

10) Difference b/w Bluetooth and Zigbee

	Bluetooth	Zigbee
i) Responsible	Responsible for bluetooth standards and devices	Responsible for managing zigbee, testing and approving Zigbee devices.
ii) Range	Vary from 2.4 GHz to 2.483 GHz	Mostly from 2.4 GHz world wide
iii) RF channels	79 RF channels are used	16 RF channels are used.
iv) Modulation technique	It uses GFSK modulation technique	It uses PSK and PSK modulation technique
v) IEEE	Developed under 802.15.1	Developed under 802.15.4
vi) Spread Spectrum	It uses Frequency Hopping Spread Spectrum (FHSS).	It uses direct Spread Spectrum (DSS).

vii)	Nodes	8 cells of Nodes in Bluetooth	There is more than 65000 cell nodes in Zigbee.
viii)	Bandwidth	Requires low bandwidth	Requires low bandwidth but greater than bluetooth's bandwidth.
ix)	Radio signal range	Upto ten meters	Zigbee is ten to hundred (10 to 100) meters
x)	Batteries	May be recharged / Rechargeable	May not be recharged, they last longer
xi)	Data rates	It uses high data rates and low of power on large packet devices	Uses low data rates & little power on small packet devices.
xii)	Network speed	Upto 250 mb per second	Upto 1 mb per second
xiii)	Time Durability	It takes a join a network using bluetooth is about 3 seconds.	It takes a join a network using zigbee is about 300 milliseconds.

xiv) Protocol stack

It is 260 k bytes in size

It is 22k bytes in size.

xv) Applications

Computer Peripherals like wireless keyboards, mice, headsets and bluetooth based applications

SCADA system sensors, medical devices and television remote controls.