CLAIMS

1. A method of wireless communication performed by an apparatus of a user equipment (UE), comprising:

determining a first transmit power for transmission of a preamble of a random access message based at least in part on a first component carrier, wherein the first component carrier transmits the preamble or a payload of the random access message;

determining a second transmit power for transmission of the payload based at least in part on a second component carrier,

wherein the payload includes a physical uplink shared channel (PUSCH) communication, and

wherein the random access message includes both the preamble and the payload;

transmitting the preamble using the first transmit power; and

transmitting the payload using the second transmit power,

wherein the first transmit power and the second transmit power are based at least in part on a transmission prioritization used to accommodate a power constraint, and

wherein transmitting the preamble using the first transmit power is prioritized over other uplink transmissions that occur in parallel with the preamble.

2. The method of claim 1, wherein the first transmit power is determined based at least in part on a first set of parameters,

wherein the second transmit power is determined based at least in part on a second set of parameters, and

wherein the first set of parameters is different from the second set of parameters.

3. The method of claim 2, wherein the first set of parameters includes at least one of:

a transmission occasion in which the preamble is to be transmitted,

a pathloss measurement for a carrier to be used to transmit the preamble,

a transmission bandwidth assigned for transmission of the preamble,

a power spectral density target for transmission of the preamble, and

a pathloss compensation factor for transmission of the preamble.

4. The method of claim 2, wherein the second set of parameters includes at least one of:

a transmission occasion in which the payload is to be transmitted,

a pathloss measurement for a carrier to be used to transmit the payload,

a transmission bandwidth assigned for transmission of the payload,

a power spectral density target for transmission of the payload, and

a pathloss compensation factor for transmission of the payload.

5. The method of claim 1, wherein at least one of the first transmit power and the second transmit power is prioritized over a transmit power used for the other uplink transmissions,

wherein the other uplink transmissions overlap with the preamble or the payload.

6. The method of claim 5, wherein the other uplink transmissions include a physical uplink control channel (PUCCH) communication.

7. The method of claim 5, wherein the other uplink transmissions include a PUSCH transmission.

8. An apparatus for wireless communication, comprising:

a memory; and

one or more processors coupled to the memory, the one or more processors configured to:

determine a first transmit power for transmission of a preamble of a random access message based at least in part on a first component carrier, wherein the first component carrier transmits the preamble or a payload of the random access message;

determine a second transmit power for transmission of the payload based at least in part on a second component carrier,

wherein the payload includes a physical uplink shared channel (PUSCH) communication, and

wherein the random access message includes both the preamble and the payload;

transmit the preamble using the first transmit power; and

transmit the payload using the second transmit power,

wherein the first transmit power and the second transmit power are based at least in part on a transmission prioritization used to accommodate a power constraint, and

wherein transmitting the preamble using the first transmit power is prioritized over other uplink transmissions that occur in parallel with the preamble.

9. The apparatus of claim 8, wherein the first transmit power is determined based at least in part on a first set of parameters,

wherein the second transmit power is determined based at least in part on a second set of parameters, and

wherein the first set of parameters is different from the second set of parameters.

10. The apparatus of claim 9, wherein the first set of parameters includes at least one of:

a transmission occasion in which the preamble is to be transmitted,

a pathloss measurement for a carrier to be used to transmit the preamble,

a transmission bandwidth assigned for transmission of the preamble,

a power spectral density target for transmission of the preamble, and

a pathloss compensation factor for transmission of the preamble.

11. The apparatus of claim 9, wherein the second set of parameters includes at least one of:

a transmission occasion in which the payload is to be transmitted,

a pathloss measurement for a carrier to be used to transmit the payload,

a transmission bandwidth assigned for transmission of the payload,

a power spectral density target for transmission of the payload, and

a pathloss compensation factor for transmission of the payload.

12. The apparatus of claim 8, wherein at least one of the first transmit power and the second transmit power is prioritized over a transmit power used for the other uplink transmissions,

wherein the other uplink transmissions overlap with the preamble or the payload.

13. The apparatus of claim 12, wherein the other uplink transmissions include a physical uplink control channel (PUCCH) communication.

14. The apparatus of claim 12, wherein the other uplink transmissions include a PUSCH transmission.

15. A non-transitory computer-readable medium storing instructions for wireless communication which, when executed by a computer, cause the computer to carry out the method of any one of claims 1 to 7.