

Program #C23-2

A $1.1\mu s$ $1.56Gb/s/mm^2$ Cost-Efficient Large-List SCL Polar Decoder Using Fully-Reusable LLR Buffers in 28nm CMOS Technology

Dongyun Kam¹, Byeong Yong Kong² and Youngjoo Lee¹

POSTECH, Pohang, South Korea
Kongju National University, Cheonan, South Korea





A $1.1\mu s$ $1.56Gb/s/mm^2$ Cost-Efficient Large-List SCL Polar Decoder Using Fully-Reusable LLR Buffers in 28nm CMOS Technology

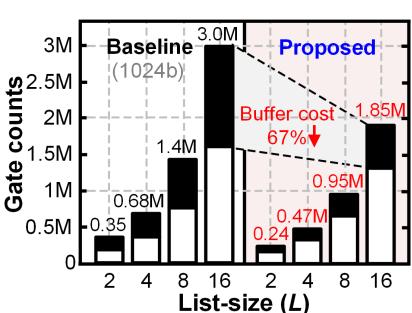
Program #C23-2

<u>Dongyun Kam</u>¹, Byeong Yong Kong², Youngjoo Lee¹

POSTECH, Pohang, South Korea
Kongju National University, Cheonan, South Korea

URLLC device Polar Noisy codeword 3M encoder 2.5M 2M 1.5M Ultra-reliability Polar .5M · Ultra-low-latency Gate decoder 1M **Ultra-low-cost** Base **Estimated bits** station [0,1,1,0...0]

Ultra-low-cost (Fully-reusable buffers)



Ultra-reliability (Large-list)

