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(19) **United States**(12) **Patent Application Publication**  
**SABER et al.**(10) **Pub. No.: US 2023/0232409 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **SYSTEM AND METHOD FOR PHYSICAL  
DOWNLINK CONTROL CHANNEL  
MONITORING BASED ON USER  
EQUIPMENT CAPABILITY**(71) Applicant: **Samsung Electronics Co., Ltd.**,  
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**Jung Hyun BAE**, San Diego, CA (US)(21) Appl. No.: **18/123,745**(22) Filed: **Mar. 20, 2023****Related U.S. Application Data**(63) Continuation of application No. 17/029,831, filed on  
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(57)

**ABSTRACT**

Methods and apparatuses are provided for monitoring a physical downlink control channel (PDCCH). A user equipment (UE) reports capability information indicating one or more tuples. Each tuple indicates a combination of serving cells configured for per-slot and per-span monitoring that the UE is capable of supporting. An indication is received in response to the capability information. A pair of values is determined based on the indication. A first value is a maximum number of serving cells configured for per-slot monitoring, and a second value is a maximum number of serving cells configured for per-span monitoring. A monitored candidate limit per slot is determined based on the first value. A monitored candidate limit per span is determined based on the second value.

$\mu$	Maximum number of monitored PDCCH candidates per slot and per serving cell $M_{\text{PDCCH}}^{\text{maxslot},\mu}$
0	44
1	36
2	22
3	20