SOA DOCUMENTATION

soa documentation

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Contents

1   Definition

Safe operating areas can be defined withnin the simulator in order to check if the device is properly used. These can be viewed as rules that the simulator will evaluate during circuit simulation. If the rule check is false, a message is printed for the related componant.

The used rules are mainly based on device specification, electrical characterization and model limitation. Some of these rules are already present in the DRM. The present document lists all the rules for the different componants. Because soa rules are numerous and concern a lot of device, soas have been classified in four categories :

Category 1 : **Out of process**
This category contains all rules related to the standard process specification of the device. If we consider a 1.8V Mos device, we expect that the maximal Vgs and Vds is 1.8V. Such bias range do not rely on reliability or advanced electrical characterization and in consequence can be already defined at the device definition.

Category 2 : **Non functionnal**
The rules present in these category are based on electrical characterization. They allow to check that the device is functionnal during all the simulation. The non functionnal limits could come from junction or device breakdown, or snap-back problem for MOS devices for example.

Category 3 : **Reliability**
The rules here are also based on electrical tests, and mainly on the reliability program started at the maturity 10 of the device. With the previous categories, we could check that the device operates within the specification and is not broken. With this category, we could evaluate if the circuit is reliable for long time.

Category 4 : **Hot spot and modeling issues**
Simulation are based on a device model. The model should be as close as possible to the silicon behaviour of the device. Nevertheless, some limitations, inaccuracies could be present in some operating areas. The rules here will list some known limitations. In the case of HV devices or resistances for example, some models will not take into account the self-heating that is present. The hot spot issue underline the fact that a device could operate in a safe domain for itself but could induce damage for other neighbour componant. Resistor self-heating for example is important for accurate modeling of the componant but could also be crucial when considering that the resistor self-heating could increase the temperature in the back-end line above where electromigration is an important limitation.

2   Soa filtering

Three level of filter have been created in order to adress specific soa validation.

At device level : **instance parameter soa**
The device has an instance parameter soa. When setted at 0, it switched off all the soa rules for the selected device. Default value is 1 usually.

At family level : **familly_soa switch**
familly_soa parameter can be setted withnin DK interface or manually in the netlist in order to switch on(1)/off(0) the soas of the related family. Default value is 1 usually.

Global level : **soa_outofprocess, soa_nonfunctionnal, soa_reliability, soa_modeling**
Four global parameters (list above) related to the the four previous soa categories could be setted in the DK interface or manually in the netlist. They allow to switch on(1)/off(0) the different rules present in each category. Default values for the switches is 1 usually.

In consequence, **an soa rule of a specific device is checked only if the instance parameter of the device is on (soa=1), AND the familly soa flag is on (soa_familly=1), AND the global switch of the related soa category is on (soa_reliability=1 for example)**.

3 Soa table nomenclature

Here below is an example of a simplified (only 2 categories are present) soa table. The 1st column is the label of the rule based on the category name. In the 2nd column you can find all the componant of the rule. The **"Message"** is the comment that appear in the soa simulator output.
The **"Check"** is the rule that is evaluated if the condition printed in the line below is true.
The **"Condition"** line lists the global condition that has to be true to do the check. If None, condition is null or with '-' character.
"Otherwise" line indicates the check that is evaluated if the condition above is false.
Above the table and in the caption you can see all the models that are concerned with these rules. All the information presented in the table comes directly from parsing the eldo soa command in the libraries.

Model list : ENULLLP_BS3JU, ENULLLP_BS3JUIO, ENULLLP_BS3JULEAK

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VGB bias outside limits**
	Check	-1.21 V < VGB < 1.21 V for a laps time greater than 2.0ns
	Condition	(VGB-Vth)<0)
	Otherwise	-2.41 V < VGB < 2.41 V for a laps time greater than 2.0ns
OP2	**Message**	**VBD bias outside limits**
	Check	-2.41 V < VBD for a laps time greater than 2.0ns
	Condition	-
	Category : Reliability issues	
RE1	**Message**	**MOS HCI limitation on D side**
	Check	-1.4 V < VBD < 0.2 V for a laps time greater than 2.0ns
	Condition	(VGS-Vth)>0) and (VDS>0.2)

Table 1: ENULLLP_BS3JU, ENULLLP_BS3JUIO, ENULLLP_BS3JULEAK soas

4   Section related to EGLVT library

4.1   Model Name : eglvtnfet_acc

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.98 < VDS < 1.98 for a laps time greater than 0.1ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	**snapback on D side : Risk of Failure**
	Check	VDS < 3.7 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	VSD < 3.7 for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
	continued from previous...	
	Section	**Value**
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'160e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'150e-9' < l < '10e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 2: eglvtnfet_acc soas

4.2　Model Name : eglvtnfet_rf

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.98 < VDS < 1.98 for a laps time greater than 0.1ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	Message	**snapback on D side : Risk of Failure**
	Check	VDS < 3.7 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	VSD < 3.7 for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
	continued from previous...	
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '2e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 3: eglvtnfet_rf soas

4.3   Model Name : eglvtnfet_rfseg

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.98 < VDS < 1.98 for a laps time greater than 0.1ns
	Condition	-
		Category : Non functionnal FDSOI device
NF1	**Message**	**snapback on D side : Risk of Failure**
	Check	VDS < 3.7 for a laps time greater than 0.01ns
	Condition	-
NF2	**Message**	**snapback on S side : Risk of Failure**
	Check	VSD < 3.7 for a laps time greater than 0.01ns
	Condition	-
		Category : Non functional device
NF3	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
	Section	**Value**
NF20	**Message**	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	**Message**	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '2e-6'
	Condition	-
MO3	**Message**	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	**Message**	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	**Message**	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 4: eglvtnfet_rfseg soas

4.4   Model Name : eglvtpfet_acc

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.98 < VDS < 1.98 for a laps time greater than 0.1ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	**Message**	**snapback on D side : Risk of Failure**
	Check	-5.2 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	**Message**	**snapback on S side : Risk of Failure**
	Check	-5.2 < VSD for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'160e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'150e-9' < l < '10e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-3.78 < Vbs < 1.98
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 5: eglvtpfet_acc soas

4.5   Model Name : eglvtpfet_rf

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.98 < VDS < 1.98 for a laps time greater than 0.1ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-5.2 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-5.2 < VSD for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

continued from previous...

Rule	Section	Value
	continued from previous...	

Rule	Section	Value
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '2e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-3.78 < Vbs < 1.98
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 6: eglvtpfet_rf soas

4.6   Model Name : eglvtpfet_rfseg

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.98 < VDS < 1.98 for a laps time greater than 0.1ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-5.2 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-5.2 < VSD for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
	continued from previous...	
Rule	**Section**	**Value**
NF20	**Message**	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	**Message**	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	**Message**	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '2e-6'
	Condition	-
MO3	**Message**	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	**Message**	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-3.78 < Vbs < 1.98
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	**Message**	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 7: eglvtpfet_rfseg soas

4.7   Model Name : eglvtpspfet

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.65 < VGD < 1.1 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.65 < VGS < 1.1 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.1ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-5.2 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-5.2 < VSD for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

	continued from previous...	
Rule	**Section**	**Value**
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
	continued from previous...	
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-

	Category : Modeling information	
MO1	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO2	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-3.78 < Vbs < 1.98
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO3	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO4	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 8: eglvtpspfet soas

4.8 Model Name : eglvtvnfet_acc

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-1.65 < VGD < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.65 < VGS < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.65 < VDS < 1.65 for a laps time greater than 0.1ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	**snapback on D side : Risk of Failure**
	Check	VDS < 3.2 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	VSD < 3.2 for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

continued from previous...

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'160e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '10e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 9: eglvtvnfet_acc soas

4.9   Model Name : eglvtvpfet_acc

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-1.65 < VGD < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.65 < VGS < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.65 < VDS < 1.65 for a laps time greater than 0.1ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-4.2 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-4.2 < VSD for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'160e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '10e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-3.78 < Vbs < 1.98
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 10: eglvtvpfet_acc soas

4.10 Model Name : egvlvtnfet_rf

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-1.65 < VGD < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.65 < VGS < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.65 < VDS < 1.65 for a laps time greater than 0.1ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	**snapback on D side : Risk of Failure**
	Check	VDS < 3.2 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	VSD < 3.2 for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
Rule	**Section**	**Value**
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '2e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 11: egvlvtnfet_rf soas

4.11   Model Name : egvlvtnfet_rfseg

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-1.65 < VGD < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.65 < VGS < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.65 < VDS < 1.65 for a laps time greater than 0.1ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	**snapback on D side : Risk of Failure**
	Check	VDS < 3.2 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	VSD < 3.2 for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

	continued from previous...	
Rule	**Section**	**Value**
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
	center	continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	center	**Category : Modeling information**
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '2e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 12: egvlvtnfet_rfseg soas

4.12   Model Name : egvlvtpfet_rf

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-1.65 < VGD < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.65 < VGS < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.65 < VDS < 1.65 for a laps time greater than 0.1ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-4.2 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-4.2 < VSD for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

	continued from previous...	
Rule	**Section**	**Value**
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '2e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-3.78 < Vbs < 1.98
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 13: egvlvtpfet_rf soas

4.13　Model Name : egvlvtpfet_rfseg

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.65 < VGD < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.65 < VGS < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.65 < VDS < 1.65 for a laps time greater than 0.1ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-4.2 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-4.2 < VSD for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

		continued from previous...
Rule	**Section**	**Value**
NF20	**Message**	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	**Message**	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '2e-6'
	Condition	-
MO3	**Message**	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	**Message**	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-3.78 < Vbs < 1.98
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	**Message**	**eglvt_dev = 4 is for matching sensitivity analysis ONLY. Use eglvt_dev = 1 to get accurate matching simulation results**
	Check	0 < eglvt_dev < 3
	Condition	-

Table 14: egvlvtpfet_rfseg soas

5   Section related to DIODE library

5.1   Model Name : diodenwx

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**Bias outside limits**
	Check	-10 < Vsxnw for a laps time greater than 2.0ns
	Condition	-
		Category : Non functionnal device
NF1	**Message**	**Risk of junction breakdown**
	Check	Vnwsx < 10 for a laps time greater than 100.0ns
	Condition	-
		Category : nonfunctionnal information
NF2	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	Vnwsx < 12.0 for a laps time greater than 10ps
	Condition	-
		Category : Reliability
RE1	**Message**	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	Vsxnw < 0.6 for a laps time greater than 0.01ns
	Condition	-
		Category : Modeling
MO1	**Message**	**Direct regime only for a limited range**
	Check	Vsxnw < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 15: diodenwx soas

5.2   Model Name : diodenx

Rule	Section	Value
Category : Out of process specification
OP1	Message	Bias outside limits
	Check	-6.0 < Vsxnd for a laps time greater than 2.0ns
	Condition	-
Category : Non functionnal device
NF1	Message	Risk of junction breakdown
	Check	Vndsx < 6.0 for a laps time greater than 100.0ns
	Condition	-
Category : nonfunctionnal information
NF2	Message	Non functionnal device : junction breakdown : Failure even during short ESD event
	Check	VNDSX < 10.0 for a laps time greater than 10ps
	Condition	-
Category : Reliability
RE1	Message	Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert
	Check	Vsxnd < 0.6 for a laps time greater than 0.01ns
	Condition	-
Category : Modeling
MO1	Message	Direct regime only for a limited range
	Check	Vsxnd < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 16: diodenx soas

5.3   Model Name : diodepnw

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**Bias outside limits**
	Check	-7.0 < Vpdnw for a laps time greater than 2.0ns
	Condition	-
	Category : Non functionnal device	
NF1	**Message**	**Risk of junction breakdown**
	Check	Vnwpd < 7.0 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWPD < 10.0 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	**Message**	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	Vpdnw < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling	
MO1	**Message**	**Direct regime only for a limited range**
	Check	Vpdnw < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 17: diodepnw soas

5.4   Model Name : diodepwtw

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**Bias outside limits**
	Check	-10 < Vpwtw for a laps time greater than 2.0ns
	Condition	-
	Category : Non functionnal device	
NF1	Message	**Risk of junction breakdown**
	Check	Vtwpw < 10 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	Vtwpw < 12.0 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	Vpwtw < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling	
MO1	Message	**Direct regime only for a limited range**
	Check	Vpwtw < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 18: diodepwtw soas

5.5   Model Name : diodetwx

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	Bias outside limits
	Check	-10 < Vsxtw for a laps time greater than 2.0ns
	Condition	-
	Category : Non functionnal device	
NF1	Message	Risk of junction breakdown
	Check	Vtwsx < 10 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	Message	Non functionnal device : junction breakdown : Failure even during short ESD event
	Check	Vtwsx < 12.0 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	Message	Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert
	Check	Vsxtw < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling	
MO1	Message	Direct regime only for a limited range
	Check	Vsxtw < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 19: diodetwx soas

6   Section related to LVT library

6.1   Model Name : lvtnfet_acc

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	**Message**	**snapback on D side : Risk of Failure**
	Check	VDS < 3.0 for a laps time greater than 0.01ns
	Condition	-
NF2	**Message**	**snapback on S side : Risk of Failure**
	Check	VSD < 3.0 for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'80e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '4e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs < 1.3
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO6	Message	**lvt_dev = 4 is for matching sensitivity analysis ONLY. Use lvt_dev = 1 to get accurate matching simulation results**
	Check	0 < lvt_dev < 3
	Condition	-

Table 20: lvtnfet_acc soas

6.2   Model Name : lvtnfet_rf

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	VGD bias outside limits
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	Message	snapback on D side : Risk of Failure
	Check	VDS < 3.0 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	snapback on S side : Risk of Failure
	Check	VSD < 3.0 for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	gate oxide breakdown - check the TDDB laws

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '1e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs < 1.3
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO6	Message	**lvt_dev = 4 is for matching sensitivity analysis ONLY. Use lvt_dev = 1 to get accurate matching simulation results**
	Check	0 < lvt_dev < 3
	Condition	-

Table 21: lvtnfet_rf soas

6.3   Model Name : lvtnfet_rfseg

Rule	Section	Value
Category : Out of process specification		
OP1	Message	VGD bias outside limits
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	snapback on D side : Risk of Failure
	Check	VDS < 3.0 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	snapback on S side : Risk of Failure
	Check	VSD < 3.0 for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	gate oxide breakdown - check the TDDB laws

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
	continued from previous...	
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '1e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs < 1.3
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**lvt_dev = 4 is for matching sensitivity analysis ONLY. Use lvt_dev = 1 to get accurate matching simulation results**
	Check	0 < lvt_dev < 3
	Condition	-

Table 22: lvtnfet_rfseg soas

6.4 Model Name : lvtpfet_acc

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	**Message**	**snapback on D side : Risk of Failure**
	Check	-3.5 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	**Message**	**snapback on S side : Risk of Failure**
	Check	-3.5 < VSD for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'80e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '4e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-2.3 < Vbs < 0.3
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO6	Message	**lvt_dev = 4 is for matching sensitivity analysis ONLY. Use lvt_dev = 1 to get accurate matching simulation results**
	Check	0 < lvt_dev < 3
	Condition	-

Table 23: lvtpfet_acc soas

6.5   Model Name : lvtpfet_rf

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
		Category : Non functionnal FDSOI device
NF1	**Message**	**snapback on D side : Risk of Failure**
	Check	-3.5 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	**Message**	**snapback on S side : Risk of Failure**
	Check	-3.5 < VSD for a laps time greater than 0.01ns
	Condition	-
		Category : Non functional device
NF3	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '1e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-2.3 < Vbs < 0.3
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO6	Message	**lvt_dev = 4 is for matching sensitivity analysis ONLY. Use lvt_dev = 1 to get accurate matching simulation results**
	Check	0 < lvt_dev < 3
	Condition	-

Table 24: lvtpfet_rf soas

6.6 Model Name : lvtpfet_rfseg

Rule	Section	Value
Category : Out of process specification		
OP1	Message	VGD bias outside limits
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	snapback on D side : Risk of Failure
	Check	-3.5 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	snapback on S side : Risk of Failure
	Check	-3.5 < VSD for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	gate oxide breakdown - check the TDDB laws

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '1e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-2.3 < Vbs < 0.3
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**lvt_dev = 4 is for matching sensitivity analysis ONLY. Use lvt_dev = 1 to get accurate matching simulation results**
	Check	0 < lvt_dev < 3
	Condition	-

Table 25: lvtpfet_rfseg soas

7 Section related to RESISTOR library

7.1   Model Name : nwres and other related models

Model list : nwres, nwres_std

Rule	Section	Value
		Category : Modeling information
MO1	**Message**	**Accurante bias dependence modeling not guaranteed when serial stripes > 1. Please run Post-Layout Simulation for accurate modeling.**
	Check	ssoa < 1
	Condition	-

Table 26: nwres, nwres_std soas

7.2   Model Name : opndres and other related models

Model list : opndres, opndres_std

Rule	Section	Value
		Category : Modeling information
	Message	**Accurante bias dependence modeling not guaranteed when serial stripes > 1. Please run Post-Layout Simulation for accurate modeling.**
MO1	**Check**	ssoa < 1
	Condition	-

Table 27: opndres, opndres_std soas

7.3   Model Name : opppcres and other related models

Model list : opppcres, opppcres_std

Rule	Section	Value
		Category : Modeling information
MO1	**Message**	**Accurante bias dependence modeling not guaranteed when serial stripes > 1. Please run Post-Layout Simulation for accurate modeling.**
	Check	ssoa < 1
	Condition	-
MO2	**Message**	**Possible Hot-spot in back-end lines due to resistor self-heating when DeltaT > 5C and current density exceed limits**
	Check	(abs(i(vsoa))/(wpbar)) < 0.36e+3
	Condition	-

Table 28: opppcres, opppcres_std soas

7.4   Model Name : opppcres_lc and other related models

Model list : opppcres_lc, opppcres_lc_std

Rule	Section	Value
	Category : Modeling information	
MO1	Message	Accurante bias dependence modeling not guaranteed when serial stripes > 1. Please run Post-Layout Simulation for accurate modeling.
	Check	ssoa < 1
	Condition	-
MO2	Message	Possible Hot-spot in back-end lines due to resistor self-heating when DeltaT > 5C and current density exceed limits
	Check	$(abs(i(vsoa))/(wpbar)) < 0.36e+3$
	Condition	-

Table 29: opppcres_lc, opppcres_lc_std soas

7.5   Model Name : opreres and other related models

Model list : opreres, opreres_std

Rule	Section	Value
		Category : Modeling information
MO1	**Message**	**Accurante bias dependence modeling not guaranteed when serial stripes > 1. Please run Post-Layout Simulation for accurate modeling.**
	Check	ssoa < 1
	Condition	-
MO2	**Message**	**Possible Hot-spot in back-end lines due to resistor self-heating when DeltaT > 5C and current density exceed limits**
	Check	(abs(i(vsoa))/(wpbar)) < 0.12e+3
	Condition	-
MO3	**Message**	**W<150nm not allowed. Exception for W=50nm for RF switch application, without commitment on electrical result.**
	Check	150e-9 < w
	Condition	-

Table 30: opreres, opreres_std soas

8 Section related to BIPOLAR library

8.1   Model Name : vnpn

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VCE bias outside limits**
	Check	-2.0 < Vce < 4.0 for a laps time greater than 2.0ns
	Condition	-
OP2	**Message**	**VBE bias outside limits**
	Check	-2.0 < Vbe < 1.2 for a laps time greater than 2.0ns
	Condition	-
OP3	**Message**	**VBC bias outside limits**
	Check	-6.0 < Vbc < 3.2 for a laps time greater than 2.0ns
	Condition	-
	Category : nonfunctionnal information	
NF1	**Message**	**Non functionnal device : npn out of functionnal safe operating area**
	Check	-2.0 < Vbe < 1.2 for a laps time greater than 10ps
	Condition	-
NF2	**Message**	**Non functionnal device : npn out of functionnal safe operating area**
	Check	-6.0 < Vbc < 1.2 for a laps time greater than 10ps
	Condition	-
NF3	**Message**	**Non functionnal device : npn out of functionnal safe operating area**
	Check	-2.0 < Vce < +4.0 for a laps time greater than 10ps
	Condition	-

Table 31: vnpn soas

8.2   Model Name : vpnp

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VCE bias outside limits**
	Check	-11 < Vce < 2.0 for a laps time greater than 2.0ns
	Condition	-
OP2	Message	**VBE bias outside limits**
	Check	-1.2 < Vbe < 2.0 for a laps time greater than 2.0ns
	Condition	-
OP3	Message	**VBC bias outside limits**
	Check	-3.2 < Vbc < 15 for a laps time greater than 2.0ns
	Condition	-
	Category : nonfunctionnal information	
NF1	Message	**Non functionnal device : pnp out of functionnal safe operating area**
	Check	-1.2 < Vbe < 2.0 for a laps time greater than 10ps
	Condition	-
NF2	Message	**Non functionnal device : pnp out of functionnal safe operating area**
	Check	-1.2 < Vbc < 15.0 for a laps time greater than 10ps
	Condition	-
NF3	Message	**Non functionnal device : pnp out of functionnal safe operating area**
	Check	-11.0 < Vce < 2 for a laps time greater than 10ps
	Condition	-

Table 32: vpnp soas

9   Section related to CMIM16ACC library

9.1   Model Name : cmim16acc and other related models

Model list : cmim16acc, cmim16acc_sh, cmim16acc_2p, cmim16acc_acc, cmim16acc_2p_acc, cmim16acc_sh_acc

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**Bias outside limits for standard use**
	Check	-1.1 < Vplusminus < 1.1 for a laps time greater than 2.0ns
	Condition	-
	Category : Reliability	
RE1	**Message**	**Bias outside limits for extended use**
	Check	-1.4 < Vplusminus < 1.4 for a laps time greater than 2.0ns
	Condition	-
	Category : Modeling information	
MO1	**Message**	**The PCell is not optimized for RF application, please put the instance parameter mim_rf to 1**
	Check	0.1 < mim_rf
	Condition	-

Table 33: cmim16acc, cmim16acc_sh, cmim16acc_2p, cmim16acc_acc, cmim16acc_2p_acc, cmim16acc_sh_acc soas

10   Section related to CMOM library

10.1   Model Name : cmom_5U1x_1T8x_LB_2p and other related models

Model list : cmom_5U1x_1T8x_LB_2p, cmom_5U1x_1T8x_LB_sh, cmom_5U1x_1T8x_LB_sh_acc, cmom_5U1x_1T8x_

Rule	Section	Value
	Category : Out of process specification	
MO9	**Message**	**Bias outside limits for standard use**
	Check	-1.155 < Vplusminus < 1.155
	Condition	(spacefinger_mx=50e-9)
MO10	**Message**	**Bias outside limits for standard use**
	Check	-1.98 < Vplusminus < 1.98
	Condition	(spacefinger_mx>=60e-9 and spacefinger_mx<80e-9)
MO11	**Message**	**Bias outside limits for standard use**
	Check	-8.8 < Vplusminus < 8.8
	Condition	(spacefinger_mx>=80e-9)
	Category : Modeling information	
MO1	**Message**	**Exceeding dirX fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_dirx < 499
	Condition	-
MO2	**Message**	**Exceeding dirY fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_diry_used < 499
	Condition	-
MO3	**Message**	**Exceeding bottom layer number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < mtlfrbot_entry < 4
	Condition	-
MO4	**Message**	**Exceeding top layer number for standard use, value must be replaced by MIN/MAX value**
	Check	2 < mtlfrtop_entry < 5
	Condition	-
MO5	**Message**	**Bad connection number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < what_con
	Condition	-
	Message	**M2 bottom connection is not possible with M3-M4(5) MOM capacitor, connection must be replaced by M3**

Rule	Section	Value
continued from previous...		
MO6	Check	$0 <$ coefsoa_con_bt
	Condition	-
MO7	Message	**For CMOM with only one layer, do not use the geometric instanciation mode**
	Check	$0 <$ only_one_layer
	Condition	-
MO8	Message	**M4 connection is not possible with M1(2)-M3 MOM capacitor, connection must be replaced by M2**
	Check	$0 <$ coefsoa_con_tp
	Condition	-

Table 34: cmom_5U1x_1T8x_LB_2p, cmom_5U1x_1T8x_LB_sh, cmom_5U1x_1T8x_LB_sh_acc, cmom_5U1x_1T8x_LB_2p_acc soas

10.2   Model Name : cmom_5U1x_1T8x_LB_wo_via_sh and other related models

Model list : cmom_5U1x_1T8x_LB_wo_via_sh, cmom_5U1x_1T8x_LB_wo_via_2p, cmom_5U1x_1T8x_LB_wo_via_sh_a
cmom_5U1x_1T8x_LB_wo_via_2p_acc

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**Bias outside limits for standard use**
	Check	-1.98 < Vplusminus < 1.98 for a laps time greater than 2.0ns
	Condition	-
	Category : Modeling information	
MO1	**Message**	**Exceeding dirX fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_dirx < 499
	Condition	-
MO2	**Message**	**Exceeding dirY fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_diry_used < 499
	Condition	-
MO3	**Message**	**Exceeding bottom layer number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < mtlfrbot_entry < 4
	Condition	-
MO4	**Message**	**Exceeding top layer number for standard use, value must be replaced by MIN/MAX value**
	Check	2 < mtlfrtop_entry < 5
	Condition	-
MO5	**Message**	**Bad connection number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < what_con
	Condition	-
MO6	**Message**	**M2 bottom connection is not possible with M3-M4(5) MOM capacitor, connection must be replaced by M3**
	Check	0 < coefsoa_con_bt
	Condition	-
MO7	**Message**	**For CMOM with only one layer, do not use the geometric instanciation mode**
	Check	0 < only_one_layer
	Condition	-

	continued from previous...	
Rule	**Section**	**Value**
MO8	**Message**	**M4 connection is not possible with M1(2)-M3 MOM capacitor, connection must be replaced by M2**
	Check	0 < coefsoa_con_tp
	Condition	-

Table 35: cmom_5U1x_1T8x_LB_wo_via_sh, cmom_5U1x_1T8x_LB_wo_via_2p, cmom_5U1x_1T8x_LB_wo_via_sh_acc, cmom_5U1x_1T8x_LB_wo_via_2p_acc soas

10.3   Model Name : cmom_5U1x_2T8x_LB_2p and other related models

Model list : cmom_5U1x_2T8x_LB_2p, cmom_5U1x_2T8x_LB_sh, cmom_5U1x_2T8x_LB_2p_acc, cmom_5U1x_2T8x_

Rule	Section	Value
	Category : Out of process specification	
MO9	Message	**Bias outside limits for standard use**
	Check	-1.155 < Vplusminus < 1.155
	Condition	(spacefinger_mx=50e-9)
MO10	Message	**Bias outside limits for standard use**
	Check	-1.98 < Vplusminus < 1.98
	Condition	(spacefinger_mx>=60e-9 and spacefinger_mx<80e-9)
MO11	Message	**Bias outside limits for standard use**
	Check	-8.8 < Vplusminus < 8.8
	Condition	(spacefinger_mx>=80e-9)
	Category : Modeling information	
MO1	Message	**Exceeding dirX fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_dirx < 499
	Condition	-
MO2	Message	**Exceeding dirY fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_diry_used < 499
	Condition	-
MO3	Message	**Exceeding bottom layer number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < mtlfrbot_entry < 4
	Condition	-
MO4	Message	**Exceeding top layer number for standard use, value must be replaced by MIN/MAX value**
	Check	2 < mtlfrtop_entry < 5
	Condition	-
MO5	Message	**Bad connection number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < what_con
	Condition	-
	Message	**M2 bottom connection is not possible with M3-M4(5) MOM capacitor, connection must be replaced by M3**

Rule	Section	Value
MO6	**Check**	0 < coefsoa_con_bt
	Condition	-
MO7	**Message**	For CMOM with only one layer, do not use the geometric instanciation mode
	Check	0 < only_one_layer
	Condition	-
MO8	**Message**	M4 connection is not possible with M1(2)-M3 MOM capacitor, connection must be replaced by M2
	Check	0 < coefsoa_con_tp
	Condition	-
MO9	**Message**	For Radio Frequency applications and for asymmetric configurations (nf_dirx different of nf_dirx), we deeply advise to use the long bus to connect the device. The value of the parasitic elements (resistance and inductor) given by the model are widely under estimated in case of connection on the short bus. The true values of the parasitic elements (resistance and inductor) will be much bigger in case of connection on the short bus.
	Check	nf_diry < nf_dirx < nf_diry
	Condition	-
MO10	**Message**	We deeply advise not to use monolayer connection for Radio Frequency applications.The value of the parasitic elements (resistance and inductor) given by the model are widely under estimated in case of monolayer connection.The true values of the parasitic elements (resistance and inductor) will be much bigger in case of monolayer connection.
	Check	1 < verif_connexion
	Condition	-

Table 36: cmom_5U1x_2T8x_LB_2p, cmom_5U1x_2T8x_LB_sh, cmom_5U1x_2T8x_LB_2p_acc, cmom_5U1x_2T8x_LB_sh_acc soas

10.4   Model Name : cmom_5U1x_2T8x_LB_wo_via_sh and other related models

Model list : cmom_5U1x_2T8x_LB_wo_via_sh, cmom_5U1x_2T8x_LB_wo_via_2p, cmom_5U1x_2T8x_LB_wo_via_sh_a
cmom_5U1x_2T8x_LB_wo_via_2p_acc

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**Bias outside limits for standard use**
	Check	-1.98 < Vplusminus < 1.98 for a laps time greater than 2.0ns
	Condition	-
Category : Modeling information		
MO1	Message	**Exceeding dirX fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_dirx < 499
	Condition	-
MO2	Message	**Exceeding dirY fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_diry_used < 499
	Condition	-
MO3	Message	**Exceeding bottom layer number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < mtlfrbot_entry < 4
	Condition	-
MO4	Message	**Exceeding top layer number for standard use, value must be replaced by MIN/MAX value**
	Check	2 < mtlfrtop_entry < 5
	Condition	-
MO5	Message	**Bad connection number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < what_con
	Condition	-
MO6	Message	**M2 bottom connection is not possible with M3-M4(5) MOM capacitor, connection must be replaced by M3**
	Check	0 < coefsoa_con_bt
	Condition	-
MO7	Message	**For CMOM with only one layer, do not use the geometric instanciation mode**
	Check	0 < only_one_layer
	Condition	-

Rule	Section	Value
MO8	Message	**M4 connection is not possible with M1(2)-M3 MOM capacitor, connection must be replaced by M2**
	Check	0 < coefsoa_con_tp
	Condition	-

Table 37: cmom_5U1x_2T8x_LB_wo_via_sh, cmom_5U1x_2T8x_LB_wo_via_2p, cmom_5U1x_2T8x_LB_wo_via_sh_acc, cmom_5U1x_2T8x_LB_wo_via_2p_acc soas

10.5   Model Name : cmom_6U1x_2T8x_LB_2p and other related models

Model list : cmom_6U1x_2T8x_LB_2p, cmom_6U1x_2T8x_LB_sh, cmom_6U1x_2T8x_LB_2p_acc, cmom_6U1x_2T8x_

Rule	Section	Value
	Category : Out of process specification	
MO9	**Message**	**Bias outside limits for standard use**
	Check	-1.155 < Vplusminus < 1.155
	Condition	(spacefinger_mx=50e-9)
MO10	**Message**	**Bias outside limits for standard use**
	Check	-1.98 < Vplusminus < 1.98
	Condition	(spacefinger_mx>=60e-9 and spacefinger_mx<80e-9)
MO11	**Message**	**Bias outside limits for standard use**
	Check	-8.8 < Vplusminus < 8.8
	Condition	(spacefinger_mx>=80e-9)
	Category : Modeling information	
MO1	**Message**	**Exceeding dirX fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_dirx < 499
	Condition	-
MO2	**Message**	**Exceeding dirY fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_diry_used < 499
	Condition	-
MO3	**Message**	**Exceeding bottom layer number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < mtlfrbot_entry < 5
	Condition	-
MO4	**Message**	**Exceeding top layer number for standard use, value must be replaced by MIN/MAX value**
	Check	2 < mtlfrtop_entry < 6
	Condition	-
MO5	**Message**	**Bad connection number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < what_con
	Condition	-
	Message	**M2 bottom connection is not possible with M3-M4(5) MOM capacitor, connection must be replaced by M3**

Rule	Section	Value
MO6	**Check**	0 < coefsoa_con_bt
	Condition	-
MO7	**Message**	**For CMOM with only one layer, do not use the geometric instanciation mode**
	Check	0 < only_one_layer
	Condition	-
MO8	**Message**	**M4 connection is not possible with M1(2)-M3 MOM capacitor, connection must be replaced by M2**
	Check	0 < coefsoa_con_tp
	Condition	-
MO9	**Message**	**For Radio Frequency applications and for asymmetric configurations (nf_dirx different of nf_dirx), we deeply advise to use the long bus to connect the device. The value of the parasitic elements (resistance and inductor) given by the model are widely under estimated in case of connection on the short bus. The true values of the parasitic elements (resistance and inductor) will be much bigger in case of connection on the short bus.**
	Check	nf_diry < nf_dirx < nf_diry
	Condition	-
MO10	**Message**	**We deeply advise not to use monolayer connection for Radio Frequency applications.The value of the parasitic elements (resistance and inductor) given by the model are widely under estimated in case of monolayer connection.The true values of the parasitic elements (resistance and inductor) will be much bigger in case of monolayer connection.**
	Check	1 < verif_connexion
	Condition	-

Table 38: cmom_6U1x_2T8x_LB_2p, cmom_6U1x_2T8x_LB_sh, cmom_6U1x_2T8x_LB_2p_acc, cmom_6U1x_2T8x_LB_sh_acc soas

10.6   Model Name : cmom_6U1x_2T8x_LB_wo_via_sh and other related models

Model list : cmom_6U1x_2T8x_LB_wo_via_sh, cmom_6U1x_2T8x_LB_wo_via_2p, cmom_6U1x_2T8x_LB_wo_via_sh_a
cmom_6U1x_2T8x_LB_wo_via_2p_acc

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**Bias outside limits for standard use**
	Check	-1.98 < Vplusminus < 1.98 for a laps time greater than 2.0ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**Exceeding dirX fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_dirx < 499
	Condition	-
MO2	**Message**	**Exceeding dirY fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_diry_used < 499
	Condition	-
MO3	**Message**	**Exceeding bottom layer number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < mtlfrbot_entry < 5
	Condition	-
MO4	**Message**	**Exceeding top layer number for standard use, value must be replaced by MIN/MAX value**
	Check	2 < mtlfrtop_entry < 6
	Condition	-
MO5	**Message**	**Bad connection number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < what_con
	Condition	-
MO6	**Message**	**M2 bottom connection is not possible with M3-M4(5) MOM capacitor, connection must be replaced by M3**
	Check	0 < coefsoa_con_bt
	Condition	-
MO7	**Message**	**For CMOM with only one layer, do not use the geometric instanciation mode**
	Check	0 < only_one_layer
	Condition	-

	Rule	Section	Value
			continued from previous...
	MO8	Message	**M4 connection is not possible with M1(2)-M3 MOM capacitor, connection must be replaced by M2**
		Check	0 < coefsoa_con_tp
		Condition	-

Table   39:   cmom_6U1x_2T8x_LB_wo_via_sh,   cmom_6U1x_2T8x_LB_wo_via_2p, cmom_6U1x_2T8x_LB_wo_via_sh_acc, cmom_6U1x_2T8x_LB_wo_via_2p_acc soas

10.7   Model Name : cmom_6U1x_2U2x_2T8x_LB_2p and other related models

Model list : cmom_6U1x_2U2x_2T8x_LB_2p, cmom_6U1x_2U2x_2T8x_LB_sh, cmom_6U1x_2U2x_2T8x_LB_sh_acc, cmom_6U1x_2U2x_2T8x_LB_2p_acc

Rule	Section	Value
		Category : Out of process specification
MO3	**Message**	**Bias outside limits for standard use**
	Check	-1.155 < Vplusminus < 1.155
	Condition	(spacefinger_mx=50e-9)
MO4	**Message**	**Bias outside limits for standard use**
	Check	-1.98 < Vplusminus < 1.98
	Condition	(spacefinger_mx>=60e-9 and spacefinger_mx<80e-9)
MO5	**Message**	**Bias outside limits for standard use**
	Check	-8.8 < Vplusminus < 8.8
	Condition	(spacefinger_mx>=80e-9)
		Category : Modeling information
MO1	**Message**	**Exceeding dirX fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_dirx < 499
	Condition	-
MO2	**Message**	**Exceeding dirY fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_diry_used < 499
	Condition	-
MO3	**Message**	**Exceeding bottom layer number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < mtlfrbot_entry < 5
	Condition	-
MO4	**Message**	**Exceeding top layer number for standard use, value must be replaced by MIN/MAX value**
	Check	2 < mtlfrtop_entry < 6
	Condition	-
MO5	**Message**	**Bad connection number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < what_con
	Condition	-
	Message	**M2 bottom connection is not possible with M3-M4(5) MOM capacitor, connection must be replaced by M3**

		continued from previous...
Rule	**Section**	**Value**
MO6	**Check**	0 < coefsoa_con_bt
	Condition	-
MO7	**Message**	**For CMOM with only one layer, do not use the geometric instanciation mode**
	Check	0 < only_one_layer
	Condition	-
MO8	**Message**	**M4 connection is not possible with M1(2)-M3 MOM capacitor, connection must be replaced by M2**
	Check	0 < coefsoa_con_tp
	Condition	-
MO9	**Message**	**For Radio Frequency applications and for asymmetric configurations (nf_dirx different of nf_dirx), we deeply advise to use the long bus to connect the device. The value of the parasitic elements (resistance and inductor) given by the model are widely under estimated in case of connection on the short bus. The true values of the parasitic elements (resistance and inductor) will be much bigger in case of connection on the short bus.**
	Check	nf_diry < nf_dirx < nf_diry
	Condition	-
MO10	**Message**	**We deeply advise not to use monolayer connection for Radio Frequency applications.The value of the parasitic elements (resistance and inductor) given by the model are widely under estimated in case of monolayer connection.The true values of the parasitic elements (resistance and inductor) will be much bigger in case of monolayer connection.**
	Check	1 < verif_connexion
	Condition	-

Table 40: cmom_6U1x_2U2x_2T8x_LB_2p, cmom_6U1x_2U2x_2T8x_LB_sh, cmom_6U1x_2U2x_2T8x_LB_sh_acc, cmom_6U1x_2U2x_2T8x_LB_2p_acc soas

10.8   Model Name : cmom_6U1x_2U2x_2T8x_LB_wo_via_2p and other related models

Model list : cmom_6U1x_2U2x_2T8x_LB_wo_via_2p, cmom_6U1x_2U2x_2T8x_LB_wo_via_sh, cmom_6U1x_2U2x_2T
cmom_6U1x_2U2x_2T8x_LB_wo_via_2p_acc

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**Bias outside limits for standard use**
	Check	-1.98 < Vplusminus < 1.98 for a laps time greater than 2.0ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**Exceeding dirX fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_dirx < 499
	Condition	-
MO2	**Message**	**Exceeding dirY fingers number for standard use, value must be replaced by MIN/MAX value**
	Check	10 < nf_diry_used < 499
	Condition	-
MO3	**Message**	**Exceeding bottom layer number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < mtlfrbot_entry < 5
	Condition	-
MO4	**Message**	**Exceeding top layer number for standard use, value must be replaced by MIN/MAX value**
	Check	2 < mtlfrtop_entry < 6
	Condition	-
MO5	**Message**	**Bad connection number for standard use, value must be replaced by MIN/MAX value**
	Check	1 < what_con
	Condition	-
MO6	**Message**	**M2 bottom connection is not possible with M3-M4(5) MOM capacitor, connection must be replaced by M3**
	Check	0 < coefsoa_con_bt
	Condition	-
MO7	**Message**	**For CMOM with only one layer, do not use the geometric instanciation mode**
	Check	0 < only_one_layer
	Condition	-

		continued from previous...
Rule	**Section**	**Value**
MO8	**Message**	**M4 connection is not possible with M1(2)-M3 MOM capacitor, connection must be replaced by M2**
	Check	0 < coefsoa_con_tp
	Condition	-

Table 41: cmom_6U1x_2U2x_2T8x_LB_wo_via_2p, cmom_6U1x_2U2x_2T8x_LB_wo_via_sh, cmom_6U1x_2U2x_2T8x_LB_wo_via_sh_acc, cmom_6U1x_2U2x_2T8x_LB_wo_via_2p_acc soas

11   Section related to CMOM_RF_CUSTOM library

11.1 Model Name : cmom_rf_10f_100n

Rule	Section	Value
		Category : Out of process specification
OP1	Message	Bias outside limits for standard use
	Check	-8.8 < Vplusminus < 8.8 for a laps time greater than 2.0ns
	Condition	-

Table 42: cmom_rf_10f_100n soas

11.2   Model Name : cmom_rf_10f_80n

Rule	Section	Value
		Category : Out of process specification
OP1	Message	Bias outside limits for standard use
	Check	-8.8 < Vplusminus < 8.8 for a laps time greater than 2.0ns
	Condition	-

Table 43: cmom_rf_10f_80n soas

11.3　Model Name : cmom_rf_150f_100n

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**Bias outside limits for standard use**
	Check	-8.8 < Vplusminus < 8.8 for a laps time greater than 2.0ns
	Condition	-

Table 44: cmom_rf_150f_100n soas

11.4   Model Name : cmom_rf_150f_80n

Rule	Section	Value
		Category : Out of process specification
	Message	**Bias outside limits for standard use**
OP1	**Check**	-8.8 < Vplusminus < 8.8 for a laps time greater than 2.0ns
	Condition	-

Table 45: cmom_rf_150f_80n soas

11.5   Model Name : cmom_rf_50f_100n

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**Bias outside limits for standard use**
	Check	-8.8 < Vplusminus < 8.8 for a laps time greater than 2.0ns
	Condition	-

Table 46: cmom_rf_50f_100n soas

11.6   Model Name : cmom_rf_50f_80n

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**Bias outside limits for standard use**
	Check	-8.8 < Vplusminus < 8.8 for a laps time greater than 2.0ns
	Condition	-

Table 47: cmom_rf_50f_80n soas

12   Section related to DSV library

12.1 Model Name : dsvnfetpd

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	**Message**	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	Vbs < 2.6
	Condition	-
MO3	**Message**	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs
	Condition	-
MO4	**Message**	**dsv_dev = 4 is for matching sensitivity analysis ONLY. Use dsv_dev = 1 to get accurate matching simulation results**
	Check	0 < dsv_dev < 3
	Condition	-

Table 48: dsvnfetpd soas

12.2   Model Name : dsvnfetwl

Rule	Section	Value
Category : Out of process specification		
OP1	Message	VGD bias outside limits
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
Category : Modeling information		
MO1	Message	MOS capacitor operating in accumulation mode
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	Message	Possible switching of back side parasitic MOSFET not taken into account in the model
	Check	Vbs < 2.6
	Condition	-
MO3	Message	Large reverse back bias not characterized and model accuracy not guaranteed in this regime
	Check	-1.3 < Vbs
	Condition	-
MO4	Message	dsv_dev = 4 is for matching sensitivity analysis ONLY. Use dsv_dev = 1 to get accurate matching simulation results
	Check	0 < dsv_dev < 3
	Condition	-

Table 49: dsvnfetwl soas

12.3 Model Name : dsvpfetpu

Rule	Section	Value
Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
Category : Modeling information	
MO1	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO2	Message	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	-2.6 < Vbs
	Condition	-
MO3	Message	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	Vbs < 1.3
	Condition	-
MO4	Message	**dsv_dev = 4 is for matching sensitivity analysis ONLY. Use dsv_dev = 1 to get accurate matching simulation results**
	Check	0 < dsv_dev < 3
	Condition	-

Table 50: dsvpfetpu soas

13   Section related to DSW library

13.1 Model Name : dswnfetpd

Rule	Section	Value
	\multicolumn{Category : Out of process specification}	
OP1	Message	VGD bias outside limits
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
	Category : Modeling information	
MO1	Message	MOS capacitor operating in accumulation mode
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	Message	Possible switching of back side parasitic MOSFET not taken into account in the model
	Check	Vbs < 2.6
	Condition	-
MO3	Message	Large reverse back bias not characterized and model accuracy not guaranteed in this regime
	Check	-1.3 < Vbs
	Condition	-
MO4	Message	dsw_dev = 4 is for matching sensitivity analysis ONLY. Use dsw_dev = 1 to get accurate matching simulation results
	Check	0 < dsw_dev < 3
	Condition	-

Table 51: dswnfetpd soas

13.2   Model Name : dswnfetwl

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
	Category : Modeling information	
MO1	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	Message	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	Vbs < 2.6
	Condition	-
MO3	Message	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs
	Condition	-
MO4	Message	**dsw_dev = 4 is for matching sensitivity analysis ONLY. Use dsw_dev = 1 to get accurate matching simulation results**
	Check	0 < dsw_dev < 3
	Condition	-

Table 52: dswnfetwl soas

13.3   Model Name : dswpfetpu

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO2	**Message**	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	-2.6 < Vbs
	Condition	-
MO3	**Message**	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	Vbs < 1.3
	Condition	-
MO4	**Message**	**dsw_dev = 4 is for matching sensitivity analysis ONLY. Use dsw_dev = 1 to get accurate matching simulation results**
	Check	0 < dsw_dev < 3
	Condition	-

Table 53: dswpfetpu soas

14   Section related to DSX library

14.1   Model Name : dsxnfetpd

Rule	Section	Value
Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
Category : Modeling information	
MO1	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	Message	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	Vbs < 2.6
	Condition	-
MO3	Message	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs
	Condition	-
MO4	Message	**dsx_dev = 4 is for matching sensitivity analysis ONLY. Use dsx_dev = 1 to get accurate matching simulation results**
	Check	0 < dsx_dev < 3
	Condition	-

Table 54: dsxnfetpd soas

14.2   Model Name : dsxnfetwl

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	VGD bias outside limits
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
	Category : Modeling information	
MO1	Message	MOS capacitor operating in accumulation mode
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	Message	Possible switching of back side parasitic MOSFET not taken into account in the model
	Check	Vbs < 2.6
	Condition	-
MO3	Message	Large reverse back bias not characterized and model accuracy not guaranteed in this regime
	Check	-1.3 < Vbs
	Condition	-
MO4	Message	dsx_dev = 4 is for matching sensitivity analysis ONLY. Use dsx_dev = 1 to get accurate matching simulation results
	Check	0 < dsx_dev < 3
	Condition	-

Table 55: dsxnfetwl soas

14.3   Model Name : dsxpfetpu

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
	Category : Modeling information	
MO1	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO2	Message	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	-2.6 < Vbs
	Condition	-
MO3	Message	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	Vbs < 1.3
	Condition	-
MO4	Message	**dsx_dev = 4 is for matching sensitivity analysis ONLY. Use dsx_dev = 1 to get accurate matching simulation results**
	Check	0 < dsx_dev < 3
	Condition	-

Table 56: dsxpfetpu soas

15 Section related to RVT library

15.1   Model Name : nfet_acc

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	VGD bias outside limits
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	Message	snapback on D side : Risk of Failure
	Check	VDS < 3.0 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	snapback on S side : Risk of Failure
	Check	VSD < 3.0 for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	gate oxide breakdown - check the TDDB laws

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	**-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns**
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	**'80e-9nf' < w < '10e-6nf'**
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	**'30e-9' < l < '4e-6'**
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs < 1.3
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO6	Message	**rvt_dev = 4 is for matching sensitivity analysis ONLY. Use rvt_dev = 1 to get accurate matching simulation results**
	Check	0 < rvt_dev < 3
	Condition	-

Table 57: nfet_acc soas

15.2   Model Name : nfet_rf

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
		Category : Non functionnal FDSOI device
NF1	Message	**snapback on D side : Risk of Failure**
	Check	VDS < 3.0 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	VSD < 3.0 for a laps time greater than 0.01ns
	Condition	-
		Category : Non functional device
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

continued from previous...

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '1e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs < 1.3
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO6	Message	**rvt_dev = 4 is for matching sensitivity analysis ONLY. Use rvt_dev = 1 to get accurate matching simulation results**
	Check	0 < rvt_dev < 3
	Condition	-

Table 58: nfet_rf soas

15.3   Model Name : nfet_rfseg

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	**Message**	**snapback on D side : Risk of Failure**
	Check	VDS < 3.0 for a laps time greater than 0.01ns
	Condition	-
NF2	**Message**	**snapback on S side : Risk of Failure**
	Check	VSD < 3.0 for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

		continued from previous...
Rule	**Section**	**Value**
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
continued		

Rule	Section	Value
	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
NF20	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
Category : Modeling information	
	Message	**Gate finger width out of range used for model extraction.**
MO1	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
	Message	**Gate length out of geometries used for model extraction.**
MO2	Check	'30e-9' < l < '1e-6'
	Condition	-
	Message	**MOS capacitor operating in accumulation mode**
MO3	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
MO4	Check	-1.3 < Vbs < 1.3
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
	Message	**rvt_dev = 4 is for matching sensitivity analysis ONLY. Use rvt_dev = 1 to get accurate matching simulation results**
MO5	Check	0 < rvt_dev < 3
	Condition	-

Table 59: nfet_rfseg soas

15.4   Model Name : pfet_acc

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
		Category : Non functionnal FDSOI device
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-3.5 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-3.5 < VSD for a laps time greater than 0.01ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'80e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '4e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs < 1.3
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**

Rule	Section	Value
		continued from previous...
MO5	**Check**	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO6	**Message**	**rvt_dev = 4 is for matching sensitivity analysis ONLY. Use rvt_dev = 1 to get accurate matching simulation results**
	Check	0 < rvt_dev < 3
	Condition	-

Table 60: pfet_acc soas

15.5   Model Name : pfet_rf

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
		Category : Non functionnal FDSOI device
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-3.5 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-3.5 < VSD for a laps time greater than 0.01ns
	Condition	-
		Category : Non functional device
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '1e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs < 1.3
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO6	Message	**rvt_dev = 4 is for matching sensitivity analysis ONLY. Use rvt_dev = 1 to get accurate matching simulation results**
	Check	0 < rvt_dev < 3
	Condition	-

Table 61: pfet_rf soas

15.6　Model Name : pfet_rfseg

Rule	Section	Value
Category : Out of process specification		
OP1	Message	VGD bias outside limits
	Check	-1.155 < VGD < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.155 < VGS < 1.155 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.155 < VDS < 1.155 for a laps time greater than 0.05ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	snapback on D side : Risk of Failure
	Check	-3.5 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	snapback on S side : Risk of Failure
	Check	-3.5 < VSD for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	gate oxide breakdown - check the TDDB laws

Rule	Section	Value
		continued from previous...
Rule	**Section**	**Value**
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.155 < VGD < 1.155 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
	continued from previous...	
Rule	**Section**	**Value**
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.155 < VGS < 1.155 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'206e-9nf' < w < '5e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'30e-9' < l < '1e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs < 1.3
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**rvt_dev = 4 is for matching sensitivity analysis ONLY. Use rvt_dev = 1 to get accurate matching simulation results**
	Check	0 < rvt_dev < 3
	Condition	-

Table 62: pfet_rfseg soas

16　Section related to EG library

16.1   Model Name : egnfet_acc

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.98 < VDS < 1.98 for a laps time greater than 0.1ns
	Condition	-
		Category : Non functionnal FDSOI device
NF1	Message	**snapback on D side : Risk of Failure**
	Check	VDS < 3.8 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	VSD < 3.8 for a laps time greater than 0.01ns
	Condition	-
		Category : Non functional device
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'160e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'150e-9' < l < '10e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eg_dev = 4 is for matching sensitivity analysis ONLY. Use eg_dev = 1 to get accurate matching simulation results**
	Check	0 < eg_dev < 3
	Condition	-

Table 63: egnfet_acc soas

16.2　Model Name : egpfet_acc

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.98 < VDS < 1.98 for a laps time greater than 0.1ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-5.1 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-5.1 < VSD for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		Category : Modeling information
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'160e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'150e-9' < l < '10e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eg_dev = 4 is for matching sensitivity analysis ONLY. Use eg_dev = 1 to get accurate matching simulation results**
	Check	0 < eg_dev < 3
	Condition	-

Table 64: egpfet_acc soas

16.3   Model Name : egvnfet_acc

Rule	Section	Value
Category : Out of process specification		
OP1	Message	VGD bias outside limits
	Check	-1.65 < VGD < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.65 < VGS < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.65 < VDS < 1.65 for a laps time greater than 0.1ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	snapback on D side : Risk of Failure
	Check	VDS < 3.2 for a laps time greater than 0.01ns
	Condition	-
NF2	Message	snapback on S side : Risk of Failure
	Check	VSD < 3.2 for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	gate oxide breakdown - check the TDDB laws

Rule	Section	Value
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
	... continued from previous...	
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'160e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '10e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS>=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eg_dev = 4 is for matching sensitivity analysis ONLY. Use eg_dev = 1 to get accurate matching simulation results**
	Check	0 < eg_dev < 3
	Condition	-

Table 65: egvnfet_acc soas

16.4   Model Name : egvpfet_acc

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VGD bias outside limits**
	Check	-1.65 < VGD < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.65 < VGS < 1.65 for a laps time greater than 0.1ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.65 < VDS < 1.65 for a laps time greater than 0.1ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	**Message**	**snapback on D side : Risk of Failure**
	Check	-4.2 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	**Message**	**snapback on S side : Risk of Failure**
	Check	-4.2 < VSD for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

		continued from previous...
Rule	**Section**	**Value**
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Gate finger width out of range used for model extraction.**
	Check	'160e-9nf' < w < '10e-6nf'
	Condition	-
MO2	Message	**Gate length out of geometries used for model extraction.**
	Check	'100e-9' < l < '10e-6'
	Condition	-
MO3	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO4	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.98 < Vbs < 1.98
	Condition	(VDS<=0)
	Otherwise	<built-in function min> V < Vbd < <built-in function max> V
MO5	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.1ns
	Condition	-
MO6	Message	**eg_dev = 4 is for matching sensitivity analysis ONLY. Use eg_dev = 1 to get accurate matching simulation results**
	Check	0 < eg_dev < 3
	Condition	-

Table 66: egvpfet_acc soas

17   Section related to EG_CPOLY library

17.1   Model Name : egncap

Rule	Section	Value
		Category : Out of process specification
OP1	Message	Bias outside limits for standard use
	Check	-1.98 < Vgsd < 1.98 for a laps time greater than 2.0ns
	Condition	-
		Category : non functionnal information
NF1	Message	Non functionnal device : junction breakdown
	Check	Vsdsx < 10.0 for a laps time greater than 100ns
	Condition	-
NF2	Message	Non functionnal device : junction breakdown : Failure even during short ESD event
	Check	Vsdsx < 12.0 for a laps time greater than 10ps
	Condition	-
		Category : Non functional device
NF3	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1p < Vgsd < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10p < Vgsd < bv10p for a laps time greater than 0.001ns
	Condition	-
NF5	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv100p < Vgsd < bv100p for a laps time greater than 0.01ns
	Condition	-
NF6	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1n < Vgsd < bv1n for a laps time greater than 0.1ns
	Condition	-
NF7	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv10n < Vgsd < bv10n for a laps time greater than 1.0ns
	Condition	-
NF8	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv100n < Vgsd < bv100n for a laps time greater than 10.0ns
	Condition	-
NF9	Message	gate oxide breakdown - check the TDDB laws
	Check	-bv1u < Vgsd < bv1u for a laps time greater than 100.0ns
	Condition	-

	continued from previous...	
Rule	**Section**	**Value**
NF10	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < Vgsd < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF11	Message	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < Vgsd < 1.98 for a laps time greater than 10000.0ns
	Condition	-
NF12	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < Vgsd < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Table 67: egncap soas

17.2   Model Name : egpcap

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**Bias outside limits for standard use**
	Check	-1.98 < Vgsd < 1.98 for a laps time greater than 2.0ns
	Condition	-
	Category : non functionnal information	
NF1	Message	**Non functionnal device : junction breakdown**
	Check	Vnwsd < 10.0 for a laps time greater than 100ns
	Condition	-
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	Vnwsd < 12.0 for a laps time greater than 10ps
	Condition	-
	Category : Non functional device	
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < Vgsd < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < Vgsd < bv10p for a laps time greater than 0.001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < Vgsd < bv100p for a laps time greater than 0.01ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < Vgsd < bv1n for a laps time greater than 0.1ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < Vgsd < bv10n for a laps time greater than 1.0ns
	Condition	-
NF8	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < Vgsd < bv100n for a laps time greater than 10.0ns
	Condition	-
NF9	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < Vgsd < bv1u for a laps time greater than 100.0ns
	Condition	-

	continued from previous...	
Rule	**Section**	**Value**
NF10	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < Vgsd < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF11	Message	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < Vgsd < 1.98 for a laps time greater than 10000.0ns
	Condition	-
NF12	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < Vgsd < 1.98 for a laps time greater than 10000.0ns
	Condition	-

Table 68: egpcap soas

18   Section related to LSL library

18.1   Model Name : lslnfet

Rule	Section	Value
Category : Out of process specification	
OP1	Message	VGD bias outside limits
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
Category : Modeling information	
MO1	Message	MOS capacitor operating in accumulation mode
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	Message	Possible switching of back side parasitic MOSFET not taken into account in the model
	Check	Vbs < 2.6
	Condition	-
MO3	Message	Large reverse back bias not characterized and model accuracy not guaranteed in this regime
	Check	-1.3 < Vbs
	Condition	-
MO4	Message	lsl_dev = 4 is for matching sensitivity analysis ONLY. Use lsl_dev = 1 to get accurate matching simulation results
	Check	0 < lsl_dev < 3
	Condition	-

Table 69: lslnfet soas

19 Section related to ESD_DIODE_GATED_HB library

19.1   Model Name : esdndsx_eg

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	Bias outside limits
	Check	-5.5 < VSXND for a laps time greater than 2.0ns
	Condition	-
	Category : Non functionnal device	
NF1	Message	Risk of junction breakdown
	Check	VNDSX < 5.5 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	Message	Non functionnal device : junction breakdown : Failure even during short ESD event
	Check	VNDSX < 5.8 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	Message	Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert
	Check	VSXND < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling	
MO1	Message	Direct regime only for a limited range
	Check	VSXND < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 70: esdndsx_eg soas

19.2   Model Name : esdndsx_eg_nova

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**Bias outside limits**
	Check	-5.5 < VSXND for a laps time greater than 2.0ns
	Condition	-
		Category : Non functionnal device
NF1	Message	**Risk of junction breakdown**
	Check	VNDSX < 5.5 for a laps time greater than 100.0ns
	Condition	-
		Category : nonfunctionnal information
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDSX < 5.8 for a laps time greater than 10ps
	Condition	-
		Category : Reliability
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VSXND < 0.6 for a laps time greater than 0.01ns
	Condition	-
		Category : Modeling
MO1	Message	**Direct regime only for a limited range**
	Check	VSXND < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 71: esdndsx_eg_nova soas

19.3 Model Name : esdndsx_eg_va

Rule	Section	Value
Category : Non functionnal device		
NF1	Message	**Risk of junction breakdown**
	Check	VNDSX < 5.5 for a laps time greater than 100.0ns
	Condition	-
Category : nonfunctionnal information		
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDSX < 5.8 for a laps time greater than 10ps
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VNDSX < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VNDSX < bv10p for a laps time greater than 0.001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VNDSX < bv100p for a laps time greater than 0.01ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VNDSX < bv1n for a laps time greater than 0.1ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VNDSX < bv10n for a laps time greater than 1.0ns
	Condition	-
NF8	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VNDSX < bv100n for a laps time greater than 10.0ns
	Condition	-
NF9	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VNDSX < bv1u for a laps time greater than 100.0ns
	Condition	-
NF10	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VNDSX < bv10u for a laps time greater than 1000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF11	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VNDSX < 1.98 for a laps time greater than 10000.0ns
	Condition	-
		Category : Reliability
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VSXND < 0.6 for a laps time greater than 0.01ns
	Condition	-

Table 72: esdndsx_eg_va soas

20 Section related to ESD_DIODE_GR_GATED_HB library

20.1　Model Name : esdvnpn_eg

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**Bias outside limits**
	Check	-5.5 < VPWND for a laps time greater than 2.0ns
	Condition	-
	Category : Non functionnal device	
NF1	Message	**Risk of junction breakdown**
	Check	VNDPW < 5.5 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDPW < 5.8 for a laps time greater than 10ps
	Condition	-
NF3	Message	**Non functionnal device : junction breakdown**
	Check	VNWPW < 10 for a laps time greater than 100ns
	Condition	-
NF4	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWPW < 12 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VPWND < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling	
MO1	Message	**Direct regime only for a limited range**
	Check	VPWND < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 73: esdvnpn_eg soas

20.2   Model Name : esdvnpn_eg_nova

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**Bias outside limits**
	Check	-5.5 < VPWND for a laps time greater than 2.0ns
	Condition	-
Category : Non functionnal device		
NF1	Message	**Risk of junction breakdown**
	Check	VNDPW < 5.5 for a laps time greater than 100.0ns
	Condition	-
Category : nonfunctionnal information		
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDPW < 5.8 for a laps time greater than 10ps
	Condition	-
NF3	Message	**Non functionnal device : junction breakdown**
	Check	VNWPW < 10 for a laps time greater than 100ns
	Condition	-
NF4	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWPW < 12 for a laps time greater than 10ps
	Condition	-
Category : Reliability		
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VPWND < 0.6 for a laps time greater than 0.01ns
	Condition	-
Category : Modeling		
MO1	Message	**Direct regime only for a limited range**
	Check	VPWND < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 74: esdvnpn_eg_nova soas

20.3 Model Name : esdvnpn_eg_va

Rule	Section	Value
Category : Non functionnal device		
NF1	Message	**Risk of junction breakdown**
	Check	VNDPW < 5.5 for a laps time greater than 100.0ns
	Condition	-
Category : nonfunctionnal information		
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDPW < 5.8 for a laps time greater than 10ps
	Condition	-
NF3	Message	**Non functionnal device : junction breakdown**
	Check	VNWPW < 10 for a laps time greater than 100ns
	Condition	-
NF4	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWPW < 12 for a laps time greater than 10ps
	Condition	-
Category : Non functional device		
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VNDPW < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VNDPW < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VNDPW < bv100p for a laps time greater than 0.01ns
	Condition	-
NF8	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VNDPW < bv1n for a laps time greater than 0.1ns
	Condition	-
NF9	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VNDPW < bv10n for a laps time greater than 1.0ns
	Condition	-
NF10	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VNDPW < bv100n for a laps time greater than 10.0ns

Rule	Section	Value
	Condition	-
NF11	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VNDPW < bv1u for a laps time greater than 100.0ns
	Condition	-
NF12	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VNDPW < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF13	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VNDPW < 1.98 for a laps time greater than 10000.0ns
	Condition	-
	Category : Reliability	
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VPWND < 0.6 for a laps time greater than 0.01ns
	Condition	-

Table 75: esdvnpn_eg_va soas

20.4 Model Name : esdvpnp_eg

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**Bias outside limits**
	Check	-6.5 < VANW for a laps time greater than 2.0ns
	Condition	-
		Category : Non functionnal device
NF1	Message	**Risk of junction breakdown**
	Check	VNWA < 6.5 for a laps time greater than 100.0ns
	Condition	-
		Category : nonfunctionnal information
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWA < 6.8 for a laps time greater than 10ps
	Condition	-
NF3	Message	**Non functionnal device : junction breakdown**
	Check	VNWSX < 10 for a laps time greater than 100ns
	Condition	-
NF4	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWSX < 12 for a laps time greater than 10ps
	Condition	-
		Category : Reliability
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VANW < 0.6 for a laps time greater than 0.01ns
	Condition	-
		Category : Modeling
MO1	Message	**Direct regime only for a limited range**
	Check	VANW < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 76: esdvpnp_eg soas

20.5   Model Name : esdvpnp_eg_nova

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**Bias outside limits**
	Check	-6.5 < VANW for a laps time greater than 2.0ns
	Condition	-
	Category : Non functionnal device	
NF1	**Message**	**Risk of junction breakdown**
	Check	VNWA < 6.5 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWA < 6.8 for a laps time greater than 10ps
	Condition	-
NF3	**Message**	**Non functionnal device : junction breakdown**
	Check	VNWSX < 10 for a laps time greater than 100ns
	Condition	-
NF4	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWSX < 12 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	**Message**	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VANW < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling	
MO1	**Message**	**Direct regime only for a limited range**
	Check	VANW < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 77: esdvpnp_eg_nova soas

20.6　Model Name : esdvpnp_eg_va

Rule	Section	Value
		Category : Non functionnal device
NF1	**Message**	**Risk of junction breakdown**
	Check	VNWA < 6.5 for a laps time greater than 100.0ns
	Condition	-
		Category : nonfunctionnal information
NF2	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWA < 6.8 for a laps time greater than 10ps
	Condition	-
NF3	**Message**	**Non functionnal device : junction breakdown**
	Check	VNWSX < 10 for a laps time greater than 100ns
	Condition	-
NF4	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWSX < 12 for a laps time greater than 10ps
	Condition	-
		Category : Non functional device
NF5	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VNWA < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VNWA < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VNWA < bv100p for a laps time greater than 0.01ns
	Condition	-
NF8	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VNWA < bv1n for a laps time greater than 0.1ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VNWA < bv10n for a laps time greater than 1.0ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VNWA < bv100n for a laps time greater than 10.0ns

Rule	Section	Value
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VNWA < bv1u for a laps time greater than 100.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VNWA < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF13	**Message**	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VNWA < 1.98 for a laps time greater than 10000.0ns
	Condition	-
Category : Reliability		
RE1	**Message**	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VANW < 0.6 for a laps time greater than 0.01ns
	Condition	-
Category : Modeling information		
MO1	**Message**	**Model accuracy limitations due to reversible charge trapping under ESD stress at I>6A**
	Check	-6 < I(Vsoa)
	Condition	-

Table 78: esdvpnp_eg_va soas

21 Section related to ESD_DIODE_GR_STI_HB library

21.1   Model Name : esdvnpn

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**Bias outside limits**
	Check	-6 < VPWND for a laps time greater than 2.0ns
	Condition	-
		Category : Non functionnal device
NF1	**Message**	**Risk of junction breakdown**
	Check	VNDPW < 6.0 for a laps time greater than 100.0ns
	Condition	-
		Category : nonfunctionnal information
NF2	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDPW < 10.0 for a laps time greater than 10ps
	Condition	-
NF3	**Message**	**Non functionnal device : junction breakdown**
	Check	VNWPW < 10 for a laps time greater than 100ns
	Condition	-
NF4	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWPW < 12 for a laps time greater than 10ps
	Condition	-
		Category : Reliability
RE1	**Message**	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VPWND < 0.6 for a laps time greater than 0.01ns
	Condition	-
		Category : Modeling
MO1	**Message**	**Direct regime only for a limited range**
	Check	VPWND < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 79: esdvnpn soas

21.2   Model Name : esdvnpn_nova

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**Bias outside limits**
	Check	-6 < VPWND for a laps time greater than 2.0ns
	Condition	-
		Category : Non functionnal device
NF1	**Message**	**Risk of junction breakdown**
	Check	VNDPW < 6.0 for a laps time greater than 100.0ns
	Condition	-
		Category : nonfunctionnal information
NF2	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDPW < 10.0 for a laps time greater than 10ps
	Condition	-
NF3	**Message**	**Non functionnal device : junction breakdown**
	Check	VNWPW < 10 for a laps time greater than 100ns
	Condition	-
NF4	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWPW < 12 for a laps time greater than 10ps
	Condition	-
		Category : Reliability
RE1	**Message**	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VPWND < 0.6 for a laps time greater than 0.01ns
	Condition	-
		Category : Modeling
MO1	**Message**	**Direct regime only for a limited range**
	Check	VPWND < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 80: esdvnpn_nova soas

21.3   Model Name : esdvnpn_va

Rule	Section	Value
	Category : Non functionnal device	
NF1	Message	**Risk of junction breakdown**
	Check	VNDPW < 6.0 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDPW < 10.0 for a laps time greater than 10ps
	Condition	-
NF3	Message	**Non functionnal device : junction breakdown**
	Check	VNWPW < 10 for a laps time greater than 100ns
	Condition	-
NF4	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWPW < 12 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VPWND < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Set failexit parameter to 1 for simulation to be interrupted when thermal breakdown is reached**
	Check	-5 < I(Vsoa)(1-failexit)
	Condition	-

Table 81: esdvnpn_va soas

21.4   Model Name : esdvpnp

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**Bias outside limits**
	Check	-7 < VANW for a laps time greater than 2.0ns
	Condition	-
	Category : Non functionnal device	
NF1	**Message**	**Risk of junction breakdown**
	Check	VNWA < 7.0 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWA < 10.0 for a laps time greater than 10ps
	Condition	-
NF3	**Message**	**Non functionnal device : junction breakdown**
	Check	VNWSX < 10 for a laps time greater than 100ns
	Condition	-
NF4	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWSX < 12 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	**Message**	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VANW < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling	
MO1	**Message**	**Direct regime only for a limited range**
	Check	VANW < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 82: esdvpnp soas

21.5   Model Name : esdvpnp_nova

Rule	Section	Value
Category : Out of process specification		
OP1	Message	Bias outside limits
	Check	-7 < VANW for a laps time greater than 2.0ns
	Condition	-
Category : Non functionnal device		
NF1	Message	Risk of junction breakdown
	Check	VNWA < 7.0 for a laps time greater than 100.0ns
	Condition	-
Category : nonfunctionnal information		
NF2	Message	Non functionnal device : junction breakdown : Failure even during short ESD event
	Check	VNWA < 10.0 for a laps time greater than 10ps
	Condition	-
NF3	Message	Non functionnal device : junction breakdown
	Check	VNWSX < 10 for a laps time greater than 100ns
	Condition	-
NF4	Message	Non functionnal device : junction breakdown : Failure even during short ESD event
	Check	VNWSX < 12 for a laps time greater than 10ps
	Condition	-
Category : Reliability		
RE1	Message	Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert
	Check	VANW < 0.6 for a laps time greater than 0.01ns
	Condition	-
Category : Modeling		
MO1	Message	Direct regime only for a limited range
	Check	VANW < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 83: esdvpnp_nova soas

21.6   Model Name : esdvpnp_va

Rule	Section	Value
		Category : Non functionnal device
NF1	**Message**	**Risk of junction breakdown**
	Check	VNWA < 7.0 for a laps time greater than 100.0ns
	Condition	-
		Category : nonfunctionnal information
NF2	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWA < 10.0 for a laps time greater than 10ps
	Condition	-
NF3	**Message**	**Non functionnal device : junction breakdown**
	Check	VNWSX < 10 for a laps time greater than 100ns
	Condition	-
NF4	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNWSX < 12 for a laps time greater than 10ps
	Condition	-
		Category : Reliability
RE1	**Message**	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VANW < 0.6 for a laps time greater than 0.01ns
	Condition	-

Table 84: esdvpnp_va soas

22　Section related to ESD_DIODE_STI_HB library

22.1 Model Name : esdndsx

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**Bias outside limits**
	Check	-6 < VSXND for a laps time greater than 2.0ns
	Condition	-
	Category : Non functionnal device	
NF1	Message	**Risk of junction breakdown**
	Check	VNDSX < 6.0 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDSX < 10.0 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VSXND < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling	
MO1	Message	**Direct regime only for a limited range**
	Check	VSXND < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 85: esdndsx soas

22.2   Model Name : esdndsx_nova

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**Bias outside limits**
	Check	-6 < VSXND for a laps time greater than 2.0ns
	Condition	-
	Category : Non functionnal device	
NF1	Message	**Risk of junction breakdown**
	Check	VNDSX < 6.0 for a laps time greater than 100.0ns
	Condition	-
	Category : nonfunctionnal information	
NF2	Message	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDSX < 10.0 for a laps time greater than 10ps
	Condition	-
	Category : Reliability	
RE1	Message	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VSXND < 0.6 for a laps time greater than 0.01ns
	Condition	-
	Category : Modeling	
MO1	Message	**Direct regime only for a limited range**
	Check	VSXND < 0.3 for a laps time greater than 2.0ns
	Condition	-

Table 86: esdndsx_nova soas

22.3   Model Name : esdndsx_va

Rule	Section	Value
		Category : Non functionnal device
NF1	**Message**	**Risk of junction breakdown**
	Check	VNDSX < 6.0 for a laps time greater than 100.0ns
	Condition	-
		Category : nonfunctionnal information
NF2	**Message**	**Non functionnal device : junction breakdown : Failure even during short ESD event**
	Check	VNDSX < 10.0 for a laps time greater than 10ps
	Condition	-
		Category : Reliability
RE1	**Message**	**Junction in Forward regime - Please check that you respect DRM Latchup Rules & Guidelines - Make your design reviewed by a Latchup expert**
	Check	VSXND < 0.6 for a laps time greater than 0.01ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**Set failexit parameter to 1 for simulation to be interrupted when thermal breakdown is reached**
	Check	-5 < I(Vsoa)(1-failexit)
	Condition	-

Table 87: esdndsx_va soas

23 Section related to ESD_LOWCAP library

23.1   Model Name : esd_lowcap

Rule	Section	Value
		Category : Modeling information
MO1	Message	Capacitance validated below 10GHz
	Check	freq < 1e+10
	Condition	-

Table 88: esd_lowcap soas

24 Section related to ESD_NFET_EG_HB library

24.1 Model Name : esdegnfet

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-99.01 < VGD < 1.99 for a laps time greater than 2.0ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.99 < VGS < 1.99 for a laps time greater than 2.0ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.99 < VDS < 99.01 for a laps time greater than 2.0ns
	Condition	-
OP4	Message	**VGB bias outside limits**
	Check	-1.99 < VGB < 3.97 for a laps time greater than 2.0ns
	Condition	-
OP5	Message	**VBD bias outside limits**
	Check	-99.01 < VBD for a laps time greater than 2.0ns
	Condition	-
OP6	Message	**VBS bias outside limits**
	Check	-3.97 < VBS for a laps time greater than 2.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**First order model for low VDS voltage except for leakage**
	Check	1.98 < abs(Vds) for a laps time greater than 11ns
	Condition	-
MO2	Message	**First order model for low VDB voltage except for leakage**
	Check	1.98 < abs(Vdb) for a laps time greater than 11ns
	Condition	-

Table 89: esdegnfet soas

24.2   Model Name : esdegnfet_nova

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-99.01 < VGD < 1.99 for a laps time greater than 2.0ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.99 < VGS < 1.99 for a laps time greater than 2.0ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.99 < VDS < 99.01 for a laps time greater than 2.0ns
	Condition	-
OP4	Message	**VGB bias outside limits**
	Check	-1.99 < VGB < 3.97 for a laps time greater than 2.0ns
	Condition	-
OP5	Message	**VBD bias outside limits**
	Check	-99.01 < VBD for a laps time greater than 2.0ns
	Condition	-
OP6	Message	**VBS bias outside limits**
	Check	-3.97 < VBS for a laps time greater than 2.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**First order model for low VDS voltage except for leakage**
	Check	1.98 < abs(Vds) for a laps time greater than 11ns
	Condition	-
MO2	Message	**First order model for low VDB voltage except for leakage**
	Check	1.98 < abs(Vdb) for a laps time greater than 11ns
	Condition	-

Table 90: esdegnfet_nova soas

24.3   Model Name : esdegnfet_va

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**VGD bias outside limits**
	Check	-99.01 < VGD < 1.99 for a laps time greater than 2.0ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.99 < VGS < 1.99 for a laps time greater than 2.0ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.99 < VDS < 99.01 for a laps time greater than 2.0ns
	Condition	-
OP4	**Message**	**VGB bias outside limits**
	Check	-1.99 < VGB < 3.97 for a laps time greater than 2.0ns
	Condition	-
OP5	**Message**	**VBD bias outside limits**
	Check	-99.01 < VBD for a laps time greater than 2.0ns
	Condition	-
OP6	**Message**	**VBS bias outside limits**
	Check	-3.97 < VBS for a laps time greater than 2.0ns
	Condition	-
		Category : nonfunctionnal information
NF1	**Message**	**High internal temperature increase: device degradation -**
	Check	Vsoad0 < drtfail for a laps time greater than 10ps
	Condition	-
NF2	**Message**	**High internal temperature increase: device degradation -**
	Check	Vsoas0 < stfail for a laps time greater than 10ps
	Condition	-
		Category : Non functional device
NF3	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
NF5	**Check**	-bv1p < VGB < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF8	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGB < bv10p for a laps time greater than 0.001ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGB < bv100p for a laps time greater than 0.01ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGB < bv1n for a laps time greater than 0.1ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF17	**Check**	-bv10n < VGB < bv10n for a laps time greater than 1.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF19	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF20	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGB < bv100n for a laps time greater than 10.0ns
	Condition	-
NF21	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF22	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF23	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGB < bv1u for a laps time greater than 100.0ns
	Condition	-
NF24	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF25	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF26	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGB < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF27	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.98 < VGD < 1.98 for a laps time greater than 10000.0ns
	Condition	-
NF28	**Message**	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.98 < VGS < 1.98 for a laps time greater than 10000.0ns

Rule	Section	Value
		continued from previous...
	Condition	-
NF29	Message	**Failure due to gate oxide breakdown under DC stress : VGB bias outside limits**
	Check	-1.98 < VGB < 1.98 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**First order model for low VDS voltage except for leakage**
	Check	1.98 < abs(Vds) for a laps time greater than 11ns
	Condition	-
MO2	Message	**First order model for low VDB voltage except for leakage**
	Check	1.98 < abs(Vdb) for a laps time greater than 11ns
	Condition	-
MO3	Message	**High internal temperature increase: near device degradation-risk of convergence issue**
	Check	Vsoad0 < 0.9drtfail for a laps time greater than 10ps
	Condition	-
MO4	Message	**High internal temperature increase: near device degradation-risk of convergence issue**
	Check	Vsoas0 < 0.9stfail for a laps time greater than 10ps
	Condition	-

Table 91: esdegnfet_va soas

25 Section related to MOS_PSP_DR18OTP library

25.1   Model Name : ndriftotp

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-6.01 < VGD < 1.81 for a laps time greater than 2.0ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.81 < VGS < 1.81 for a laps time greater than 2.0ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.81 < VDS < 6.01 for a laps time greater than 2.0ns
	Condition	-
OP4	Message	**VGB bias outside limits**
	Check	-1.81 < VGB < 3.61 for a laps time greater than 2.0ns
	Condition	-
OP5	Message	**VBD bias outside limits**
	Check	-6.01 < VBD for a laps time greater than 2.0ns
	Condition	-
OP6	Message	**VBS bias outside limits**
	Check	-3.61 < VBS for a laps time greater than 2.0ns
	Condition	-
Category : Reliability issues		
RE1	Message	**MOSHV HCI limitation on D side**
	Check	-6.2 < VBD < 0.2 for a laps time greater than 2.0ns
	Condition	(VGS-Vth)>0) and (VDS>0.2)
RE2	Message	**MOSHV HCI limitation on S side**
	Check	-6.2 < VBS < 0.2 for a laps time greater than 2.0ns
	Condition	(VGD-Vth)>0) and (VDS<-0.2)
Category : Modeling information		
MO1	Message	**lateral parasitic bipolar not modelled when D/B diode in forward bias**
	Check	VBD < 0.31 for a laps time greater than 2.0ns
	Condition	-
	Message	**lateral parasitic bipolar not modelled when S/B diode in forward bias**

continued from previous...		
Rule	**Section**	**Value**
MO2	**Check**	VBS < 0.31 for a laps time greater than 2.0ns
	Condition	-

Table 92: ndriftotp soas

26　Section related to ESD_NFET_RVT_HB library

26.1   Model Name : esdnfet

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VGD bias outside limits**
	Check	-99.01 < VGD < 1.22 for a laps time greater than 2.0ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.22 < VGS < 1.22 for a laps time greater than 2.0ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.22 < VDS < 99.01 for a laps time greater than 2.0ns
	Condition	-
OP4	**Message**	**VGB bias outside limits**
	Check	-1.22 < VGB < 2.43 for a laps time greater than 2.0ns
	Condition	-
OP5	**Message**	**VBD bias outside limits**
	Check	-99.01 < VBD for a laps time greater than 2.0ns
	Condition	-
OP6	**Message**	**VBS bias outside limits**
	Check	-2.43 < VBS for a laps time greater than 2.0ns
	Condition	-
	Category : Modeling information	
MO1	**Message**	**First order model for low VDS voltage except for leakage**
	Check	1.22 < abs(Vds) for a laps time greater than 11ns
	Condition	-
MO2	**Message**	**First order model for low VDB voltage except for leakage**
	Check	1.22 < abs(Vdb) for a laps time greater than 11ns
	Condition	-

Table 93: esdnfet soas

26.2   Model Name : esdnfet_nova

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-99.01 < VGD < 1.22 for a laps time greater than 2.0ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.22 < VGS < 1.22 for a laps time greater than 2.0ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.22 < VDS < 99.01 for a laps time greater than 2.0ns
	Condition	-
OP4	Message	**VGB bias outside limits**
	Check	-1.22 < VGB < 2.43 for a laps time greater than 2.0ns
	Condition	-
OP5	Message	**VBD bias outside limits**
	Check	-99.01 < VBD for a laps time greater than 2.0ns
	Condition	-
OP6	Message	**VBS bias outside limits**
	Check	-2.43 < VBS for a laps time greater than 2.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**First order model for low VDS voltage except for leakage**
	Check	1.22 < abs(Vds) for a laps time greater than 11ns
	Condition	-
MO2	Message	**First order model for low VDB voltage except for leakage**
	Check	1.22 < abs(Vdb) for a laps time greater than 11ns
	Condition	-

Table 94: esdnfet_nova soas

26.3　Model Name : esdnfet_va

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-99.01 < VGD < 1.22 for a laps time greater than 2.0ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.22 < VGS < 1.22 for a laps time greater than 2.0ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.22 < VDS < 99.01 for a laps time greater than 2.0ns
	Condition	-
OP4	Message	**VGB bias outside limits**
	Check	-1.22 < VGB < 2.43 for a laps time greater than 2.0ns
	Condition	-
OP5	Message	**VBD bias outside limits**
	Check	-99.01 < VBD for a laps time greater than 2.0ns
	Condition	-
OP6	Message	**VBS bias outside limits**
	Check	-2.43 < VBS for a laps time greater than 2.0ns
	Condition	-
		Category : nonfunctionnal information
NF1	Message	**High internal temperature increase: device degradation -**
	Check	Vsoad0 < drtfail for a laps time greater than 10ps
	Condition	-
NF2	Message	**High internal temperature increase: device degradation -**
	Check	Vsoas0 < stfail for a laps time greater than 10ps
	Condition	-
		Category : Non functional device
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF5	**Check**	-bv1p < VGB < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF8	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGB < bv10p for a laps time greater than 0.001ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGB < bv100p for a laps time greater than 0.01ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGB < bv1n for a laps time greater than 0.1ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF17	**Check**	-bv10n < VGB < bv10n for a laps time greater than 1.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF19	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF20	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGB < bv100n for a laps time greater than 10.0ns
	Condition	-
NF21	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF22	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF23	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGB < bv1u for a laps time greater than 100.0ns
	Condition	-
NF24	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF25	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF26	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGB < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF27	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.0 < VGD < 1.0 for a laps time greater than 10000.0ns
	Condition	-
NF28	**Message**	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.0 < VGS < 1.0 for a laps time greater than 10000.0ns

Rule	Section	Value
	Condition	-
NF29	**Message**	**Failure due to gate oxide breakdown under DC stress : VGB bias outside limits**
	Check	-1.0 < VGB < 1.0 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	**Message**	**First order model for low VDS voltage except for leakage**
	Check	1.22 < abs(Vds) for a laps time greater than 11ns
	Condition	-
MO2	**Message**	**First order model for low VDB voltage except for leakage**
	Check	1.22 < abs(Vdb) for a laps time greater than 11ns
	Condition	-
MO3	**Message**	**High internal temperature increase: near device degradation - risk of convergence issue**
	Check	Vsoad0 < 0.9drtfail for a laps time greater than 10ps
	Condition	-
MO4	**Message**	**High internal temperature increase: near device degradation - risk of convergence issue**
	Check	Vsoas0 < 0.9stfail for a laps time greater than 10ps
	Condition	-

Table 95: esdnfet_va soas

27   Section related to ESD_ULC_EG library

27.1   Model Name : esd_ulc_eg

Rule	Section	Value
		Category : Modeling information
MO1	Message	Capacitance model validated between 1GHz and 50GHz
	Check	1e+09 < freq < 6.5e+10
	Condition	-

Table 96: esd_ulc_eg soas

28 Section related to ESD_ULC_RVT library

28.1   Model Name : esd_ulc_rvt

Rule	Section	Value
		Category : Modeling information
MO1	Message	Capacitance model validated between 1GHz and 50GHz
	Check	1e+09 < freq < 6.5e+10
	Condition	-

Table 97: esd_ulc_rvt soas

29　Section related to HLVT library

29.1   Model Name : hlvtnfet

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
	Category : Non functionnal FDSOI device	
NF1	**Message**	**snapback on D side : Risk of Failure**
	Check	VDS < 3.0 for a laps time greater than 0.01ns
	Condition	-
NF2	**Message**	**snapback on S side : Risk of Failure**
	Check	VSD < 3.0 for a laps time greater than 0.01ns
	Condition	-
	Category : Non functional device	
NF3	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
	continued from previous...	
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.0 < VGD < 1.0 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
	continued from previous...	
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.0 < VGS < 1.0 for a laps time greater than 10000.0ns
	Condition	-
	Category : Modeling information	
MO1	Message	**Model is not valid for long gate length**
	Check	30e-9 < lpb < 54e-9
	Condition	-
MO2	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO3	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs < 1.3
	Condition	-
MO4	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO5	Message	**hlvt_dev = 4 is for matching sensitivity analysis ONLY. Use hlvt_dev = 1 to get accurate matching simulation results**
	Check	0 < hlvt_dev < 3
	Condition	-

Table 98: hlvtnfet soas

29.2   Model Name : hlvtpfet

Rule	Section	Value
Category : Out of process specification		
OP1	Message	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
Category : Non functionnal FDSOI device		
NF1	Message	**snapback on D side : Risk of Failure**
	Check	-3.5 < VDS for a laps time greater than 0.01ns
	Condition	-
NF2	Message	**snapback on S side : Risk of Failure**
	Check	-3.5 < VSD for a laps time greater than 0.01ns
	Condition	-
Category : Non functional device		
NF3	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGD < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF4	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1p < VGS < bv1p for a laps time greater than 0.0001ns
	Condition	-
NF5	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGD < bv10p for a laps time greater than 0.001ns
	Condition	-
NF6	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10p < VGS < bv10p for a laps time greater than 0.001ns
	Condition	-
NF7	Message	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100p < VGD < bv100p for a laps time greater than 0.01ns
	Condition	-
	Message	**gate oxide breakdown - check the TDDB laws**

Rule	Section	Value
		continued from previous...
NF8	**Check**	-bv100p < VGS < bv100p for a laps time greater than 0.01ns
	Condition	-
NF9	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGD < bv1n for a laps time greater than 0.1ns
	Condition	-
NF10	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1n < VGS < bv1n for a laps time greater than 0.1ns
	Condition	-
NF11	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGD < bv10n for a laps time greater than 1.0ns
	Condition	-
NF12	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10n < VGS < bv10n for a laps time greater than 1.0ns
	Condition	-
NF13	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGD < bv100n for a laps time greater than 10.0ns
	Condition	-
NF14	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv100n < VGS < bv100n for a laps time greater than 10.0ns
	Condition	-
NF15	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGD < bv1u for a laps time greater than 100.0ns
	Condition	-
NF16	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv1u < VGS < bv1u for a laps time greater than 100.0ns
	Condition	-
NF17	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGD < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF18	**Message**	**gate oxide breakdown - check the TDDB laws**
	Check	-bv10u < VGS < bv10u for a laps time greater than 1000.0ns
	Condition	-
NF19	**Message**	**Failure due to gate oxide breakdown under DC stress : VGD bias outside limits**
	Check	-1.0 < VGD < 1.0 for a laps time greater than 10000.0ns
	Condition	-

Rule	Section	Value
		continued from previous...
NF20	Message	**Failure due to gate oxide breakdown under DC stress : VGS bias outside limits**
	Check	-1.0 < VGS < 1.0 for a laps time greater than 10000.0ns
	Condition	-
		Category : Modeling information
MO1	Message	**Model is not valid for long gate length**
	Check	30e-9 < lpb < 54e-9
	Condition	-
MO2	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO3	Message	**Large back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-0.3 < Vbs < 2.3
	Condition	-
MO4	Message	**Potential SELF-HEATING. On modeling structures measured on wafer, this will lead to a temperature increase superior to 20C;**
	Check	abs(ID(M1)Vdsrtheff/nf) < 20 for a laps time greater than 0.05ns
	Condition	-
MO5	Message	**hlvt_dev = 4 is for matching sensitivity analysis ONLY. Use hlvt_dev = 1 to get accurate matching simulation results**
	Check	0 < hlvt_dev < 3
	Condition	-

Table 99: hlvtpfet soas

30 Section related to LSD library

30.1   Model Name : lsdnfetpd

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
		Category : Modeling information
MO1	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	Message	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	Vbs < 2.6
	Condition	-
MO3	Message	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs
	Condition	-
MO4	Message	**lsd_dev = 4 is for matching sensitivity analysis ONLY. Use lsd_dev = 1 to get accurate matching simulation results**
	Check	0 < lsd_dev < 3
	Condition	-

Table 100: lsdnfetpd soas

30.2   Model Name : lsdnfetwl

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	**Message**	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	Vbs < 2.6
	Condition	-
MO3	**Message**	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs
	Condition	-
MO4	**Message**	**lsd_dev = 4 is for matching sensitivity analysis ONLY. Use lsd_dev = 1 to get accurate matching simulation results**
	Check	0 < lsd_dev < 3
	Condition	-

Table 101: lsdnfetwl soas

30.3   Model Name : lsdpfetpu

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
	Category : Modeling information	
MO1	Message	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO2	Message	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	-2.6 < Vbs
	Condition	-
MO3	Message	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	Vbs < 1.3
	Condition	-
MO4	Message	**lsd_dev = 4 is for matching sensitivity analysis ONLY. Use lsd_dev = 1 to get accurate matching simulation results**
	Check	0 < lsd_dev < 3
	Condition	-

Table 102: lsdpfetpu soas

31 Section related to LSP library

31.1   Model Name : lspnfetpd

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
	Category : Modeling information	
MO1	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	Message	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	Vbs < 2.6
	Condition	-
MO3	Message	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs
	Condition	-
MO4	Message	**lsp_dev = 4 is for matching sensitivity analysis ONLY. Use lsp_dev = 1 to get accurate matching simulation results**
	Check	0 < lsp_dev < 3
	Condition	-

Table 103: lspnfetpd soas

31.2   Model Name : lspnfetwl

Rule	Section	Value
	Category : Out of process specification	
OP1	**Message**	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
	Category : Modeling information	
MO1	**Message**	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	**Message**	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	Vbs < 2.6
	Condition	-
MO3	**Message**	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs
	Condition	-
MO4	**Message**	**lsp_dev = 4 is for matching sensitivity analysis ONLY. Use lsp_dev = 1 to get accurate matching simulation results**
	Check	0 < lsp_dev < 3
	Condition	-

Table 104: lspnfetwl soas

31.3   Model Name : lsppfetpu

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO2	**Message**	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	-2.6 < Vbs
	Condition	-
MO3	**Message**	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	Vbs < 1.3
	Condition	-
MO4	**Message**	**lsp_dev = 4 is for matching sensitivity analysis ONLY. Use lsp_dev = 1 to get accurate matching simulation results**
	Check	0 < lsp_dev < 3
	Condition	-

Table 105: lsppfetpu soas

32 Section related to LSV library

32.1   Model Name : lsvnfetpd

Rule	Section	Value
	Category : Out of process specification	
OP1	Message	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
	Category : Modeling information	
MO1	Message	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	Message	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	Vbs < 2.6
	Condition	-
MO3	Message	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs
	Condition	-
MO4	Message	**lsv_dev = 4 is for matching sensitivity analysis ONLY. Use lsv_dev = 1 to get accurate matching simulation results**
	Check	0 < lsv_dev < 3
	Condition	-

Table 106: lsvnfetpd soas

32.2   Model Name : lsvnfetwl

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**MOS capacitor operating in accumulation mode**
	Check	-0.5 < Vgs
	Condition	(abs(VDS)<=1e-3)
MO2	**Message**	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	Vbs < 2.6
	Condition	-
MO3	**Message**	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	-1.3 < Vbs
	Condition	-
MO4	**Message**	**lsv_dev = 4 is for matching sensitivity analysis ONLY. Use lsv_dev = 1 to get accurate matching simulation results**
	Check	0 < lsv_dev < 3
	Condition	-

Table 107: lsvnfetwl soas

32.3   Model Name : lsvpfetpu

Rule	Section	Value
		Category : Out of process specification
OP1	**Message**	**VGD bias outside limits**
	Check	-1.1 < VGD < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP2	**Message**	**VGS bias outside limits**
	Check	-1.1 < VGS < 1.1 for a laps time greater than 0.05ns
	Condition	-
OP3	**Message**	**VDS bias outside limits**
	Check	-1.1 < VDS < 1.1 for a laps time greater than 0.05ns
	Condition	-
		Category : Modeling information
MO1	**Message**	**MOS capacitor operating in accumulation mode**
	Check	Vgs < 0.5
	Condition	(abs(VDS)<=1e-3)
MO2	**Message**	**Possible switching of back side parasitic MOSFET not taken into account in the model**
	Check	-2.6 < Vbs
	Condition	-
MO3	**Message**	**Large reverse back bias not characterized and model accuracy not guaranteed in this regime**
	Check	Vbs < 1.3
	Condition	-
MO4	**Message**	**lsv_dev = 4 is for matching sensitivity analysis ONLY. Use lsv_dev = 1 to get accurate matching simulation results**
	Check	0 < lsv_dev < 3
	Condition	-

Table 108: lsvpfetpu soas

33   Section related to MOS_PSP_EXT18HV library

33.1   Model Name : egnexti

Rule	Section	Value
Category : Out of process specification	
OP1	Message	VGD bias outside limits
	Check	-5.01 < VGD < 1.81 for a laps time greater than 2.0ns
	Condition	-
OP2	Message	VGS bias outside limits
	Check	-1.81 < VGS < 1.81 for a laps time greater than 2.0ns
	Condition	-
OP3	Message	VDS bias outside limits
	Check	-1.81 < VDS < 5.01 for a laps time greater than 2.0ns
	Condition	-
OP4	Message	VGB bias outside limits
	Check	-1.81 < VGSB < 3.61 for a laps time greater than 2.0ns
	Condition	-
OP5	Message	VBD bias outside limits
	Check	-5.01 < VSBD for a laps time greater than 2.0ns
	Condition	-
OP6	Message	VBS bias outside limits
	Check	-3.61 < VSBS for a laps time greater than 2.0ns
	Condition	-
OP7	Message	VSB/SISO bias outside limits
	Check	-20.01 < VSBSISO < 0.31 for a laps time greater than 2.0ns
	Condition	-
OP8	Message	VSISO/SUB bias outside limits
	Check	-0.31 < VSISOSUB < 20.01 for a laps time greater than 2.0ns
	Condition	-
Category : Reliability issues	
RE1	Message	MOSHV HCI limitation on D side
	Check	-5.2 < VSBD < 0.2 for a laps time greater than 2.0ns
	Condition	(VGS-Vth)>0) and (VDS>0.2)
RE2	Message	MOSHV HCI limitation on S side
	Check	-5.2 < VSBS < 0.2 for a laps time greater than 2.0ns
	Condition	(VGD-Vth)>0) and (VDS<-0.2)
Category : Modeling information	
	Message	lateral parasitic bipolar not modelled when D/B diode in forward bias

		continued from previous...		
Rule	**Section**	**Value**		
MO1	**Check**	VSBD < 0.31 for a laps time greater than 2.0ns		
	Condition	-		
MO2	**Message**	**lateral parasitic bipolar not modelled when S/B diode in forward bias**		
	Check	VSBS < 0.31 for a laps time greater than 2.0ns		
	Condition	-		

Table 109: egnexti soas

33.2   Model Name : egpext

Rule	Section	Value
		Category : Out of process specification
OP1	Message	**VGD bias outside limits**
	Check	-1.81 < VGD < 5.01 for a laps time greater than 2.0ns
	Condition	-
OP2	Message	**VGS bias outside limits**
	Check	-1.81 < VGS < 1.81 for a laps time greater than 2.0ns
	Condition	-
OP3	Message	**VDS bias outside limits**
	Check	-5.01 < VDS < 1.81 for a laps time greater than 2.0ns
	Condition	-
OP4	Message	**VGB bias outside limits**
	Check	-1.81 < VGSB < 3.61 for a laps time greater than 2.0ns
	Condition	-
OP5	Message	**VBD bias outside limits**
	Check	VSBD < 5.01 for a laps time greater than 2.0ns
	Condition	-
OP6	Message	**VBS bias outside limits**
	Check	VSBS < 3.61 for a laps time greater than 2.0ns
	Condition	-
		Category : Reliability issues
RE1	Message	**MOSHV HCI limitation on D side**
	Check	-0.2 < VSBD < 5.2 for a laps time greater than 2.0ns
	Condition	(VGS-Vth)<0) and (VDS<-0.2)
RE2	Message	**MOSHV HCI limitation on S side**
	Check	-0.2 < VSBS < 5.2 for a laps time greater than 2.0ns
	Condition	(VGD-Vth)<0) and (VDS>0.2)
		Category : Reliability information
RE3	Message	**Recommended value L=0.222um. For L<0.222um, please check SOA with TR&D reliability experts for mission profile confirmation**
	Check	0.222e-06 < l
	Condition	-
		Category : Modeling information
	Message	**lateral parasitic bipolar not modelled when D/B diode in forward bias**

Rule	Section	Value
MO1	**Check**	-0.31 < VSBD for a laps time greater than 2.0ns
	Condition	-
MO2	**Message**	**lateral parasitic bipolar not modelled when S/B diode in forward bias**
	Check	-0.31 < VSBS for a laps time greater than 2.0ns
	Condition	-

Table 110: egpext soas