

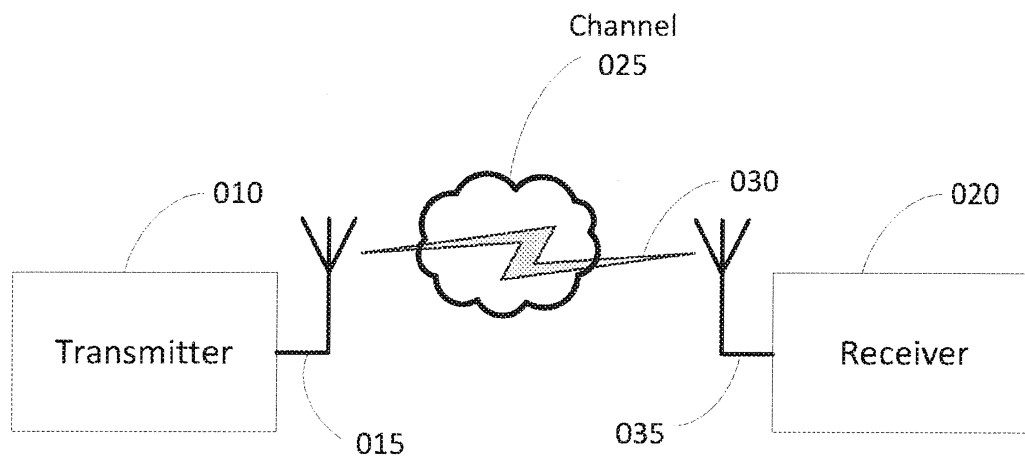


Figure-1a
(Prior Art)

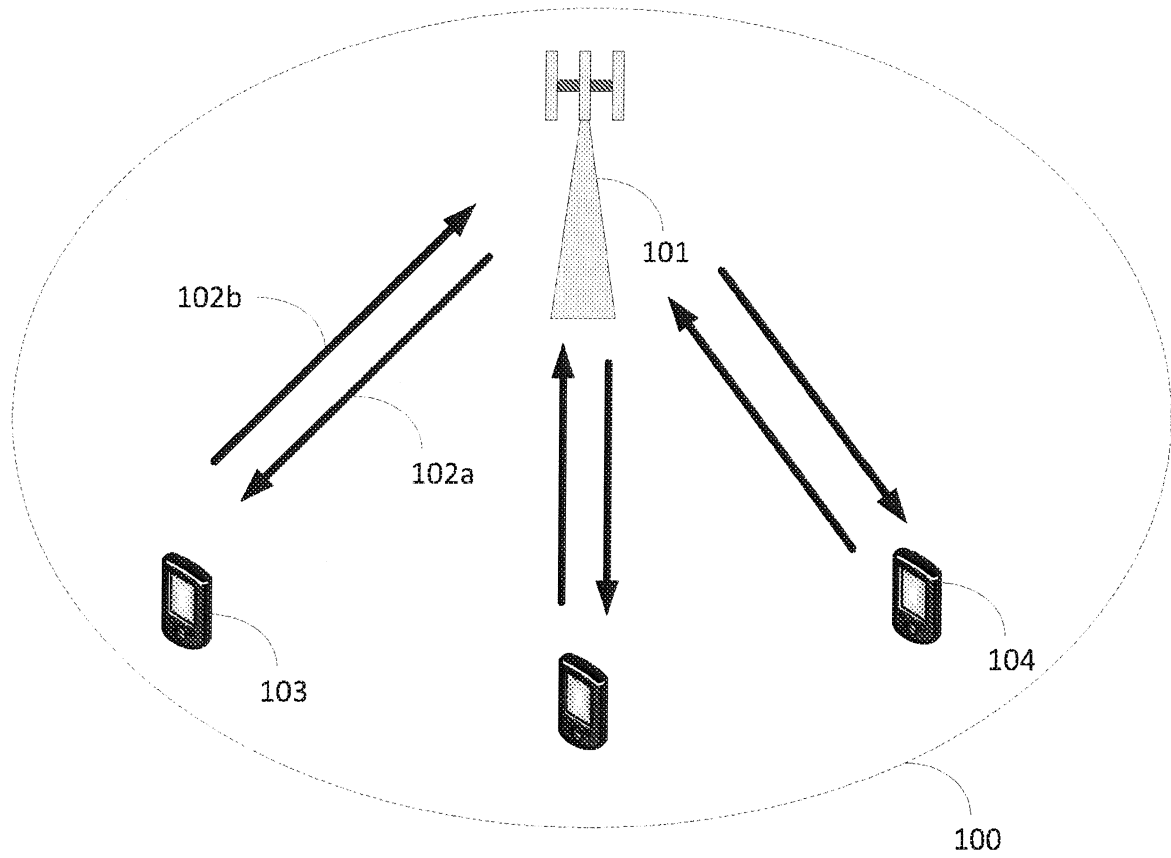


Figure-1b (Prior Art)

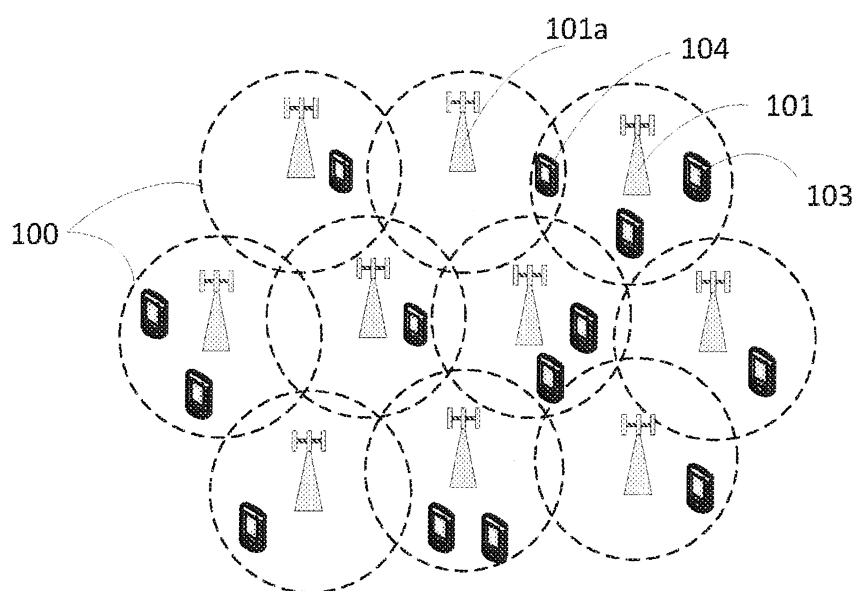
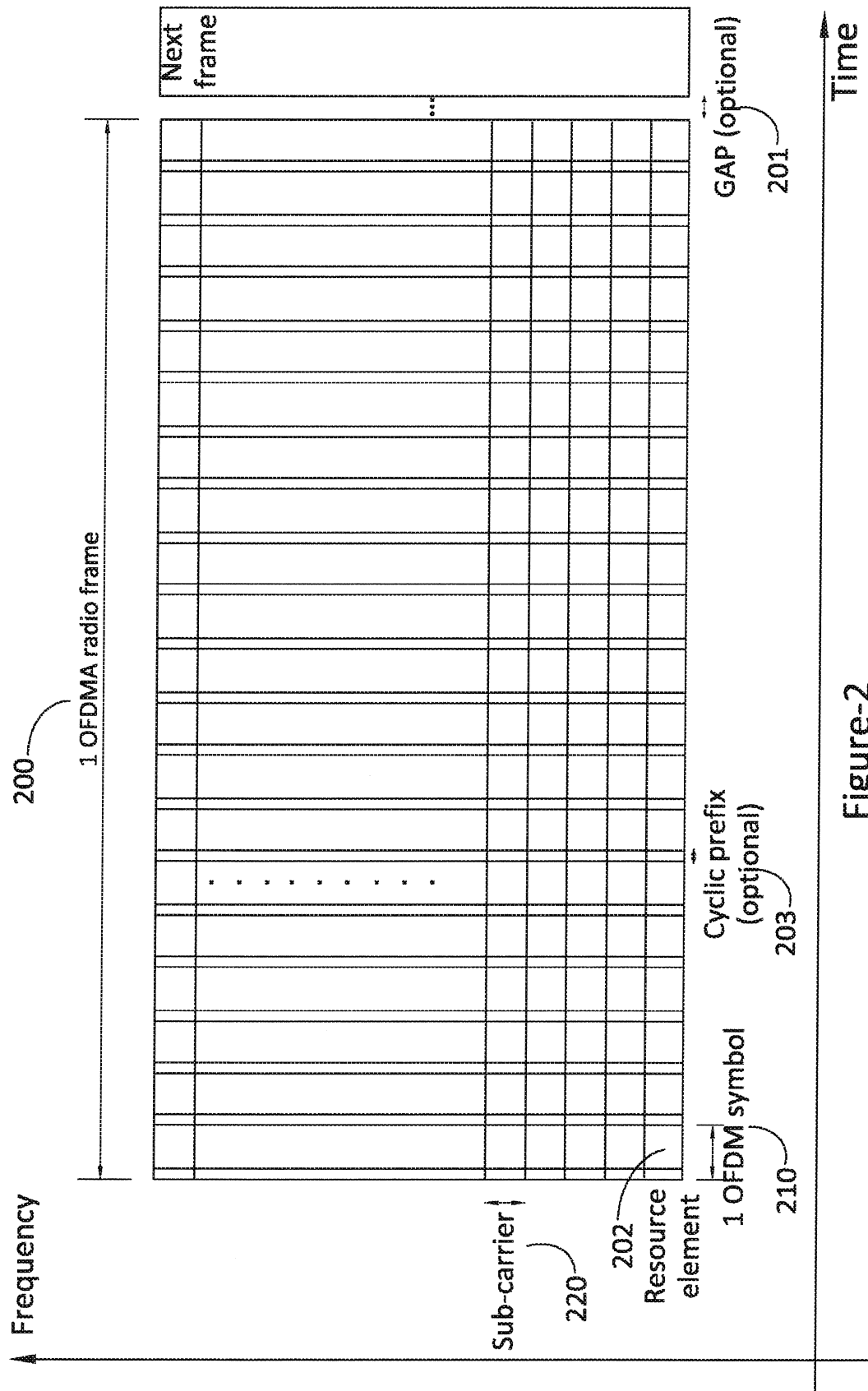
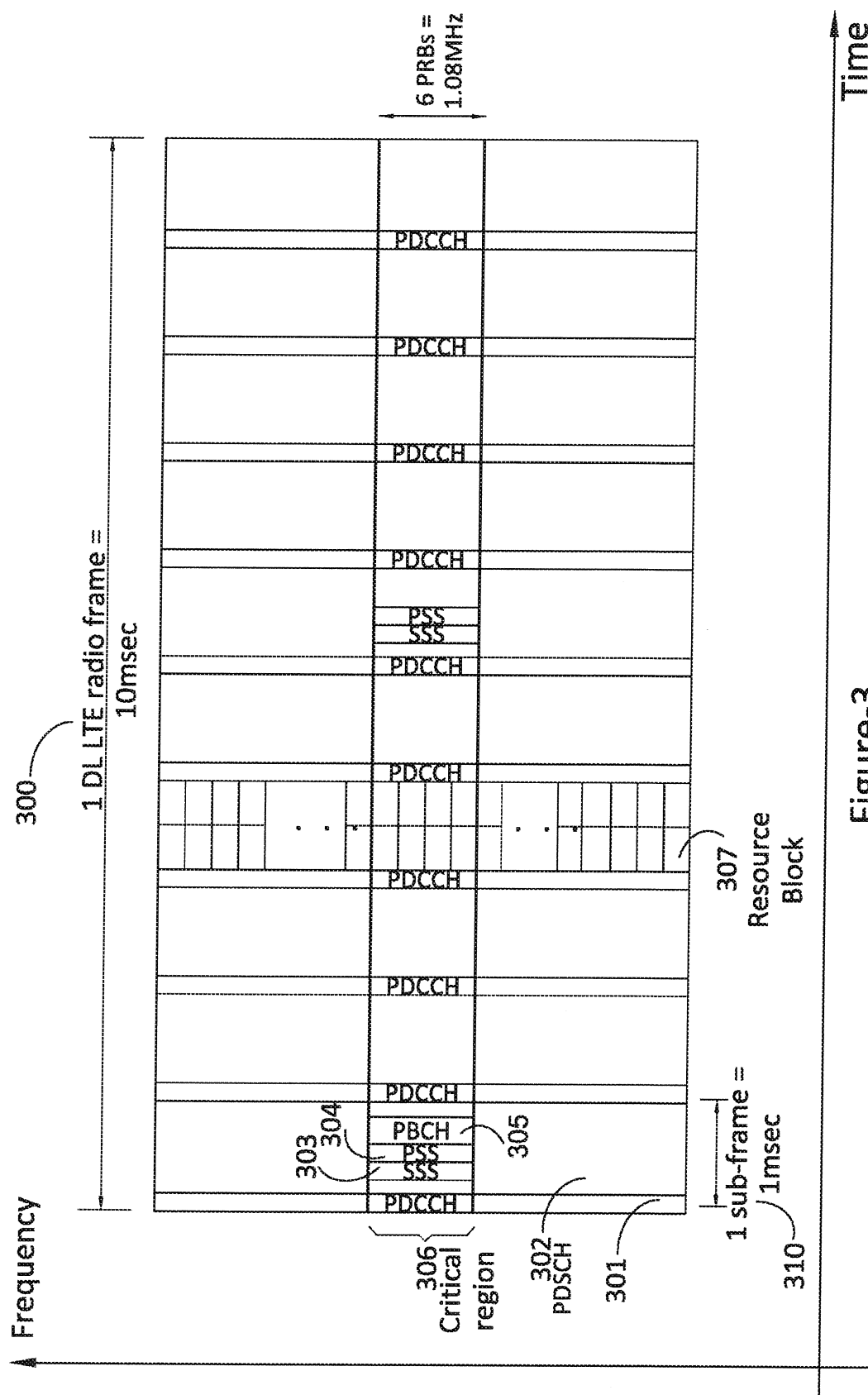
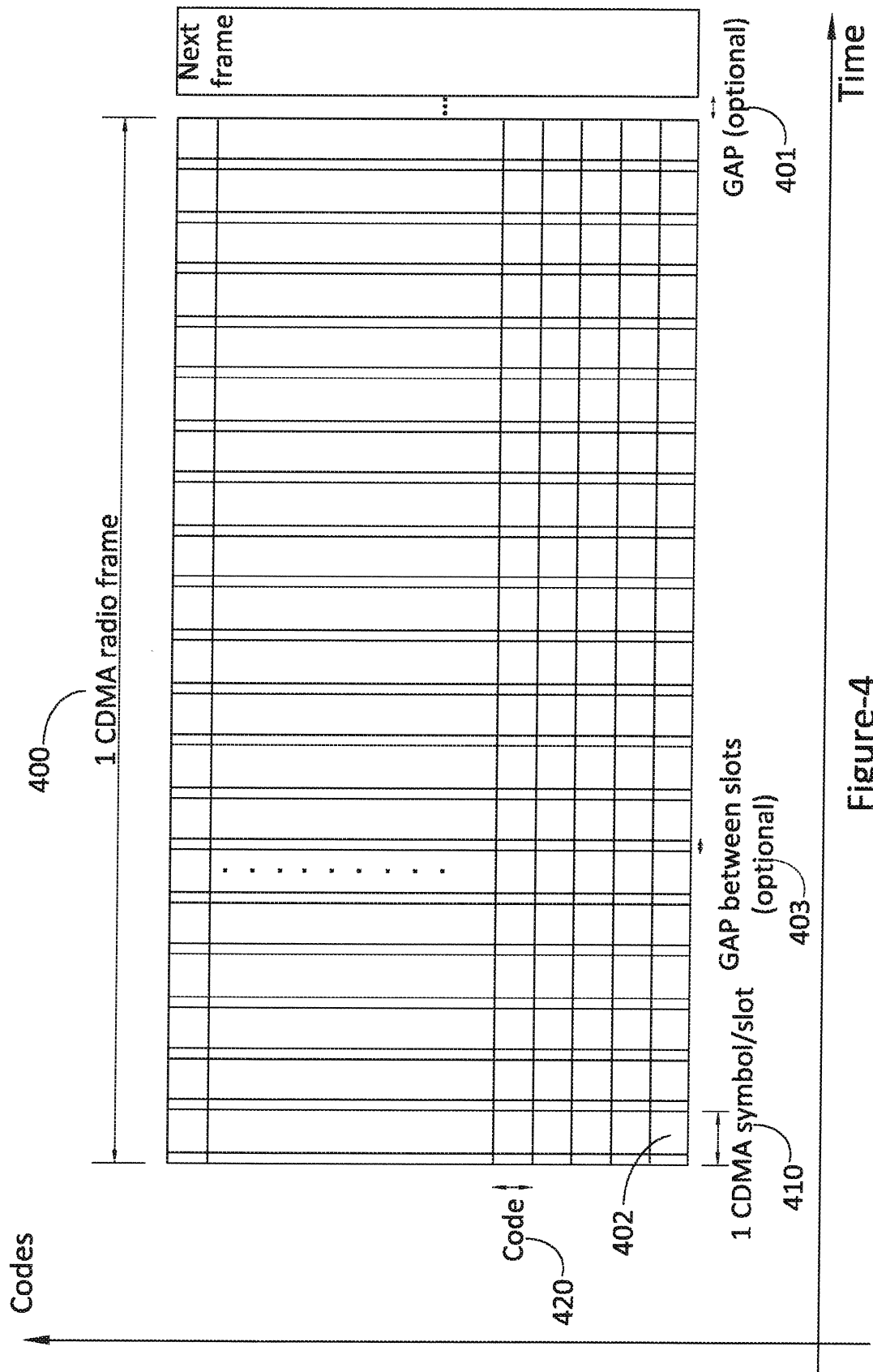


Figure-1c (Prior art)







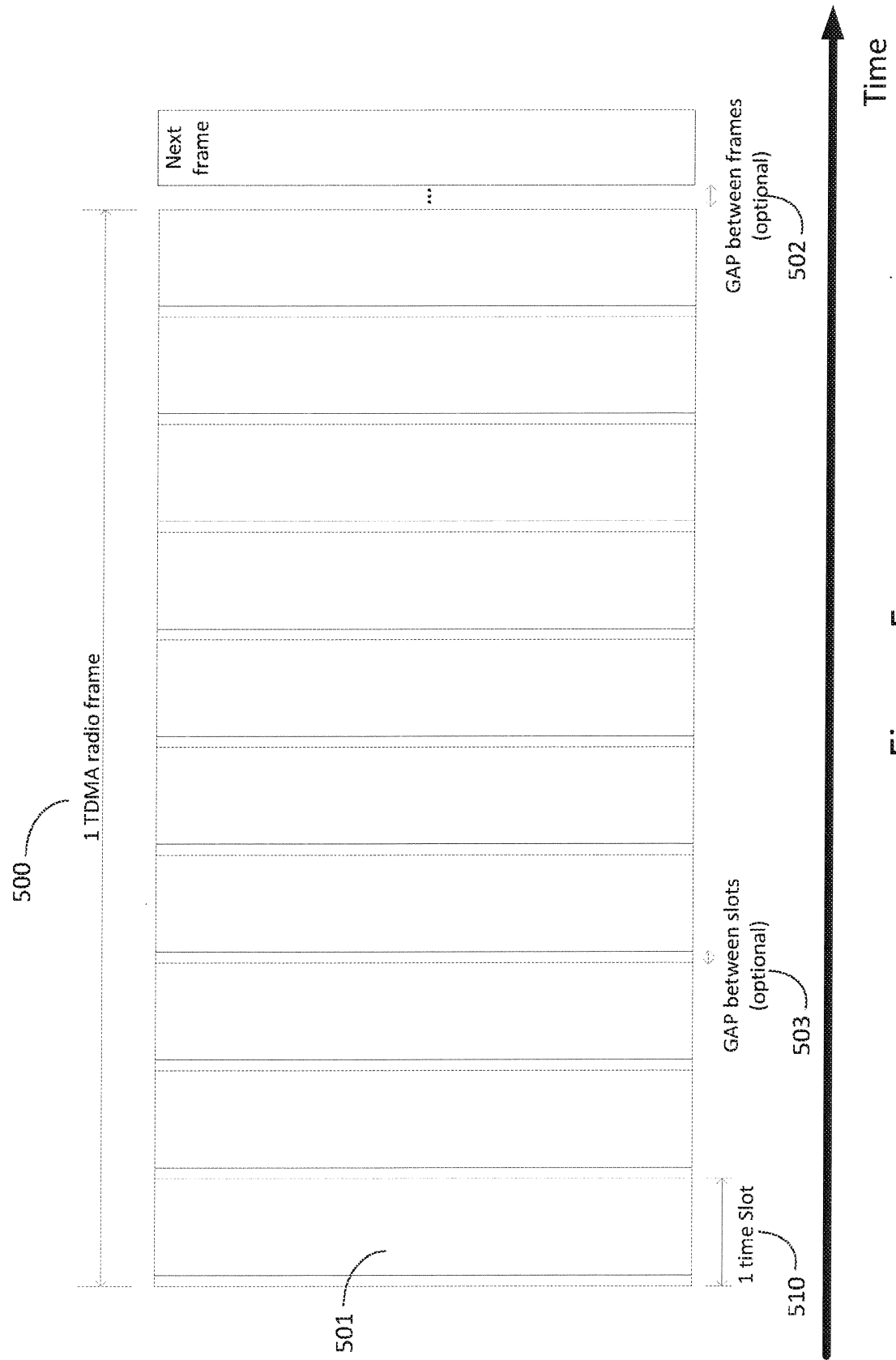


Figure-5

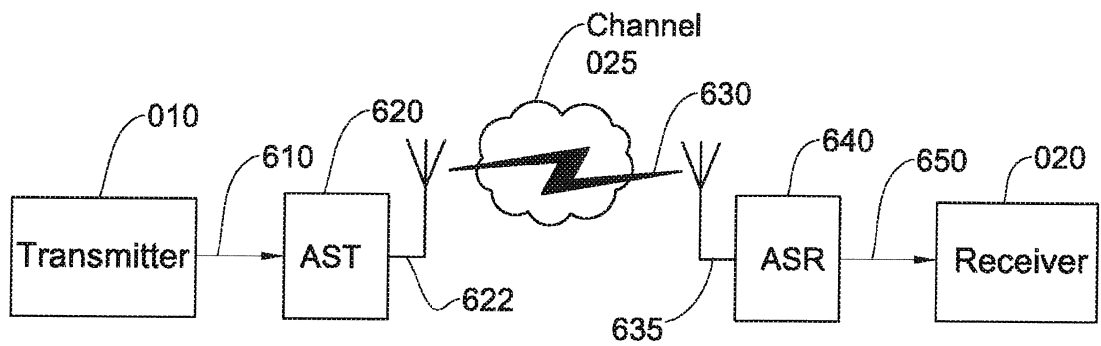


Figure-6a

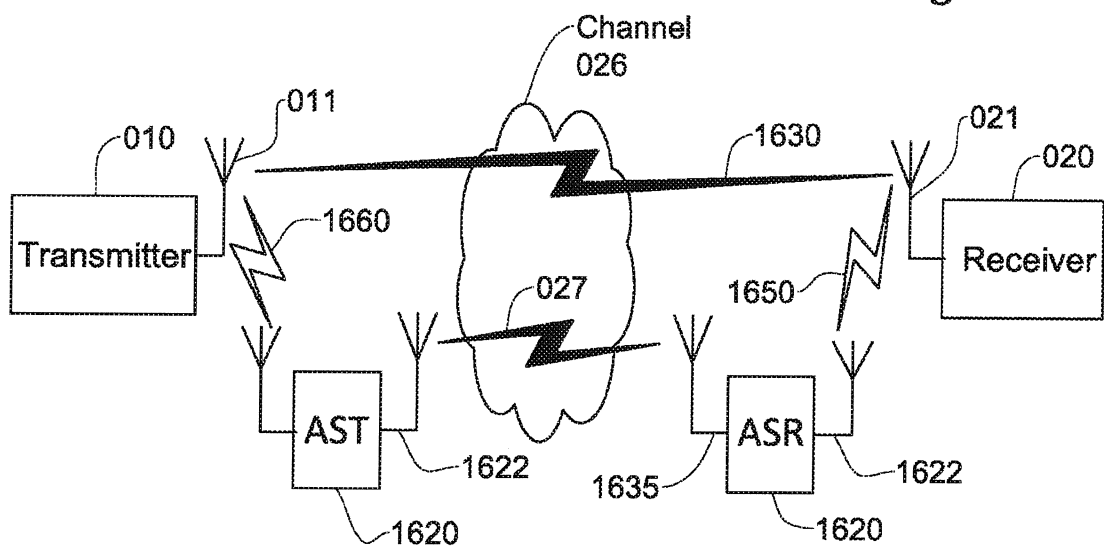


Figure-6b

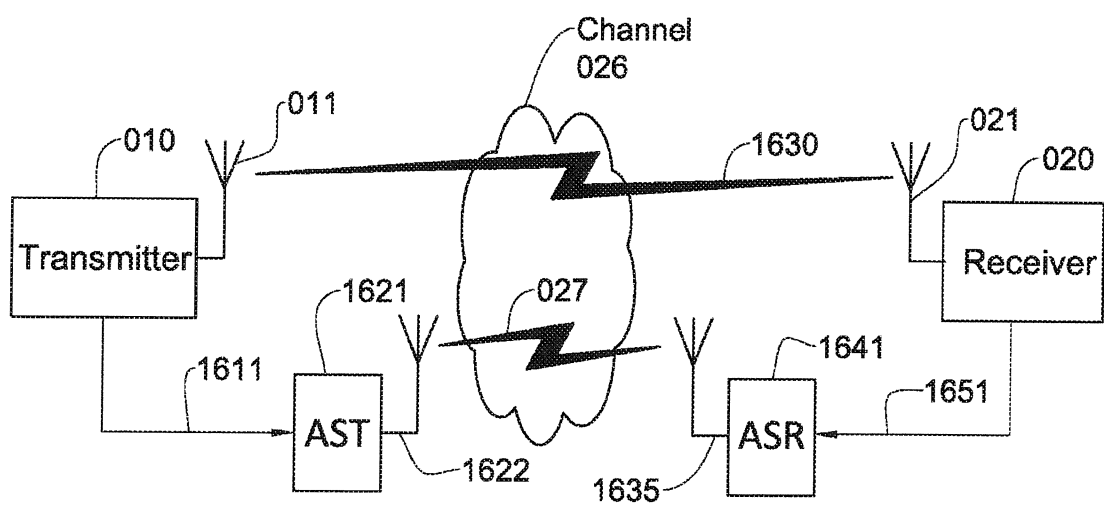
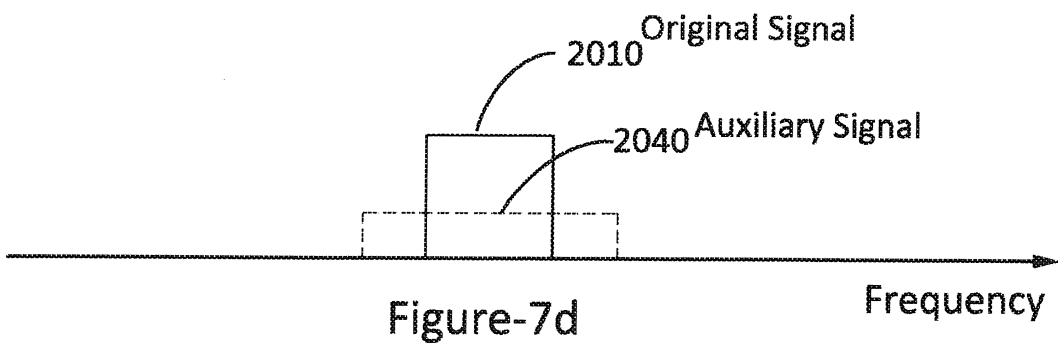
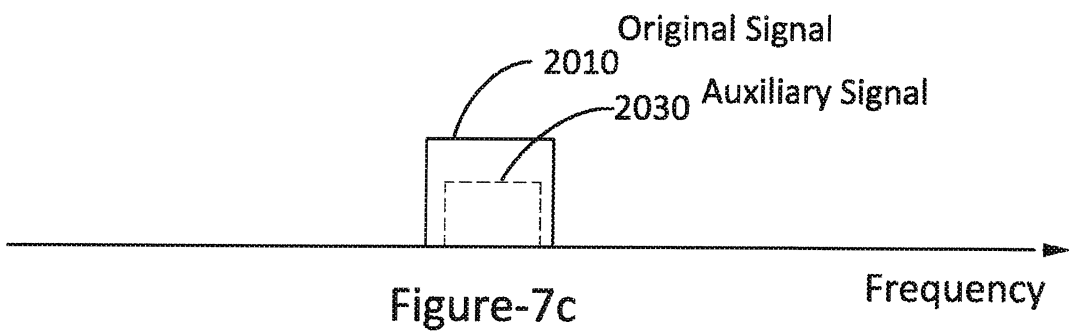
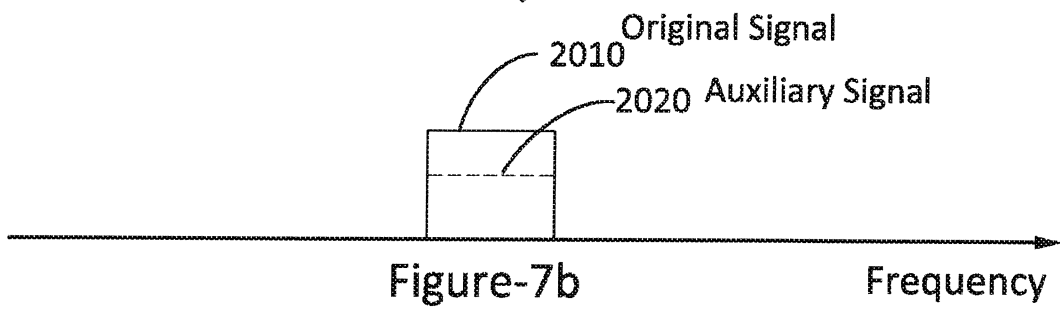
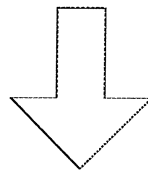
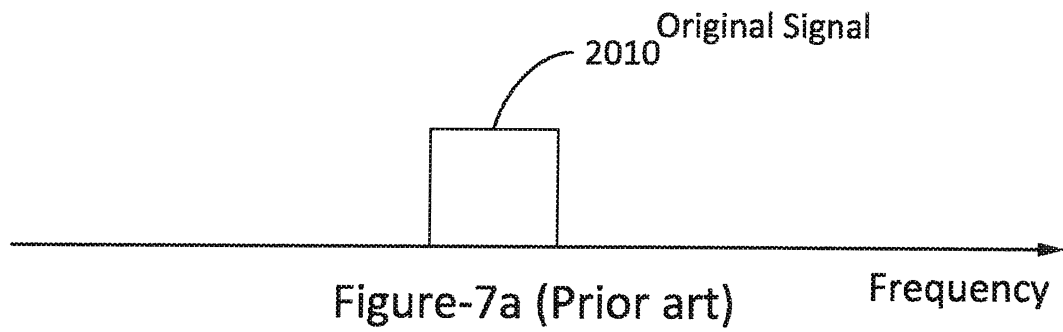


Figure-6c



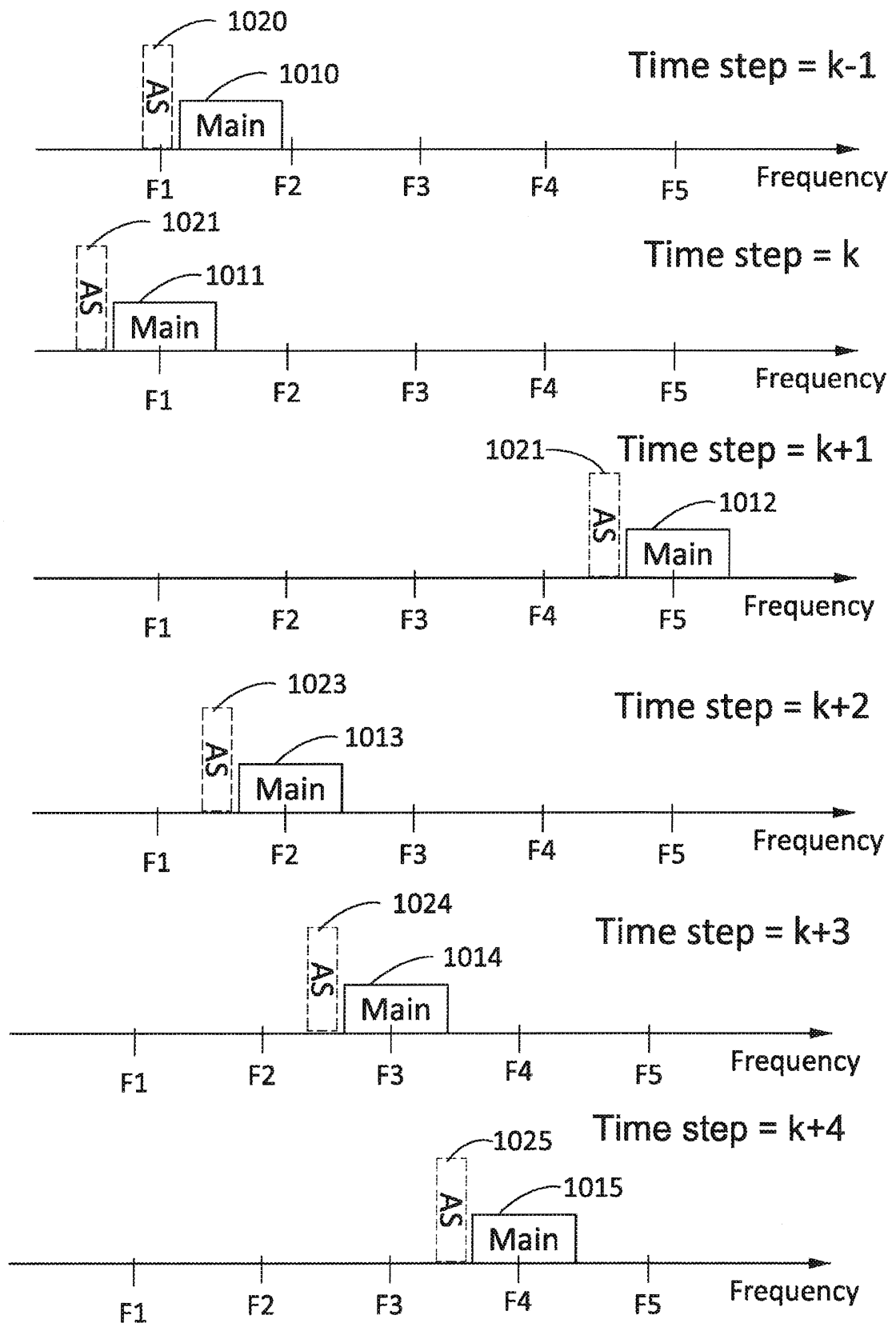


Figure-8

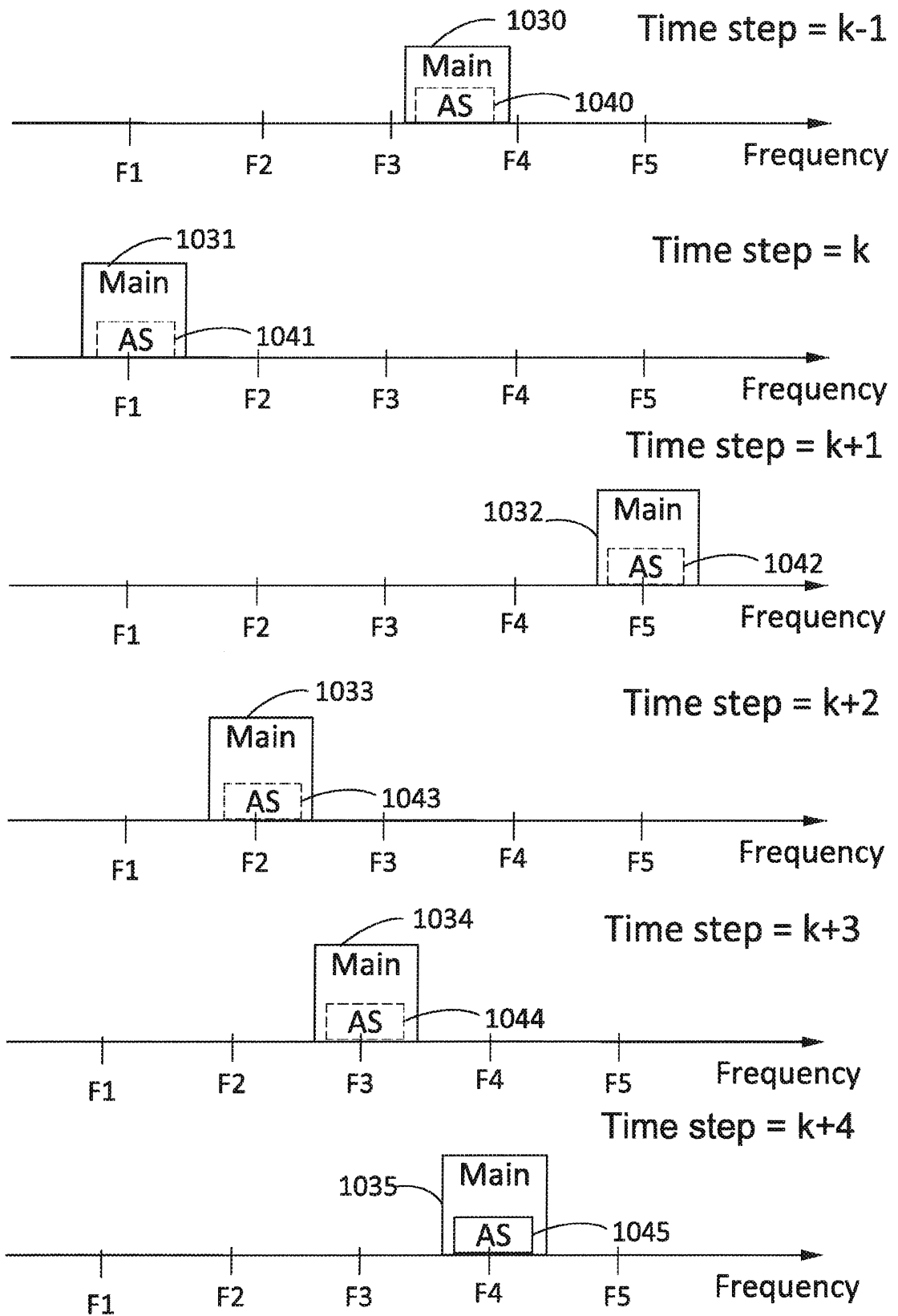


Figure-9

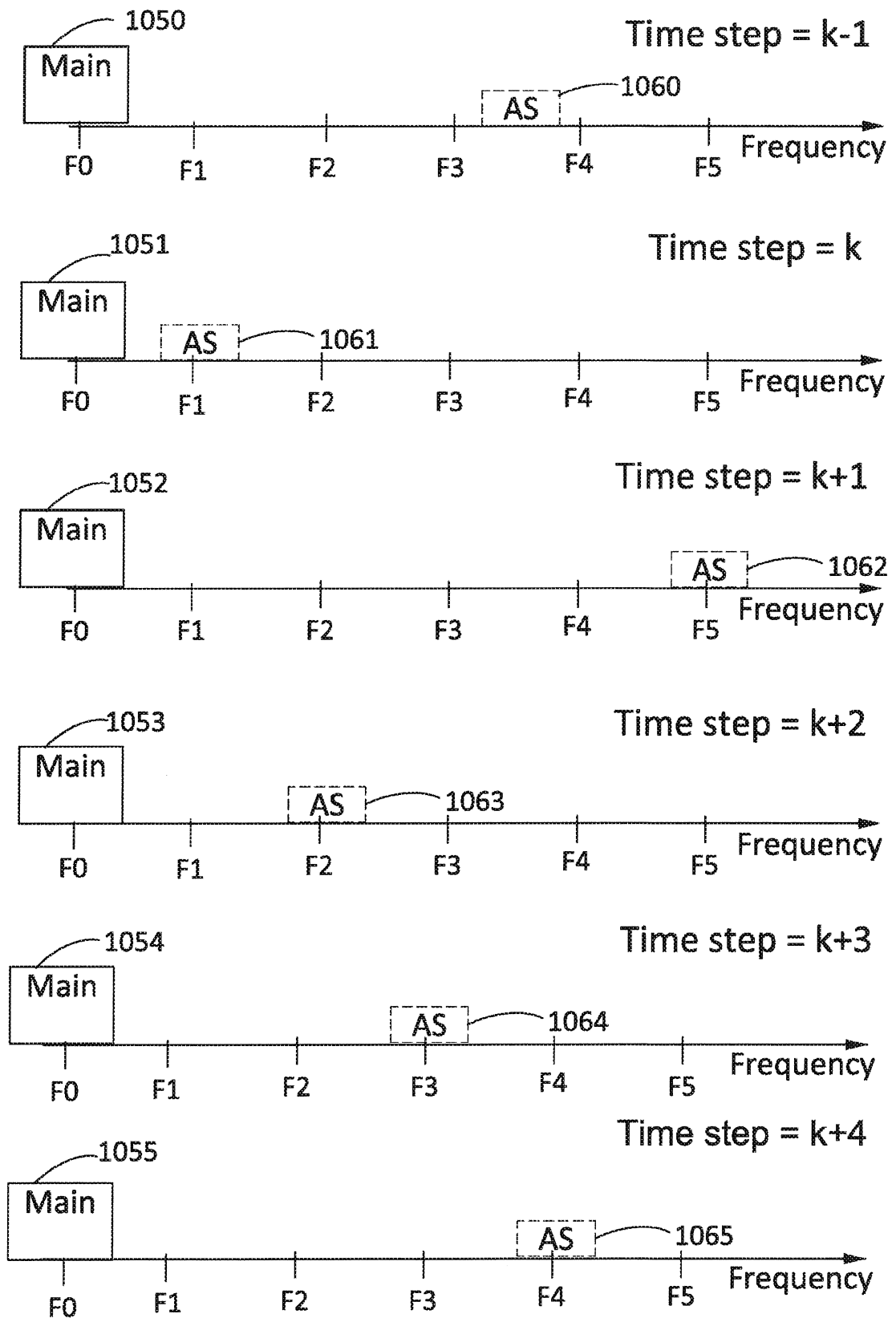


Figure-10

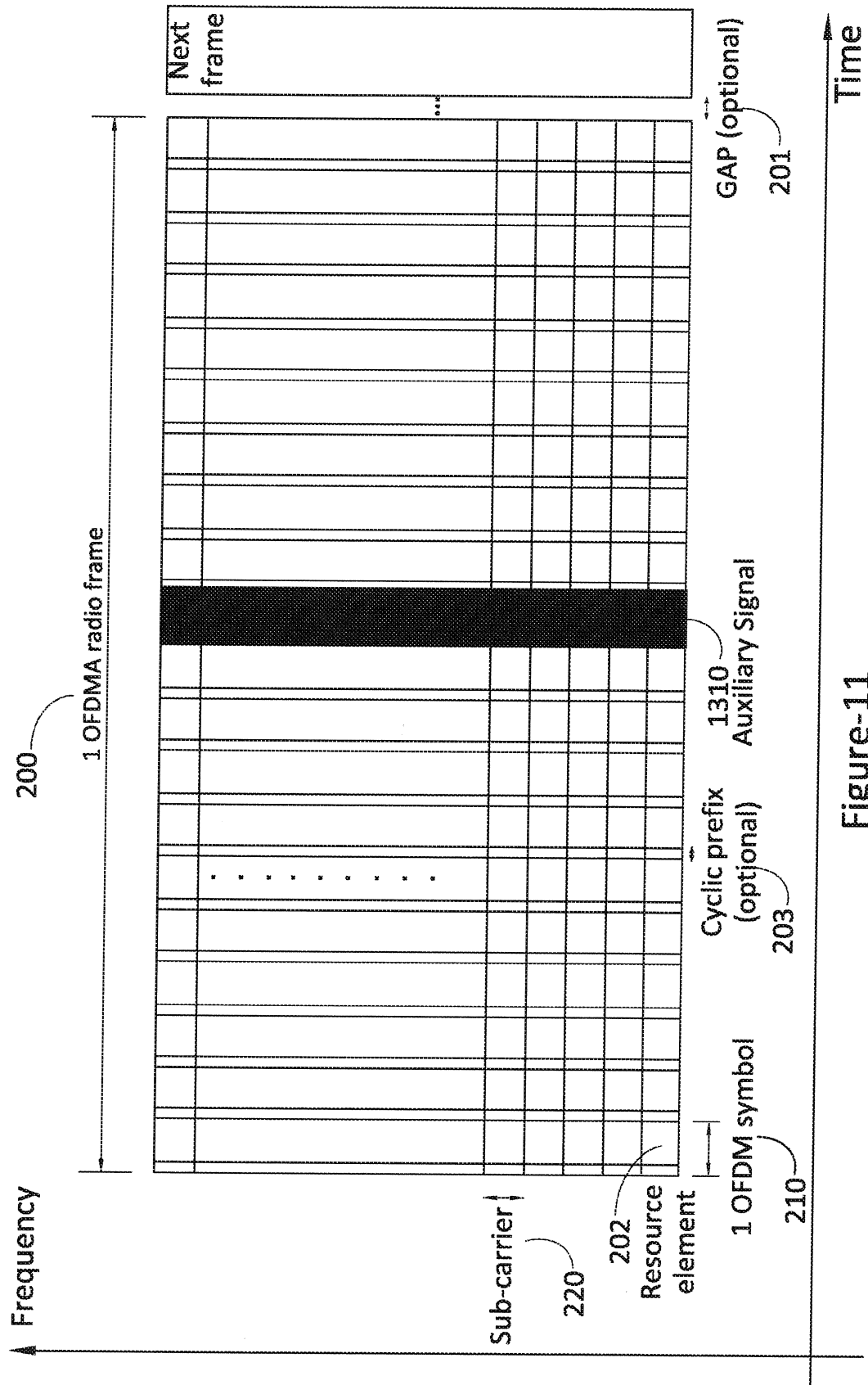
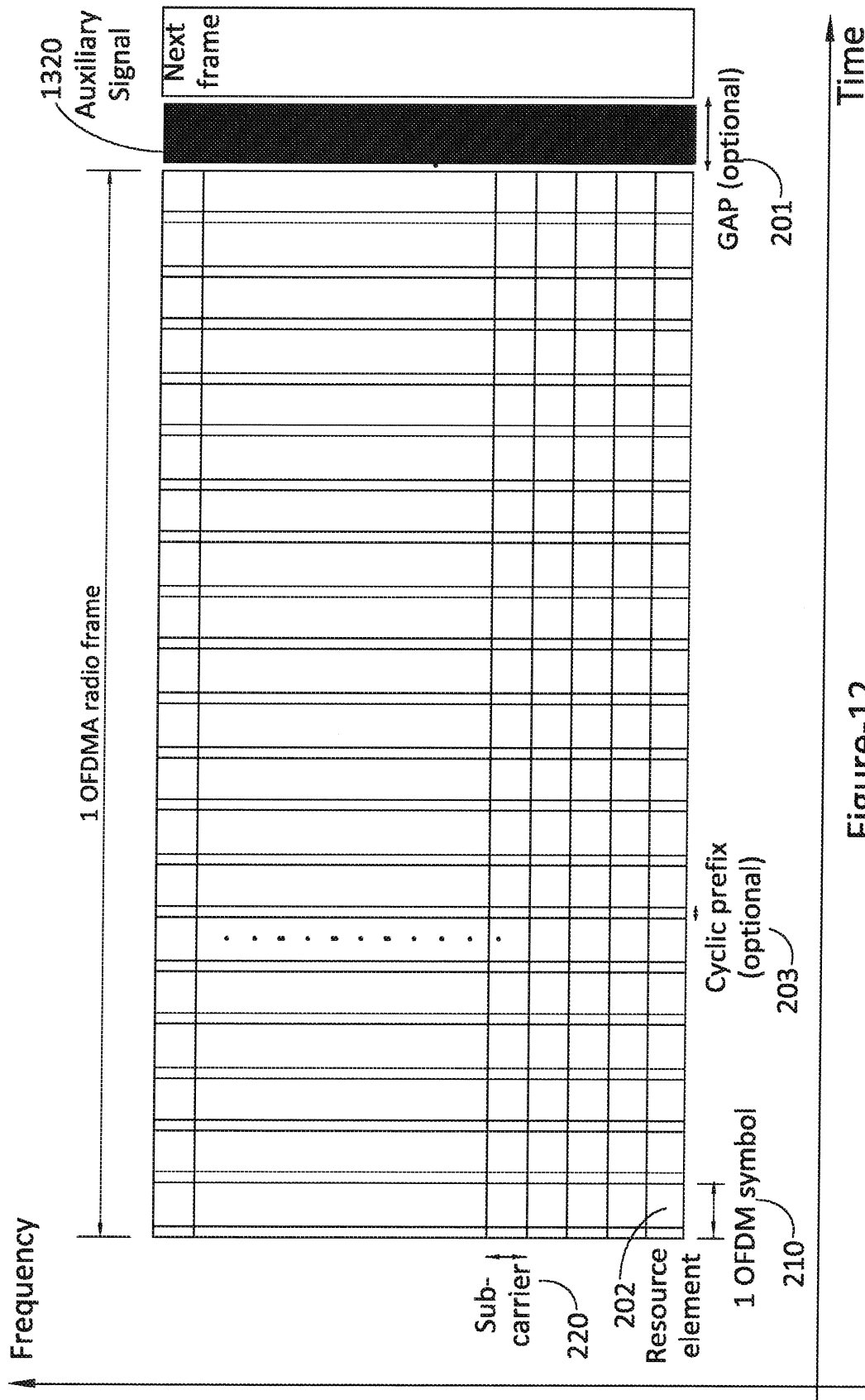


Figure-11



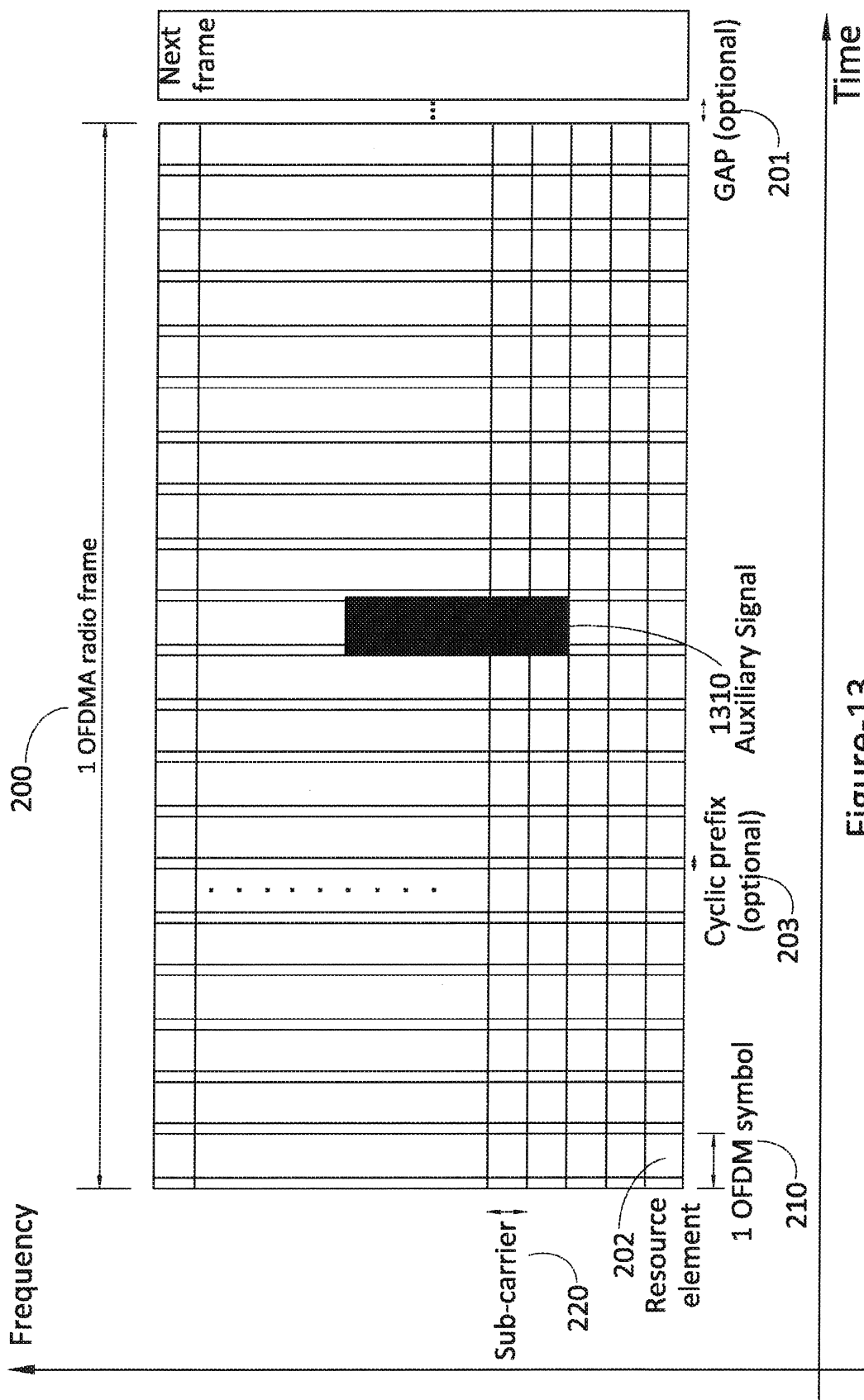


Figure-13

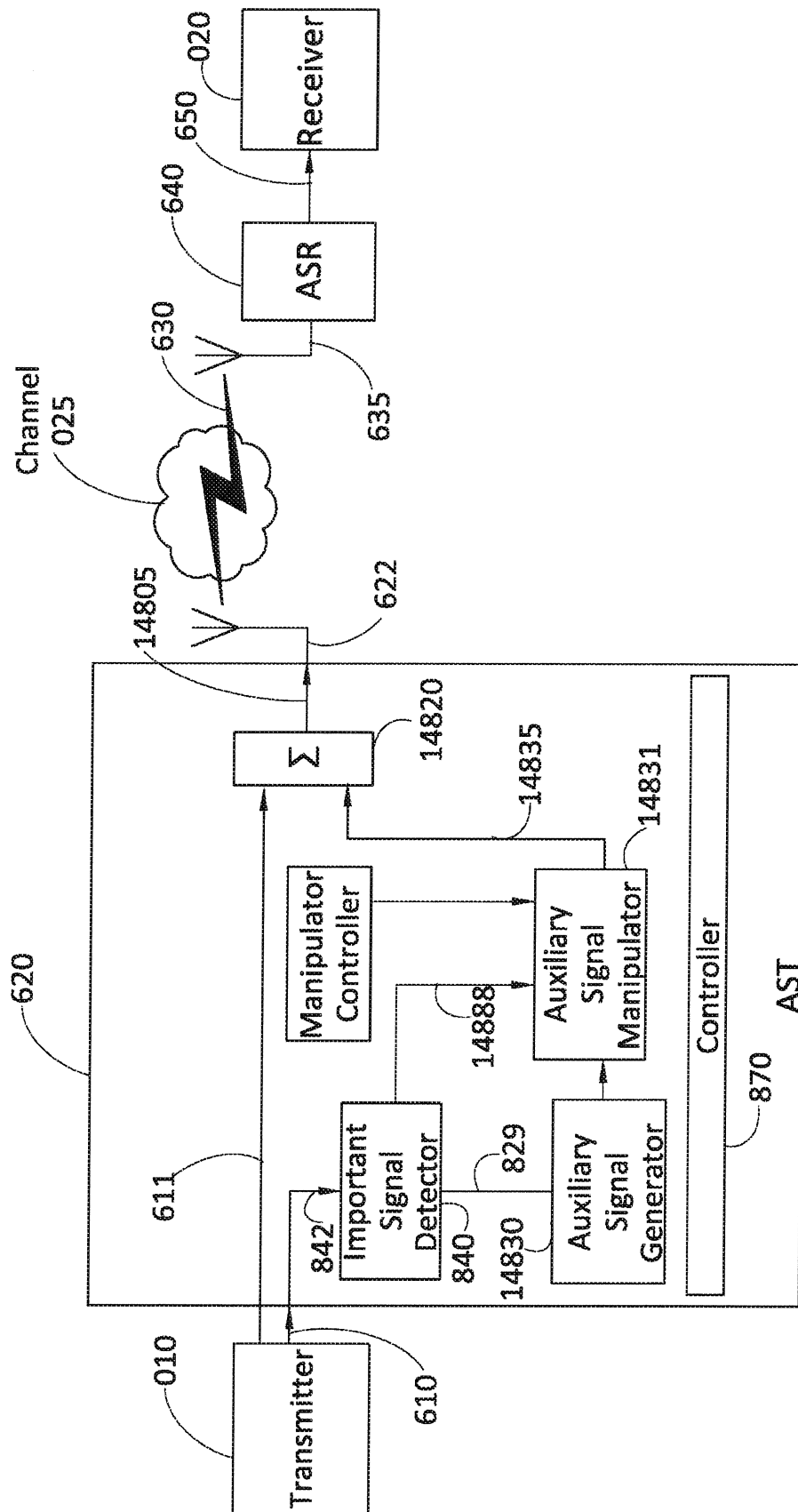


Figure-14a

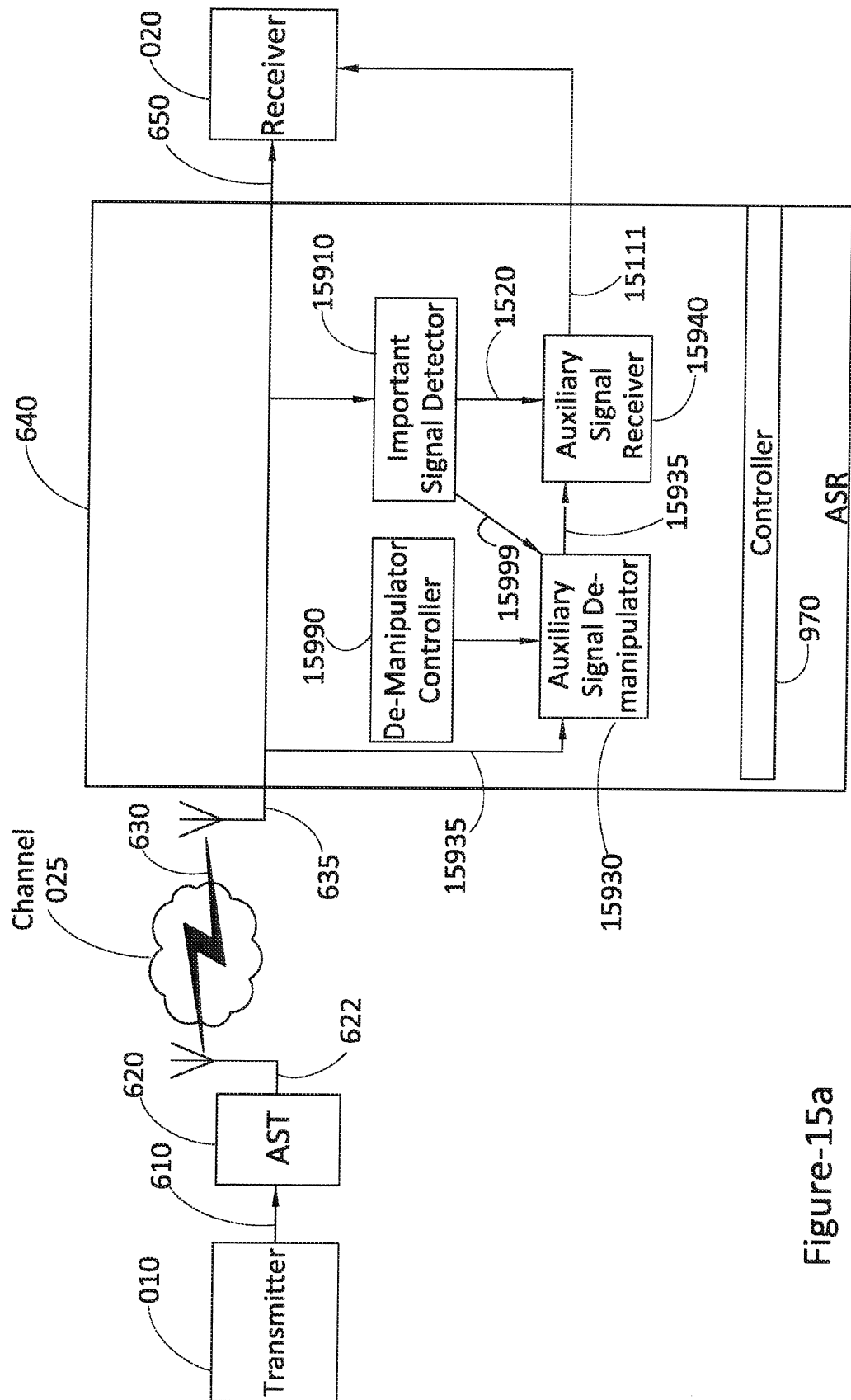


Figure-15a

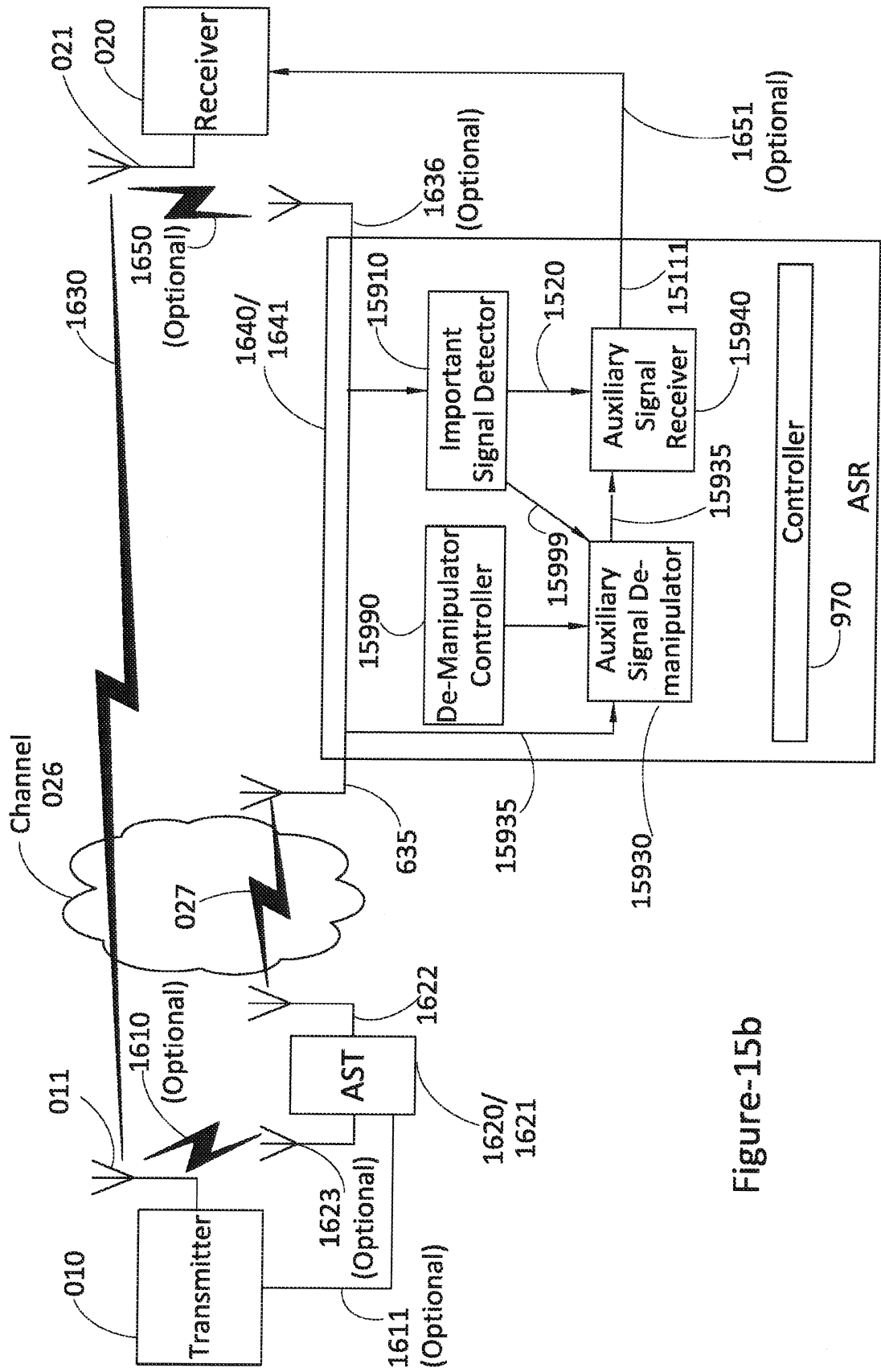


Figure-15b

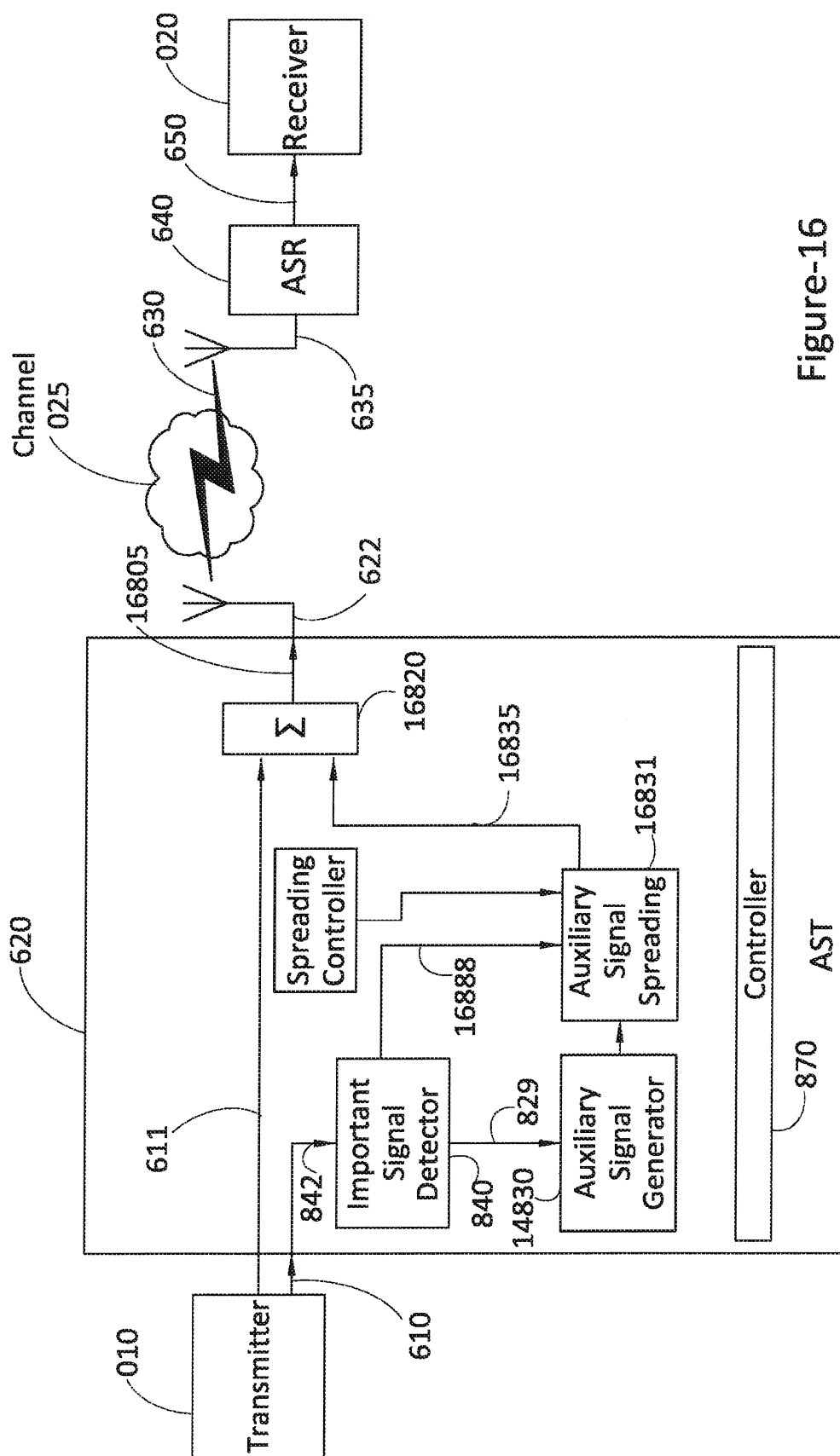


Figure-16

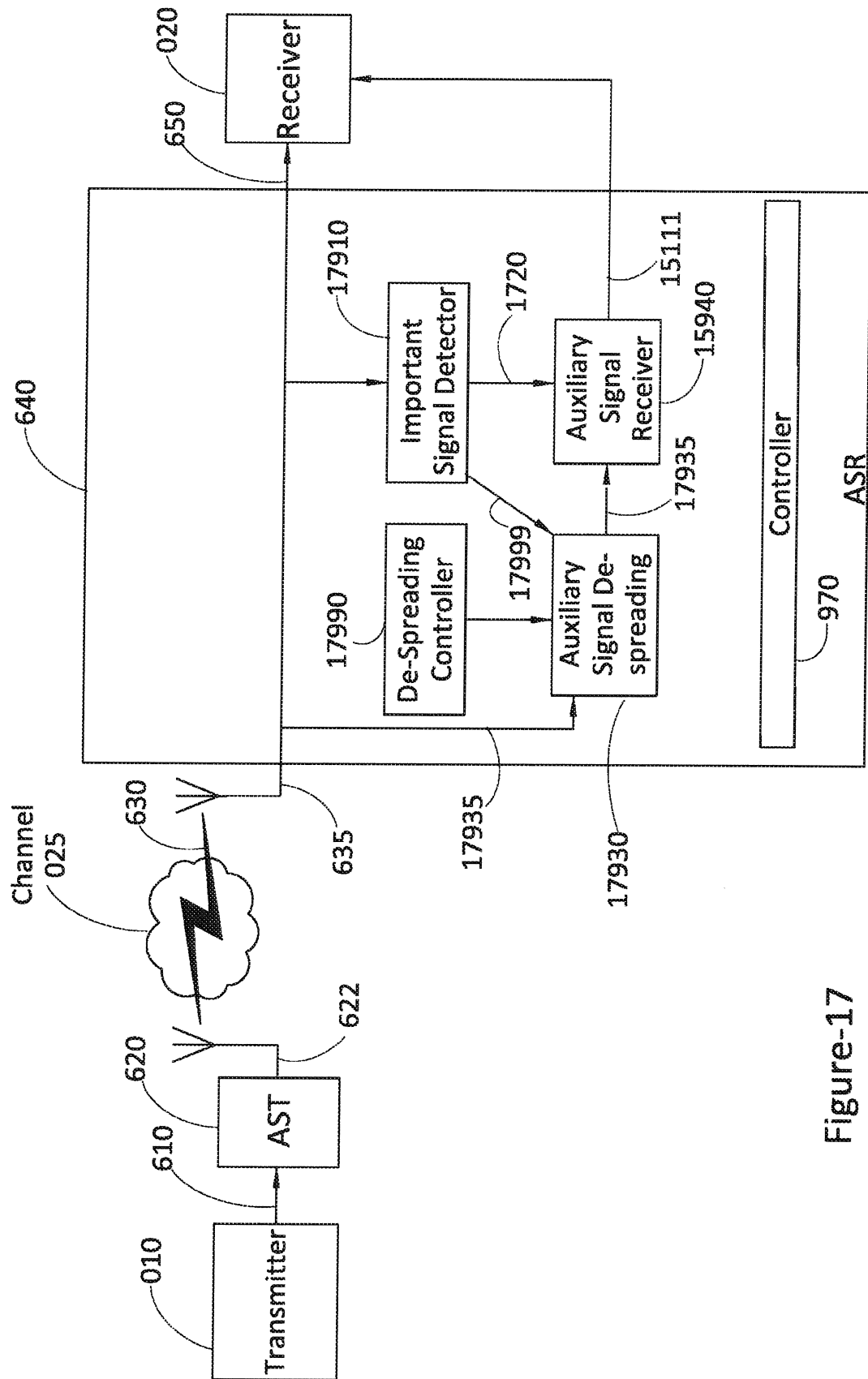


Figure-17

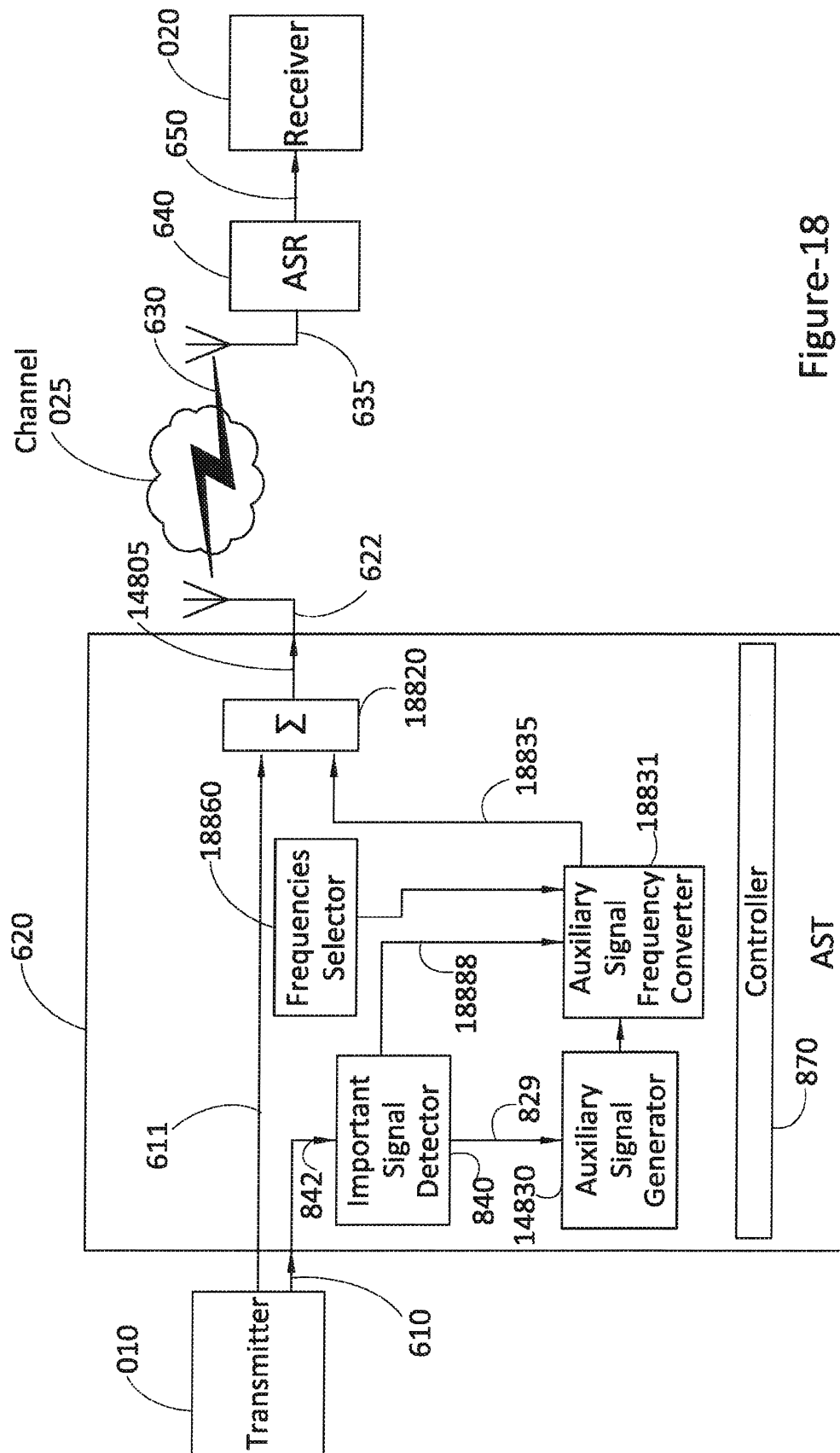


Figure-18

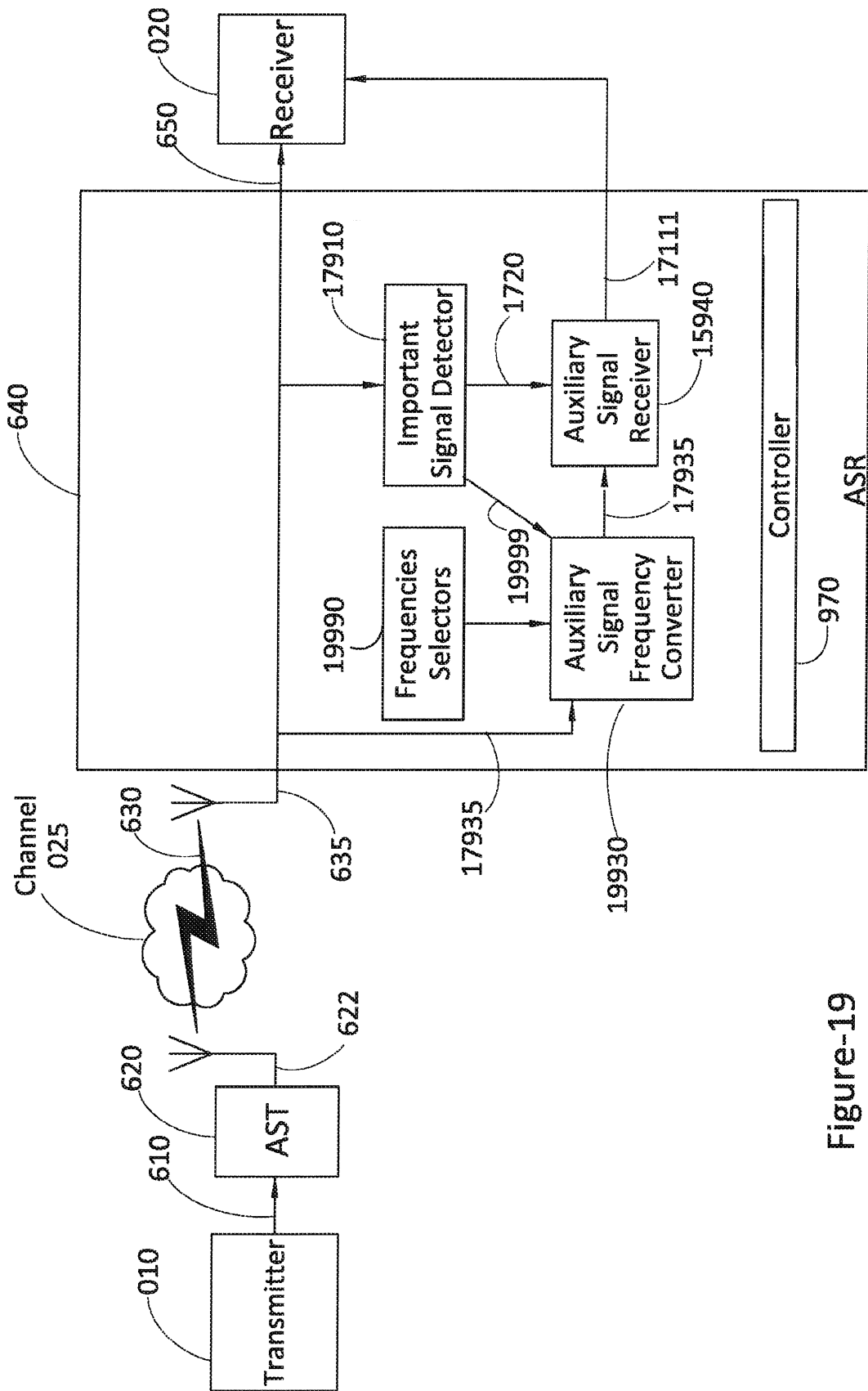


Figure-19

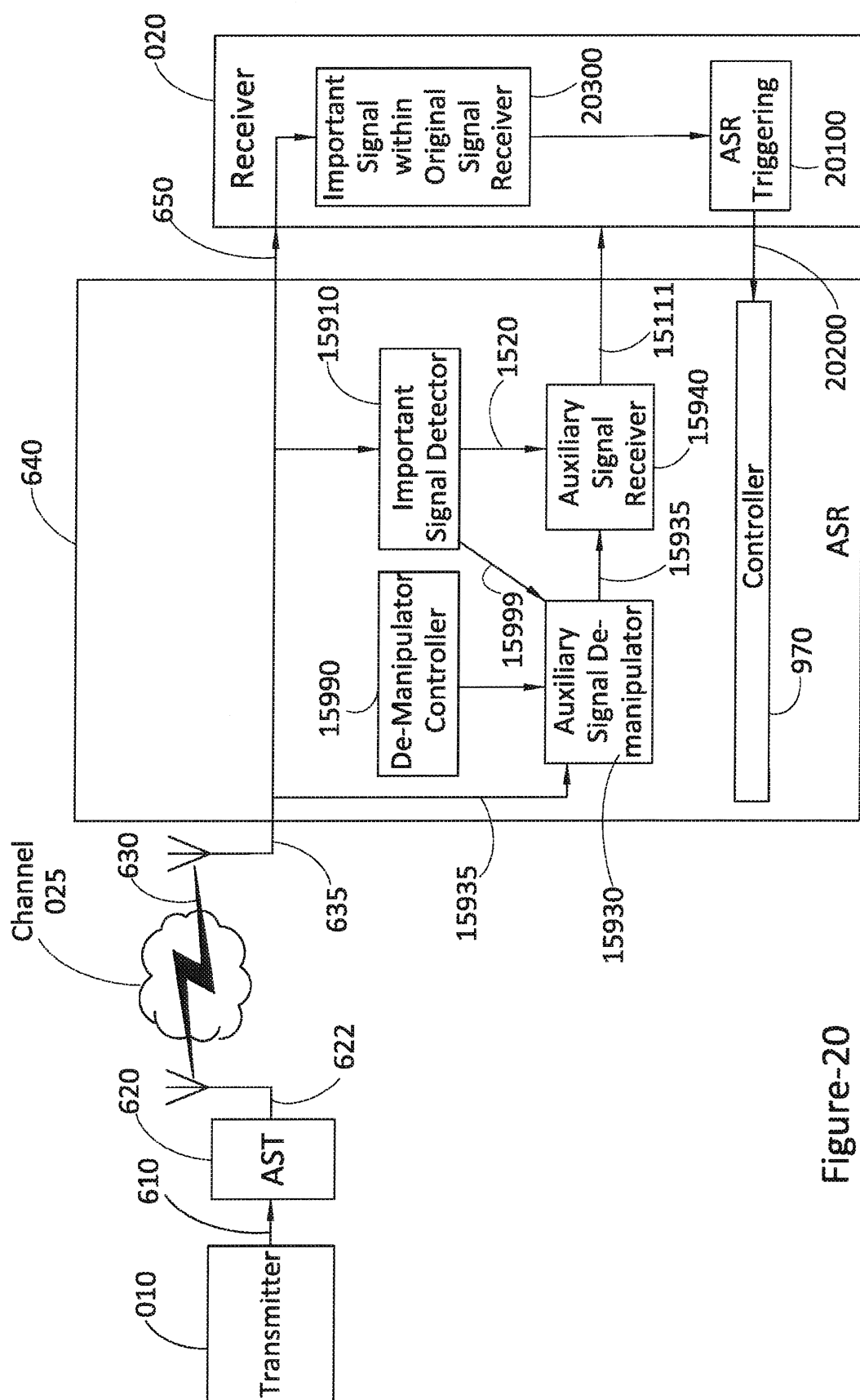


Figure-20

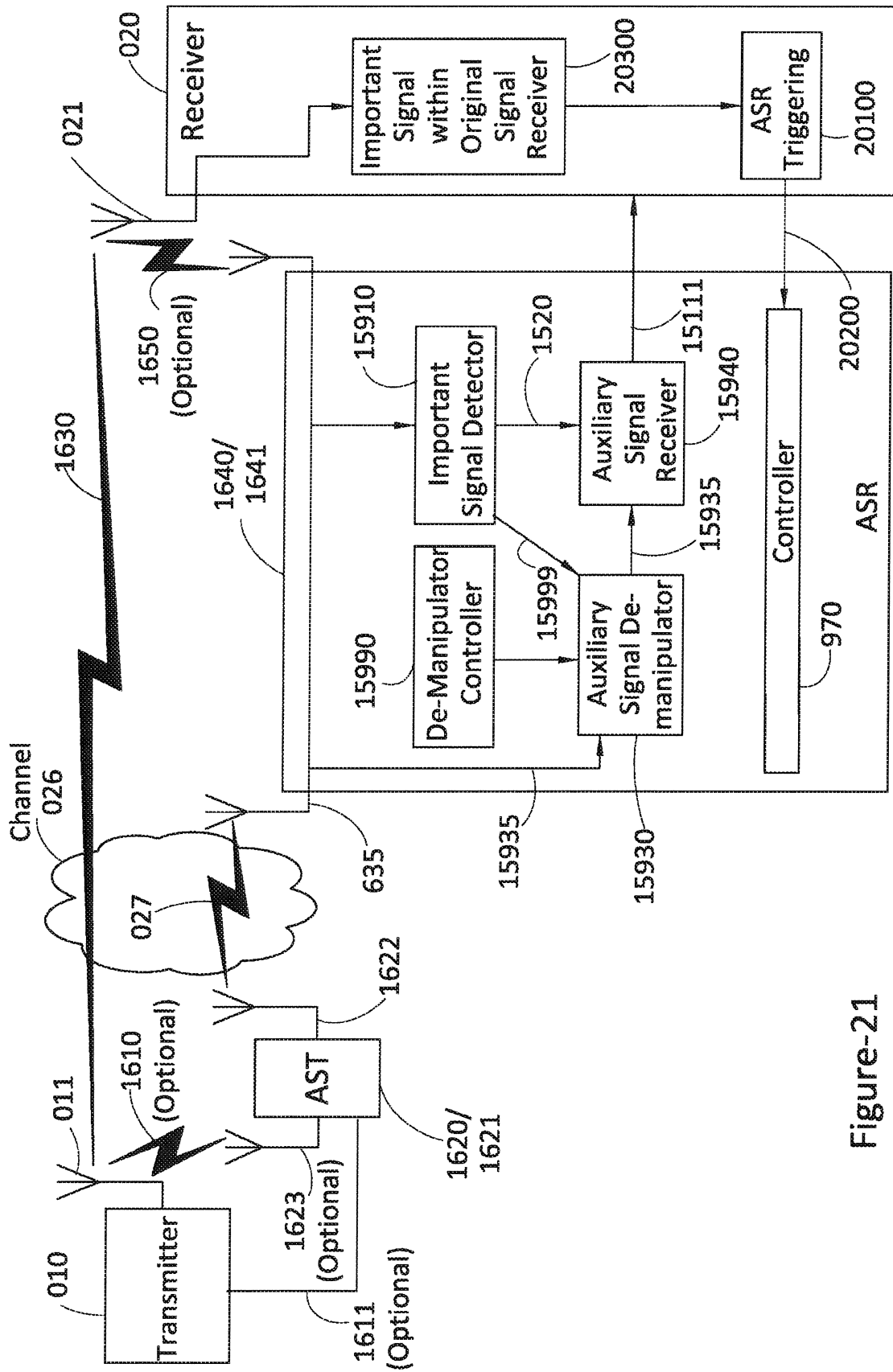


Figure-21

Figure-22

2210: optionally, receiving knowledge re specific characteristics (e.g. an expected level of SNR) at which transmission is to occur, e.g. using info received dynamically from the Rx (receiver) end.



2220: generating an auxiliary signal from an original signal e.g. by suitably augmenting or modifying or extracting important signal information or strengthening an "important (also termed herein "needed") signal within the original signal, e.g. by performing at least one of:

- a. use more power to transmit the needed signal
- b. transmit at a certain frequency or several consecutive frequencies known to provide better reception given the current communication situation
- c. transmit at a different waveform than the important signal that is transmitted from the transmitter (e.g. different modulation and/or different error correction code, etc.)

and wherein the auxiliary signal includes a baseband, having added robustness relative to the original signal, on which baseband, in addition optionally, at least one manipulation is performed (e.g. frequency shifts and/or spectrum spreading)



2230: transmitting the auxiliary signal from an AST to the receiving end and in addition, transmitting the original signal from a Tx (transmitter) to the receiving end, including using an AST for generation and transmission of the auxiliary signal; wherein AST-Tx (transmitter to AST) communication is good enough (e.g. due to AST-Tx co-location) to ensure that the important signal is received by the AST well enough to enable the AST to fix or enhance the important signal before sending it to the ASR



2240: at the rx end, receiving the auxiliary signal e.g. only when activated; and if the auxiliary signal is received, replacing or enhancing an important signal (portion within the original signal) or important signal information by the auxiliary signal, at the receiving end, using an ASR, wherein ASR-Rx (ASR to receiver) communication is good enough (e.g. due to ASR-Rx co-location) to ensure that the important signal or important signal information can be transmitted adequately from the ASR to the Rx.