CLAIMS

1. A method for wireless communications by a user equipment (UE), comprising:

determining one or more band combinations that ~~share an antenna~~ switch together to a second antenna port when at least one band in a band combination is switched from a first antenna port to the second antenna port; and

sending a list to a base station (BS) of one or more bands in the one or more band combinations ~~to a base station (BS).~~

~~2. The method of claim 1, wherein sending the list comprises,~~that are affected by switching from the first antenna port to the second antenna port for ~~each~~one or more uplink ~~band, sending a list of all~~ bands ~~having an~~in the one or more band combinations and the one or more uplink ~~communication affected by antenna switching~~bands.

2. The method of claim 1, wherein sending the list comprises, for each uplink band in the one or more band combinations, sending a list of all uplink bands in the one or more band combinations affected by transmit antenna switching.

3. The method of claim 1, wherein sending the list comprises, for each uplink band in the one or more band combinations, sending a list of all ~~bands having a~~ downlink ~~communication~~bands in the one or more band combinations affected by transmit antenna switching for the uplink band.

4. The method of claim 1, further comprising:

deciding whether to support transmit antenna switching for the one or more ~~bands in the one or more~~ band combinations, wherein

the list includes an indication to the BS of the decision.

5. The method of claim 1, wherein ~~determining~~at least one of the one or more band combinations comprises~~, for each of the one or more band combinations, determining at least one band~~ a first band configured for time division duplexing (TDD) ~~and least one~~uplink communication using a first transmit and receive chain and a second band configured for ~~at least one of:~~ frequency division duplexing (FDD) or 5G communication using a second transmit and receive chain, and wherein the first and second transmit and receive chains share the antenna switch.

6. The method of claim 5, further comprising:

switching, via the antenna switch, from ~~a~~the first antenna port to ~~a~~the second antenna port for transmitting a sounding reference signal (SRS), on ~~the~~ at least one uplink band configured for TDD.

7. The method of claim ~~6~~5, wherein determining the one or more band combinations comprises determining one or more downlink FDD bands configured for carrier aggregation (CA) with ~~the at least~~ one ~~band~~or more uplink bands configured for TDD.

8. The method of claim 7, wherein sending the list comprises, for each band configured for TDD, sending a list of the bands configured for CA with that band configured for TDD.

9. The method of claim 1, wherein sending the list ~~of the one or more band combinations to the BS~~ comprises sending the list at initialization of the UE or in response to the UE receiving an assignment of the one or more band combinations.

10. The method of claim 1, further comprising:

receiving scheduling information from the BS based on the list.

11. The method of claim 1, further comprising:

refraining from performing transmit antenna switching for the one or more band combinations.

12. A method for wireless communications by a base station (BS), comprising:

receiving, from a user equipment (UE), a list of one or more bands ~~of~~in one or more band combinations ~~that share an antenna switch;~~ affected by switching together to a second antenna port, when at least one of the one or more bands in the one or more band combinations switches from a first antenna port to the second antenna port, for one or more uplink bands in the one or more band combinations and

the one or more uplink bands; and scheduling the UE based on the received list.

13. The method of claim 12, wherein the received list comprises, for each uplink band in the one or more band combinations, a list of all ~~bands~~ uplink bands in the one or more band combinations having an uplink communication affected by transmit antenna switching.

14.—— The method of claim 12, wherein the received list comprises, for each uplink band in the one or more band combinations, a list of all ~~bands~~ downlink bands in the one or more band combinations having a downlink communication affected by transmit antenna switching for the uplink band.

15.—— The method of claim 12, wherein the received list includes an indication to the BS of a decision regarding whether transmit antenna switching is supported for the one or more bands in the one or more band combinations.

16.—— The method of claim 12, wherein ~~the each~~at least one of the one or more band combinations comprises ~~at least one~~a first band configured for time division duplexing (TDD) uplink communication using a first transmit and ~~least one~~receive chain and a second band configured for ~~at least one of:~~ frequency division duplexing (FDD) or 5G communication using a second transmit and receive chain, and wherein the first and second transmit and receive chains share the antenna switch.

17.—— The method of claim 16, wherein the one or more band combinations comprises one or more downlink FDD bands configured for carrier aggregation (CA) with the ~~at least~~ one ~~band~~or more bands configured for TDD.

18.—— The method of claim 12, wherein scheduling the UE based on the received list comprises avoiding scheduling the UE in subframes in which the one or more band combinations are configured for communicating.

19.—— The method of claim 12, further comprising:

——— determining whether the UE supports a shortened transmission time interval (sTTI), wherein

——— scheduling the UE based on the received list comprises scheduling the sTTI for communications in subframes in which the one or more band combinations are configured for communicating.

20.—— The method of claim 12, wherein scheduling the UE based on the received list comprises, based on the received list, selecting at least one of: a modulations scheme or data pattern for scheduling in subframes in which the one or more band combinations are configured for communicating.

21.—— The method of claim 12, wherein scheduling the UE based on the received list comprises scheduling the UE for multiple transmit antenna switching for sounding reference signal (SRS) transmission only in special subframes.

22.—— The method of claim 12, wherein scheduling the UE based on the received list comprises scheduling the UE for aperiodic transmit antenna switching for sounding reference signal (SRS) transmission.

23.—— The method of claim 12, wherein scheduling the UE based on the received list comprises scheduling the UE for transmit antenna switching for sounding reference signal (SRS) transmission at a reduced periodicity based on the received list.

24.—— The method of claim 12, wherein scheduling the UE based on the received list comprises refraining from scheduling the UE for transmit antenna switching for sounding reference signal (SRS) transmission for the one or more ~~band combinations~~bands.

25.—— An apparatus for wireless communications by a user equipment (UE), comprising:

——— means for determining one or more band combinations that ~~share an~~switch together to a second antenna ~~switch~~port when at least one band in a band combination is switched from a first antenna port to the second antenna port; and

——— means for sending a list to a base station (BS) of one or more bands in the one or more band combinations ~~to a base station (BS).~~

~~26. The apparatus of claim 25, wherein sending the list comprises,~~that are affected by switching from the first antenna port to the second antenna port for ~~each~~one or more uplink ~~band, sending a list of all~~ bands ~~having an~~in the one or more band combinations and the one or more uplink ~~communication affected by antenna switching~~bands.

~~27.~~ ——26. The apparatus of claim 25, wherein sending the list comprises, for each uplink band in the one or more band combinations, sending a list of all uplink bands in the one or more band combinations having an uplink communication affected by transmit antenna switching.

27. The apparatus of claim 25, wherein sending the list comprises, for each uplink band in the one or more band combinations, sending a list of all ~~bands having a~~ downlink bands in the one or more band combinations having a downlink communication affected by transmit antenna switching for the uplink band.

28.—— An apparatus for wireless communications by a base station (BS), comprising:

——— means for receiving, from a user equipment (UE), a list of one or more bands ~~of one or more band combinations that share an antenna switch; and~~

in one or more band combinations affected by switching together to a second antenna port, when at least one of the one or more bands in the one or more band combinations switches from a first antenna port to the second antenna port, for one or more uplink bands in the one or more band combinations and the one or more uplink bands; and means for scheduling the UE based on the received list.

29.—— The apparatus of claim 28, wherein the received list comprises, for each uplink band in the one or more band combinations, a list of all uplink bands in the one or more band combinations having an uplink communication affected by transmit antenna switching.

30.—— The apparatus of claim 28, wherein the received list comprises, for each uplink band in the one or more band combinations, a list of all downlink bands in the one or more band combinations having a downlink communication affected by transmit antenna switching~~.~~ for the uplink band.