EXHIBIT I

US009332283B2

(12) **United States Patent**
Chen et al.

(10) **Patent No.: US 9,332,283 B2**
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(54) **SIGNALING OF PREDICTION SIZE UNIT IN ACCORDANCE WITH VIDEO CODING**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 860 days.

(21) Appl. No.: **13/523,822**

(22) Filed: **Jun. 14, 2012**

(65) **Prior Publication Data**

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Related U.S. Application Data

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(51) **Int. Cl.**

H04N 7/12	(2006.01)
H04N 11/02	(2006.01)
H04N 11/04	(2006.01)
H04N 19/96	(2014.01)
H04N 19/503	(2014.01)

(Continued)

(52) **U.S. Cl.**

CPC ***H04N 19/96*** (2014.11); ***H04N 19/503*** (2014.11); ***H04N 19/70*** (2014.11); *H04N 19/119* (2014.11); *H04N 19/174* (2014.11)

(58) **Field of Classification Search**

CPC . H04N 19/119; H04N 19/115; H04N 19/169; H04N 19/174; H04N 19/177; H04N 19/96

USPC 375/240.01–240.29

See application file for complete search history.

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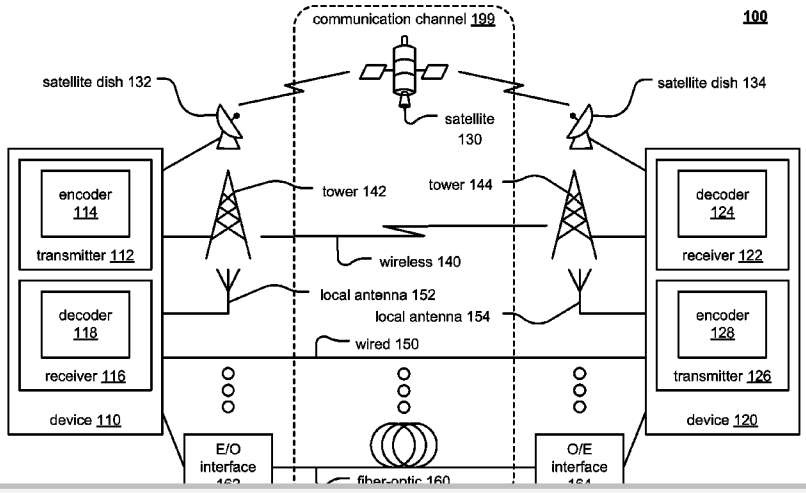
(57) **ABSTRACT**

Signaling of prediction size unit in accordance with video coding. In accordance with video coding, various binarization may be performed. In accordance with coding related to different types of slices (e.g., I, P, B slices), one or more binary trees may be employed for performing various respective operations (e.g., coding unit (CU) prediction and prediction unit (PU) partition mode operations). In one implementation, a common or singular binary tree is employed to encode jointly CU prediction and PU partition mode in a single syntax element for both P slices and B slices. That is to say, in such an implementation, instead of employing different respective binary trees for at least these different respective processes/operations, a common or single binary tree may be employed for them both. Appropriate coordination between and encoder/transmitter device and a decoder/receiver device may be performed to ensure appropriate handling of different respective phases of video coding.

20 Claims, 17 Drawing Sheets



(51) **Int. Cl.**

H04N 19/70	(2014.01)
H04N 19/174	(2014.01)
H04N 19/119	(2014.01)

(56) **References Cited**

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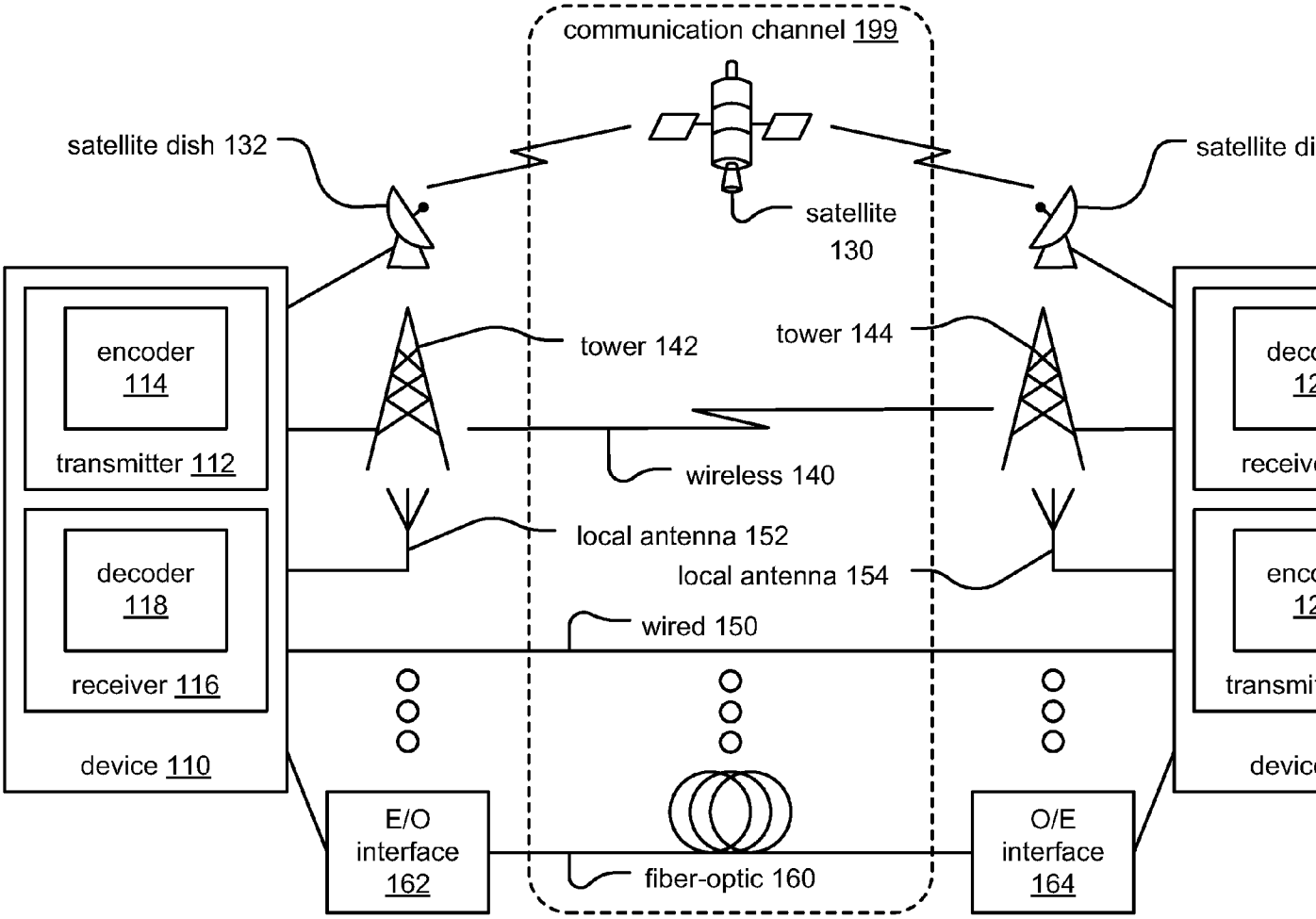

FIG. 1

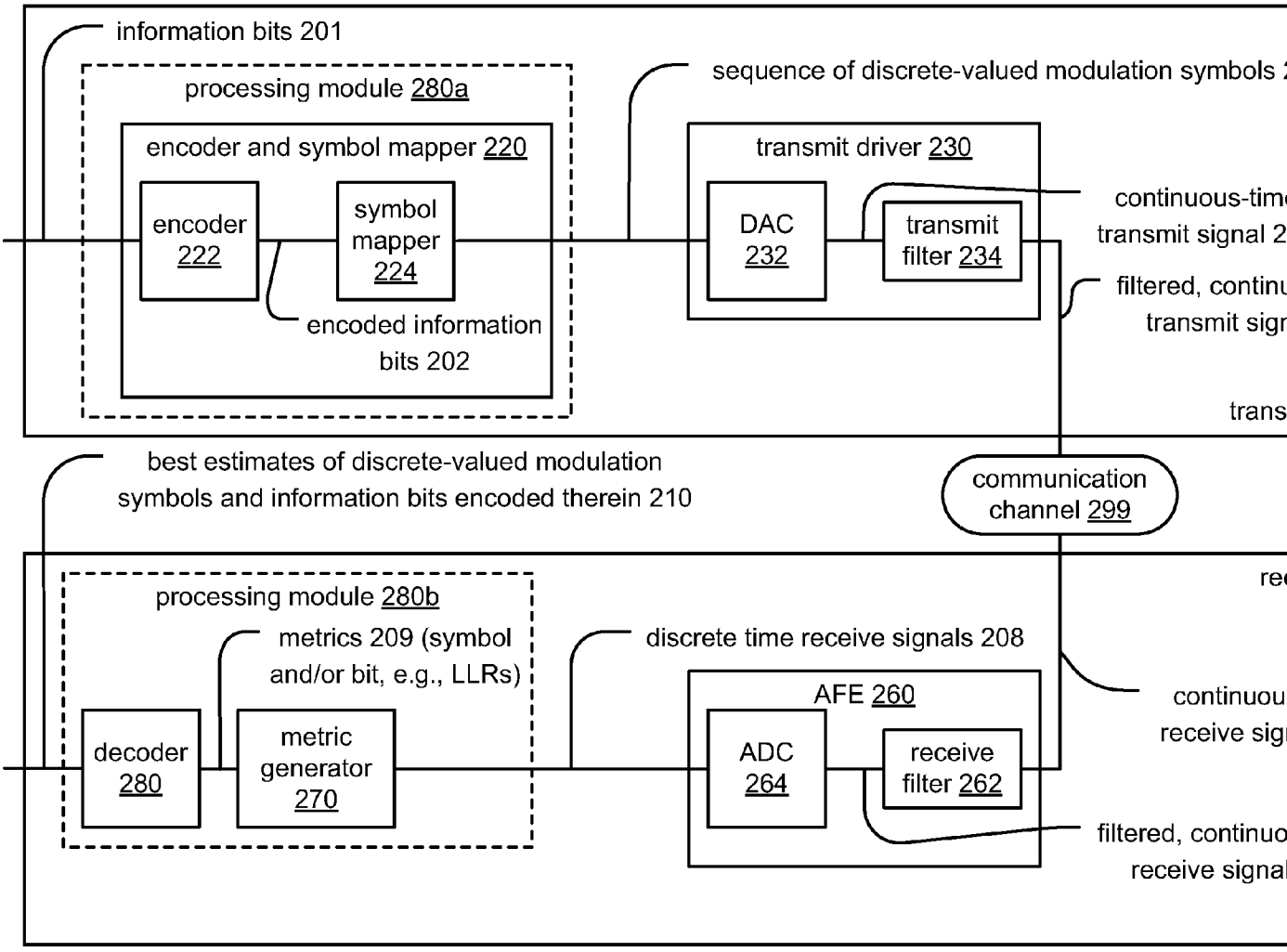

FIG. 2

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