

Modulating Signal Information

In our research project, we are using an equipment that is a nano-cell LTE base station manufactured by *ip.access* (Model: nanoLTE E40). This base-station follows standards and specifications identified by 3GPP for LTE communication.

The modulating signal used by this base-station is OFDMA in downlink and SC-FDMA in uplink (as defined for LTE by 3GPP).

The frequency tolerance for the base station is ± 0.1 ppm as defined by 3GPP in TS36.104 Section 6.5.

Frequency Bands supported by the base-station

E-UTRA Operating Band	Uplink (UL) operating band BS receive UE transmit	Downlink (DL) operating band BS transmit UE receive	Duplex Mode
	F _{UL_low} – F _{UL_high}	F _{DL_low} – F _{DL_high}	
1	1920 MHz – 1980 MHz	2110 MHz – 2170 MHz	FDD
3	1710 MHz – 1785 MHz	1805 MHz – 1880 MHz	FDD
7	2500 MHz – 2570 MHz	2620 MHz – 2690 MHz	FDD
20	832 MHz – 862 MHz	791 MHz – 821 MHz	