|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Section/clause/IE** | **Comments/Suggested Change** | **Rapp Response** |
| ZTE | BeamFailureRecoveryConfig | ra-OccasionType-r19 can only indicate SBFD. If gNB indicates non-SBFD RO, gNB can make the field absent. | This may be different taste of design. The actual bit is the same (one bit). Rapp think explicit signaling is clearer than implicit signalling (by absence), open for more views from companies.  |
| ZTE | sbfd-RACH-SingleConfig-r19 | Option 1 should be indicated per RACH-ConfigCommon?Option 1 and option 2 cannot be configured together for all the RACH-ConfigCommon (including those in the AdditionalRACH-ConfigList-r17), this condition should be added. | For the first question, yes, the R19 gNB configures Option1 through RACH-ConfigCommon. For the second question, it is already stated in 300 running CR that “A cell can configure only one RACH configuration option”. Rapp thinks no need to duplicate this restriction in FD. Open to add if majority companies want to add.  |
| Nokia | sbfd-RACH-SingleConfig-r19 | Same understanding as ZTE | See above |
| Nokia  | CSI-ReportConfig  | The metrics cli-RSSI and cli-SRS-RSRP are not included as part of new reporting metrics within *CSI-ReportConfig* IE.  | Rapp understands the report quantity is the same as in legacy.  |
| Nokia  | CSI-ResourceConfig  | The definition of the *CSI-ResourceConfig* IE should be updated to indicate that it is also used to define a group of CLI-RSSI or SRS-RSRP resource sets.  |  Yes. Thanks for spotting this. Will add in the next version.  |
| Nokia  | CSI-ReportConfig  | The definition of *resourcesForChannelMeasurement* should be extended to cover CLI-RSSI and SRS-RSRP resources  |  The new field resourcesForChannelCLI covers CLI-RSSI and SRS-RSRP resources.  |
| Xiaomi | ASN.1 grammar: there are several places where commas are placed before “]]”. For example: OPTIONAL, -- Need M ]] | Remove comma before “]]”. | Thanks for spotting this. Two such cases with “rach-ConfigConmonSBFD-r19” to be corrected in the next version.  |
| Xiaomi | Naming convention is not followed for several field or IE names.  | Understand the names might be based on RAN1 parameter list, but proper name should be used in 38.331.The examples of name corrections:RACH-configConmonSBFD-r19 🡪 RACH-ConfigConmonSBFD-r19sbfd-rsrp-ThresholdRO-Type-r19 🡪 sbfd-RSRP-ThresholdRO-Type-r19… | Thanks. -rsrp- to be changed to -RSRP-, -config to be changed to -Config. in next version. Also Conmon to be changed to Common.  |
| Xiaomi  | sbfd-RACH-SingleConfig-r19  | In RAN1 parameter list R1-2503155, the IE location (column “Per (UE, cell, TRP, …)”) is empty with yellow background. Not sure whether RAN1 will further update it. Maybe we can have an Editor’s note about the IE location. | Will add EN for this in next version.  |
| Xiaomi | Relationship between sbfd-RACH-SingleConfig-r19 and sbfd-RACH-DualConfig-r19  | Similar comment as ZTE for sbfd-RACH-SingleConfig-r19.In RAN1#117 meeting, RAN1 agreed that “Enabling both options at the same time for a UE is not supported”. Suggest to capture the restriction in field description or condition. | See response above. |
| LGE001 | - | Remove unchanged IE and clauses. Given that RRC spec is large-sized, it is really hard to review unless the running RRC CR only includes essential part. | Rapp started from the full 331 as not clear which sections will be changed. Indeed it is big and easily freezes in Print Layout mode. One workaround is change to ”Draft mode” immediately after opening the word file then no repagination/freezing issues.  |
| LGE002 | sbfd-rsrp-ThresholdMsg1-RepetitionNum2/4/8 IE in RACH-configConmonSBFD | According to RAN1 parameter list, the separated RSRP threshold to determine Msg1 repetition number for SBFD RO is configured for each BWP, not for each RACH partition.Given that legacy RSRP threshold to determine Msg1 repetition number in legacy RO is configured within BWP-UplinkCommon IE, this separated RSRP threshold should be configured in the same place, i.e., directly within BWP-UplinkCommon IE. There is no need to further configure these thresholds in AdditionalRACH-Config IE.Suggestion: move sbfd-rsrp-ThresholdMsg1-RepetitionNum2/4/8 to directly in BWP-UplinkCommon IE and remove these from RACH-ConfigCommonSBFD IE. | Indeed those three thresholds are generic parameters, shall be listed together with the legacy thresholds. To be revised in the next version.  |
| LGE003 | *sbfd-RACH-SingleConfig* | We may need to further discuss whether the this indication (i.e., indicating whether RACH configuration Option 1 for SBFD random access operation is enabled or not from network side) should be configured for each Cell/BWP or for each RACH configuration). We are okay for companies’ view but given that there is no explicit discussion on this, propose to add an EN to further discuss. | Add one EN on this |
| LGE004 | *sbfd-RACH-SingleConfig* and *sbfd-RACH-DualConfig* in BWP*-UplinkCommon* IE | Similar comment as ZTE.In RAN2#128 meeting, it is agreed that only one RACH configuration option is supported in a cell:* Only one RACH configuration option (i.e., either RACH configuration Option 1 with Alt 1-1 or RACH configuration Option 2) is supported in a cell.

Therefore, some network restriction to allow only one RACH configuration option in a cell should be specified, e.g., in field description or in conditional presence. | See response on this comment above. |
| LGE005 | ra-OccasionType in *BeamFailureRecoveryConfig* | In our understanding, this indication is intended to indicate RO type in **CFRA** case:* **For CFRA** triggered by BFR, the RO type is indicated in BeamFailureRecoveryConfig.

However, in BFR config, it is possible that CFRA resource is not included, while RA prioritization parameter (e.g., ra-Prioritization IE or ra-PrioritizationTwoStep IE) is included in the BFR config. In this case, even though the RA is initiated for Beam failure recovery, CBRA is performed due to no CFRA resource in BFR config. Note that it is different fallback from CFRA to CBRA, which is caused by low channel quality even though CFRA resource is configured for BFR.In this sense, in order to avoid any confusion on whether the RO type can indicated without CFRA resource configuration, suggest to change the field description of ra-OccasionType-19 as follows:Indicates the RACH occasion type for CFRA, SBFD or non-SBFD, to be used a SBFD capable UE. | Add “for CFRA” in the next version. |
| LGE006 | ra-OccasionType in *RACH-ConfigDedicated* | Similar comment in LGE005. It should be clarified that this field indicates RO type for **CFRA** cases. Suggest to change the field description of ra-OccasionType-19 as follows:Indicates the RACH occasion type for CFRA, SBFD or non-SBFD, to be used a SBFD capable UE. | Same as above |
| LGE007 | SchedulingRequestResourceConfigExt-v19xy | SchedulingRequestResourceConfigExt-v19xy is defined, but it is never be used. Similar to other SchedulingRequestResourceConfigExt-v1610/v1700, following configuration may be needed under PUCCH-Config IE, as an optional field:* schedulingRequestResourceToAddModListExt-v19xy SEQUENCE (SIZE (1..maxNrofSR-Resources)) OF SchedulingRequestResourceConfigExt-v19xy
 | Thanks for the suggestion, will adopt in the next version.  |
| LGE008 | PUCCH-CSI-ResourceExt-v19xy | Similar as LGE007, PUCCH-CSI-ResourceExt-v19xy is never used. Further discussion may be needed on how to configure symbol type for each PUCCH-CSI-Resource, based on RAN1 parameter list. | Add one line with a new field pucch-CSI-ResourceListExt-r19: pucch-CSI-ResourceListExt-r19 SEQUENCE (SIZE (1..maxNrofBWPs)) OF PUCCH-CSI-ResourceExt-v19xy. And one EN on this revision.  |
| LGE009 | SCS-SpecificCarrier | Typo: close the square bracket, i.e., ‘]]’ is missing at the end of SCS-SpecificCarrier IE. | Good catch! |
| CMCC | BWP-UplinkCommon | Within table of BWP-UplinkCommon field descriptions, we think that the last sentence of additionalRACH-ConfigList should be revised to “If at least two of rach-ConfigCommon, msgA-ConfigCommon and rach-ConfigCommonSBFD are configured for a specific FeatureCombination, the network always provides them in the same additionalRACH-Config.”. | Rapp thinks this sentence might need further consideration. First, msgA-ConfigCommon will not be present with rach-ConfigCommonSBFD at the same time (SBFD not supported with SBFD). Second, SBFD is not a feature and two same rach-ConfigCommonSBFD are placed as one with rach-ConfigCommon and another within AdditionalRACH-Config-r17. |
| Nokia  | BWP-{Downlink,Uplink}Dedicated  | On the description of *sbfd-Configuration2-{Reception,Transmission}*, RAN1 specifications specify the behaviour when *sbfd-Configuration2-{Reception, Transmission}* is provided, and do not refer to a ‘configuration 1’ in any case. We think the sentence in the description ‘If not enabled, Configuration 1 is applied for xxx in the given DL BWP’ can be removed  |  RAN1 explicitly states “If not enabled…” in their FD. Will keep both for clarity (also the need code is Need S now, so specification is needed when this field is not configured/enabled. ) |
| Nokia  | ConfiguredGrantConfig, SchedulingRequestResourceConfig, etc..  | Same reasoning as earlier: ‘for SBFD Configuration 1’ can be removed from the description of *symbolType*. It is clear from the second sentence that this is only configured when Configuration 2 is not enabled.   | Unless there is strong motivation to remove (error, duplicated texts etc.), Rapp prefers to follow RAN1 FD in their list at least for now.  |
| ERI1 | BeamFailureRecoveryConfig | We agree with ZTE very first comment.Additionally, we typically do not state that certain field is for UE that support certain feature.We should also avoid “SBFD capable” but instead use “SDFB-aware”, we think this is preferred is in RAN1. This is a general comment, there are some “SBFD capable” in the CR. | On ZTE first comment, since there are multiple support from other companies, the explicit signaling of non-SBFD RO will be removed (also from RACH-ConfigDedicated), i.e. to use implicit signaling via absence of ”SBFD RO type”, in next version of running CR.Regarding ”SBFD aware” vs. ”SBFD capable”: will add one EN on this term that a unified solution can be used across specs.  |
| ERI2 | sbfd-RACH-SsingleConfig-preambleReceivedTargetPower | Field description refers to SBFD RACH Configuration option 1. I do not expect RAN1 spec will clarify these options, we should consider clarify them in 38331, if we at all need them.  | There are reminder clause X, clause Y, we can wait for RAN1 spec. This FD is following RAN1 higher layer parameter list, if we want to “clarify them” in 331, the optimal way is to ask RAN1 first.  |
| ERI3 | sbfd-Configuration2-Transmission-r19 | General, can use “Config” instead of “Configuration” (many places).Also, we do not need the word “Transmission”, since this is obvious from an UL BWP?(Same comments for sbfd-Configuration2-Reception-r19).If this field is configured always together with next field sbfd-Configuration2-PUSCH-RBOffset-r19, then this can be expressed in ASN.1? | On config vs configuration: Rapp prefer to follow the naming from RAN1 parameter list however will change it to “config” as it is quite long to use “configuration”. Any suggestion on ASN.1? |
| ERI4 | Gen | In many field descriptions CR uses text similar to “The network does not configure this field if SBFD Configuration 2 is enabled for the UL BWP. (see TS 38.214 [19], clause 7.2)”.Normally, we prefer to use the field name by wich the feature is enabled.Question: Is same Config used in both UL and DL? | The FDs are copied from RAN1 parameter list. Any suggestion on how o optimize on the naming?The FD and config are based on RAN1 list, so better check with RAN1 on the question. Is this UL/DL question related to CATT006? |
| ERI5 | resourcesForChannelCLI | Not sure if covered by others, but this field description need more work. | Rapp highlighted FD for this field indicating optimization may be needed. There is no FD for this field from RAN1. Add one EN for FFS |
| ERI6 | CSI-MeasConfig | (Editorial) Can use Meas instead of Measurement in field names of new fields, such that each definition occupies a single line. | Good suggestion: for all new field and IE, measurement->meas.  |
| ERI7 | (General) | (Editorial: Can get cleaner CR by avoiding changes on changes, and by accepting the Word-generated comments for format changes.) | Will do before submission.  |
| CATT001 | sbfd-Configuration2-Reception-r19 | sbfd-Configuration2Reception-r19 | As configuration->config, prefer keep this hyphen. |
| CATT002 | sbfd-RACH-DdualConfig-ValidROacrossSymbolTypes-r19 | sbfd-RACH-DdualConfig-ValidRO-acrossSymbolTypes-r19 | RO is capital, shall be no problem here.  |
| CATT003 | RACH-ConfigCommonSBFD-r19 = SEQUENCE { sbfd-RACH-SingleConfig-r19 ENUMERATED {enabled} OPTIONAL, -- Need R sbfd-RACH-DualConfig-r19 SBFD-RACH-DualConfig-r19 OPTIONAL, -- Need R | RACH-ConfigCommonSBFD-r19 = SEQUENCE { sbfd-RACH-ConfigCommon CHOICE {sbfd-RACH-SingleConfig-r19 ENUMERATED {enabled} OPTIONAL, -- Need R sbfd-RACH-DualConfig-r19 SBFD-RACH-DualConfig-r19 OPTIONAL, -- Need R}, | Understand the motivation of CHOICE is that gNB only config one option at one cell. However sbfd-RACH-SingleConfig is not config option 1 but only the on/off indicator of config option 1. Also this indicator is optional with Need R, shall be fine as it is.  |
| CATT004 | sbfd-RSRP-ThresholdMsg1-RepetitionNum2, sbfd-RSRP-ThresholdMsg1-RepetitionNum4, sbfd-RSRP-ThresholdMsg1-RepetitionNum8Threshold used by the UE for determining whether to select resources indicating Msg1 repetition number 2, 4 or 8 within the additional-ROs. | There is no definition of additional-ROs in this spec. Additional description is required to align with the description of ***rsrp-ThresholdMsg1-RepetitionNum2.*** Please take the description in to consideration:The value applies to RACH configurations in SBFD symbols. For a given MSG1 repetition number, ... It is absent otherwise. | The FD is following RAN1 list. We can discuss the FD by first checking with them. Indeed “addition RO” is not defined, for now Rapp proposed to replace additional RO, additional-RO with SBFD ROs, companies are welcome to comment on this change. Another place for this change is “sbfd-RACH-SingleConfig-preambleReceivedTargetPower” |
| CATT005 | sbfd-RSRP-ThresholdRO-Type-r19 RSRP-Range OPTIONAL, -- Need R sbfd-RSRP-ThresholdRO-TypeUsage-r19 ENUMERATED {above,below} OPTIONAL -- Need R | According to the agreement as below, RO type can be indicated directly to UE without threshold.* **For initial RA transmission, the network can indicate the RO type (legacy RO or additional RO) to the SBFD-aware UE for the case of CBRA. Detailed signalling is FFS.**
* **NW indicate via explicit signaling whether the SBFD RO is selected when SSB RSRP are 'below' or 'above' the configured threshold.**
 | The direct RO type indication signalling design is the RRC-01 in the RRC open issue discussion. Once P1 is agreed, will implement this RO type indication signalling in the running CR.  |
| CATT006 | *BWP-UplinkDedicated* information elementsbfd-Configuration2-Transmission-r19 Indicates that the PDSCH receptions can be in SBFD symbols and non-SBFD symbols in different slots for the dedicated UL BWP (see TS 38.213 [13], clause x and TS 38.214 [19], clause y).If not enabled, Configuration 1 is applied for PUCCH and PUSCH transmissions in the given UL BWP. sbfd-Configuration2-PUSCH-RBOffset-r19  | Should be:sbfd-Configuration2Transmission-r19 Indicates that the PUCCH and PUSCH transmissions can be in SBFD symbols and non-SBFD symbols in different slots for the dedicated UL BWP (see TS 38.213 [13], clause x and TS 38.214 [19], clause y). If not enabled, Configuration 1 is applied for PUCCH and PUSCH transmissions in the given UL BWP. Should be :sbfd-Configuration2PUSCH-RB-Offset-r19  | Thanks for catching this copy/paste error. On the hyphen, no strong opinion but will do no change for now.  |
| CATT007 | *CLI-RSSI-MeasurementResource* information elementCLI-RSSI-MeasurementResourceSet-r19 ::= SEQUENCE { cli-RSSI-MeasurementResourceId-r19 CLI-RSSI-MeasurementResourceId-r19 OPTIONAL, -- Need R startSymbol-r19 INTEGER (0..13) OPTIONAL, -- Need R nrofSymbols-r19 INTEGER (0..14) OPTIONAL, -- Need R startPRB-r19 INTEGER (0..maxNrofPhysicalResourceBlocks-1) OPTIONAL, -- Need R nrofPRBs-r19 INTEGER (1..maxNrofPhysicalResourceBlocks) OPTIONAL, -- Need R cli-RSSI-PeriodicityAndOffset-r19 CSI-ReportPeriodicityAndOffset OPTIONAL, -- Need R qclInfo-Periodic-CLI-RSSI-MeasurementResource-r19 TCI-StateId OPTIONAL, -- Need R ...} | CLI-RSSI-MeasurementResource~~Set~~-r19 ::= SEQUENCE { cli-RSSI-MeasurementResourceId-r19 CLI-RSSI-MeasurementResourceId-r19 OPTIONAL, -- Need R startSymbol-r19 INTEGER (0..13) OPTIONAL, -- Need R nrofSymbols-r19 INTEGER (~~0~~1..14) OPTIONAL, -- Need R startPRB-r19 INTEGER (0..maxNrofPhysicalResourceBlocks-1) OPTIONAL, -- Need R nrofPRBs-r19 INTEGER (1..maxNrofPhysicalResourceBlocks) OPTIONAL, -- Need R cli-RSSI-PeriodicityAndOffset-r19 CSI-ReportPeriodicityAndOffset OPTIONAL, -- Need RqclInfo-Periodic-CLI-RSSI-MeasurementResource-r19 TCI-StateId OPTIONAL, -- Need R ...} | Good catch, appreciated!  |
| CATT008 | ***qclInfo-Periodic-CLI-RSSI-MeasurementResource***Indicates a reference to one TCI-State in TCI-States for providing the QCL source and QCL type for a target periodic CLI-RSSI-MeasurementResource  | Indicates ~~a~~the reference to one TCI-State in TCI-States for providing the QCL source and QCL type for ~~a~~the target periodic CLI-RSSI-MeasurementResource | Both “a” are following RAN1 list, can check with RAN1.  |
| CATT009 | ***startSymbol***Indicates starting symbol of the *CLI-RSSI-MeasurementResource* within a slot | Indicates the starting symbol of the *CLI-RSSI-MeasurementResource* within a slot | OK |
| CATT010 | *CLI-RSSI-MeasurementResourceSet* information elementcli-RSSI-MeasurementResourceIdList-r19 SEQUENCE (SIZE (1..maxNrofCLI-RSSI-MeasurementResourcesPerSet-r19) ) OF CLI-RSSI-MeasurementResourceSetId  | cli-RSSI-MeasurementResourceIdList-r19 SEQUENCE (SIZE (1..maxNrofCLI-RSSI-MeasurementResourcesPerSet-r19) ) OF CLI-RSSI-MeasurementResource~~Set~~Id  | Good catch. |
| CATT011 | *CSI-ResourceConfig* information elementcli-RSSI-MeasurementResourceSetList CHOICE { | cli-RSSI-MeasurementResourceSetList-r19 CHOICE { |  |
| CATT012 | *CSI-MeasConfig* information elementCLI-RSSI-MeasurementResourceList-r19 ::= SEQUENCE (SIZE (1..maxNrofCLI-RSSI-MeasurementResources-r19)) OF CLI-RSSI-MeasurementResource-r19CLI-RSSI-MeasurementResourceSetList-r19 ::= SEQUENCE (SIZE (1..maxNrofCLI-RSSI-MeasurementResourceSets-r19)) OF CLI-RSSI-MeasurementResourceSet-r19SRS-RSRP-MeasurementResourceList-r19 ::= SEQUENCE (SIZE (1..maxNrofSRS-RSRP-MeasurementResources-r19)) OF SRS-RSRP-MeasurementResource-r19SRS-RSRP-MeasurementResourceSetList-r19 ::= SEQUENCE (SIZE (1..maxNrofSRS-RSRP-MeasurementResourceSets-r19)) OF SRS-RSRP-MeasurementResourceSet-r19 | These codes seems not necessary | Those are referred to by “cli-MeasResourceSetList” |
| CATT013 | *sbfd-Configuration2-PUSCH-RBoffset-r19*  | sbfd-Configuration2PUSCH-RB-offset-r19  | Same response as above |
| CATT014 | ***resourcesForChannelCLI***Configures CLI measurement resource set and the list of corresponding references to TCI-States. If the parameter *resourcesForChannelCLI* is configured, the following legacy parameters should not be configured or should be ignored:*resourcesForChannel,* *csi-IM-ResourcesForInterference,* *nzp-CSI-RS-ResourcesForInterference,**resourcesForChannel2-r17,**resourcesForChannelTDCP-r18,**applyIndicatedTCI-State-r18,**csi-ReportSubConfigTriggerList-r18.* | -r17 or –r18 will be removed in Field description | Will follow RAN1 Note. Those suffix can be used if specific fields are referred to.   |
| Samsung01 | General | The term “additional-ROs” or “SBFD RACH Occasion” should be aligned with RAN1 spec. Suggest to add EN or put under square bracket.Better to unified the term, to avoid mixed use of “additional-RO” and “SBFD RACH occasion”. | Now all are SBFD ROs. Note “RO” is used in 331 for RACH occasion.  |
| Samsung02 | RACH-ConfigCommonSBFD-r19 | The field (“preambleTransMaxRO-Type” in MAC running CR) for max number of preamble transmissions before RO type switching should be captured. | Will capture it after Proposal for RRC-3 is agreed.  |
| Samsung03 | RACH-ConfigCommonSBFD-r19 | Explicit NW signalling of RO type for CBRA is not captured. | Will capture it after Proposal for RRC-1 is agreed. |
| Samsung04 | RACH-ConfigCommonSBFD-r19 | sbfd-RSRP-ThresholdRO-Type and sbfd-RSRP-ThresholdRO-TypeUsage should be present together. Can consider add restriction in field description or cond presence. | See above. Will capture it after Proposal for RRC-1 is agreed.  |
| Samsung05 | CLI-RSSI-MeasurementResource | IE name of CLI-RSSI-MeasurementResource is captured as CLI-RSSI-MeasurementResource**Set**-r19. The “**Set**” should be removed here. |  |
| Samsung06 | CLI-RSSI-MeasurementResourceSet | cli-RSSI-MeasurementResourceIdList-r19 SEQUENCE (SIZE (1..maxNrofCLI-RSSI-MeasurementResourcesPerSet-r19) ) OF CLI-RSSI-MeasurementResource**~~Set~~**Id | Thanks, See response to CATT 007, 010 |
| Samsung07 | CSI-ReportConfig | We share same concern as Nokia, i.e., “The metrics cli-RSSI and cli-SRS-RSRP are not included as part of new reporting metrics within *CSI-ReportConfig* IE. ” considering the RAN1 agreement “For L1 UE-to-UE CLI measurement and reporting, support two additional report quantities {‘cli-RSSI’, ‘cli-SRS-RSRP’} to the higher layer parameter reportQuantity.”. Suggest to extend report quantity. | Add one EN on how to capture additional report quantities {‘cli-RSSI’, ‘cli-SRS-RSRP’} |
| Samsung08 | *ra-OccasionType* | “Indicates the RACH occasion type for CFRA, SBFD or non-SBFD, to be used **by** a SBFD capable UE.” | Corrected. |
| Charter | sbfd-Configuration2-Transmission-r19 | Agreed with Ericsson to use “Config” instead of Configuration and the word “Transmission” can be dropped as well. Just simply sbfd-Config2-r19. Same comment for the, just use Config. | Ok to use Config but will keep “Transmission” and “Reception” following RAN1 list. |
| Charter | sbfd-Configuration2-PUSCH-RBOffset-r19 | Same comment as above. |  |
| Charter | BeamFailureRecoveryConfig | Agreed with ZTE and Ericsson |  |
| Charter | sbfd-RSRP-ThresholdMsg1-RepetitionNum2, sbfd-RSRP-ThresholdMsg1-RepetitionNum4, sbfd-RSRP-ThresholdMsg1-RepetitionNum8Threshold used by the UE for determining whether to select resources indicating Msg1 repetition number 2, 4 or 8 within the additional-ROs. | We share the same view as CATT, the definition of additional-ROs should be included in the description. | See the corresponding Rapp response. |
| LGE010 | sbfd-RSRP-ThresholdRO-Type andsbfd-RSRP-ThresholdRO-TypeUsage | According to current MAC procedure, RO type is selected after the BWP operation and before the RACH partition selection. Therefore, unified RSRP threshold for RO type selection is sufficient for each BWP configuration, which is commonly applied for all RACH configuration within the BWP.There is no need to define separated RSRP threshold for each RACH configuration, since RACH configuration is selected **after** the RO type selection.Suggestion: move sbfd-RSRP-ThresholdRO-Type andsbfd-RSRP-ThresholdRO-TypeUsage to directly in BWP-UplinkCommon IE. | Fine |
| Samsung09 | sbfd-RSRP-ThresholdRO-Type andsbfd-RSRP-ThresholdRO-TypeUsage | Same suggestion as LGE010 above. |  |
| Rapp01 | Add one EN on how to capture additional report quantities {‘cli-RSSI’, ‘cli-SRS-RSRP’} |  | The additional report quantities {‘cli-RSSI’, ‘cli-SRS-RSRP’} are implemented in the latest version v05 and the related EN is removed. Note, name “srs-rsrp” is used instead of “cli-SRS-RSRP” in order to reuse/not-to-change the corresponding procedure texts. Similarly name “reportQuantityCLI” is used instead of “reportQuantity” in RAN1 list. |
| Rapp02 | Change-on-changes |  | In v05, The post 129bis changes are replaced to remove the change-on-changes.  |
| Rapp03 |  |  | Editorial/format corrections |
| Rapp04 |  |  | Revise Rapp response to Samsung04 |
| The below changes and comments are post RAN2 130 |
| Rapp05 |  | 1. Revise FD for sbfd-RACHDualConfig according to RAN1#121 agreement.
2. Adding RRC signaling to indicate (per BWP indication) RO type for CBRA sbfd-RO-Type according to meeting agreement.
3. revise FD/need code for sbfd-RSRP-ThresholdRO-TypeUsage according to meeting agreement.
4. move sbfd-RACH-SingleConfig-r19 to per BWP indication according to common understanding during online discussion and delete rach-ConfigCommonSBFD-r19 as no need.
5. Add preambleTransMaxSBFD according to meeting agreement.
6. alternative implementation of reportQuantity-r19 (CATT R2-2503424 TP1) , please comment/compare the two approaches: the current reportQuantityCLI-r19 and reportQuantity-r19.
7. add the missing field mimoParam-v19xy and its type (CATT 3424 TP2)
8. Revise cli-MeasResourceSetList-r19 in CSI-ResourceConfig (CATT 3424 TP3).
9. add cli-RSSI-MeasResourceToAddModList in CSI-MeasConfig (CATT 3424 TP4).
 |  |
| Rapp06 | In v01 version | 1. editorial changes on font style. 2. revise/shorten FD for sbfd-RSRP-ThresholdRO-TypeUsage . 3. change "SBFD capable UE" to "SBFD aware UE" as RAN1 TP to 38.300 provides reference of "SBFD aware UE".  |  |
| Rapp07 | In v02 version | Implement RAN1 parameters and revisions according to R1-2503243 |  |
| CATT001 | sbfd-Config2-Reception | 1. The field description needs to clarify what the configuration 1 and configuration2 are. Please refer to the RRC parameter list: “AgreementFor Configuration 1: The transmissions/receptions are restricted to SBFD symbols only or non-SBFD symbols only,” 2. Italic is not required here.  | 1. add (i.e., the transmissions/receptions are restricted to SBFD symbols only or non-SBFD symbols only). 2. corrected. |
| CATT002 | ul-subbandlocationAndBandwidth | -r19 is missed in the IE | added -r19 for all three fields |
| CATT003 | symbolType | What the configuration 1 and configuration2 mean are required here. Or please make sure it is clarified in the reference ‘see TS 38.214 [19], clause X ‘ | added reference. |
| CATT004 | FD of secondHopPRB-SBFD and startingPRB-SBFD | Italic is not required here.  | corrected |
|  | FD of p0AlphaSetforPUSCH-SBFD, p0AlphaSetforPUCCH-SBFD, p0AlphaSetforSRS-SBFD | Italic is not required here. | corrected |
| CATT005 | sbfd-Config2-PUSCH-RBOffset-r19 INTEGER(0..maxNrofPhysicalResourceBlocks) | maxNrofPhysicalResourceBlocks should be maxNrofPhysicalResourceBlocks-1 | shall follow RAN1 parameters list, unless revision is confirmed from RAN1. |
| CATT006 | FD of RACH-ConfigGeneric  | *sbfd-RACHDualConfig* should be *sbfd-RACH-DualConfig* | corrected |
| CATT007 | sbfd-RACH-DualConfig-ValidROacrossSymbolTypes | sbfd-RACH-DualConfig-ValidRO-acrossSymbolTypes | prefer not to add dash for the already very long name, confusion is unlikely even W/O dash. |
| CATT008 | FD of sbfd-RSRP-ThresholdMsg1-RepetitionNum2, sbfd-RSRP-ThresholdMsg1-RepetitionNum4, sbfd-RSRP-ThresholdMsg1-RepetitionNum8 | ‘within the SBFD ROs’ should be ‘within the additional ROs’ to align with RAN1 because SBFD RO also can be on the legacy symbol. | There is no definition of "additional ROs" in current 331 and 300 spec versions. Rapp understands additional ROs are SBFD ROs. Don't agree SBFD RO can on the legacy symbol.  |
| CATT009 | FD of sbfd-RACH-SingleConfig-preambleReceivedTargetPower | ‘PRACH transmission in SBFD ROs’ should be ‘PRACH transmission in additional ROs’ to align with RAN1. | see response for CATT008 |
| vivo001 | ***preambleTransMaxSBFD***Max number of RA preamble transmissions performed before switching to another RO type. | There will be R19 NES RO type, suggest to precisely describe what ‘another RO type’ is. As for other FDs, just to remind to carefully choose the wording. ‘additional RO’ may also refer to R19 NES RO. | revised to " another RO type (i.e., from SBFD ROs to non-SBFD ROs and vice versa)." |
| vivo002 | Description of *CSI-ResourceConfig* | Italic for SRS-RSRP-MeasResourceSet. | revised |
| vivo003 | FD of *ra-OccasionType* | If absent, indicate~~d~~s the non-SBFD RACH occasion type to be used | corrected |
| OPPO001 | In the “Reason for change” of the cover page | R1-2504994 is the CR for LP-WUS, not the LS for SBFD. | shall be 3242 and 3243. Thanks for catching it.  |
| OPPO002 | FD of ***sbfd-Config2-Reception*** | It seems that there is no definition/reference for “Configuration 1”. | see response to CATT001 |
| OPPO003 | FD of ***sbfd-Config2-Transmission*** | It seems that there is no definition/reference for “Configuration 1”. | added (i.e., the transmissions/receptions are restricted to SBFD symbols only or non-SBFD symbols only) |
| OPPO004 | FD of symbolType | After checking the RAN1 CR of TS 38.214, it seems that there is no definition of SBFD Configuration 1 or Configuration 2. | The definition of configuration 1 and configuration 2 can be found now with sbfd-Config2-Reception and sbfd-Config2-transmission. We can discuss further on whether to remove the reference here (may still be useful to explain "CG PUSCH for SBFD". We can also discuss further whether to add the definition of configuration 1/2 for symbolType as well instead of referring to sbfd-Config2-Reception and sbfd-Config2-transmission.  |
| Sony001 | sbfd-RO-Type-r19 ENUMERATED {sbfd, non-sbfd} in BWP-UplinkCommon | We understand the signalling details is still FFS. At RAN2#129, it was agreed:* For initial RA transmission, the network can indicate the RO type (legacy RO or additional RO) to the SBFD-aware UE for the case of CBRA. Detailed signalling is FFS.

At RAN2#130, it was agreed:* To use RRC signalling to indicate (per BWP indication) RO type for CBRA.

Hence, we do not think the current agreements explicitly give to use 1-bit like signalling (sbfd, non-sbfd).We think in the early deployment of the SBFD feature where number of SBFD-aware UEs are small, the network can mandate all SBFD-aware UEs to select the additional ROs more often compared to legacy non-SBFD ROs, at least in the first attempt. When the deployment of the SBFD feature is popular (i.e., a significant number of UEs supports the feature), the network can signal equal selection probability of additional RO and legacy RO for all SBFD-aware UEs, i.e., additional RO 50% and legacy RO 50%. And so on other load balancing potions.So, it is desirable to discuss the signalling details. | The RO type determination is currently done by 1-bit direct NT indication, or RSRP threshold based method, or UE implementation. Rapp understands most scenarios for R19 SBFD may be already covered and prefer to consider multi bits indication and probability based RO type determination as optimization. We can continue this topic in open issue discussion.  |
| ZTE001 | sbfd-RACH-SingleConfig-r19 | sbfd-RACH-SingleConfig-r19 should be placed under(inside) RACH-ConfigCommon, not under BWP, since option 1 and option 2 should be equal that each RACH-ConfigCommon in a BWP should be paired with option 1 choice (or option 2 choice) | According to RAN1 revised parameter list in R1-2503243, the indicator is Per Cell and In BWP-UplinkCommon |
| ZTE002 | startingPRB-SBFD-r19, secondHopPRB-SBFD-r19 | RAN1 has the following agreement:**Agreement**Support separate frequency configurations for SBFD symbols and non-SBFD symbols in the same *PUCCH-Resource*.* *pucch-ResourceId* is not separately configured for SBFD and non-SBFD symbols
* **Support separate configurations of *startingPRB* and *secondHopPRB* for SBFD symbols and non-SBFD symbols**
	+ Introduce new RRC parameters in *PUCCH-Resource* to configure starting PRB and second hop PRB for SBFD symbols
* FFS whether to support separate configurations of *intraSlotFrequencyHopping* for Configuration 1 or for both Configuration 1 and 2
* No change on the maximum number of PUCCH resources supported by a UE
* Above PUCCH resources with the same *pucch-ResourceId* is counted as 1 resource

**FFS: UE behaviour when no separate configuration is provided for SBFD symbols,** e.g. PUCCH transmissions in SBFD symbols for this *pucch-ResourceId* is not expected, **or configurations for non-SBFD symbols are applied for SBFD symbols** (in which case it is not expected that the configurations would lead to unexpected transmissions) etc.**Agreement**If starting PRB isnot configured for SBFD symbols for a PUCCH-Resource, **starting PRB configured for non-SBFD symbols for the PUCCH-Resource is used for PUCCH transmissions in SBFD symbols associated with this pucch-ResourceId**.So the *startingPRB-SBFD-r19* and *secondHopPRB-SBFD-r19* should be need S, and the FD of the *startingPRB-SBFD-r19* and *secondHopPRB-SBFD-r19* should add the agreement wording as bold font above | revised as suggested for both fields. Thanks.  |
| Samsung001 | *sbfd-Config2-Reception, PUCCH-CSI-ResourceExt-v19xy, etc.* | There are some IEs with field descriptions in italic and boldface, which should be corrected.  | corrected.  |
| Samsung002 | preambleTransMaxSBFD | Recommend to align the term with latest MAC running CR. During last round of CR review, the term preambleTransMaxSBFD is changed to preambleTransMaxRO-Type, triggered by a comment that the previous version reads like the SBFD version of preambleTransMax (max retx before declaring failure with SBFD RO), and hence, was revised to emphasize “RO-Type change”.  | changed to preambleTransMaxRO-Type |
| Samsung003 | ***sbfd-RACH-SingleConfig******sbfd-RACH-DualConfig*** | In RAN1 running CR, the term “RACH configuration Option X” is not used. Instead, the IE name, sbfd-RACH-SingleConfig/DualConfig is referred, if needed, to indicate respective options. So, RRC also needs to avoid using “RACH configuration Option X” in field descriptions. | For both fields, removed "option1" and "option2". Need to check further between RAN1 spec and RAN2 spec to avoid circular reference.  |
| Samsung004 | ***SBFD RO, non-SBFD RO*** | In RAN1 running CR (38.213, clause 8), they use “first PRACH occasions” and “second PRACH occasions”, to indicate the legacy and additional ROs. Suggest to align the terms with RAN1. | For RAN2 spec, the PHY layer terms first/second PRACHs could be vague. Rapp prefers to keep (non) SBFD ROs unless critical issues are found.  |
| Samsung005 | ***msg3-Alpha-sbfd*** | For the case that the field is absent, should reflect the following RAN1(#121) agreement:“when separate msg3-Alpha for Msg3 PUSCH transmission on SBFD symbols is not configured, msg3-Alpha configured for Msg3 PUSCH transmission on non-SBFD symbols is used if Msg3 PUSCH transmission is transmitted on SBFD symbols.” | revised. Thanks.  |
| IDC001 | ***Uplink-powerControl*** | ‘Ext’ is missing in ‘Uplink-powerControl-v19xy’, so it should be simply updated to ‘Uplink-powerControl**Ext**-v19xy’ (similarly to other cases we already had). Otherwise, this new parameter has currently no linkage to any TCI-state, not aligned with the following RAN1 agreement. In short, each TCI-state ID can call a ‘ul-powercontrolID-r17’ which links to both the first PC set by ‘Uplink-powerControl-r17’ (for non-SBFD symbols) and the second PC set by ‘Uplink-powerControl**Ext**-v19xy’ (for SBFD symbols), reflecting correctly the agreement below.**Agreement(@RAN1#119)**For a single TRP scenario, for separate UL power control for PUSCH/PUCCH/SRS transmissions in SBFD symbols and non-SBFD symbols based on unified TCI state framework, * Option 2: Same unified TCI state is associated with separate UL power control parameters for SBFD symbols and non-SBFD symbols
	+ New *P0AlphaSet*s are introduced in *Uplink-powerControl* for SBFD symbols for PUSCH, PUCCH and SRS respectively
 | revised as suggested, thanks.  |
| QC001 | sbfd-RACH-SingleConfig-r19sbfd-RACH-DualConfig-r19  | Agree the change by rapp to place these two parameters per BWP indication (under the BWP-UplinkCommon) which is also aligned with the RAN1 RRC parameter list However, RAN1/RAN2 has agreed that only one RACH configuration option (i.e., either RACH configuration Option 1 or RACH configuration Option 2) is supported in a cell. So, the CHOICE structure should be used here to make sure only one of them can be included at one time. sbfd-RACH-Config-r19 CHOICE { sbfd-RACH-SingleConfig NULL,  sbfd-RACH-DualConfig SBFD-RACH-DualConfig-r19 } OPTIONAL -- Need R Add the sbfd-RACH-DualConfig-r19 under the AdditionalRACH-Config-r17 should use conditional code.AdditionalRACH-Config-r17 ::= SEQUENCE { rach-ConfigCommon-r17 RACH-ConfigCommon OPTIONAL, -- Need R msgA-ConfigCommon-r17 MsgA-ConfigCommon-r16 OPTIONAL, -- Need R ...[[sbfd-RACH-DualConfig-r19 SBFD-RACH-DualConfig-r19 OPTIONAL -- Cond NoSingleConfig ]]}The description of conditional code could be

|  |  |
| --- | --- |
| *NoSingleConfig* | This field is optionally present, Need R, if *sbfd-RACH-Config* in *BWP-UplinkCommon* is set to *sbfd-RACH-DualConfig*. It is absent otherwise. |

 | OK to adopt the CHOICE structure, considering multiple companies prefer this alternative.  |
| QC002 | AdditionalRACH-Config-r17 | Comma is missing.AdditionalRACH-Config-r17 ::= SEQUENCE { rach-ConfigCommon-r17 RACH-ConfigCommon OPTIONAL, -- Need R msgA-ConfigCommon-r17 MsgA-ConfigCommon-r16 OPTIONAL, -- Need R ..., | added |
| ZTE003 | FD of sbfd-StartingSymbolIndex, sbfd-EndingSymbolIndex | The SBFD ending symbol index should be within SBFD ending slot, not within the starting slot. RAN1’s parameter list is wrongly captured. See the correct RAN1 agreement below:**RAN1#118 Agreement**For configuration of SBFD symbols within a TDD-UL-DL pattern period, the following parameters are supported* A starting slot index
* A starting symbol index within the starting slot
* An ending slot index
* An ending symbol index within the ending slot
 | will check with RAN1 rapp.  |
| LGE001 | sbfd-RACH-SingleConfig-r19 in BWP-UplinkCommon | Regarding ZTE001, understand that current running CR is based on RAN1 parameter list. However, for company’s but it would be better to indicate whether RACH configuration per RACH-ConfigCommon for better flexibility. Suggest to keep the Editor’s note to further discuss in next meeting. | Rapp doubts that one EN is needed. We may check companies view in the open issue discussion.  |
| LGE002 | sbfd-RACH-SingleConfig-r19sbfd-RACH-DualConfig-r19 | Regarding QC001, agree that it would be better to specify in Stage-3 spec for this agreement, not only in Stage-2 level.* Only one RACH configuration option (i.e., either RACH configuration Option 1 with Alt 1-1 or RACH configuration Option 2) is supported in a cell.

Maybe it can be further discuss how to specify this restriction, e.g., in field description, conditional presence, and/or IE structure.  | revised as QC suggested as it is not straightforward on which FD this restriction is to be added.  |
| LGE003 | rsrp-ThresholdSSB-SUL | In RAN1#121 meeting, following is agreedAgreementFor RACH configuration Option 2, all parameters in *rach-ConfigCommon* except for *rsrp-ThresholdSSB-SUL* can be included in the additional RACH configuration, i.e., *sbfd-RACHDualConfig*.In order to implement this agreement (i.e., not configuring rsrp-ThresholdSSB-SUL in sbfd-RACHDualConfig IE), following change seems needed in conditional presence of rsrp-ThresholdSSB-SUL

|  |  |
| --- | --- |
| Conditional Presence | Explanation |
| *SUL* | The field is mandatory present in *rach-ConfigCommon* in *initialUplinkBWP* if *supplementaryUplink* is configured in *ServingCellConfigCommonSIB* or if *supplementaryUplinkConfig* is configured in *ServingCellConfigCommon*; otherwise, the field is absent. This field is not configured in *additionalRACH-Config* or in *sbfd-RACHDualConfig*. |

 | revised as suggested on condition "SUL". |
| Rapp08 | msg1-FrequencyStart-v19xy | According to RAN1 rapp, only FD of existing *msg1-FrequencyStart* to be modified, no new -v19xy is needed.  | Removed msg1-FrequencyStart-v19xy |
| Rapp09 | regarding ZTE003 on sbfd-EndingSymbolIndex | Based on feedback from RAN1 rapporteur, it was wrongly captured in the parameters list.  | Revised FD of sbfd-EndingSymbolIndex according to the RAN1 meeting agreement.  |
| Below changes implemented in v06 version |
| Rapp10 | cover sheet meeting title, FD of msg3-Alpha-sbfd | "May"->"August", "on (non)SBFD symbols"->"in (non)SBFD symbols" |  |
| Rapp11 | SBFD RO, non-SBFD RO | RAN1 defined first/second RO instead of non-SBFD RO/SBFD RO | To be aligned with RAN1, replace non-SBFD RO/SBFD RO with first/second RO and refer to 38.213 clause 8 for their definitions.  |
| Rapp12 | SBFD Configuration 1, SBFD Configuration 2 | RAN1 no longer uses these terms in their running CR for SBFD | to use definition directly, i.e., SBFD Configuration 2-> can be in SBFD symbols and non-SBFD symbols in different slots, SBFD Configuration 1-> the transmissions/receptions are restricted to SBFD symbols only or non-SBFD symbols only |
| Rapp13 | SBFD RACH configuration Option1/2 | RAN1 no longer uses these terms in their running CR for SBFD | SBFD RACH Config Option1-> when sbfd-RACH-SingleConfig is configured; SBFD RACH Config Option2-> when sbfd-RACH-DualConfig is configured. |
| Xiaomi001 | IE SRS-RSRP-MeasResource | In the definition below, SRS-RSRP-MeasResourceSet-r19 should be SRS-RSRP-MeasResource-r19.SRS-RSRP-MeasResource~~Set~~-r19 ::= SEQUENCE { srs-RSRP-MeasResourceId-r19 SRS-RSRP-MeasResourceId-r19 OPTIONAL, -- Need R |  |
| Xiaomi002 | IE SRS-RSRP-MeasResourceSet | In the definition below, the last *SRS-RSRP-MeasResourceSetId-r19* should be *SRS-RSRP-MeasResourceId-r19*.SRS-RSRP-MeasResourceSet-r19 ::= SEQUENCE { aperiodicTriggeringOffset-r19 INTEGER (1..31) OPTIONAL, -- Need R srs-RSRP-MeasResourceSetId-r19 SRS-RSRP-MeasResourceSetId-r19 OPTIONAL, -- Need R srs-RSRP-MeasResourceIdList-r19 SEQUENCE (SIZE (1..maxNrofSRS-RSRP-MeasResourcesPerSet-r19) ) OF SRS-RSRP-MeasResource~~Set~~Id-r19 |  |
| Xiaomi003 | Field description for sbfd-Config2-Reception | [Editorial] For the sentence “the receptions are restricted to SBFD symbols only or non-SBFD symbols only is applied for PDSCH receptions in the given DL BWP”, there are two verbs “are restricted” and “is applied”. Grammar wise, wording similar to sbfd-Config2-Transmission can be used, e.g. “the restriction that the receptions are restricted to SBFD symbols only or non-SBFD symbols only is applied for PDSCH receptions in the given DL BWP”. |  |
| Xiaomi004 | Field description for sbfd-Config2-Transmission | Editorial: space is needed between period and if in “.If not enabled” |  |
| Xiaomi005 | IE RACH-ConfigDedicated | Suggest to change “SBFD” to “sbfd” below as enumerated value starts with lower case.ra-OccasionType-r19 ENUMERATED {SBFD} |  |
| Xiaomi006 | IE SchedulingRequestResourceConfigExt-v19xy, field description for symbolType | Editorial:For the last part: “UL BWP. (see TS 38.214 [19], clause X)”, suggest to change to “UL BWP (see TS 38.214 [19], clause X).” |  |
| Ericsson001 | ***ra-OccasionType***Indicates the second PRACH occasions or CFRA to be used by a SBFD aware UE | Typo“Or”🡪 “of” |  |
| Ericsson002 | ***sbfd-Config2-Reception***Indicates that the PDSCH receptions can be in SBFD symbols and non-SBFD symbols in different slots for the dedicated DL BWP, as specified in TS 38.214 [19], clause X. If not enabled, the receptions are restricted to SBFD symbols only or non-SBFD symbols only is applied for PDSCH receptions in the given DL BWP. | the first half of this sentence says ”dedicated DL BWP”. Suggest to use ”given DL BWP” according to RAN1 LS.Suggest to reword this sentence as ”if absent, the PDSCH reception are restricted to SBFD symbols only or non-SBFD symbols only in the given DL BWP” |  |
| Ericsson003 | Used to configure dual RACH configurations and configure random access parameters in SBFD symbols by setting up one additional RACH configuration and can include all parameters in *rach-ConfigCommon* except *rsrp-ThresholdSSB-SUL*, see RACH configuration for SBFD random access operation in clause x in TS 38.211 [16] and clause y in TS 38.213 [13]. | This sentence seems confusing, this is used to configure an additional RACH configuration in SBFD symbols. ”configure dual RACH configurations” can be removed.Not sure if “and can include all parameters in *rach-ConfigCommon* except *rsrp-ThresholdSSB-SUL*” has been agreed? Otherwise, it needs to be removed |  |
| Ericsson004 | ***sbfd-RSRP-ThresholdRO-Type, sbfd-RSRP-ThresholdRO-TypeUsage*** | We need to specify in FD that: this parameter is used by the UE to determine the RO type for the initial PRACH preamble transmissions. |  |
| Ericsson005 | ***sbfd-RSRP-ThresholdRO-TypeUsage***Indicate how the SBFD aware UE chooses RACH occasion type using sbfd-*RSRP*-ThresholdRO-Type and is always configured together with *sbfd-RSRP-ThresholdRO-Type.* With value *above*, the SBFD aware UE chooses the second PRACH occasions if the measured downlink pathloss reference RSRP is above *sbfd-RSRP-ThresholdRO-Type* and chooses the second PRACH occasions | “the second PRACH occasions” highlighted should be updated as “first” |  |