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- (54) **Title:** APPARATUS AND METHOD FOR INTER-BAND PAIRING OF CARRIERS FOR TIME DIVISION DUPLEX TRANSMIT- AND
RECEIVE-SWITCHING AND ITS APPLICATION TO MULTIPLEXING OF DIFFERENT TRANSMISSION TIME INTERVALS

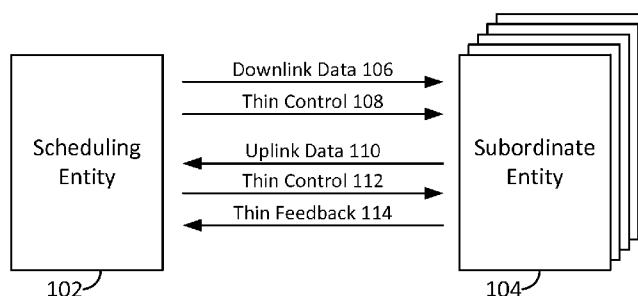


FIG. 1

(57) **Abstract:** Aspects of the present disclosure provide for the pairing of an inter-band carrier with a time division duplex (TDD) carrier. If the paired band is a frequency division duplex (FDD) band, then base stations and mobile devices may transmit and receive additional thin control channels on FDD carriers to enable full duplex operations. If the paired band is a TDD band, then a conjugate or inverse carrier may be used such that full duplex, or a close approximation thereto, is achieved. With the introduction of a paired channel and fast control channels, rapid uplink/downlink switching may be achieved for TDD carriers efficiently and effectively. Other aspects, embodiments, and features are also claimed and described.

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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