACE PROPERTY moscap_rf25 br br 0
TRACE PROPERTY moscap_rf25 gr gr 0
TRACE PROPERTY moscap_rf25_nw lr lr 0
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TRACE PROPERTY moscap_rf25_nw wr wr 0
TRACE PROPERTY moscap_rf25_nw br br 0
TRACE PROPERTY moscap_rf25_nw gr gr 0
TRACE PROPERTY moscap_rf33 lr lr 0
TRACE PROPERTY moscap_rf33 wr wr 0
TRACE PROPERTY moscap_rf33 br br 0
TRACE PROPERTY moscap_rf33 gr gr 0
TRACE PROPERTY moscap_rf33_nw lr lr 0
TRACE PROPERTY moscap_rf33_nw wr wr 0
TRACE PROPERTY moscap_rf33_nw br br 0
TRACE PROPERTY moscap_rf33_nw gr gr 0
TRACE PROPERTY moscap_rf_hvt lr lr 0
TRACE PROPERTY moscap_rf_hvt wr wr 0
TRACE PROPERTY moscap_rf_hvt br br 0
TRACE PROPERTY moscap_rf_hvt gr gr 0
TRACE PROPERTY moscap_rf_hvt_nw lr lr 0
TRACE PROPERTY moscap_rf_hvt_nw wr wr 0
TRACE PROPERTY moscap_rf_hvt_nw br br 0
TRACE PROPERTY moscap_rf_hvt_nw gr gr 0
TRACE PROPERTY moscap_rf_nw lr lr 0
TRACE PROPERTY moscap_rf_nw wr wr 0
TRACE PROPERTY moscap_rf_nw br br 0
TRACE PROPERTY moscap_rf_nw gr gr 0
TRACE PROPERTY moscap_rf_rdk lr lr 0
TRACE PROPERTY moscap_rf_rdk wr wr 0
TRACE PROPERTY moscap_rf_rdk br br 0
TRACE PROPERTY moscap_rf_rdk gr gr 0
TRACE PROPERTY ndio_hia_rf al al 0
TRACE PROPERTY ndio_hia_rf aw aw 0
TRACE PROPERTY nmos_rf wr wr 0
TRACE PROPERTY nmos_rf lr lr 0
TRACE PROPERTY nmos_rf nr nr 0
TRACE PROPERTY nmos_rf_18 wr wr 0
TRACE PROPERTY nmos_rf_18 lr lr 0
TRACE PROPERTY nmos_rf_18 nr nr 0
TRACE PROPERTY nmos_rf_18_6t wr wr 0
TRACE PROPERTY nmos_rf_18_6t lr lr 0
TRACE PROPERTY nmos_rf_18_6t nr nr 0
TRACE PROPERTY nmos_rf_18_nodnw wr wr 0
TRACE PROPERTY nmos_rf_18_nodnw lr lr 0
TRACE PROPERTY nmos_rf_18_nodnw nr nr 0
TRACE PROPERTY nmos_rf_25 wr wr 0
TRACE PROPERTY nmos_rf_25 lr lr 0
TRACE PROPERTY nmos_rf_25 nr nr 0
TRACE PROPERTY nmos_rf_25_6t wr wr 0
TRACE PROPERTY nmos_rf_25_6t lr lr 0
TRACE PROPERTY nmos_rf_25_6t nr nr 0
TRACE PROPERTY nmos_rf_25_nodnw wr wr 0
TRACE PROPERTY nmos_rf_25_nodnw lr lr 0
TRACE PROPERTY nmos_rf_25_nodnw nr nr 0
TRACE PROPERTY nmos_rf_25_nodnwod wr wr 0
TRACE PROPERTY nmos_rf_25_nodnwod lr lr 0
TRACE PROPERTY nmos_rf_25_nodnwod nr nr 0
TRACE PROPERTY nmos_rf_25_nodnwud wr wr 0
TRACE PROPERTY nmos_rf_25_nodnwud lr lr 0
TRACE PROPERTY nmos_rf_25_nodnwud nr nr 0
TRACE PROPERTY nmos_rf_25od wr wr 0
TRACE PROPERTY nmos_rf_25od lr lr 0
TRACE PROPERTY nmos_rf_25od nr nr 0
TRACE PROPERTY nmos_rf_25od33_6t wr wr 0
TRACE PROPERTY nmos_rf_25od33_6t lr lr 0
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TRACE PROPERTY nmos_rf_25od33_6t nr nr 0
TRACE PROPERTY nmos_rf_25ud wr wr 0
TRACE PROPERTY nmos_rf_25ud lr lr 0
TRACE PROPERTY nmos_rf_25ud nr nr 0
TRACE PROPERTY nmos_rf_25ud18_6t wr wr 0
TRACE PROPERTY nmos_rf_25ud18_6t lr lr 0
TRACE PROPERTY nmos_rf_25ud18_6t nr nr 0
TRACE PROPERTY nmos_rf_33 wr wr 0
TRACE PROPERTY nmos_rf_33 lr lr 0
TRACE PROPERTY nmos_rf_33 nr nr 0
TRACE PROPERTY nmos_rf_33_6t wr wr 0
TRACE PROPERTY nmos_rf_33_6t lr lr 0
TRACE PROPERTY nmos_rf_33_6t nr nr 0
TRACE PROPERTY nmos_rf_33_nodnw wr wr 0
TRACE PROPERTY nmos_rf_33_nodnw lr lr 0
TRACE PROPERTY nmos_rf_33_nodnw nr nr 0
TRACE PROPERTY nmos_rf_6t wr wr 0
TRACE PROPERTY nmos_rf_6t lr lr 0
TRACE PROPERTY nmos_rf_6t nr nr 0
TRACE PROPERTY nmos_rf_cas_nw wr wr 0
TRACE PROPERTY nmos_rf_cas_nw lr lr 0
TRACE PROPERTY nmos_rf_cas_nw nr nr 0
TRACE PROPERTY nmos_rf_cas_nw wrr wrr 0
TRACE PROPERTY nmos_rf_cas_nw lrr lrr 0
TRACE PROPERTY nmos_rf_cas_nw nrr nrr 0
TRACE PROPERTY nmos_rf_cross_nw wr wr 0
TRACE PROPERTY nmos_rf_cross_nw lr lr 0
TRACE PROPERTY nmos_rf_cross_nw nr nr 0
TRACE PROPERTY nmos_rf_diff_nw wr wr 0
TRACE PROPERTY nmos_rf_diff_nw lr lr 0
TRACE PROPERTY nmos_rf_diff_nw nr nr 0
TRACE PROPERTY nmos_rf_hvt wr wr 0
TRACE PROPERTY nmos_rf_hvt lr lr 0
TRACE PROPERTY nmos_rf_hvt nr nr 0
TRACE PROPERTY nmos_rf_hvt_6t wr wr 0
TRACE PROPERTY nmos_rf_hvt_6t lr lr 0
TRACE PROPERTY nmos_rf_hvt_6t nr nr 0
TRACE PROPERTY nmos_rf_hvt_nodnw wr wr 0
TRACE PROPERTY nmos_rf_hvt_nodnw lr lr 0
TRACE PROPERTY nmos_rf_hvt_nodnw nr nr 0
TRACE PROPERTY nmos_rf_lvt wr wr 0
TRACE PROPERTY nmos_rf_lvt lr lr 0
TRACE PROPERTY nmos_rf_lvt nr nr 0
TRACE PROPERTY nmos_rf_lvt_6t wr wr 0
TRACE PROPERTY nmos_rf_lvt_6t lr lr 0
TRACE PROPERTY nmos_rf_lvt_6t nr nr 0
TRACE PROPERTY nmos_rf_lvt_nodnw wr wr 0
TRACE PROPERTY nmos_rf_lvt_nodnw lr lr 0
TRACE PROPERTY nmos_rf_lvt_nodnw nr nr 0
TRACE PROPERTY nmos_rf_mlvt wr wr 0
TRACE PROPERTY nmos_rf_mlvt lr lr 0
TRACE PROPERTY nmos_rf_mlvt nr nr 0
TRACE PROPERTY nmos_rf_mlvt_6t wr wr 0
TRACE PROPERTY nmos_rf_mlvt_6t lr lr 0
TRACE PROPERTY nmos_rf_mlvt_6t nr nr 0
TRACE PROPERTY nmos_rf_mlvt_nodnw wr wr 0
TRACE PROPERTY nmos_rf_mlvt_nodnw lr lr 0
TRACE PROPERTY nmos_rf_mlvt_nodnw nr nr 0
TRACE PROPERTY nmos_rf_na18 wr wr 0
TRACE PROPERTY nmos rf na18 lr lr 0
TRACE PROPERTY nmos_rf_na18 nr nr 0
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TRACE PROPERTY nmos_rf_nodnw wr wr 0
TRACE PROPERTY nmos_rf_nodnw lr lr 0
TRACE PROPERTY nmos_rf_nodnw nr nr 0
TRACE PROPERTY nmos_rf_rdk wr wr 0
TRACE PROPERTY nmos_rf_rdk lr lr 0
TRACE PROPERTY nmos_rf_rdk nr nr 0
TRACE PROPERTY nmoscap wr wr 0
TRACE PROPERTY nmoscap lr lr 0
TRACE PROPERTY nmoscap_18 wr wr 0
TRACE PROPERTY nmoscap_18 lr lr 0
TRACE PROPERTY nmoscap_25 wr wr 0
TRACE PROPERTY nmoscap_25 lr lr 0
TRACE PROPERTY nmoscap_33 wr wr 0
TRACE PROPERTY nmoscap_33 lr lr 0
TRACE PROPERTY nmoscap_lpg wr wr 0
TRACE PROPERTY nmoscap_lpg lr lr 0
TRACE PROPERTY pdio_hia_rf al al 0
TRACE PROPERTY pdio_hia_rf aw aw 0
TRACE PROPERTY pmos_rf wr wr 0
TRACE PROPERTY pmos_rf lr lr 0
TRACE PROPERTY pmos_rf nr nr 0
TRACE PROPERTY pmos_rf_18 wr wr 0
TRACE PROPERTY pmos_rf_18 lr lr 0
TRACE PROPERTY pmos_rf_18 nr nr 0
TRACE PROPERTY pmos_rf_18_5t wr wr 0
TRACE PROPERTY pmos_rf_18_5t lr lr 0
TRACE PROPERTY pmos_rf_18_5t nr nr 0
TRACE PROPERTY pmos_rf_18_nw wr wr 0
TRACE PROPERTY pmos_rf_18_nw lr lr 0
TRACE PROPERTY pmos_rf_18_nw nr nr 0
TRACE PROPERTY pmos_rf_18_nw_5t wr wr 0
TRACE PROPERTY pmos_rf_18_nw_5t lr lr 0
TRACE PROPERTY pmos_rf_18_nw_5t nr nr 0
TRACE PROPERTY pmos_rf_25 wr wr 0
TRACE PROPERTY pmos_rf_25 lr lr 0
TRACE PROPERTY pmos_rf_25 nr nr 0
TRACE PROPERTY pmos_rf_25_5t wr wr 0
TRACE PROPERTY pmos_rf_25_5t lr lr 0
TRACE PROPERTY pmos_rf_25_5t nr nr 0
TRACE PROPERTY pmos_rf_25_nw wr wr 0
TRACE PROPERTY pmos_rf_25_nw lr lr 0
TRACE PROPERTY pmos_rf_25_nw nr nr 0
TRACE PROPERTY pmos_rf_25_nw_5t wr wr 0
TRACE PROPERTY pmos_rf_25_nw_5t lr lr 0
TRACE PROPERTY pmos_rf_25_nw_5t nr nr 0
TRACE PROPERTY pmos_rf_25_nwod wr wr 0
TRACE PROPERTY pmos_rf_25_nwod lr lr 0
TRACE PROPERTY pmos_rf_25_nwod nr nr 0
TRACE PROPERTY pmos_rf_25_nwud wr wr 0
TRACE PROPERTY pmos_rf_25_nwud lr lr 0
TRACE PROPERTY pmos_rf_25_nwud nr nr 0
TRACE PROPERTY pmos_rf_25od wr wr 0
TRACE PROPERTY pmos_rf_25od lr lr 0
TRACE PROPERTY pmos_rf_25od nr nr 0
TRACE PROPERTY pmos_rf_25od33_5t wr wr 0
TRACE PROPERTY pmos_rf_25od33_5t lr lr 0
TRACE PROPERTY pmos_rf_25od33_5t nr nr 0
TRACE PROPERTY pmos_rf_25od33_nw_5t wr wr 0
TRACE PROPERTY pmos_rf_25od33_nw_5t lr lr 0
TRACE PROPERTY pmos_rf_25od33_nw_5t nr nr 0
TRACE PROPERTY pmos_rf_25ud wr wr 0
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TRACE PROPERTY pmos_rf_25ud lr lr 0
TRACE PROPERTY pmos_rf_25ud nr nr 0
TRACE PROPERTY pmos_rf_25ud18_5t wr wr 0
TRACE PROPERTY pmos_rf_25ud18_5t lr lr 0
TRACE PROPERTY pmos_rf_25ud18_5t nr nr 0
TRACE PROPERTY pmos_rf_25ud18_nw_5t wr wr 0
TRACE PROPERTY pmos_rf_25ud18_nw_5t lr lr 0
TRACE PROPERTY pmos_rf_25ud18_nw_5t nr nr 0
TRACE PROPERTY pmos_rf_33 wr wr 0
TRACE PROPERTY pmos_rf_33 lr lr 0
TRACE PROPERTY pmos_rf_33 nr nr 0
TRACE PROPERTY pmos_rf_33_5t wr wr 0
TRACE PROPERTY pmos_rf_33_5t lr lr 0
TRACE PROPERTY pmos_rf_33_5t nr nr 0
TRACE PROPERTY pmos_rf_33_nw wr wr 0
TRACE PROPERTY pmos_rf_33_nw lr lr 0
TRACE PROPERTY pmos_rf_33_nw nr nr 0
TRACE PROPERTY pmos_rf_33_nw_5t wr wr 0
TRACE PROPERTY pmos_rf_33_nw_5t lr lr 0
TRACE PROPERTY pmos_rf_33_nw_5t nr nr 0
TRACE PROPERTY pmos_rf_5t wr wr 0
TRACE PROPERTY pmos_rf_5t lr lr 0
TRACE PROPERTY pmos_rf_5t nr nr 0
TRACE PROPERTY pmos_rf_hvt wr wr 0
TRACE PROPERTY pmos_rf_hvt lr lr 0
TRACE PROPERTY pmos_rf_hvt nr nr 0
TRACE PROPERTY pmos_rf_hvt_5t wr wr 0
TRACE PROPERTY pmos_rf_hvt_5t lr lr 0
TRACE PROPERTY pmos_rf_hvt_5t nr nr 0
TRACE PROPERTY pmos_rf_hvt_nw wr wr 0
TRACE PROPERTY pmos_rf_hvt_nw lr lr 0
TRACE PROPERTY pmos_rf_hvt_nw nr nr 0
TRACE PROPERTY pmos_rf_hvt_nw_5t wr wr 0
TRACE PROPERTY pmos_rf_hvt_nw_5t lr lr 0
TRACE PROPERTY pmos_rf_hvt_nw_5t nr nr 0
TRACE PROPERTY pmos_rf_lvt wr wr 0
TRACE PROPERTY pmos_rf_lvt lr lr 0
TRACE PROPERTY pmos_rf_lvt nr nr 0
TRACE PROPERTY pmos_rf_lvt_5t wr wr 0
TRACE PROPERTY pmos_rf_lvt_5t lr lr 0
TRACE PROPERTY pmos_rf_lvt_5t nr nr 0
TRACE PROPERTY pmos_rf_lvt_nw wr wr 0
TRACE PROPERTY pmos_rf_lvt_nw lr lr 0
TRACE PROPERTY pmos_rf_lvt_nw nr nr 0
TRACE PROPERTY pmos_rf_lvt_nw_5t wr wr 0
TRACE PROPERTY pmos_rf_lvt_nw_5t lr lr 0
TRACE PROPERTY pmos_rf_lvt_nw_5t nr nr 0
TRACE PROPERTY pmos_rf_mlvt wr wr 0
TRACE PROPERTY pmos_rf_mlvt lr lr 0
TRACE PROPERTY pmos_rf_mlvt nr nr 0
TRACE PROPERTY pmos_rf_mlvt_5t wr wr 0
TRACE PROPERTY pmos_rf_mlvt_5t lr lr 0
TRACE PROPERTY pmos_rf_mlvt_5t nr nr 0
TRACE PROPERTY pmos_rf_mlvt_nw wr wr 0
TRACE PROPERTY pmos_rf_mlvt_nw lr lr 0
TRACE PROPERTY pmos_rf_mlvt_nw nr nr 0
TRACE PROPERTY pmos_rf_mlvt_nw_5t wr wr 0
TRACE PROPERTY pmos_rf_mlvt_nw_5t lr lr 0
TRACE PROPERTY pmos_rf_mlvt_nw_5t nr nr 0
TRACE PROPERTY pmos_rf_nw wr wr 0
TRACE PROPERTY pmos_rf_nw lr lr 0
```

```
TRACE PROPERTY pmos_rf_nw nr nr 0
TRACE PROPERTY pmos_rf_nw_5t wr wr 0
TRACE PROPERTY pmos_rf_nw_5t lr lr 0
TRACE PROPERTY pmos_rf_nw_5t nr nr 0
TRACE PROPERTY pmos_rf_rdk wr wr 0
TRACE PROPERTY pmos_rf_rdk lr lr 0
TRACE PROPERTY pmos_rf_rdk nr nr 0
TRACE PROPERTY pmoscap_rf lr lr 0
TRACE PROPERTY pmoscap_rf wr wr 0
TRACE PROPERTY pmoscap_rf br br 0
TRACE PROPERTY pmoscap_rf gr gr 0
TRACE PROPERTY pmoscap_rf18 lr lr 0
TRACE PROPERTY pmoscap_rf18 wr wr 0
TRACE PROPERTY pmoscap_rf18 br br 0
TRACE PROPERTY pmoscap_rf18 gr gr 0
TRACE PROPERTY pmoscap_rf25 lr lr 0
TRACE PROPERTY pmoscap_rf25 wr wr 0
TRACE PROPERTY pmoscap_rf25 br br 0
TRACE PROPERTY pmoscap_rf25 gr gr 0
TRACE PROPERTY probe1 a a 0
TRACE PROPERTY probe1 pj pj 0
TRACE PROPERTY probe2 a a 0
TRACE PROPERTY probe2 pj pj 0
TRACE PROPERTY probe3 a a 0
TRACE PROPERTY probe3 pj pj 0
TRACE PROPERTY probe4 a a 0
TRACE PROPERTY probe4 pj pj 0
TRACE PROPERTY probe5 a a 0
TRACE PROPERTY probe5 pj pj 0
TRACE PROPERTY probe6 a a 0
TRACE PROPERTY probe6 pj pj 0
TRACE PROPERTY probe7 a a 0
TRACE PROPERTY probe7 pj pj 0
TRACE PROPERTY rfesd_rf1 lay lay 0
TRACE PROPERTY rfesd_rf2 lay lay 0
TRACE PROPERTY rfesd_rf3 lay lay 0
TRACE PROPERTY rfesd_rf4 lay lay 0
TRACE PROPERTY rfesd_rf5 lay lay 0
TRACE PROPERTY rfesd_rf6 lay lay 0
TRACE PROPERTY rfesd_rf7 lay lay 0
TRACE PROPERTY rfesd_rf8 lay lay 0
TRACE PROPERTY rm1 w w 0
TRACE PROPERTY rm1 1 1 0
TRACE PROPERTY rm10 w w 0
TRACE PROPERTY rm10 1 1 0
TRACE PROPERTY rm2 w w 0
TRACE PROPERTY rm2 1 1 0
TRACE PROPERTY rm3 w w 0
TRACE PROPERTY rm3 1 1 0
TRACE PROPERTY rm4 w w 0
TRACE PROPERTY rm4 1 1 0
TRACE PROPERTY rm5 w w 0
TRACE PROPERTY rm5 1 1 0
TRACE PROPERTY rm6 w w 0
TRACE PROPERTY rm6 1 1 0
TRACE PROPERTY rm7 w w 0
TRACE PROPERTY rm7 1 1 0
TRACE PROPERTY rm8 w w 0
TRACE PROPERTY rm8 1 1 0
TRACE PROPERTY rm9 w w 0
TRACE PROPERTY rm9 1 1 0
```

```
TRACE PROPERTY rnodl 1 1 0
TRACE PROPERTY rnodl w w 0
TRACE PROPERTY rnod1_m lr lr 0
TRACE PROPERTY rnodl_m wr wr 0
TRACE PROPERTY rnods 1 1 0
TRACE PROPERTY rnods www 0
TRACE PROPERTY rnods_m lr lr 0
TRACE PROPERTY rnods_m wr wr 0
TRACE PROPERTY rnodwo 1 1 0
TRACE PROPERTY rnodwo w w 0
TRACE PROPERTY rnodwo_m lr lr 0
TRACE PROPERTY rnodwo_m wr wr 0
TRACE PROPERTY rnpolyl 1 1 0
TRACE PROPERTY rnpolyl w w 0
TRACE PROPERTY rnpolyl_m lr lr 0
TRACE PROPERTY rnpolyl_m wr wr 0
TRACE PROPERTY rnpolys 1 1 0
TRACE PROPERTY rnpolys w w 0
TRACE PROPERTY rnpolys_m lr lr 0
TRACE PROPERTY rnpolys_m wr wr 0
TRACE PROPERTY rnpolywo 1 1 0
TRACE PROPERTY rnpolywo w w 0
TRACE PROPERTY rnpolywo_m lr lr 0
TRACE PROPERTY rnpolywo_m wr wr 0
TRACE PROPERTY rnwod 1 1 0
TRACE PROPERTY rnwod w w 0
TRACE PROPERTY rnwod_m lr lr 0
TRACE PROPERTY rnwod_m wr wr 0
TRACE PROPERTY rnwsti 1 1 0
TRACE PROPERTY rnwsti w w O
TRACE PROPERTY rnwsti_m lr lr 0
TRACE PROPERTY rnwsti_m wr wr 0
TRACE PROPERTY rpod1 1 1 0
TRACE PROPERTY rpodl w w 0
TRACE PROPERTY rpod1_m lr lr 0
TRACE PROPERTY rpodl_m wr wr 0
TRACE PROPERTY rpods 1 1 0
TRACE PROPERTY rpods w w 0
TRACE PROPERTY rpods_m lr lr 0
TRACE PROPERTY rpods_m wr wr 0
TRACE PROPERTY rpodwo 1 1 0
TRACE PROPERTY rpodwo w w 0
TRACE PROPERTY rpodwo_m lr lr 0
TRACE PROPERTY rpodwo_m wr wr 0
TRACE PROPERTY rppolyl 1 1 0
TRACE PROPERTY rppolyl w w 0
TRACE PROPERTY rppolyl_m lr lr 0
TRACE PROPERTY rppolyl_m wr wr 0
TRACE PROPERTY rppolyl_rf w w 0
TRACE PROPERTY rppolyl_rf 1 1 0
TRACE PROPERTY rppolyl_rf_rdk w w 0
TRACE PROPERTY rppolyl_rf_rdk 1 1 0
TRACE PROPERTY rppolys 1 1 0
TRACE PROPERTY rppolys w w 0
TRACE PROPERTY rppolys_m lr lr 0
TRACE PROPERTY rppolys_m wr wr 0
TRACE PROPERTY rppolys_rf w w 0
TRACE PROPERTY rppolys_rf 1 1 0
TRACE PROPERTY rppolys_rf_rdk w w 0
TRACE PROPERTY rppolys_rf_rdk 1 1 0
TRACE PROPERTY rppolywo 1 1 0
```

```
TRACE PROPERTY rppolywo w w 0
TRACE PROPERTY rppolywo_m lr lr 0
TRACE PROPERTY rppolywo_m wr wr 0
TRACE PROPERTY rppolywo_rf w w 0
TRACE PROPERTY rppolywo_rf 1 1 0
TRACE PROPERTY rppolywo_rf_rdk w w 0
TRACE PROPERTY rppolywo_rf_rdk 1 1 0
TRACE PROPERTY sbd_rf nf nf 0
TRACE PROPERTY sbd_rf w w 0
TRACE PROPERTY sbd_rf 1 1 0
TRACE PROPERTY sbd_rf_nw nf nf 0
TRACE PROPERTY sbd_rf_nw w w 0
TRACE PROPERTY sbd_rf_nw 1 1 0
TRACE PROPERTY sline_gscpw_mu 1 1 0
TRACE PROPERTY sline_gscpw_mu s s 0
TRACE PROPERTY sline_gscpw_mu w w 0
TRACE PROPERTY sline_gscpw_mu lay lay 0
TRACE PROPERTY sline_ms_mu 1 1 0
TRACE PROPERTY sline_ms_mu w w 0
TRACE PROPERTY sline_ms_mu lay lay 0
TRACE PROPERTY spiral_std_mu_z lay lay 0
TRACE PROPERTY spiral_std_mu_z w w 0.05
TRACE PROPERTY spiral_std_mu_z nr nr 0
TRACE PROPERTY spiral_std_mu_z rad rad 0
TRACE PROPERTY spiral_std_mu_z gdis gdis 0
TRACE PROPERTY spiral_std_mu_z spacing spacing 0
TRACE PROPERTY spiral_std_mu_z_rdk lay lay 0
TRACE PROPERTY spiral_std_mu_z_rdk w w 0.05
TRACE PROPERTY spiral_std_mu_z_rdk nr nr 0
TRACE PROPERTY spiral_std_mu_z_rdk rad rad 0
TRACE PROPERTY spiral_std_mu_z_rdk gdis gdis 0
TRACE PROPERTY spiral_std_mu_z_rdk spacing spacing 0
TRACE PROPERTY spiral_sym_ct_mu_z lay lay 0
TRACE PROPERTY spiral_sym_ct_mu_z w w 0.05
TRACE PROPERTY spiral_sym_ct_mu_z nr nr 0
TRACE PROPERTY spiral_sym_ct_mu_z rad rad 0
TRACE PROPERTY spiral_sym_ct_mu_z gdis gdis 0
TRACE PROPERTY spiral_sym_ct_mu_z spacing spacing 0
TRACE PROPERTY spiral_sym_ct_mu_z_rdk lay lay 0
TRACE PROPERTY spiral_sym_ct_mu_z_rdk w w 0.05
TRACE PROPERTY spiral_sym_ct_mu_z_rdk nr nr 0
TRACE PROPERTY spiral_sym_ct_mu_z_rdk rad rad 0
TRACE PROPERTY spiral_sym_ct_mu_z_rdk gdis gdis 0
TRACE PROPERTY spiral_sym_ct_mu_z_rdk spacing spacing 0
TRACE PROPERTY spiral_sym_mu_z lay lay 0
TRACE PROPERTY spiral_sym_mu_z w w 0.05
TRACE PROPERTY spiral_sym_mu_z nr nr 0
TRACE PROPERTY spiral_sym_mu_z rad rad 0
TRACE PROPERTY spiral_sym_mu_z gdis gdis 0
TRACE PROPERTY spiral_sym_mu_z spacing spacing 0
TRACE PROPERTY spiral_sym_mu_z_rdk lay lay 0
TRACE PROPERTY spiral_sym_mu_z_rdk w w 0.05
TRACE PROPERTY spiral_sym_mu_z_rdk nr nr 0
TRACE PROPERTY spiral_sym_mu_z_rdk rad rad 0
TRACE PROPERTY spiral_sym_mu_z_rdk gdis gdis 0
TRACE PROPERTY spiral_sym_mu_z_rdk spacing spacing 0
TRACE PROPERTY xjvar w w 0
TRACE PROPERTY xjvar 110
TRACE PROPERTY xjvar nr nr 0
TRACE PROPERTY xjvar_nw w w 0
TRACE PROPERTY xjvar_nw 1 1 0
```

CELL COMPARISON RESULTS (TOP LEVEL)

#		####	##########	####	
	#	#		#	* *
#	#	#	CORRECT	#	1
#	#	#		#	\/
#		####		####	

LAYOUT CELL NAME: Neuron SOURCE CELL NAME: Neuron

INITIAL NUMBERS OF OBJECTS

	Layout	Source		Component Type
Ports:	9	9		
Nets:	23	23		
Instances:	90 135 3 3	9 15 3 3	*	MN (4 pins) MP (4 pins) rnodwo (2 pins) crtmom (3 pins)
Total Inst:	231	30		

NUMBERS OF OBJECTS AFTER TRANSFORMATION

	Layout	Source	Component Type
Ports:	9	9	
Nets:	23	23	
Instances:	9	9	MN (4 pins)
	15	15	MP (4 pins)
	3	3	rnodwo (2 pins)
	3	3	crtmom (3 pins)
Total Inst:	30	30	

 \ast = Number of objects in layout different from number in source.

	Matched	Matched	Unmatched	Unmatched	Component
	Layout	Source	Layout	Source	Type
Ports:	9	9	0	0	
Nets:	23	23	0	0	
Instances:	9	9	0	0	MN(NCH)
	15	15	0	0	MP(PCH)
	3	3	0	0	${\tt rnodwo}$
	3	3	0	0	crtmom
Total Inst:	30	30	0	0	

o Statistics:

225 layout mos transistors were reduced to 24.
201 mos transistors were deleted by parallel reduction.

o Initial Correspondence Points:

Ports: VDD GND CRT VIN- VIN+ VREF CRT1 CRT2 VOUT

SUMMARY

Total CPU Time: 0 sec
Total Elapsed Time: 1 sec