

UPSTREAM PMA STAGING, PILOT INSERTION, AND FRAME TIMING



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- **Draft text proposed changes**
 - Draft text: laubach_3bn_07_0115.pdf
- **These updates in part rely on terminology and conventions from the Symbol Mapper (see [laubach 3bn 06 0115.pdf](#)) as modified by the D1.3 comment under consideration by the TF.**
- **Updates to Figure 100-3 to show :**
 - “Staging and Pilot Insertion” box.
 - Removed “Interleaver and OFDM Framer” as these are internal to the Symbol Mapper.
 - Remove Scrambler from PCS as this function moved internal to Symbol Mapper
 - Removed Gearbox from PCS as this function is not needed for EPoC
- **New text for Pilot Insertion to include Staging and Pilot Insertion**
- **New text for Frame Timing to include figure, signals, state diagram**

- **The staging function accepts an RB Frame and RB Type array from the Symbol Mapper when transferred from the Symbol Mapper. Staging then accumulates a PHY Link RB Frame (8 subcarriers by resource block size of 8 or 16) if available for this RB Superframe (copies an available PHY Link RB Frame into the PHY Link subcarrier positions in the RB Frame. If a PHY Link RB Frame is available and copied, the RB Type entries for the corresponding subcarriers are set to “T2”.**
- **Pilot Insertion proceeds as per the procedure currently in 101.4.3.8.**
- **On a positive edge (rising) of the RB_Frame_start from Frame Timing, the RB Frame and RB Type arrays are transferred to the IDFT.**

- **Frame Timing is a straightforward state machine. Assumptions:**
 - Extended OFDM symbol time clock with period known to all PHY functions
 - E.g. 20 usec + 0.5 usec = 20.5 usec period will be the CLK
 - RBsize is known to all PHY functions
- **It is reset by the PHY Link to align the state with the beginning of the first symbol of the RB Superframe.**
 - $RBSF_reset \leftarrow TRUE$ will reset the frame time state machine
- **The following boolean variables are use to signal beginning of probe region and beginning of each individual RB Frame based on RBsize:**
 - Probe_start
 - RB_Frame_start

PROPOSED MOTION



Move to:

Adopt laubach_3bn_07_0115.pdf as an update to Draft 1.3.



Thank you