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| Tool Version: Vivado v.2020.2 (win64) Build 3064766 Wed Nov 18 09:12:45 MST 2020

| Date : Fri Mar 29 12:18:39 2024

| Host : CEAT-ENDV350-09 running 64-bit major release (build 9200) | Command : report\_utilization -file route\_report\_utilization\_0.rpt -pb

route\_report\_utilization\_0.pb | Design : top\_demo | Device : 7z020clg484-1

Design State : Routed

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### **Utilization Design Information**

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-----

```
+----+
    Site Type | Used | Fixed | Available | Util% |
+-----+
| Slice LUTs
               | 35 | 0 | 53200 | 0.07 |
               | 35|
| LUT as Logic
                       0 |
                           53200 | 0.07 |
| LUT as Memory
              | 0 |
                        0 |
                            17400 | 0.00 |
                | 53 | 0 | 106400 | 0.05 |
| Slice Registers
| Register as Flip Flop | 47 | 0 | 106400 | 0.04 |
| Register as Latch | 6 | 0 | 106400 | < 0.01 |
| F7 Muxes
               | 0 | 0 |
                          26600 | 0.00 |
| F8 Muxes
              | 0 |
                      0 |
                          13300 | 0.00 |
```

# 1.1 Summary of Registers by Type

\_\_\_\_\_

| ++  |     |       | +     | + |  |
|---|-----|-------|-------|---|--|
| Total   Clock Enable   Synchronous   Asynchronous |     |       |       |   |  |
| ++  |     |       |       |   |  |
| 0   | _   | -     | -     |   |  |
| 0   | _   | -     | Set   |   |  |
| 0   | _1  | -     | Reset |   |  |
| 0   | _   | Set   | -     |   |  |
| 0   | _   | Reset | -     |   |  |
| 0   | Yes | -     | -     |   |  |
| 0   | Yes | -     | Set   |   |  |
| 10  | Yes | -     | Reset |   |  |
| 0   | Yes | Set   | -     |   |  |
| 43  | Yes | Reset | -     |   |  |
| ++  |     |       |       |   |  |

# 2. Slice Logic Distribution

\_\_\_\_\_

| +  | +                                |  |  |  |  |
|--|----------------------------------|--|--|--|--|
| Site Type                                  | Used   Fixed   Available   Util% |  |  |  |  |
| +  | +                                |  |  |  |  |
| Slice                                      | 20   0   13300   0.15            |  |  |  |  |
| SLICEL                                     | 11   0                           |  |  |  |  |
| SLICEM                                     | 9  0                             |  |  |  |  |
| LUT as Logic                               | 35   0   53200   0.07            |  |  |  |  |
| using O5 output only                       | 0                                |  |  |  |  |
| using O6 output only                       | 26                               |  |  |  |  |
| using O5 and O6                            | 9                                |  |  |  |  |
| LUT as Memory                              | 0   0   17400   0.00             |  |  |  |  |
| LUT as Distributed RAM                     | 0   0                            |  |  |  |  |
| LUT as Shift Register                      | 0  0                             |  |  |  |  |
| Slice Registers                            | 53   0   106400   0.05           |  |  |  |  |
| Register driven from within the Slice   52 |                                  |  |  |  |  |
| Register driven from outside the Slice   1 |                                  |  |  |  |  |
| LUT in front of the register is unused   1 |                                  |  |  |  |  |
| LUT in front of the register is used   0   |                                  |  |  |  |  |
| Unique Control Sets                        | 5    13300  0.04                 |  |  |  |  |
| •  | +                                |  |  |  |  |

\* \* Note: Available Control Sets calculated as Slice \* 1, Review the Control Sets Report for more information regarding control sets.

## 3. Memory

-----

```
+-----+
| Site Type | Used | Fixed | Available | Util% |
+-----+
| Block RAM Tile | 0 | 0 | 140 | 0.00 |
| RAMB36/FIFO* | 0 | 0 | 140 | 0.00 |
| RAMB18 | 0 | 0 | 280 | 0.00 |
+-----+
```

\* Note: Each Block RAM Tile only has one FIFO logic available and therefore can accommodate only one FIFO36E1 or one FIFO18E1. However, if a FIFO18E1 occupies a Block RAM Tile, that tile can still accommodate a RAMB18E1

## 4. DSP

----

```
+-----+
| Site Type | Used | Fixed | Available | Util% |
+-----+
| DSPs | 0 | 0 | 220 | 0.00 |
+-----+
```

#### 5. IO and GT Specific

-----

```
--+----+
     Site Type
                | Used | Fixed | Available | Util% |
            -----+
                               200 | 14.00 |
| Bonded IOB
                  | 28 | 28 |
                  | 14 | |
| IOB Master Pads
I IOB Slave Pads
                   | 11 | |
                                    1
| Bonded IPADs
                  | 0| 0|
                               2 | 0.00 |
                   | 0| 0|
| Bonded IOPADs
                               130 | 0.00 |
| PHY CONTROL
                    | 0 | 0 |
                                 4 | 0.00 |
                   | 0| 0|
| PHASER REF
                               4 | 0.00 |
OUT FIFO
                 | 0| 0|
                             16 | 0.00 |
| IN_FIFO
                 | 0| 0|
                             16 | 0.00 |
```

#### Clocking

-----

```
+-----+
| Site Type | Used | Fixed | Available | Util% |
+-----+
| BUFGCTRL | 1 | 0 | 32 | 3.13 |
| BUFIO | 0 | 0 | 16 | 0.00 |
| MMCME2_ADV | 0 | 0 | 4 | 0.00 |
| PLLE2_ADV | 0 | 0 | 4 | 0.00 |
| BUFMRCE | 0 | 0 | 8 | 0.00 |
| BUFHCE | 0 | 0 | 72 | 0.00 |
| BUFR | 0 | 0 | 16 | 0.00 |
+------+
```

### 7. Specific Feature

-----

```
+----+
| Site Type | Used | Fixed | Available | Util% |
+----+
4 | 0.00 |
|CAPTUREE2 | 0| 0|
                   1 | 0.00 |
|DNA_PORT | 0| 0|
                  1 | 0.00 |
|EFUSE USR | 0| 0|
                  1 | 0.00 |
| FRAME_ECCE2 | 0 | 0 | 1 | 0.00 |
| ICAPE2 | 0 | 0 | 2 | 0.00 |
|STARTUPE2 | 0| 0|
                  1 | 0.00 |
1 | 0.00 |
```

### 8. Primitives

-----

```
+----+
| Ref Name | Used | Functional Category |
+----+
                Flop & Latch |
| FDRE
      | 43 |
| OBUF
       | 18 |
                     10 |
|LUT6
      | 18|
                    LUT |
|CARRY4 | 10|
                  CarryLogic |
      | 8|
|LUT2
                   LUT |
      | 8|
| IBUF
                   10 |
|LUT4
      | 7|
                   LUT |
      | 6|
               Flop & Latch |
| LDCE
|LUT5
      | 5|
                   LUT |
      | 5|
LUT3
                   LUT |
| FDCE
      | 4|
               Flop & Latch |
|OBUFT | 2|
                     10 |
|LUT1 | 1|
                   LUT |
|BUFG | 1|
                   Clock |
```

#### 9. Black Boxes

-----

+----+

| Ref Name | Used |

+----+

#### 10. Instantiated Netlists

\_\_\_\_\_

+----+

| Ref Name | Used |

+----+