

Standard Antennas by Protocol



Protocol	Layer Stack	Peak Bit Rate	Topology	Outdoor Range	Frequency
WiFi	IEEE 802.11	(b) 11 Mbps	Star	250m	2.4GHz, 5GHz
		(g) 54 Mbps			
		(n) 150 Mbps			
		(ac) 867 Mbps			
Bluetooth	IEEE 802.15.1	3 Mbps	Star	100m	2.4GHz
BLE	IEEE 802.15.1	0.27 Mbps		50m	2.4GHz
Cellular	GSM/EDGE	1.89 Mbps	Star	26km	850MHz, 900MHz, 1.8GHz, 1.9GHz
	LTE	326 Mbps		?	Varied by country, 1.8 – 3.5GHz
ZigBee	IEEE 802.15.4	0.25 Mbps	Mesh	75m	868MHz, 915MHz, 2.4GHz
WirelessHART	IEEE 802.15.4	0.25 Mbps		250m	2.4GHz
LoRa	IEEE 802.15.4	(Low) 183 Bps (Hi) 37.5 Kbps		4km	868MHz, 915MHz
				1km	
SigFox	IEEE 802.15.4	100 bps	Star	3-10km	868Mz, 915MHz