

CLAIM CHART FOR [EP/US] PATENT NO. [XXXXXXXX B2] vs* TS [XX.XXX] v[X.X.X] & TS [XX.XX] v[X.X.X]**

*Guidelines: *The claims are mapped versus the most recent TS version identified in the ISLD. For non-mappable characteristics: check other TS of the same technology generation. If still non-mappable, check the latest published TS version (post/published after the corresponding ISLD). **Please list TS numbers of corresponding ISLD or TS numbers used for mapping. If no version is mentioned in ISLD, please take the latest TS version.*

[Patent Nbr]	Logical element	Standard Number vs Version Number (e.g. TS [XX.XXX] v [XX.X.X] & TS [XX.XXX] v [XX.X.X])	Researcher's Comments
Independent Claim Number [1]			
[Example: 1.1 Preamble]	[Example: A method of facilitating a cell search process in a wireless communication network that transmits Primary Synchronization Signals, P-SySs]	<p>5.2.5.3 <u>Cell search</u></p> <div style="border: 1px solid black; padding: 5px;"> <p>Cell search is the procedure by which a UE acquires time and frequency synchronization with a cell and detects the Cell ID of that cell. NR cell search is based on the primary and secondary synchronization signals, and PBCH DMRS.</p> </div> <p>[Example : Source: TS 38.300 v15.0.0 (Page 19, Section 5.2.5.3)]</p>	<p>[Example: The standard discloses a method of facilitating a cell search process in a wireless communication network (i.e. NR network) that transmits Primary Synchronization Signals, P-SySs (i.e. PSS), allowing user equipment to synchronize with the symbol timing of cells, transmits Secondary Synchronization Signals, S-SySs (i.e. SSS), allowing user equipment to synchronize with the frame timing of cells, and transmits reference signals (i.e. Demodulation reference signal, DMRS) allowing user equipment to detect cell identities. PSS and SSS both are specific physical layer signal that are used for radio frame synchronization. PSS is used to acquire symbol timing of a downlink frame.]</p> <p>[Example: PSS and SSS both are specific physical layer signal that are used for radio frame synchronization. PSS is used to acquire symbol timing of a downlink frame.]</p>

5.2.4 Synchronization signal and PBCH

The synchronization signal and PBCH block consists of primary and secondary synchronization signals (PSS, SSS), each occupying 1 symbol and 127 subcarriers, and PBCH spanning across 3 OFDM symbols and 240 subcarriers, but on one symbol leaving an unused part in the middle for SSS as show in figure 5.2.4-1. The periodicity of the SS/PBCH block can be configured by the network and the time locations where SS/PBCH block can be sent are determined by sub-carrier spacing.

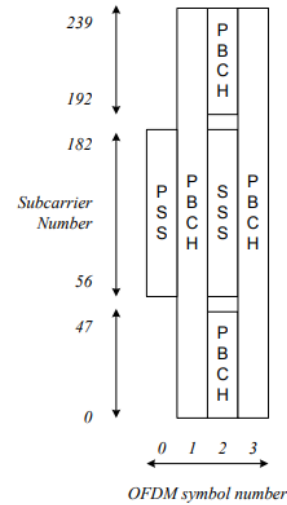


Figure 5.2.4-1: Time-frequency structure of the synchronization signal and PBCH block

Polar coding is used for PBCH.

The UE may assume a band-specific sub-carrier spacing for the SS/PBCH block unless a network has configured the UE to assume a different sub-carrier spacing.

PBCH symbols carry its own frequency-multiplexed DMRS.

[Example : Source: TS 38.300 v15.0.0 (Page 19, Section 5.2.4)]

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[Source: TS [] (Page [], Section [])]

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1.3	<i>[XXXXXXXXXXXXXXXXXXXX]</i>	<i>[Copy/Screenshot of TS] [Source: TS [] (Page [], Section [])]</i>	<i>[XXXXXXXXXXXXXXXXXXXX]</i>
1.4	<i>[XXXXXXXXXXXXXXXXXXXX]</i>	<i>[Copy/Screenshot of TS] [Source: TS [] (Page [], Section [])]</i>	<i>[XXXXXXXXXXXXXXXXXXXX]</i>
Independent Claim Number [5]			
[Example: 5.1 Preamble]	<i>[XXXXXXXXXXXXXXXXXXXX]</i>	<i>[Copy/Screenshot of TS] [Source: TS [] (Page [], Section [])]</i>	<i>[XXXXXXXXXXXXXXXXXXXX]</i>
[5.2]	<i>[XXXXXXXXXXXXXXXXXXXX]</i>	<i>[Copy/Screenshot of TS] [Source: TS [] (Page [], Section [])]</i>	<i>[XXXXXXXXXXXXXXXXXXXX]</i>
[5.3]	<i>[XXXXXXXXXXXXXXXXXXXX]</i>	<i>[Copy/Screenshot of TS] [Source: TS [] (Page [], Section [])]</i>	<i>[XXXXXXXXXXXXXXXXXXXX]</i>