**Jan Karl Galia**

**DE 6**

**Intro to VLSI**

**11/1/2022**

**Professor James Moulic**

**500 LEVEL BONUS**

**23 STAGE RING OSCILLATOR**

**Table

Description automatically generated**

**Chart

Description automatically generated**

**CLOCK TREE**

**Graphical user interface

Description automatically generated with low confidence**

**Calendar

Description automatically generated**

**BINARY COUNTER**

**A picture containing chart

Description automatically generated**

**A picture containing calendar

Description automatically generated**

**2 BIT ADDER**

**A picture containing graphical user interface

Description automatically generated**

**A picture containing text, measuring stick, device

Description automatically generated**

**Current Buffers**

**A picture containing diagram

Description automatically generated**

**Chart

Description automatically generated**

**FULL DESIGN**

**A picture containing timeline

Description automatically generated**

**A picture containing diagram

Description automatically generated**