

# u-connect for u-blox short range radio modules



	u-connectXpress						
	ANNA-B1	NINA-B1	NINA-B2	NINA-B31	NINA-W13	NINA-W15	ODIN-W2
<b>Bluetooth Technology</b>							
Bluetooth qualification [version]	5.0	5.0	4.2	5.0		4.2	4.0
Bluetooth profiles *	G	G	S, G	G		S, G	S, D, P, G
Bluetooth BR/EDR			•			•	•
Advertisement extensions (BT 5.0)	•	•		•			
2 Mbps phy (BT 5.0)	•	•		•			
Long range, coded phy (BT 5.0)				•			
Number of parallel links	7 central 1 peripheral		7 central 1 peripheral	7 central 1 peripheral		7 central 1 peripheral	7 central 1 peripheral
Simultaneous Central & Peripheral Beacon	•	•	•	•		•	•
Serial port service	•	•	•	•		•	•
Simultaneous GATT, serial port service	•	•	•	•		•	•
<b>Wi-Fi Technology</b>							
Wi-Fi IEEE 802.11 standards					b/g/n	b/g/n	a/b/g/n
MIMO							•
Micro access point					•	•	•
Simultaneous client & access point					•	•	•
Simultaneous WiFi & Bluetooth						•	•
Max connections					4	4	10
Roaming 802.11r							•
<b>Network and IoT</b>							
MQTT/MQTT-SN							•
TCP					•	•	•
UDP					•	•	•
Point-to-point protocol (PPP)					•	•	•
Bridge interface					•	•	•
DHCP Client & Server					•	•	•
DNS Client					•	•	•
Adress conflict detection					•	•	•
IP forwarding					•	•	•
Combined IPv4, limited IPv6 stack					•	•	•
TCP keep-alive					•	•	•
Ping command					•	•	•
<b>Security</b>							
Secure Boot			•	•	•	•	
Wi-Fi security					WPA/WPA2	WPA/WPA2	WEP 64/128, WPA/WPA2
Wi-Fi Enterprise security					PEAP, EAP-TLS	PEAP, EAP-TLS	LEAP, PEAP, EAP-TLS
Wi-Fi security - protected mgt frames							•
LE secure connection	•	•		•			
Bluetooth privacy							•
SSL/TLS certificate & private key mgr					•	•	•
TLS (Transport layer security)							•
<b>u-connect streams</b>							
Supported streams	SPS	SPS	SPS, SPP, UART	SPS, I2C, UART	TCP, UDP, UART	TCP, UDP, SPS, SPP, UART	TCP, UDP, SPS, SPP, MQTT, TLS, UART
<b>System and interfaces</b>							
Configuration over the air (COA)	•	•	•	•	•	•	•
Multi-drop / Extended data mode	•	•	•	•	•	•	•
NFC Tag	•	•		•			
GPIO	•	•	•	•	•	•	•
I2C				•			
RMI (Ethernet)					•	•	•
UART	•	•	•	•	•	•	•

\* S = SPP G = GATT D = DUN P = PAN

u-connectScript	
NINA-B31	
<b>Bluetooth Technology</b>	
Bluetooth qualification [version]	5.0
Bluetooth profiles	GATT
Advertisement extensions (BT 5.0)	•
2 Mbps phy (BT 5.0)	•
Long range, coded phy (BT 5.0)	•
Number of parallel links	1
Beacon	•
BLE GAP scan	•
Serial port service	•
<b>Script</b>	
Programming language	JavaScript
Development environment	u-blox Script IDE plugin for Microsoft Visual Studio Code
Power save mode	•
Available Flash file system	85 kB
Available RAM application	40 kB
<b>Security</b>	
Secure Boot	•
Bluetooth pairing methods	Just Works™
<b>u-connect streams</b>	
Supported streams	SPS, I2C
<b>Interfaces</b>	
GPIO	•
I2C	•
UART	•