Wireless Connectivity Comparison

NORDIC®
SEMICONDUCTOR

Short-Range Wireless

	RFID	NFC	ANT	Bluetooth Low Energy	Bluetooth Classic	Wi-Fi
Topology	Point to point	Point to point	Star, mesh	Star	Star	Star
Throughput	-	400 kbps	60 kbps	1.4 Mbps	2.1 Mbps	< 1 Gbps
Range	10 m	10 cm	100 m	300 m	100 m	300 m
Power consumption	Very low	Very low	Low	Low	High	Very high
Smart phone connectivity	No	Yes	Partial	Yes	Yes	Yes
Open standard	Yes	Yes	Yes	Yes	Yes	Yes

Mesh Technologies

	Bluetooth mesh	Thread	Zigbee
Type	Managed flood	Routed	Routed
Application layer	Models	Out of spec	Profiles
Network size	Large	Small	Large
Throughput	3.45 kbps	80 kbps	64 kbps
Latency	Low	Low	Low
Single point of failure	No	No	Yes
Low power role	Yes	Yes	Yes
Internet	Out of spec	IPv6/Border Router	Out of spec
Smart phone connectivity	Yes	No	No
Open standard	Yes	Yes	Yes

Low-Power WAN

	Sigfox	LoRa	NB-IoT	LTE-M
Cellular	No	No	Yes	Yes
Frequency	Unlicensed sub 1 GHz ISM	Unlicensed sub 1 GHz ISM	Licensed LTE bands	Licensed LTE bands
Bandwidth	100 Hz	125/250/500 kHz	200 kHz	1.4 MHz
Throughput (UL/DL)	100/65 bps	50 kbps	50 kbps	300/375 kbps
Range (km)	25+	10+	15+	11+
Latency	Very high	High	Low	Very low
Security	No	Good	Great	Great
Mobility	No	Yes	Partial	Yes
Roaming	No	No	Not yet	Yes
Open standard	No	No	Yes	Yes