Changes to **92.2.4.1 Synchronizer**

Original	Changes due to Comments / 833 / 987 & 690 / 670(aip) / 1013(aip) / 1035
The synchronizer shall form a bit stream from the primitives by concatenating	The synchronizer shall form a bit stream from the primitives by concatenating
requests with the bits of each primitive in order from rx_data-group<0> to	requests with the bits of each primitive in order from rx_data-group<0> to
rx_data-group<15> (see Figure 92-##). It obtains lock to the 31*66-bit blocks	rx_data-group<15> (see Figure 92-10). It obtains lock to the 31*66-bit blocks
in the bit stream using the sync headers and outputs 66-bit blocks, with the	in the bit stream using the sync headers and outputs 66-bit blocks, with the
codeword structure being indicated by a locally generated sync header pattern.	codeword structure being indicated by a locally generated sync header pattern.
Lock is obtained as specified in the codeword lock state machine shown in	Lock is obtained as specified in the codeword lock state machine shown in
Figure 92-##.	Figure 92-10.
The incoming sync header pattern is 27 conventional (clause 49) sync headers	The incoming sync header pattern is 27 conventional (Clause 49) sync headers
(01 or 10), and then 00, 11, 11, and 00. The state machine performs a search	(binary 01 or 10), and then binary 00, 11, 11, and finally binary 00. The state
for this pattern, and when it finds a perfect match of two full codewords (62	machine performs a search for this pattern, and when it finds a perfect match of
blocks), it then asserts codeword lock.	two full codewords (62 blocks), it then asserts the codeword lock.
When codeword lock is true, the decoder guarantees that the sync header of the	When codeword lock is true, the decoder guarantees that the sync header of the
last block in the codeword will be "11", and that no other sync header will have	last block in the codeword will be equal to the binary 11"11", and that no other
this pattern, even in the face of errors. This is achieved by forcing the first 27	sync header will have this pattern, even in the face presence of errors. This is
sync headers to be conventional headers, and forcing the last four headers to be	achieved by forcing the first 27 sync headers to be conventional headers, and
00, 00, 00, and 11. This locally forced pattern then allows the subsequent FEC	forcing the last four headers to be binary 00, 00, 00, and 11 00, 11, 11, and 00.
decoder logic to find the last block in the codeword with a trivial match of the sync header to 11.	This locally forced pattern then allows the subsequent FEC decoder logic to find the last block in the codeword with a trivial match of the sync header to
sylic licauci to 11.	binary 11.
	In addition, if the Persistent decode failure signal becomes set, then codeword
	lock is deasserted (this check insures that certain false-lock cases are not
	persistent.).
	persistent.).

Changes due to Comments / 833 / 987 & 690 / 670(aip) / 1013(aip) / 1035	Rejected proposal from Comment 823
The synchronizer shall form a bit stream from the primitives by concatenating	The synchronizer shall form a bit stream from the primitives by concatenating
requests with the bits of each primitive in order from rx_data-group<0> to	requests with the bits of each primitive in order from rx_data-group<0> to
rx_data-group<15> (see Figure 92-10). It obtains lock to the 31*66-bit blocks	rx_data-group<15> (see Figure 92-10). It obtains lock to the 31*66-bit blocks
in the bit stream using the sync headers and outputs 66-bit blocks, with the	in the bit stream using the sync headers and outputs 66-bit blocks, passes the
codeword structure being indicated by a locally generated sync header pattern.	sequence of 31 66-bit blocks to the FEC decoder with the codeword structure
Lock is obtained as specified in the codeword lock state machine shown in	being indicated by a locally generated sync header pattern. Lock is obtained as
Figure 92-10.	specified in the codeword lock state machine shown in Figure 92-10.
The incoming sync header pattern is 27 conventional (Clause 49) sync headers	The incoming sync header pattern is 27 conventional (Clause 49) sync headers
(binary 01 or 10), and then binary 00, 11, 11, and finally binary 00. The state	(binary 01 or 10), and then binary 00, 11, 11, and finally binary 00. The state
machine performs a search for this pattern, and when it finds a perfect match of	machine performs a search for this pattern, and when it finds a perfect match of
two full codewords (62 blocks), it then asserts the codeword lock.	two full codewords (62 blocks), it then asserts the codeword lock.
When codeword lock is true, the decoder guarantees that the sync header of the	When codeword lock is true, the decoder guarantees that the sync header of the
last block in the codeword will be equal to the binary 11, and that no other sync	last block in the codeword will be equal to the binary 11, and that no other sync
header will have this pattern, even in the presence of errors. This is achieved	header will have this pattern, even in the presence of errors. This is achieved
by forcing the first 27 sync headers to be conventional headers, and forcing the	by forcing the first 27 sync headers to be conventional headers, and forcing the
last four headers to be binary 00, 11, 11, and 00. This locally forced pattern	last four headers to be binary 00, 11, 11, and 00. This locally forced pattern
then allows the subsequent FEC decoder logic to find the last block in the	then allows the subsequent FEC decoder logic to find the last block in the
codeword with a trivial match of the sync header to binary 11.	codeword with a trivial match of the sync header to binary 11.
When codeword lock is true, the decoder guarantees that the sync header of the	When codeword lock is true, the decoder guarantees that the sync header of the
last block in the codeword will be "11", and that no other sync header will have	last block in the codeword will be "11", and that no other sync header will have
this pattern, even in the face of errors. This is achieved by forcing the first 27	this pattern, even in the face of errors. This is achieved by forcing the first 27
sync headers to be conventional headers, and forcing the last four headers to be	sync headers to be conventional headers, and forcing the last four headers to be
00, 00, 00, and 11. This locally forced pattern then allows the subsequent FEC	00, 00, 00, and 11. This locally forced pattern then allows the subsequent FEC
decoder logic to find the last block in the codeword with a trivial match of the	decoder logic to find the last block in the codeword with a trivial match of the
sync header to 11.	sync header to 11.
When in codeword lock, the state machine continues to check for sync header	When in codeword lock, the state machine continues to check for sync header
validity. If 16 or more sync headers in a codeword pair (62 blocks) are invalid,	validity. If 16 or more sync headers in a codeword pair (62 blocks) are invalid,
then the state machine deasserts codeword lock.	then the state machine deasserts codeword lock.
In addition, if the Persistent decode failure signal becomes set, then codeword	
lock is deasserted (this check insures that certain false-lock cases are not	
persistent.).	