

WHAT IS CLAIMED IS:

1. A terminal device for communicating with a network device of a communication network, the terminal device comprising:

at least one processor; and

at least one memory storing instructions that, when executed by the at least one processor, cause the terminal device at least to perform:

determining an operating architecture type of the terminal device, wherein the terminal device is servable by a first cell of the communication network and at least one second cell of the communication network in an intra-band operation, wherein:

the operating architecture type is determined in accordance with a determination that the terminal device indicates to the network device a capability of supporting the first cell and the at least one second cell in a non-collocated intra-band operation, and, wherein;

if an indication indicating a collocated deployment of the first cell and the at least one second cell is received at the terminal device from the network device, the operating architecture type is determined by the terminal device as being a first operating architecture type; otherwise

if the network does not indicate to the terminal device a collocated deployment of the first cell and the at least one second cell, the operating architecture type is determined by the terminal device as being a second operating architecture type; and

applying at least one Radio Resource Management, RRM, requirement based on the determined operating architecture type of the terminal device.

2. The terminal device of claim 1, wherein

the at least one RRM requirement is applied corresponding to the determined operating architecture type for at least one of the following:

a scheduling restriction;

an interruption operation, or

an activation of the at least one second cell, or

a maximum transmit timing difference, MTTD/ maximum receive timing difference, MRTD requirement.

3. The terminal device of claim 2, wherein

in accordance with a determination that the first operating architecture type is determined as the operating architecture type of the terminal device, the at least one RRM requirement is applied by at least one of the following:

- applying a scheduling restriction to all carriers on a same band;
- applying an intra-band interruption on all carriers on the same band;
- applying an intra-band cell activation of the at least one second cell; or
- applying an intra-band MTTD/MRTD requirement.

4. The terminal device of claim 2, wherein

in accordance with a determination that the second operating architecture type is determined as the operating architecture type of the terminal device, the at least one RRM requirement is applied by at least one of the following:

- applying no scheduling restriction on the carriers on a same band;
- applying an inter-band interruption on the carriers on the same band;
- applying an inter-band cell activation delay of the at least one second cell; or
- applying an inter-band MTTD/MRTD requirement.

5. A network device of a communication network for communicating with a terminal device, wherein the terminal device is servable by a first cell of the communication network and at least one second cell of the communication network in an intra-band operation when the first cell and the at least one second cell are in a collocated deployment in the communication network; the network device comprising:

at least one processor; and

at least one memory storing instructions that, when executed by the at least one processor, cause the network device at least to perform:

receiving from the terminal device an indication of a capability of supporting the first cell and the at least one second cell in a non-collocated intra-band operation, and, in response to receiving the indication from the terminal device;

transmitting, to the terminal device, an indication indicating the collocated deployment of the first cell and the at least one second cell.

6. A method of operating a terminal device for communicating with a network device of a communication network, the method comprising:

determining an operating architecture type of the terminal device, wherein the

terminal device is served by a first cell of the communication network and at least one second cell of the communication network in an intra-band operation, wherein:

the operating architecture type is determined in accordance with a determination that the terminal device indicates to the network device a capability of supporting the first cell and the at least one second cell in a non-collocated intra-band operation, and, wherein;

if an indication indicating a collocated deployment of the first cell and the at least one second cell is received at the terminal device from the network device, the operating architecture type is determined by the terminal device as being a first operating architecture type; otherwise

if the network does not indicate to the terminal device a collocated deployment of the first cell and the at least one second cell, the operating architecture type is determined by the terminal device as being a second operating architecture type; and

applying at least one Radio Resource Management, RRM, requirement based on the determined operating architecture type of the terminal device.

7. A computer readable medium comprising instructions which, when executed by a terminal device, cause the terminal device to perform the method of claim 6.

8. A terminal device for communicating with a network device of a communication network, wherein the terminal device is operable in accordance with a Type 1 mode for supporting collocated intra-band NR-CA and in accordance with a Type 2 mode for supporting non-collocated intra-band NR-CA, wherein following indicating to the network device that the terminal device is capable of supporting non-collocated intra-band NR-CA and receiving in reply an indication from the network device that the terminal device is to operate in accordance with the Type 1 mode, the terminal device is configured to handle a relative receive timing difference of 3 microseconds between a timing of different received carriers.