



US 20040047284A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0047284 A1**
Eidson (43) **Pub. Date: Mar. 11, 2004**

(54) **TRANSMIT DIVERSITY FRAMING
STRUCTURE FOR MULTIPATH CHANNELS**

Publication Classification

(51) **Int. Cl.⁷** **H04J 11/00**
(52) **U.S. Cl.** **370/203**

(76) **Inventor: Donald Brian Eidson, San Diego, CA
(US)**

(57) **ABSTRACT**

Correspondence Address:
Semion Talpalatsky, Esq.
CONEXANT SYSTEMS, INC.
4311 Jamboree Road
Newport Beach, CA 92660-3095 (US)

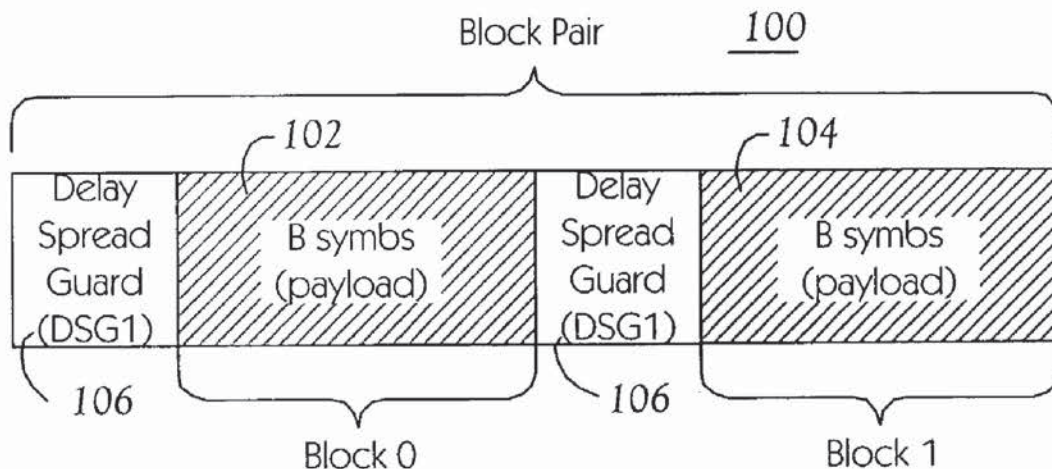
Systems and techniques are disclosed for framing and processing single-carrier and/or OFDM transmit-diversity transmissions through delay-spread channels, as well as for deframing and processing the corresponding merged signals, received from a plurality of antennas, to estimate the transmitted information. Time-domain processing techniques may be used for both types of transmissions to create multiplexed dual signal-unit pairs, particularly when cyclic prefixes are needed to reduce delay-spreading effects. Repetitive pilot words may be employed in burst preambles and/or in payloads of transmission bursts to minimize or provide flexibility in the amount of bandwidth that is consumed to generate good channel response estimates under changing channel conditions.

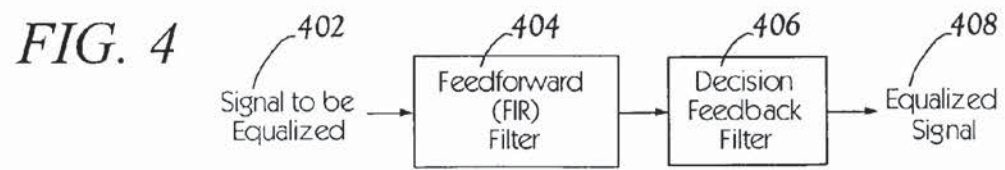
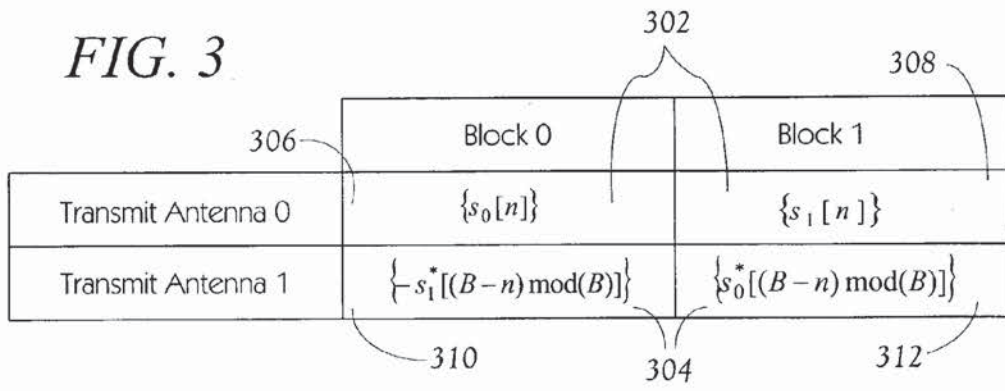
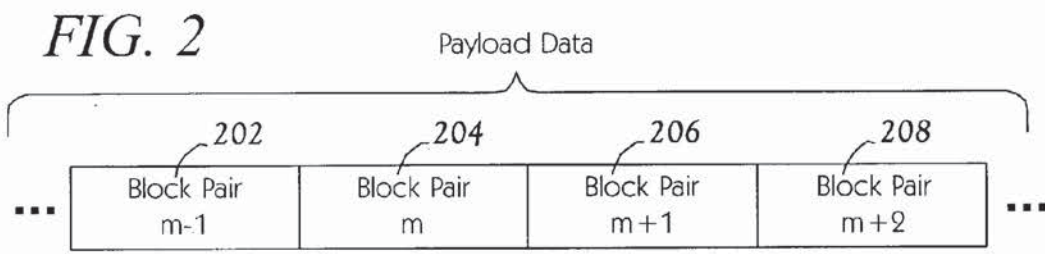
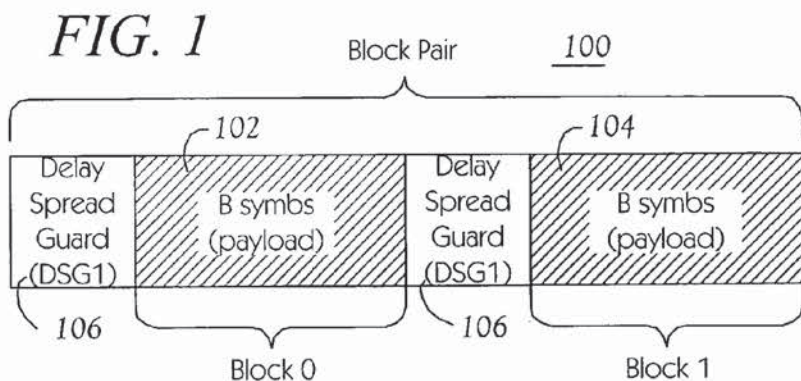
(21) **Appl. No.: 10/389,272**

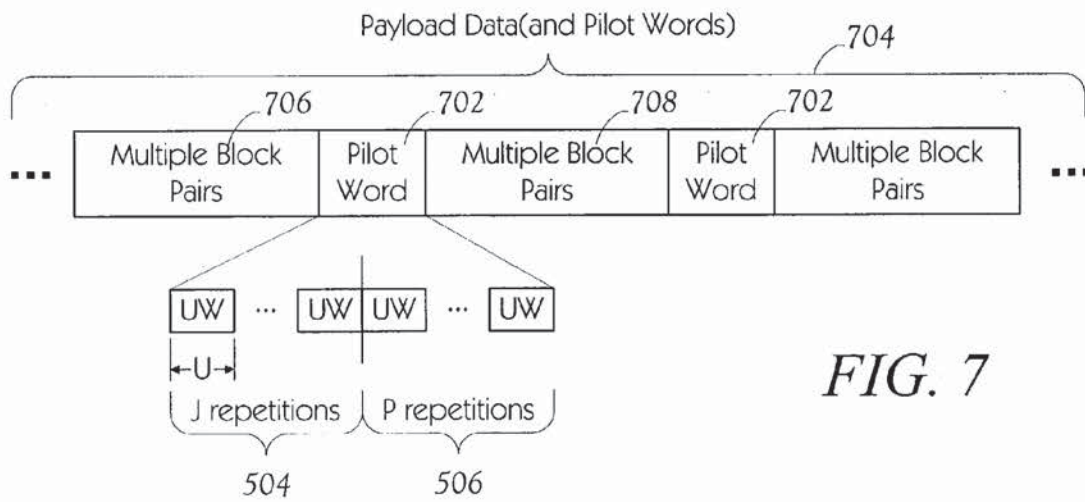
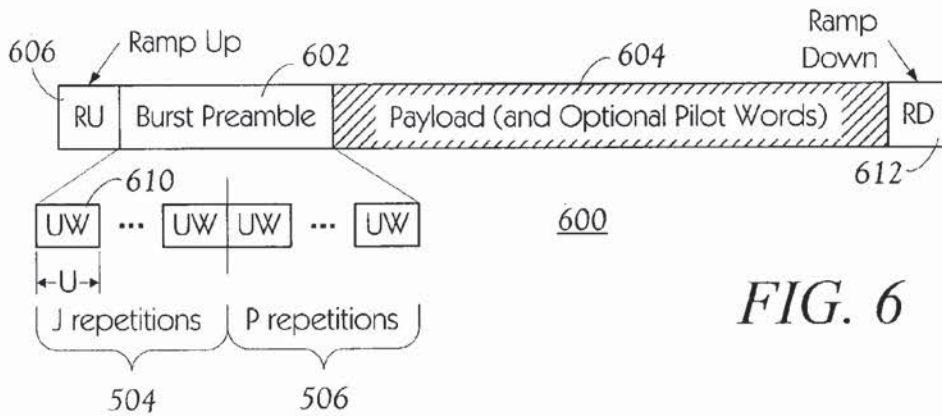
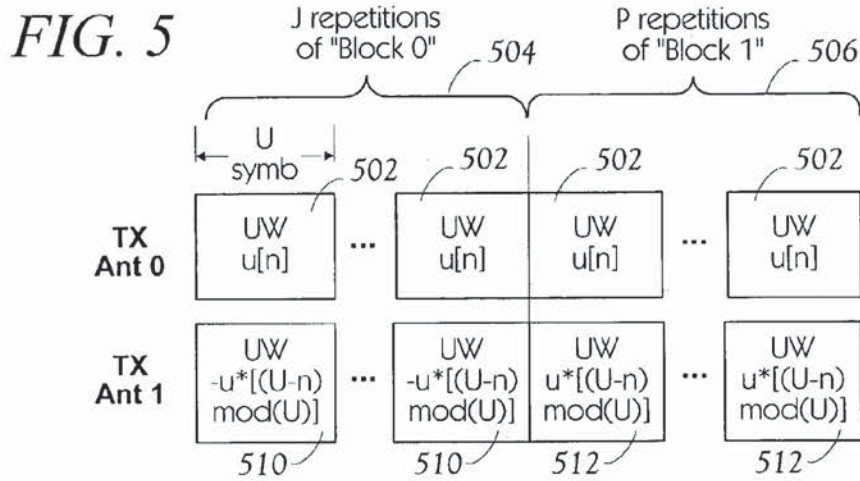
(22) **Filed: Mar. 14, 2003**

Related U.S. Application Data

(63) **Continuation-in-part of application No. 10/099,556,
filed on Mar. 13, 2002.**







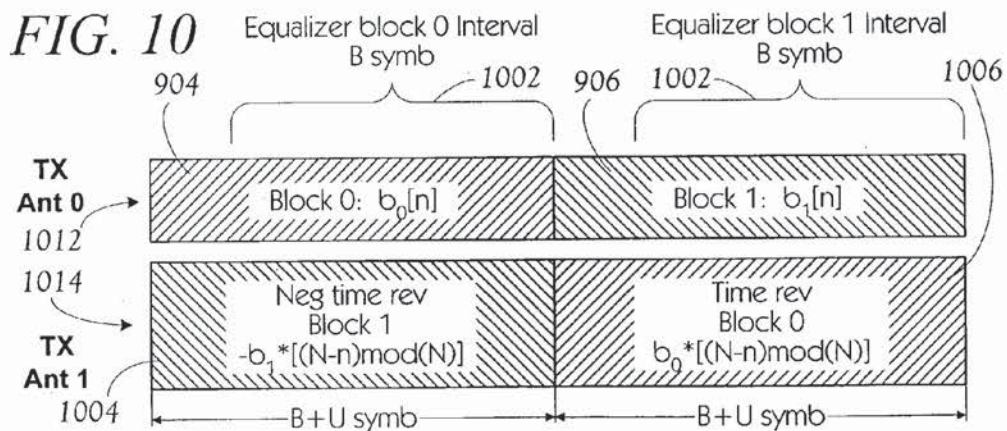
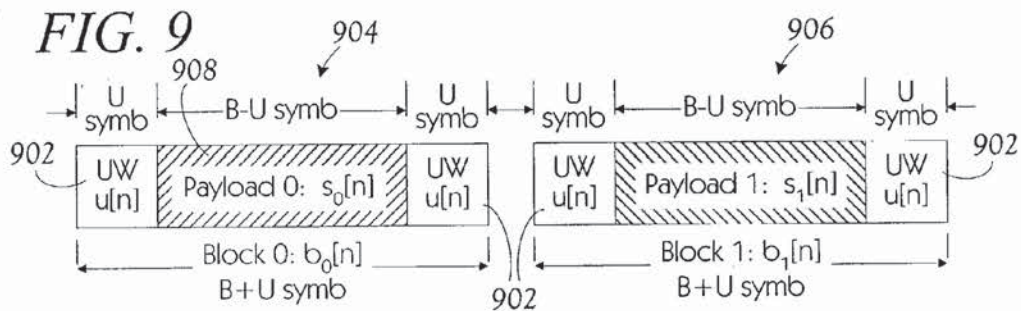
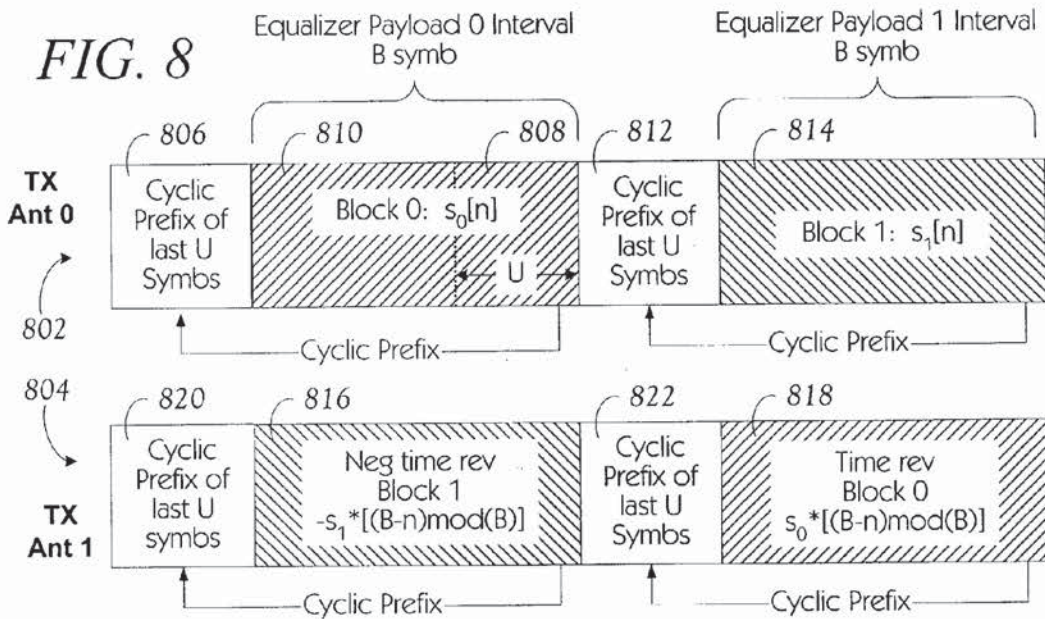
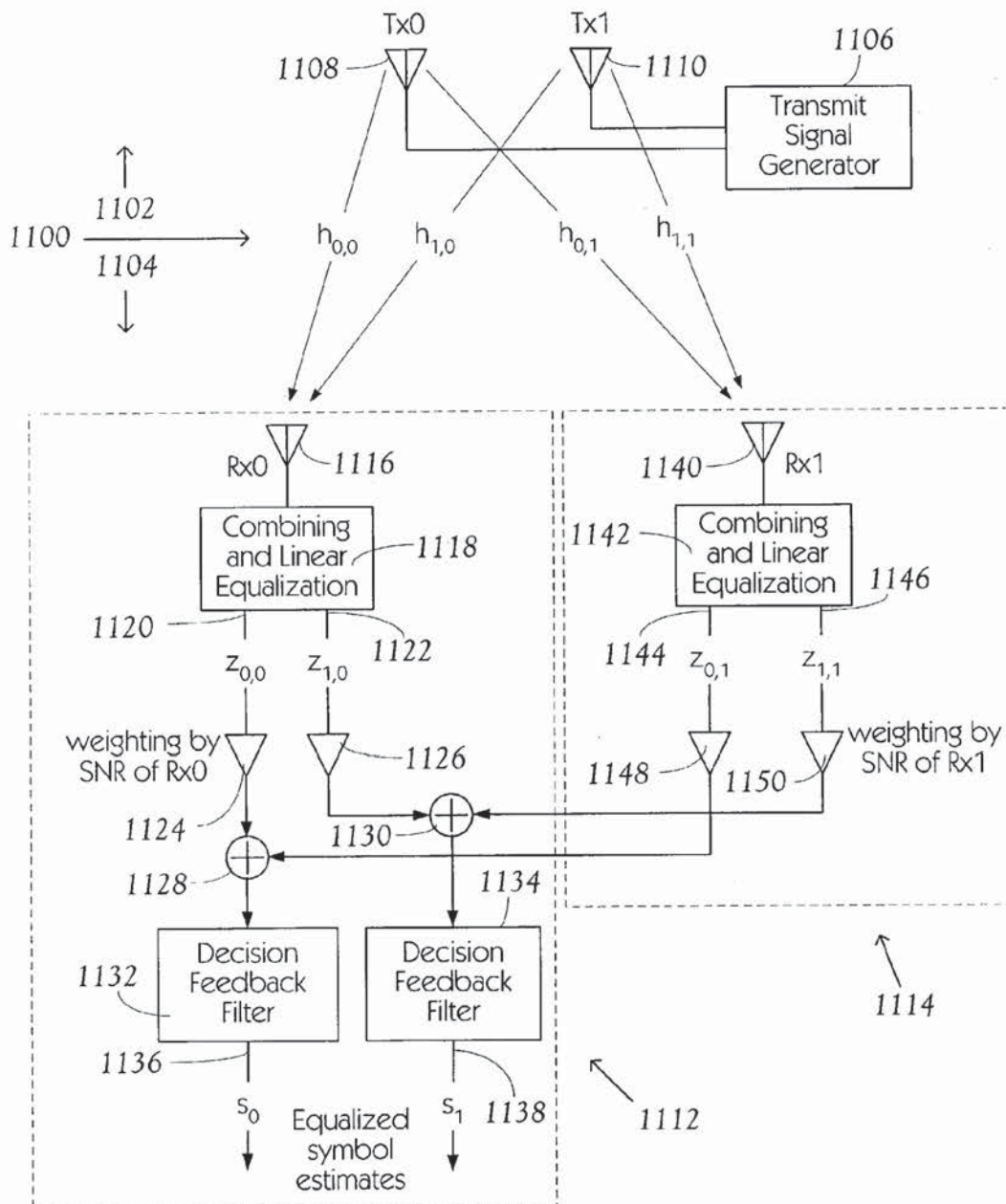


FIG. 11



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