```
================================================================
== Synthesis Summary Report of 'simulatedAnnealingTop'
================================================================
+ General Information:
    * Date:           Wed Mar 13 18:12:06 2024
    * Version:        2022.2 (Build 3670227 on Oct 13 2022)
    * Project:        prj_ob
    * Solution:       simulatedAnnealingTop (Vitis Kernel Flow Target)
    * Product family: virtexuplus
    * Target device:  xcu55c-fsvh2892-2L-e


+ Performance & Resource Estimates:

    PS: '+' for module; 'o' for loop; '*' for dataflow
    +-----------------------------------------+--------+-------+-----------+-----------+----------+-----------+----------+----------+---------+----+-------------+-------------+-----+
    |                 Modules                 |  Issue |       |  Latency  |  Latency  | Iteration|           |   Trip   |          |         |    |             |             |     |
    |                 & Loops                 |  Type  | Slack |  (cycles) |    (ns)   |  Latency |  Interval |   Count  | Pipelined|  BRAM   | DSP|      FF     |     LUT     | URAM|
    +-----------------------------------------+--------+-------+-----------+-----------+----------+-----------+----------+----------+---------+----+-------------+-------------+-----+
    |+ simulatedAnnealingTop                  |  Timing|  -0.03|  280003736|  8.750e+08|         -|  280003737|         -|        no|  3 (~0%)|   -|   32309 (1%)|  22795 (1%)|    -|
    | + simulatedAnnealingTop_Pipeline_1      |       -|   0.01|        674|  2.106e+03|         -|        674|         -|        no|        -|   -|   5277 (~0%)|   731 (~0%)|    -|
    |  o Loop 1                               |       -|   2.29|        672|  2.100e+03|        74|          1|       600|       yes|        -|   -|            -|            -|    -|
    | + simulatedAnnealingTop_Pipeline_2      |       -|   0.01|        674|  2.106e+03|         -|        674|         -|        no|        -|   -|   5277 (~0%)|   731 (~0%)|    -|
    |  o Loop 1                               |       -|   2.29|        672|  2.100e+03|        74|          1|       600|       yes|        -|   -|            -|            -|    -|
    | + simulatedAnnealingTop_Pipeline_3      |       -|   0.01|        403|  1.259e+03|         -|        403|         -|        no|        -|   -|    284 (~0%)|   112 (~0%)|    -|
    |  o Loop 1                               |       -|   2.29|        401|  1.253e+03|         3|          1|       400|       yes|        -|   -|            -|            -|    -|
    | + exec_pipeline                         |       -|   0.08|  280000088|  8.750e+08|         -|  280000088|         -|        no|        -|   -|  18257 (~0%)|  15149 (1%)|    -|
    |  + exec_pipeline_Pipeline_VITIS_LOOP_6_1|       -|   0.42|         51|   159.375|         -|         51|         -|        no|        -|   -|    539 (~0%)|   602 (~0%)|    -|
    |   o VITIS_LOOP_6_1                      |      II|   2.29|         49|   153.125|        14|         12|         4|       yes|        -|   -|            -|            -|    -|
    |  + exec_pipeline_Pipeline_VITIS_LOOP_28_1|       -|   0.08|  280000030|  8.750e+08|         -|  280000030|         -|        no|        -|   -|  17642 (~0%)|  13829 (1%)|    -|
    |   o VITIS_LOOP_28_1                     |      II|   2.29|  280000028|  8.750e+08|        44|         28|  10000000|       yes|        -|   -|            -|            -|    -|
    |    + compute_3                          |      II|   0.41|         27|    84.375|         -|          2|         -|       yes|        -|   -|   5361 (~0%)|  2613 (~0%)|    -|
    |    + compute_2                          |      II|   0.41|          7|    21.875|         -|          5|         -|       yes|        -|   -|    577 (~0%)|   501 (~0%)|    -|
    |    + compute_1                          |      II|   0.08|         12|    37.500|         -|          1|         -|       yes|        -|   -|   5626 (~0%)|  4540 (~0%)|    -|
    |    + compute                            |      II|   0.08|         13|    40.625|         -|          1|         -|       yes|        -|   -|   4732 (~0%)|  4304 (~0%)|    -|
    | + simulatedAnnealingTop_Pipeline_4      |       -|   0.01|        671|  2.097e+03|         -|        671|         -|        no|        -|   -|    477 (~0%)|   749 (~0%)|    -|
    |  o Loop 1                               |       -|   2.29|        669|  2.091e+03|        71|          1|       600|       yes|        -|   -|            -|            -|    -|
    | + simulatedAnnealingTop_Pipeline_5      |       -|   0.01|        671|  2.097e+03|         -|        671|         -|        no|        -|   -|    477 (~0%)|   749 (~0%)|    -|
    |  o Loop 1                               |       -|   2.29|        669|  2.091e+03|        71|          1|       600|       yes|        -|   -|            -|            -|    -|
    | + simulatedAnnealingTop_Pipeline_6      |       -|   0.01|        403|  1.259e+03|         -|        403|         -|        no|        -|   -|    145 (~0%)|   211 (~0%)|    -|
    |  o Loop 1                               |       -|   2.29|        401|  1.253e+03|         3|          1|       400|       yes|        -|   -|            -|            -|    -|
    +-----------------------------------------+--------+-------+-----------+-----------+----------+-----------+----------+----------+---------+----+-------------+-------------+-----+
```