C28SOI_IO_EXT_ALLF_DIGNEG_LR_EG
Databook

July 2017

ESDCLAMP_NEG1V8_NOB2B_EXT

Cell Description

ESDCLAMP_NEG1V8_NOB2B_EXT

- The cell has ”dont_use” attribute set in the Synopsys STF.
- The cell has ”dont_touch” attribute set in the Synopsys STF.

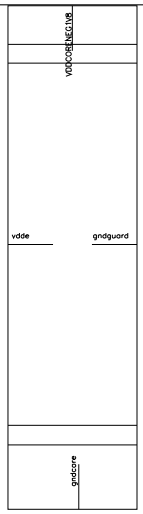
Physical Dimensions

Area(um2) : 4080.260

Glossary

Tr : Input Transition time
C : Output (capacitive) load
R : Rising edge
F : Falling edge

Logical Symbol



Default Leakage Power

Default Leakage Power (mW)	vdde	VDDCORENEG1V8
best 1.10 125	6.854e-05	6.854e-05
worst 0.90 -40	6.559e-08	6.568e-08

ESDCLAMP_NEG1V8_WITH_B2B_EXT

Cell Description

ESDCLAMP_NEG1V8_WITH_B2B_EXT

- The cell has ”dont_use” attribute set in the Synopsys STF.
- The cell has ”dont_touch” attribute set in the Synopsys STF.

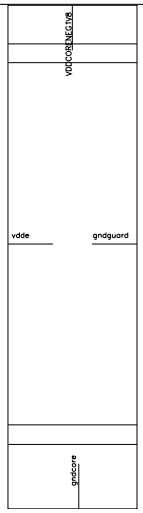
Physical Dimensions

Area(um2) : 4566.140

Glossary

Tr : Input Transition time
C : Output (capacitive) load
R : Rising edge
F : Falling edge

Logical Symbol



Default Leakage Power

Default Leakage Power (mW)	vdde	VDDCORENEG1V8
best 1.10 125	7.716e-05	7.716e-05
worst 0.90 -40	1.118e-07	1.119e-07

VDDCORE_NEG1V8_EXT_CSF_CL_LIN

Cell Description

VDDCORE_NEG1V8_EXT_CSF_CL_LIN

- The cell has ”dont_use” attribute set in the Synopsys STF.
- The cell has ”dont_touch” attribute set in the Synopsys STF.

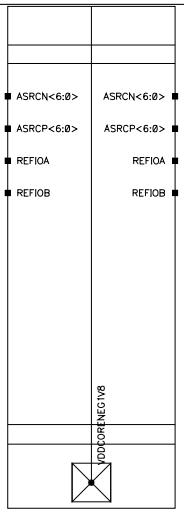
Physical Dimensions

Area(um2) : 4252.000

Glossary

Tr : Input Transition time
C : Output (capacitive) load
R : Rising edge
F : Falling edge

Logical Symbol



Cell Capacitance

Parameter	Value(pF)	
	best 1.10 125	**worst 0.90 -40**
ASRCN[0] Input Cap.	0.0100	0.0100
ASRCN[0] Max Load	10000.000	10000.000
ASRCN[1] Input Cap.	0.0100	0.0100
ASRCN[1] Max Load	10000.000	10000.000
ASRCN[2] Input Cap.	0.0100	0.0100
ASRCN[2] Max Load	10000.000	10000.000
ASRCN[3] Input Cap.	0.0100	0.0100
ASRCN[3] Max Load	10000.000	10000.000
ASRCN[4] Input Cap.	0.0100	0.0100
ASRCN[4] Max Load	10000.000	10000.000
ASRCN[5] Input Cap.	0.0100	0.0100
ASRCN[5] Max Load	10000.000	10000.000
ASRCN[6] Input Cap.	0.0100	0.0100
ASRCN[6] Max Load	10000.000	10000.000
ASRCP[0] Input Cap.	0.0100	0.0100
ASRCP[0] Max Load	10000.000	10000.000
ASRCP[1] Input Cap.	0.0100	0.0100
ASRCP[1] Max Load	10000.000	10000.000
ASRCP[2] Input Cap.	0.0100	0.0100
ASRCP[2] Max Load	10000.000	10000.000
ASRCP[3] Input Cap.	0.0100	0.0100
ASRCP[3] Max Load	10000.000	10000.000

ASRCP[4] Input Cap.	0.0100	0.0100
ASRCP[4] Max Load	10000.000	10000.000
ASRCP[5] Input Cap.	0.0100	0.0100
ASRCP[5] Max Load	10000.000	10000.000
ASRCP[6] Input Cap.	0.0100	0.0100
ASRCP[6] Max Load	10000.000	10000.000
REFIOA Input Cap.	0.0100	0.0100
REFIOA Max Load	10000.000	10000.000
REFIOB Input Cap.	0.0100	0.0100
REFIOB Max Load	10000.000	10000.000

Default Leakage Power

Default Leakage Power (mW)	vdde	vdd	VDDCORENEG1V8
best 1.10 125	5.766e-05	0.000e+00	4.080e-03
worst 0.90 -40	4.708e-08	9.427e-24	3.144e-06

VDDCORE_NEG1V8_EXT_CSF_FC_LIN

Cell Description

VDDCORE_NEG1V8_EXT_CSF_FC_LIN

- The cell has ”dont_use” attribute set in the Synopsys STF.
- The cell has ”dont_touch” attribute set in the Synopsys STF.

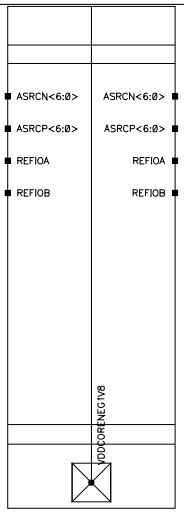
Physical Dimensions

Area(um2) : 3632.000

Glossary

Tr : Input Transition time
C : Output (capacitive) load
R : Rising edge
F : Falling edge

Logical Symbol



Cell Capacitance

Parameter	Value(pF)	
	best 1.10 125	**worst 0.90 -40**
ASRCN[0] Input Cap.	0.0100	0.0100
ASRCN[0] Max Load	10000.000	10000.000
ASRCN[1] Input Cap.	0.0100	0.0100
ASRCN[1] Max Load	10000.000	10000.000
ASRCN[2] Input Cap.	0.0100	0.0100
ASRCN[2] Max Load	10000.000	10000.000
ASRCN[3] Input Cap.	0.0100	0.0100
ASRCN[3] Max Load	10000.000	10000.000
ASRCN[4] Input Cap.	0.0100	0.0100
ASRCN[4] Max Load	10000.000	10000.000
ASRCN[5] Input Cap.	0.0100	0.0100
ASRCN[5] Max Load	10000.000	10000.000
ASRCN[6] Input Cap.	0.0100	0.0100
ASRCN[6] Max Load	10000.000	10000.000
ASRCP[0] Input Cap.	0.0100	0.0100
ASRCP[0] Max Load	10000.000	10000.000
ASRCP[1] Input Cap.	0.0100	0.0100
ASRCP[1] Max Load	10000.000	10000.000
ASRCP[2] Input Cap.	0.0100	0.0100
ASRCP[2] Max Load	10000.000	10000.000
ASRCP[3] Input Cap.	0.0100	0.0100
ASRCP[3] Max Load	10000.000	10000.000

ASRCP[4] Input Cap.	0.0100	0.0100
ASRCP[4] Max Load	10000.000	10000.000
ASRCP[5] Input Cap.	0.0100	0.0100
ASRCP[5] Max Load	10000.000	10000.000
ASRCP[6] Input Cap.	0.0100	0.0100
ASRCP[6] Max Load	10000.000	10000.000
REFIOA Input Cap.	0.0100	0.0100
REFIOA Max Load	10000.000	10000.000
REFIOB Input Cap.	0.0100	0.0100
REFIOB Max Load	10000.000	10000.000

Default Leakage Power

Default Leakage Power (mW)	vdde	vdd	VDDCORENEG1V8
best 1.10 125	5.514e-05	0.000e+00	4.080e-03
worst 0.90 -40	4.164e-08	7.982e-24	3.144e-06

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries (”ST”) reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST’s terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST’S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY TWO AUTHORIZED ST REPRESENTATIVES, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS ”AUTOMOTIVE GRADE” MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER’S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com