**3GPP TSG-RAN WG1 Meeting #120** **R1-2500077**
**Athens, Greece, February 17th – 21st, 2025**

**Agenda Item:** **9.5.1**
**Source:** **Huawei, HiSilicon**
**Title:** **On-demand SSB SCell operation for eNES**
**Document for:** **Discussion and Decision**

# 1 Introduction

In this paper, we continue the discussion on on-demand SSB SCell operation for eNES. We cover various aspects including the relationship between OD-SSB and AO-SSB, signaling methods for OD-SSB TX indication and neighbor cell issues based on OD-SSB.

# 2 Relationship between OD-SSB and AO-SSB

## 2.1 The frequency domain relationship

Regarding the frequency domain relationship between OD-SSB and AO-SSB, the following agreements were achieved in the last meeting.

**Agreement**

Response to Q3 (What is the relation in terms of frequency location between the always-on SSB and OD-SSB?) of Obj.1:

- The frequency location of on-demand SSB is the same as the frequency location of always-on SSB at least for the case where always-on SSB is not CD-SSB. RAN1 is discussing the frequency location of OD-SSB for the case where always-on SSB is CD-SSB.

**Agreement**

Down-select at least one of the following alternatives.

- Alt 1: If always-on SSB is CD-SSB on a synchronization raster, the frequency location of on-demand SSB is different from the frequency location of always-on SSB.
- Alt 2: If always-on SSB is CD-SSB on a synchronization raster, the frequency location of on-demand SSB is the same as the frequency location of always-on SSB
- Alt 3: Do not support the case where always-on SSB is CD-SSB on a synchronization raster.

Down-select at least one of the following alternatives.

- Alt A: If always-on SSB is CD-SSB and not on a synchronization raster, the frequency location of on-demand SSB can be same or different from the frequency location of always-on SSB, subject to its configuration.
- Alt B: If always-on SSB is CD-SSB and not on a synchronization raster, the frequency location of on-demand SSB is the same as the frequency location of always-on SSB
- Alt C: Do not support the case where always-on SSB is CD-SSB and not on a synchronization raster.

Before down-selecting from multiple alternatives, it is necessary to examine the configuration of OD-SSB first. In the last meeting, the below proposal was raised.

**Proposed conclusion #3-2 (CD-SSB):**

For a cell supporting on-demand SSB SCell operation, on-demand SSB for cell-defining SSB located on synchronization raster is NOT supported in Rel-19.

We suggest that OD-SSB being CD-SSB on sync raster can be supported. On newly-deployed spectrums (e.g., U6GHz), no legacy UE exists so that the negative impact of on-demand CD-SSB on idle UEs' initial access is avoided. On existing spectrums (e.g., 3.5GHz) where both legacy UE and Rel-19 UE exist, gNB can configure OD-SSB as NCD-SSB not on sync raster (which has been agreed

in RAN1#118). In a word, NW implementation can help to handle the legacy UE issue in different scenarios. There should not be restriction in spec.

Furthermore, OD-SSB being CD-SSB not on sync raster can be also supported. The SSB operation off sync raster would be transparent to idle UEs and thus causing no negative impact. To place CD-SSB off sync raster is already supported in current specifications, we see no need to preclude this scenario out of the spec scope.

Therefore,

***Proposal 1: Support OD-SSB being CD-SSB, on sync raster or not on sync raster.***

No matter AO-SSB is CD-SSB on or off sync raster, OD-SSB can be placed on the same frequency. UE may treat both AO-SSB and OD-SSB as one object when conducting measurements. Moreover, OD-SSB can also be placed on another frequency. Depending on how gNB configuring MOs, UE follows legacy procedures to measure OD-SSB (and/or, AO-SSB). When the SCell needs to be activated, only OD-SSB is needed to be measured.

***Proposal 2: Both Alt 1 and Alt 2 can be supported, i.e., if AO-SSB is CD-SSB on a sync raster, the frequency location of OD-SSB can be the same as or different from the frequency location of AO-SSB.***

***Proposal 3: Support Alt A, i.e., If AO-SSB is CD-SSB and not on sync raster, the frequency location of OD-SSB can be same or different from the frequency location of AO-SSB, subject to its configuration.***

## 2.2 The spatial domain relationship

Regarding the spatial domain relationship between OD-SSB and AO-SSB, the following agreement was achieved and a proposal was raised in the last meeting.

**Agreement**

Response to Q4 (What is the spatial relation between the always-on SSB and OD-SSB?) of Obj.1:

- SS/PBCH blocks with the same SSB indexes for always-on SSB and on-demand SSB are quasi co-located with respect to Doppler spread, Doppler shift, average gain, average delay, delay spread, and when applicable, spatial RX parameters.
  - Applies at least for the case when the centre frequency locations of always-on SSB and OD-SSB is same
- When a signal/channel is configured to be QCLed with a SSB index, the signal/channel is QCLed with the same SSB index of always-on SSB and on-demand SSB (if transmitted) with the same QCL parameters according to existing specifications
  - Applies at least for the case when the centre frequency locations of always-on SSB and OD-SSB is same
- At least the case where SSB indices within on-demand SSB burst are identical to SSB indices within always-on SSB burst is supported. RAN1 is discussing whether to support the case where SSB indices within on-demand SSB burst can be subset of SSB indices within always-on SSB burst.

**[Active] Proposal #2-4a (Q4):**

Down-select one of the following alternatives.

- Alt 1: SSB indices within on-demand SSB burst can be subset of SSB indices within always-on SSB burst, subject to its configuration.
- Alt 2: It is NOT supported that SSB indices within on-demand SSB burst are subset of SSB indices within always-on SSB burst, in Rel-19.

First, Alt 1 in the above Proposal #2-4a can be supported, i.e., SSB indices within OD-SSB burst can be subset of SSB indices within AO-SSB burst, subject to its configuration. An AO-SSB burst normally carries coverage beams intended for serving all UEs within the whole coverage area, while a specific

configuration of OD-SSB can be indicated for one or a few certain UEs (for example, a couple of low-mobility UEs in a certain coverage area). In this case, NW can at least configure an OD-SSB of which a burst comprises fewer beams than an AO-SSB burst. Upon SCell activation, UE can be indicated with this OD-SSB with fewer beams. More NW energy saving gain can be achieved because fewer SSBs are transmitted in a burst.

***Proposal 4: Support Alt 1, i.e., SSB indices within on-demand SSB burst can be subset of SSB indices within always-on SSB burst, subject to its configuration.***

Further, to enable a finer sync and more accurate reporting by the end of SCell activation, the QCL relationship can be configured in such way that multiple OD-SSB beams can be mapped to a certain AO-SSB beam. From the gNB side, the OD-SSB beam can be narrower than the AO-SSB beam (facilitating a finer-granularity sync), or equal to the AO-SSB beam, in the spatial domain. For example, for UEs with AO-SSB beam #63 as a beam with good RSRP results based on previous measurements, OD-SSB beams #0, 1, 2, ... can be QCL-ed to AO-SSB beam #64 so that this certain beam direction is mapped to the first beam of an OD-SSB burst, and the faster SCell activation can be achieved.

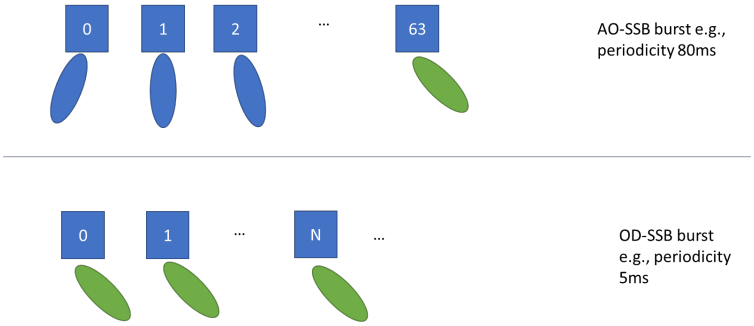


**Figure 1:** Multiple OD-SSB beams can be mapped to a certain AO-SSB beam to enable a faster SCell activation

The cost in terms of RRC configuration of such QCL mapping is negligible given the benefits and flexibility. UE implementation complexity would not be increased since the beam index detection and reporting procedure still follow legacy. At least for the case where the center frequency locations of AO-SSB and OD-SSB is not the same, we propose

***Proposal 5: The QCL relationship between SS/PBCH blocks with the same SSB indexes of AO-SSB and OD-SSB can be configured by RRC, for the case when the center frequency locations of AO-SSB and OD-SSB are not the same.***

## 2.3 The multiplexing

Regarding the multiplexing between OD-SSB and AO-SSB, the following agreement was achieved in the RAN1#118bis meeting, and the discussion is still ongoing.

**Agreement**

For a cell supporting on-demand SSB SCell operation and for Case #2 (i.e., Always-on SSB is periodically transmitted on the cell), study at least the following Mux-Cases.

- Mux-Case #1: No time-domain overlap between always-on SSB and on-demand SSB
- Mux-Case #2: Always-on SSB and on-demand SSB overlap at least in time or frequency domain

Following previous analysis, Mux-Case #1 and #2 can both happen depending on how gNB configures the time location and frequency location of OD-SSB and AO-SSB.

If OD-SSB and AO-SSB are transmitted in the same frequency, then collision, at SSB burst level, can happen, for example, when the periodicities of OD-SSB and AO-SSB are 5ms and 10ms, respectively. It should be specified what exact SSB is being sent within one half frame window because:

- The PBCH payload of OD-SSB and AO-SSB can be different. For example, if AO-SSB is CD-SSB on sync raster and OD-SSB is NCD-SSB, the *pdcch-ConfigSIB1* in *MIB* is not the same.
- The spatial domain configuration of OD-SSB and AO-SSB can be different, as is presented in the last subsection.

To achieve consensus between gNB and UE, a priority-based rule can be defined, e.g., the transmission of AO-SSB is prioritized over OD-SSB. AO-SSB serves as a heartbeat signal across a certain geographical range and it is critical to L3 measurement/initial access for background UEs. Therefore, it should not be bumped by the temporarily-triggered OD-SSB.

Furthermore, if configured in different frequencies, some of the SSBs may collide in time domain, i.e., more than one SSBs are present for UE at a specific moment. Another priority-based rule can also be defined, e.g., UE is not expected to monitor AO-SSB when OD-SSB is transmitted on the cell. This is due to the reason that simultaneous monitoring two SSBs in different frequencies can be meaningless and is a waste for UE processing.

***Proposal 6: Introduce priority-based rules for collision handling between OD-SSB and AO-SSB.***

- ***When AO-SSB and OD-SSB are on a same frequency, AO-SSB is prioritized over OD-SSB when collision happens.***
- ***When AO-SSB and OD-SSB are on different frequencies, UE is not expected to monitor AO-SSB when OD-SSB is transmitted on the cell.***

Regarding the time domain location of AO-SSB and OD-SSB, an agreement was made in the last meeting.

**Agreement**

- For a cell supporting on-demand SSB SCell operation, support to configure time domain location of on-demand SSB per on-demand SSB periodicity by RRC for both Case #1 and Case #2.
  - For Case #1 (i.e., No always-on SSB on the cell),
    - Based on two parameters, where one is to indicate SFN offset from a reference point and the other is to indicate half frame index
      - The reference point is SFN which satisfies (SFN index *10) modulo (OD-SSB periodicity) = 0
      - If SFN offset parameter is NOT configured, UE assumes SFN offset set to 0.
      - If half frame index parameter is NOT configured, UE assumes half frame index set to 0.
      - The value range of SFN offset is 0 to 15 unless longer periodicity for on-demand SSB than 160 ms is introduced.
      - The value range of half frame index is 0 or 1.
  - For Case #2 (i.e., Always-on SSB is periodically transmitted on the cell), down-select one of the following alternatives.
    - Alt A: Same as for Case #1
    - Alt B: Based on a single parameter which is to indicate the time offset between always-on SSB and on-demand SSB (e.g., similar to *ssb-TimeOffset*)

For Case #2, we support Alt B, i.e., there can be a single RRC parameter to indicate the time offset between OD-SSB and AO-SSB. We'd like to point out that, if OD-SSB and AO-SSB are configured on a same frequency, the value of the offset can be properly set to enable fast SCell activation.

In current spec, it takes at least a half frame (5ms) to perform one round of SSB burst scan if applying legacy SSB pattern. If the time needed for an SSB burst scan is cut down, the delay of SCell activation is decreased and better UE experience can be achieved. This can be realized by setting a suitable time offset (e.g., 2.5ms) between OD-SSB and AO-SSB if they are configured on the same frequency, and UE consolidates the meas results of the two kinds of SSB in a <5ms time window. Below, we provide an example to illustrate the details.

Consider an FR2 SCell with SCS=120kHz, on which the SSB pattern Case #D (comprising 64 candidate SSBs in total) is applied. Both AO-SSB and OD-SSB are configured on the same frequency, and their periodicities are both set as 5ms.

By setting *ssb-PositionsInBurst*, both AO-SSB burst and OD-SSB burst contain 32 SSBs. The actually TXed SSB indices are configured in a mutually-exclusive manner:

- For AO-SSB: #0, #2, #4, #6…, #60, #62.
- For OD-SSB: #1, #3, #5, #7…, #61, #63.

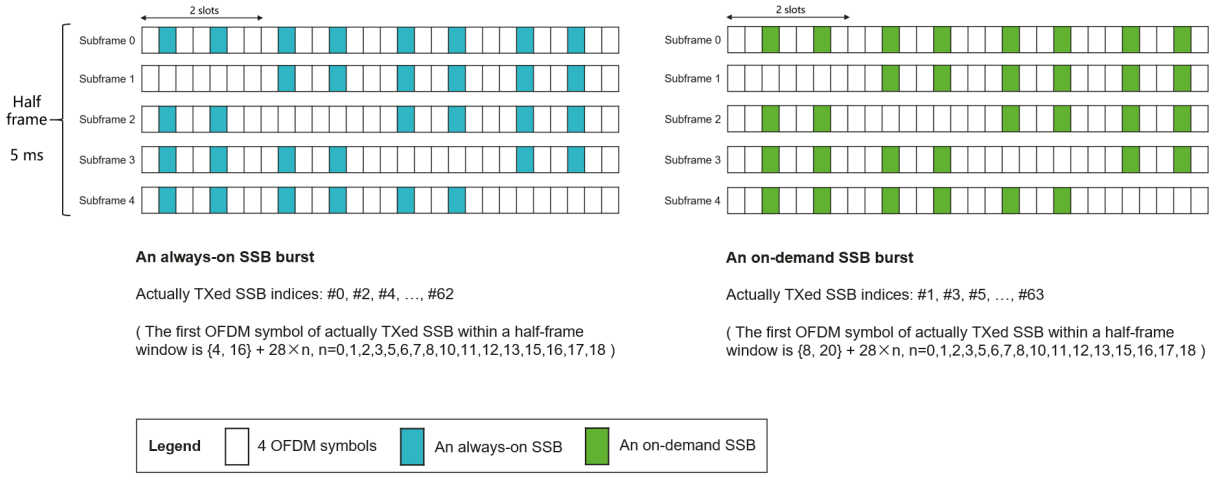


**Figure 2:** Actually TXed SSB indices of AO-SSB and OD-SSB are configured in a mutually-exclusive manner

Further, let us assume that the time offset between OD-SSB burst and AO-SSB burst is set as 2.5ms. In other words, the beginning of the first triggered OD-SSB burst is 2.5ms later than the beginning of first AO-SSB burst. Then, within each 2.5ms time window starting from the beginning of an OD-SSB burst, UE can consolidate 16 AO-SSB beams and 16 OD-SSB beams, i.e., the meas results of AO-SSB and OD-SSB beams can be equivalently viewed as the meas results of an SSB burst comprising 32 SSBs. For more details, please refer to the figure below.

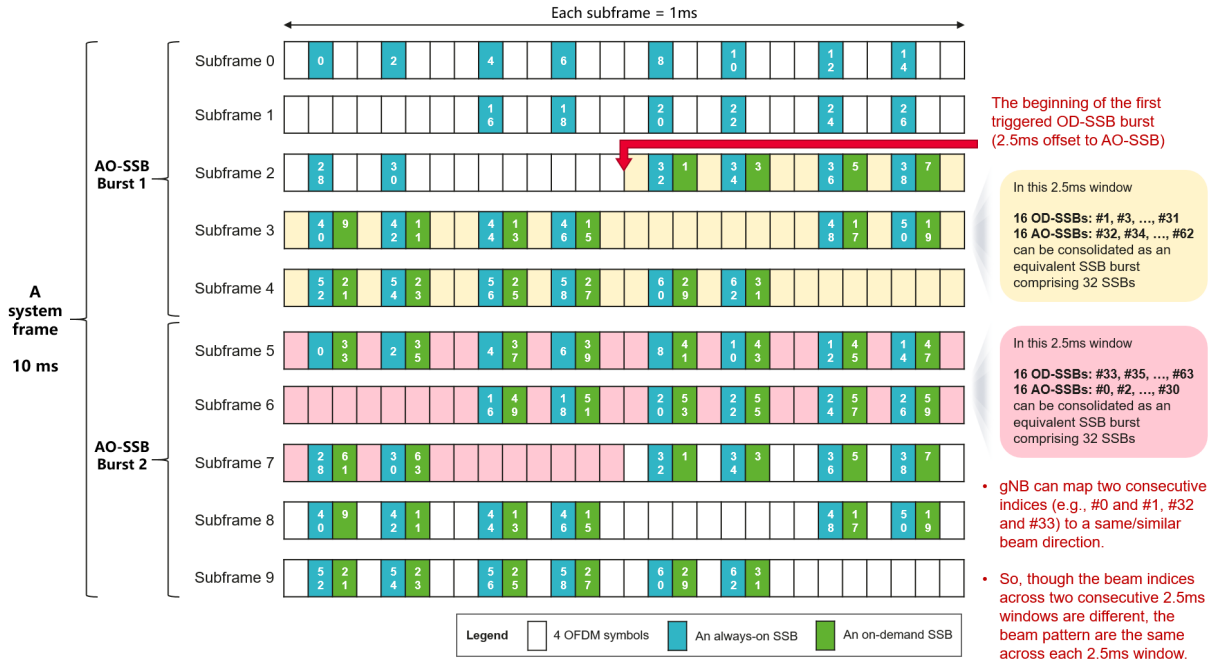


**Figure 3:** UE can consolidate the measurement results of 16 AO-SSB beams and 16 OD-SSB beams in a 2.5ms window

Multiple 2.5ms time windows, each comprising 16 AO-SSBs and 16 OD-SSBs, form a de facto series of SSB burst with the periodicity of 2.5ms. Assuming a typical FR2 UE equipped with 8 Rx beams, a total of 32 SSB bursts are needed for SCell activation (4 SSB bursts are needed per UE Rx beam in FR2, in which 2 rounds are for AGC settling, 1 round is for synchronization and 1 round is for L1-meaurements). It takes at least 32×5ms = 160ms for SSB beam scan during SCell activation in legacy, and in comparison, only 32×2.5ms = 80ms is needed if applying the above mechanism. An accelerated SCell activation is realized.

More generally, setting an offset between OD-SSB and AO-SSB to enable a dense-distributed beam pattern can also be useful for other cases, including, accelerated L3 measurement in Scenario #2. UE can generate more measurement results in a given time window and then upload measurement results faster. Therefore, we propose,

***Proposal 7:*** ***For Case #2, support Alt B: configure a single parameter which is to indicate the time offset between AO-SSB and OD-SSB. Introduce one additional time offset value of 2.5ms, in addition to currently supported values by ssb-TimeOffset.***

# 3 Signaling methods for OD-SSB TX indication

## 3.1 The deactivation of OD-SSB transmission

Regarding the deactivation of OD-SSB transmission from a UE perspective, the following agreement was achieved in the last meeting.

**Agreement**

For a cell supporting on-demand SSB SCell operation, support at least the following options to deactivate on-demand SSB transmission from a UE perspective.

- Option 1: Explicit indication of deactivation for on-demand SSB via MAC-CE for on-demand SSB transmission indication
  - Deactivation by RRC is up to RAN2
  - FFS: Which scenario Option 1 is used
- Option 2: Configuration/indication of the number N of on-demand SSB bursts to be transmitted after on-demand SSB is indicated
  - FFS: Whether Option 4, 4a is needed in addition to Option 2
  - FFS: Whether the value of N can be implicitly determined using a timer

For Option 1, the OD-SSB deactivation MAC CE signaling can be supported across the whole SCell life-cycle. It can be considered as a baseline as it provides the most flexibility and since the activation is already agreed to use MAC CE, it is straightforward to assume it for the de-activation.

In Scenario #2 where OD-SSB can be indicated for L3 measurement, once gNB has received the L3 measurement report, it may send the OD-SSB deactivation MAC CE to halt the SSB transmission. In Scenario #3B, gNB can also send the OD-SSB deactivation MAC CE once it has received a valid CSI report associated with the accomplished SCell activation. Though there seems no technical benefit to deactivate OD-SSB in Scenario #2A and #3A, there is no necessity to abandon the usage of this MAC CE in these two scenarios in the spec. Therefore, we propose:

***Proposal 8:*** ***For Option 1, support that the OD-SSB deactivation MAC CE can be applied in all scenarios.***

Speaking of Option 2, in our views, N denotes the maximum expected transmission window of OD-SSB bursts after OD-SSB is indicated, which UE assumes in case of missing de-activation, or re-activation signaling, or non-detection of OD-SSB bursts (for example when link failure happens). The reason is that, gNB can hardly predict the exact rounds of OD-SSB bursts to fulfill an L3 measurement functionality so the usage of N as an exact number of OD-SSB bursts to be transmitted after it is indicated could: 1) put constraints on the processing of UEs and that could be harmful; 2) put constraints

on the NES cell which has the complete freedom to continue sending OD-SSB bursts as much as it regards suitable after the elapse of N. This is similar to other legacy protective mechanisms for UE, e.g., an SCell deactivation timer. Consequently, an OD-SSB timer which sets the maximum allowed transmission window of OD-SSB bursts can be configured by RRC (or, pre-defined), by which the value of N can be implicitly determined.

***Proposal 9:*** ***For Option 2, support that the value of N can be implicitly determined using a timer, and this OD-SSB deactivation timer is to set the maximum expected transmission window of OD-SSB bursts after on-demand SSB is indicated.***

Furthermore, some implicit behaviors can be defined in spec for certain events in addition to Option 1 and Option 2. For example, after the deactivation of an SCell, OD-SSB transmission can be halted to preserve NW energy saving. In this case, UE can assume that OD-SSB is deactivated when the SCell is deactivated (otherwise, OD-SSB would be a de facto "always-on" signal). Option 4 and 4A can be supported so that no redundant deactivation signaling is needed.

***Proposal 10:*** ***For the deactivation of OD-SSB on an SCell, further support:***

- ***Option 4. OD-SSB transmission, if any, is deactivated when UE receives SCell deactivation MAC-CE for the activated SCell.***
- ***Option 4A. OD-SSB transmission, if any, is deactivated when the timer for SCell deactivation is expired.***

### 3.2 Discussion on whether to introduce DCI signaling for indication

Regarding whether to introduce DCI signaling for OD-SSB indication, the following proposal was raised in the last meeting.

**Proposal #4-2 (DCI):**

- For a cell supporting on-demand SSB SCell operation,
  - Support DCI based signaling to indicate on-demand SSB transmission on the cell.
    - This DCI signaling does not provide SCell activation/deactivation.
    - FFS: Details on DCI including UE-specific or group-common DCI, DCI contents, etc.
    - FFS: Scenarios where the above signalings are applicable

We do not support introducing DCI signaling for OD-SSB indication. No advantage is foreseen since MAC CE has been agreed so there is a dynamic signaling-based solution. Such redundant introduction of DCI will increase unnecessary spec workload and UE complexity. What's more, the time left for this AI is limited. The format of DCI, payload of DCI and other designing details might be too heavy and occupies the time for other more important issues.

***Proposal 11:*** ***No need to introduce DCI based signaling to indicate OD-SSB transmission.***

## 4 On neighbor cell issue of on-demand SSB operation

When OD-SSB is dynamically turned ON/OFF or adapted on a Rel-19 eNES cell, it would also raise concerns of neighbor cells. Below, we identify two significant issues, covering the interference management of cell-edge scenario and the L3 measurement enhancement of mobility scenario, respectively.

### 4.1 Inter-cell interference

As a UE moves to the edge of a Rel-19 NES cell, and the on-demand SSB is turned ON/OFF or adapted from time to time, the interference pattern which this UE and neighbor cell UEs experience would be changed. In the following figure, at first the NES cell and a neighbor cell are broadcasting SSBs of

which periodicity is 20ms and coordinating to make the SSBs interfere to each other (which is fine since the interference between SSBs are less severe than the one between SSB and other signals/channels, thanks to the orthogonality of SS sequence). Later, the NES cell decides to switch the periodicity to 40ms. If the resources that are freed (due to not sending SSBs) are used for PDSCH for some UEs' data in the NES cell, the neighboring cell's SSBs will interfere to the PDSCH and if not handled properly, it will lead to more re-transmissions which is translated into more wasted energy.

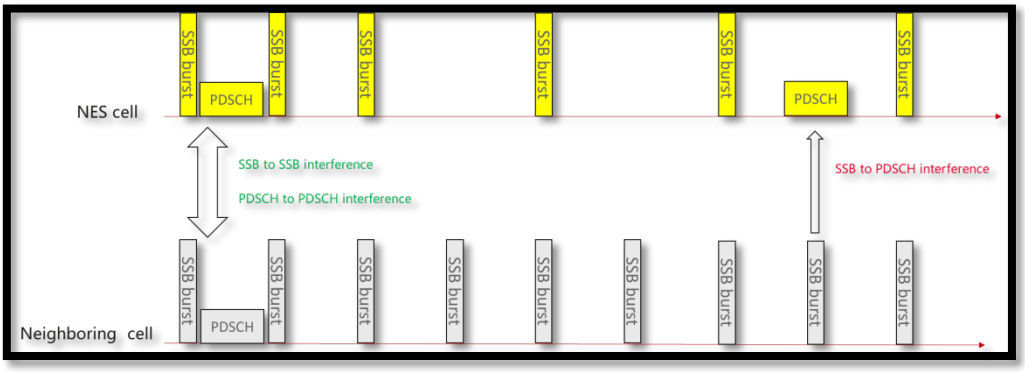


**Figure 4:** The interference pattern between an NES cell and its neighboring cell changes as OD-SSB adjusts

To enable gNB to handle such interference, a rate matching framework could be designed (legacy rate matching pattern could be enhanced) specifically for OD-SSB, enabling gNB to configure and activate these rate matching patterns for cell edge UEs that could suffer from strong neighboring cells interference.

***Proposal 12:*** ***To handle the inter-cell interference in cell edge introduced by the dynamic ON/OFF/adaptation of OD-SSB, RAN1 to enhance the legacy rate matching framework to adapt the interference pattern as OD-SSB adjusts.***

## 4.2 Neighbor cell measurement

From mobility perspective, in current spec, UE can measure the signal quality of the neighboring cells to determine whether SCell change is needed. As UE may not know what is the current state of an OD-SSB transmission on a non-serving cell, it may not properly report certain event due to the absence of neighbor cell SSB in SMTC windows. Regarding this issue, there can be three main directions to consider.

- Direction 1: Follow the legacy rule/requirements and leave the potential mis-measurement to gNB / UE implementation.
- Direction 2: Consider an inter-cell / inter-node OD-SSB state notification mechanism. As SSB turns ON or OFF on a Rel-19 eNES cell, gNB should broadcast the information to UEs who consider this cell as a to-be-measured neighbor cell.
- Direction 3: Consider modification on existing neighbor cell measurement procedure/requirement, particularly on legacy L3 measurement (procedure). For example, for event-triggered reports, since gNB starts to enable flexible SSB ON/OFF, the existing report conditions could be varying and it may be too strict for UE to verify a full set of conditions as legacy.

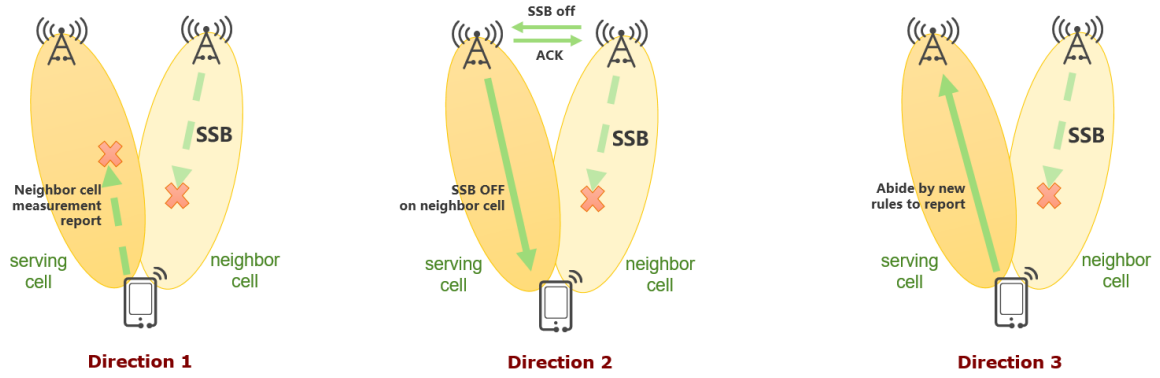


**Figure 5:** Three directions for spec to consider for L3 neighbor cell measurement on OD-SSB

It can be observed that, Direction 1 does not provide a minimum necessary measurement procedure as the potential issue can happen without being identified from gNB or UE. Direction 2 is able to provide a comprehensive solution, yet spec effort might be high as well as at the cost of large amount of interaction among the cells / nodes. Direction 3 can provide a compromising solution to maintain the pipeline of L3 neighbor cell measurement without involving inter-cell / inter-node interaction. RAN2/4 expertise would also be needed for further study of Direction 3.

***Proposal 13:*** ***RAN1 to consider the needed modification on existing L3 measurement procedure/requirement.***

# 5 Conclusion

This paper discussed how to design on-demand SSB operation for SCell, with the following proposals:

***Proposal 1:*** ***Support OD-SSB being CD-SSB, on sync raster or not on sync raster.***

***Proposal 2:*** ***Both Alt 1 and Alt 2 can be supported, i.e., if AO-SSB is CD-SSB on a sync raster, the frequency location of OD-SSB can be the same as or different from the frequency location of AO-SSB.***

***Proposal 3:*** ***Support Alt A, i.e., If AO-SSB is CD-SSB and not on sync raster, the frequency location of OD-SSB can be same or different from the frequency location of AO-SSB, subject to its configuration.***

***Proposal 4:*** ***Support Alt 1, i.e., SSB indices within on-demand SSB burst can be subset of SSB indices within always-on SSB burst, subject to its configuration.***

***Proposal 5:*** ***The QCL relationship between SS/PBCH blocks with the same SSB indexes of AO-SSB and OD-SSB can be configured by RRC, for the case when the center frequency locations of AO-SSB and OD-SSB are not the same.***

***Proposal 6:*** ***Introduce priority-based rules for collision handling between OD-SSB and AO-SSB.***

***- When AO-SSB and OD-SSB are on a same frequency, AO-SSB is prioritized over OD-SSB when collision happens.***

***- When AO-SSB and OD-SSB are on different frequencies, UE is not expected to monitor AO-SSB when OD-SSB is transmitted on the cell.***

***Proposal 7:*** ***For Case #2, support Alt B: configure a single parameter which is to indicate the time offset between AO-SSB and OD-SSB. Introduce one additional time offset value of 2.5ms, in addition to currently supported values by ssb-TimeOffset.***

***Proposal 8:*** ***For Option 1, support that the OD-SSB deactivation MAC CE can be applied in all scenarios.***

***Proposal 9:*** ***For Option 2, support that the value of N can be implicitly determined using a timer, and this OD-SSB deactivation timer is to set the maximum expected transmission window of OD-SSB bursts after on-demand SSB is indicated.***

***Proposal 10:*** ***For the deactivation of OD-SSB on an SCell, further support:***

***- Option 4. OD-SSB transmission, if any, is deactivated when UE receives SCell - deactivation MAC-CE for the activated SCell.***

***- Option 4A. OD-SSB transmission, if any, is deactivated when the timer for SCell deactivation is expired.***

***Proposal 11:*** ***No need to introduce DCI based signaling to indicate OD-SSB transmission.***

***Proposal 12:*** ***To handle the inter-cell interference in cell edge introduced by the dynamic ON/OFF/adaptation of OD-SSB, RAN1 to enhance the legacy rate matching framework to adapt the interference pattern as OD-SSB adjusts.***

***Proposal 13:*** ***RAN1 to consider the needed modification on existing L3 measurement procedure/requirement.***

## References

[1] R1-2410781, Summary #3 of on-demand SSB for NES, Moderator (LG Electronics), RAN1#119, November, 2024.