

	Bluetooth modules																	
	ALMA-B101	ALMA-B106	NORA-B201	NORA-B206	NORA-B211	NORA-B216	NORA-B221	NORA-B226	NORA-B261	NORA-B266	NORA-B276	NORA-B100	NORA-B101	NORA-B106	NORA-B120	NORA-B121	NORA-B126	
Grade																		
Automotive																		
Professional	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Standard																		
Physical																		
Image																		
Size [mm]	10.4 × 11.2 × 1.9 / 10.4 × 14.3 × 1.9		10.4 × 11.2 × 1.9 / 10.4 × 14.3 × 1.9									10.4 × 14.3 × 1.7						
Operating temperature [°C]	-40 to +85		-40 to +85									-40 to +105						
Radio																		
Chip inside	nRF54H20		nRF54L15		nRF54L10		nRF54L05		nRF54L10		-L05		nRF5340					
Bluetooth® Core qualified	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.2	5.2	5.2	5.2	5.2	5.2	
Bluetooth Low Energy	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Thread / Zigbee	•/-	•/-	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
NFC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Max range [meters]	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	700	700	400	1700	1700	1500	
Bluetooth output power [dBm]	13	13	10	10	10	10	10	10	10	10	10	8	8	5	18	18	15	
Antenna type (see footnotes)	p	a	p	a	p	a	p	a	p	a	a	u	p	a	u	p	a	
Application software																		
u-connectXpress									•	•	•							
Open CPU for embedded SW	•	•	•	•	•	•	•	•				•	•	•	•	•	•	
Interfaces																		
CAN FD	◆	◆																
UART	◆	◆	◆	◆	◆	◆	◆	◆	•	•	•	◆	◆	◆	◆	◆	◆	
SPI	◆	◆	◆	◆	◆	◆	◆	◆				◆	◆	◆	◆	◆	◆	
I2C	◆	◆	◆	◆	◆	◆	◆	◆				◆	◆	◆	◆	◆	◆	
I2S	◆	◆	◆	◆	◆	◆	◆	◆				◆	◆	◆	◆	◆	◆	
USB	◆	◆										◆	◆	◆	◆	◆	◆	
PDM and/or PWM	◆	◆	◆	◆	◆	◆	◆	◆				◆	◆	◆	◆	◆	◆	
GPIO pins	64	64	31	31	31	31	31	31				48	48	48	46	46	46	
AD converters [number of bits]	14	14	14	14	14	14	14	14				12	12	12	12	12	12	
Features																		
MCU (see footnotes)	2 x M33/RISC-V*		Arm® Cortex-M33, RISC-V, 128MHz									Dual-core Arm® Cortex-M33						
RAM [kB] (including all cores)	1 MB		256	256	192	192	96	96				512 + 64						
NVM [kB] (including all cores)	2 MB		1524	1524	1012	1012	500	500				1024 + 256						
Matter	◆	◆	◆	◆	◆	◆						◆	◆	◆	◆	◆	◆	
Bluetooth mesh	◆	◆	◆	◆	◆	◆	◆	◆				◆	◆	◆	◆	◆	◆	
Direction finding (AoA/AoD)												◆	◆	◆	◆	◆	◆	
Bluetooth long range	◆	◆	◆	◆	◆	◆	◆	◆	•	•	•	◆	◆	◆	◆	◆	◆	
Bluetooth Channel Sounding			◆	◆	◆	◆	◆	◆	•	•								
Bluetooth LE audio	◆	◆										◆	◆	◆	◆	◆	◆	
Low Energy Serial Port Service	◆	◆	◆	◆	◆	◆	◆	◆	•	•	•	◆	◆	◆	◆	◆	◆	
Arm TrustZone®	◆	◆	◆	◆	◆	◆	◆	◆	•	•	•	◆	◆	◆	◆	◆	◆	
Security Root of Trust	◆	◆	◆	◆	◆	◆	◆	◆	•	•	•	◆	◆	◆	◆	◆	◆	
Secure boot	◆	◆	◆	◆	◆	◆	◆	◆	•	•	•	◆	◆	◆	◆	◆	◆	
FOTA	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	
Throughput [Mbit/s]	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.8	0.8	0.8	1.4	1.4	1.4	1.4	1.4	1.4	
Simultaneous GATT server / client	◆	◆	◆	◆	◆	◆	◆	◆	•	•								

p = Antenna pin
a = Internal PCB antenna
u = U.FL antenna connector

*2 x M33/RISC-V = Dual Arm® Cortex®-M33, Dual RISC-V, 320MHz

◆ = Feature enabled by hardware. The actual support depends on the open CPU application software.

	Bluetooth modules									
	NINA-B501	NINA-B506	NINA-B400	NINA-B401	NINA-B406	NINA-B410	NINA-B411	NINA-B416	NINA-B301	NINA-B306
Grade										
Automotive										
Professional	•	•	•	•	•	•	•	•	•	•
Standard										
Physical										
Image										
Size [mm]	10.0 x 11.6 x 2.4 / 10.0 x 15.0 x 2.4		10.0 x 11.6 x 2.2 / 10.0 x 15.0 x 2.2						10.0 x 11.6 x 2.2 / 10.0 x 15.0 x 2.2	
Operating temperature [°C]	-40 to +85		-40 to +105						-40 to +85	
Radio										
Chip inside	MCX W71		nRF52833						nRF52840	
Bluetooth® Core qualified	5.3	5.3	5.1	5.1	5.1	5.1	5.1	5.1	5.0	5.0
Bluetooth Low Energy	•	•	•	•	•	•	•	•	•	•
Thread / Zigbee	•	•	•	•	•				•	•
NFC			•	•	•	•	•	•	•	•
Max range [meters]	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Bluetooth output power [dBm]	13	13	11	11	11	11	11	11	10	10
Antenna type (see footnotes)	p	a	u	p	a	u	p	a	p	a
Application software										
u-connectXpress						•	•	•		
Open CPU for embedded SW	•	•	•	•	•				•	•
Interfaces										
FlexCAN / CAN FD	♦	♦								
UART	♦	♦	♦	♦	♦	2	2	2	♦	♦
SPI	♦	♦	♦	♦	♦				♦	♦
I2C	♦	♦	♦	♦	♦				♦	♦
I2S	♦	♦	♦	♦	♦				♦	♦
USB			♦	♦	♦				♦	♦
PDM and PWM	♦	♦	♦	♦	♦				♦	♦
GPIO pins	29	29	40	40	40	26	26	26	38	38
AD converters [number of bits]	16	16	12	12	12				12	12
Features										
AT command interface			•						•	
Direction finding (AoA/AoD)			♦	♦	♦					
MCU (see footnotes)	M33		M4F	M4F	M4F				M4F	M4F
RAM [kB]	128 + 88		128	128	128				256	256
NVM [kB]	1024 + 256		512	512	512				1024	1024
Matter	♦	♦							♦	♦
Max Bluetooth connections	24	24	20	20	20	8	8	8	20	20
Bluetooth long range	♦	♦	♦	♦	♦	•	•	•	♦	♦
Bluetooth mesh			♦	♦	♦				♦	♦
Low Energy Serial Port Service	♦	♦	♦	♦	♦	•	•	•	♦	♦
Channel Sounding										
Arm TrustZone®	♦	♦								
Security Root of Trust	♦	♦								
On-the-fly flash encryption	♦	♦								
Throughput [Mbit/s]	1.4	1.4	1.4	1.4	1.4	0.8	0.8	0.8	1.4	1.4
Secure boot	♦	♦	♦	♦	♦	•	•	•	♦	♦
FOTA	♦	♦	♦	♦	♦				♦	♦
Dual-PAN HW support	♦	♦								

p = Antenna pin
a = Internal PCB antenna
u = U.FL antenna connector

M33 = 96 MHz Arm® Cortex-M33
M4F = 64 MHz Arm® Cortex-M4 with FPU

♦ = Feature enabled by hardware. The actual support depends on the open CPU application software.

Stand-alone Bluetooth modules



	Bluetooth modules																									
	NINA-B221		NINA-B222		NINA-B111		NINA-B112		ANNA-B501		ANNA-B505		ANNA-B561		ANNA-B565		ANNA-B402		ANNA-B412		ANNA-B112					
Grade																										
Automotive																										
Professional	•		•		•		•		•		•		•		•		•		•		•					
Standard																										
Physical																										
Image	      																									
Size [mm]	10 x 10.6 x 2.2 / 10 x 14.0 x 3.8								6.5 x 6.5 x 1.2																	
Operating temperature [°C]	-40 to +85								-40 to +85						-40 to +105				-40 to +85							
Radio																										
Chip inside	ESP32		nRF52832				nRF54L15				nRF52833				nRF52832											
Bluetooth® Core qualified	4.2	4.2	5.0		5.0		6.0		6.0		6.0		6.0		5.1		5.1		5.0							
Bluetooth Low Energy	•	•	•		•		•		•		•		•		•		•		•							
Bluetooth BR/EDR	•	•																								
Thread / Zigbee											•				•											
NFC			•		•		•		•		•		•		•		•		•							
Max range [meters]	200	200	350		350		TBD		TBD		TBD		TBD		800 / 1400 *				160 / 190 *							
Bluetooth output power [dBm]	8	8	7		6		8		8		8		8		9 / 13 *				5 / 8 *							
Antenna type (see footnotes)	p	m	p		m		p		c		p		c		c / p				c / p							
Application software																										
u-connectXpress	•		•		•		•		•		•		•		•				•		•					
Open CPU for embedded SW			•		•		•		•		•		•		•				•		•					
Interfaces																										
UART	1	1	◆		1		◆		1		◆		◆		•		•		◆		2		◆		1	
SPI	1	1	◆		◆		◆		◆		◆		◆		◆				◆		◆		◆			
I2C			◆		◆		◆		◆		◆		◆		◆				◆		◆		◆			
I2S			◆		◆		◆		◆		◆		◆				◆		◆		◆		◆			
USB																	◆									
PDM and PWM			◆		◆		◆		◆		◆				◆		◆		◆		◆		◆			
GPIO pins	16	16	19		7		19		7		32		32						33		19		25		11	
AD converters [number of bits]			12		12		12		12		14		14						12		12		12		12	
Features																										
AT command interface	•		•		•		•		•		•		•		•				•		•		•			
Direction finding (AoA/AoD)																			◆							
MCU (see footnotes)			M4F		M4F		M4F		M4F		M33/ RISC-V		M33/ RISC-V		M33/ RISC-V				M4F		M4F		M4F			
RAM [kB]			64		64		64		64		256		256		256				128		128		64			
NVM [kB]			512		512		512		512		1524		1524		1524				512		512		512			
Matter											◆		◆		◆				◆		◆		◆			
Max Bluetooth connections	8	8	20		7		20		7										20		7		20		7	
Bluetooth long range											◆		◆		•				•							
Bluetooth Channel Sounding											◆		◆		•				•							
Bluetooth mesh			◆		◆		◆		◆		◆		◆		◆				◆		◆		◆			
Low Energy Serial Port Service	•		◆		•		◆		•		◆		◆		•				•		◆		•			
Throughput [Mbit/s]	1.0	1.0	1.4		0.8		1.4		0.8		1.4		1.4		0.8				0.8		1.4		0.8			
Secure boot	•										◆		◆		•				•		◆		•			
FOTA			◆		◆		◆		◆		◆		◆		◆				◆		◆		◆			

c = Internal chip antenna
p = Antenna pin
a = Internal PCB antenna
m = Internal metal PIFA antenna

M4F = 64 MHz Arm® Cortex-M4 with FPU
M33/ RISC-V = Arm® Cortex-M33, RISC-V, 128MHz
* = Different values for use with internal or external antenna

◆ = Feature enabled by hardware. The actual support depends on the open CPU application software.

UBX-14003456 - R34 - February 2026



Stand-alone Bluetooth modules



	Bluetooth modules									Antenna boards	
	BMD-360	BMD-380	BMD-340	BMD-341	BMD-345	BMD-350	BMD-301	BMD-300	BMD-330	ANT-B10	ANT-B11
Grade											
Automotive											
Professional											
Standard	•	•	•	•	•	•	•	•	•	•	•
Physical											
Image											
Size [mm]	9.8 x 14.0 x 1.9	7.5 x 9.5 x 1.5	10.2 x 15.0 x 1.9			6.4 x 8.6 x 1.5	9.8 x 14.0 x 1.9			126 x 126	29.5 x 93.5
Operating temperature [°C]	-40 to +85									-40 to +85	-40 to +85
Radio											
Chip inside	nRF52811	nRF52840				nRF52832			nRF52810	nRF52833	nRF52833
Bluetooth® Core qualified	5.1	5.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.1
Bluetooth Low Energy	•	•	•	•	•	•	•	•	•	•	•
Thread	•	•	•	•	•						
Zigbee		•	•	•	•						
NFC		•	•	•	•	•	•	•			
Max range [meters]	200	500	500	750	1700	190	400	200	200	70	70
Bluetooth output power [dBm]	3	7	7	11	18	5	9	3	3	N.A.	N.A.
Antenna type (see footnotes)	a	c	a	u	u	c	u	a	a	8 patch elements	3 patch elements
Application software											
u-locateEmbed										•	•
Open CPU for embedded SW	•	•	•	•	•	•	•	•	•		
Interfaces											
UART	♦	♦	♦	♦	♦	♦	♦	♦	♦	1	1
SPI	♦	♦	♦	♦	♦	♦	♦	♦	♦		
I2C	♦	♦	♦	♦	♦	♦	♦	♦	♦		
I2S		♦	♦	♦	♦	♦	♦	♦			
USB		♦	♦	♦	♦						
PDM and PWM	♦	♦	♦	♦	♦	♦	♦	♦	♦		
GPIO pins	32	44	48	48	44	32	32	32	32		
AD converters [number of bits]	12	12	12	12	12	12	12	12	12		
Features											
AT command interface										•	•
Direction finding (AoA/AoD)	♦									•	•
MCU (see footnotes)	M4	M4F	M4F	M4F	M4F	M4F	M4F	M4F	M4		
RAM [kB]	24	256	256	256	256	64	64	64	24		
NVM [kB]	192	1024	1024	1024	1024	512	512	512	192		
Matter		♦	♦	♦	♦						
Max Bluetooth connections	4	20	20	20	20	20	20	20	4		
Bluetooth mesh		♦	♦	♦	♦	♦	♦	♦			
Bluetooth long range	♦	♦	♦	♦	♦						
Throughput [Mbit/s]	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4		
Secure boot		♦	♦	♦	♦					•	•
FOTA	♦	♦	♦	♦	♦	♦	♦	♦	♦		
Low Energy Serial Port Service	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦

c = Internal chip antenna
p = Antenna pin
a = Internal PCB antenna
u = U.FL antenna connector

M4 = 64 MHz Arm® Cortex-M4
M4F = 64 MHz Arm® Cortex-M4 with FPU

♦ = Feature enabled by hardware. The actual support depends on the open CPU application software.

UBX-14003456 - R34 - February 2026



Stand-alone short range radio modules

S

	Multiradio (Wi-Fi and Bluetooth)											
	NORA-W401	NORA-W406	NORA-W301	NORA-W306	NORA-W361	NORA-W366	NORA-W251 AWS	NORA-W256 AWS	NORA-W101 -00B	NORA-W106 -00B	NORA-W106 -10B	
Grade												
Automotive	•	•	•	•	•	•	•	•	•	•	•	
Professional												
Standard												
Physical												
Image												
Size [mm]	10.4 × 14.3 × 1.9		10.4 × 14.3 × 1.9				10.4 × 14.3 × 1.9		10.4 × 14.3 × 1.9			
Operating temperature [°C]	-40 to +85											
Radio												
Chip inside	ESP32-C6		RTL8720DF				ESP32-S3		ESP32-S3			
Bluetooth® Core qualified	5.3		5.3		5.3		5.0		5.0			
Bluetooth Low Energy	•	•	•	•	•	•	•	•	•	•	•	
Thread	•	•										
Bluetooth output power [dBm]	10	10	6.5	8	6.5	8	8	8	10	10	10	
Wi-Fi band [GHz]	2.4		2.4 and 5		2.4 and 5		2.4	2.4	2.4	2.4	2.4	
Wi-Fi IEEE 802.11 standards	b/g/n/ax		a/b/g/n		a/b/g/n		b/g/n	b/g/n	b/g/n	b/g/n	b/g/n	
Wi-Fi output power [dBm]	20	20	20	20	20	20	20	20	20	20	20	
Max Wi-Fi range [meters]	500	500	500	500	500	500	500	500	500	500	500	
Antenna type (see footnotes)	p	a	p	a	p	a	p	a	p	a	a	
Application software												
AWS IoT ExpressLink							•	•				
u-connectXpress					•	•						
Open CPU for embedded apps	•	•	•	•					•	•	•	
Interfaces												
UART	♦	♦	♦	♦	2	2	•	•	♦	♦	♦	
USB	♦	♦	♦	♦					♦	♦	♦	
SDIO	♦	♦	♦	♦					♦	♦	♦	
SPI	♦	♦	♦	♦					♦	♦	♦	
I2C	♦	♦	♦	♦					♦	♦	♦	
I2S	♦	♦	♦	♦					♦	♦	♦	
RMII												
GPIO pins	22	22	21	21					38	38	33	
AD converters [number of bits]	12	12	12	12					12	12	12	
Features												
AT command interface					•	•	•	•				
MCU (see footnotes)	RISC-V, 160 MHz		M33 + M23	M33 + M23			LX7	LX7	LX7	LX7	LX7	
RAM [kB]	512	512	512	512			512	512	512	512	8192	
NVM [MB]	4/8	4/8	4	4			8	8	8	8	ext	
Matter	♦	♦	♦	♦					♦	♦	♦	
Bluetooth LE audio												
Max Bluetooth connections	TBD	TBD	3	3	3	3	1	1	7	7	7	
Micro Access Point [stations]	TBD	TBD	5	5	5	5			10	10	10	
Throughput [Mbit/s]	150	150	72	72	2.5	2.5	0.1	0.1	150	150	150	
Wi-Fi enterprise security	♦	♦	♦	♦	•	•			♦	♦	♦	
End-to-end security (TLS)	♦	♦	♦	♦	•	•	•	•	♦	♦	♦	
Secure boot	♦	♦	♦	♦	•	•	•	•	♦	♦	♦	
WPA3	♦	♦	♦	♦	•	•	•	•	♦	♦	♦	

p = Antenna pin
a = Internal PCB antenna
ext = External flash required

LX7 = 240 MHz dual-core Xtensa LX7
M33 = 260 MHz Arm® Cortex-M33
M23 = 20 MHz Arm® Cortex-M23

♦ = Feature enabled by hardware. The actual support depends on the open CPU application software.

Stand-alone short range radio modules



	Multiradio (Wi-Fi and Bluetooth)						Wi-Fi	
	IRIS-W101	IRIS-W106	NINA-W151	NINA-W152	NINA-W156	NINA-W106	NINA-W131	NINA-W132
Grade								
Automotive								
Professional	•	•	•	•	•	•	•	•
Standard								
Physical								
Image								
Size [mm]	14.6 × 16.8 × 2.1 / 14.6 × 20.9 × 2.1		10.0 × 10.6 × 2.2 / 10.0 × 14.0 × 3.8 / 10.0 × 14.0 × 2.2					
Operating temperature [°C]	-40 to +85							
Radio								
Chip inside	RW610 / RW612		ESP32			ESP32	ESP32	
Bluetooth® Core qualified	5.4		4.2			4.2		
Bluetooth Low Energy	•	•	•	•	•	•		
Thread	•	•						
Bluetooth output power [dBm]	10	10	8	8	8	8		
Wi-Fi band [GHz]	2.4 and 5		2.4	2.4	2.4	2.4	2.4	2.4
Wi-Fi IEEE 802.11 standards	a/b/g/n/ax		b/g/n	b/g/n	b/g/n	b/g/n	b/g/n	b/g/n
Wi-Fi output power [dBm]	20	20	18	18	18	18	18	18
Max Wi-Fi range [meters]	500	500	500	400	400	400	500	400
Antenna type (see footnotes)	p	a	p	m	a	a	p	m
Application software								
u-connectXpress			•	•	•		•	•
Open CPU for embedded apps	•	•				•		
Interfaces								
UART	◆	◆	1	1	1	◆	1	1
USB	◆	◆						
SDIO	◆	◆						
SPI	◆	◆	1	1	1	◆	1	1
I2C	◆	◆				◆		
I2S	◆	◆				◆		
RMII	◆	◆	1	1	1	◆	1	1
GPIO pins	63	63	16	16	18	26	16	16
AD converters [number of bits]	16	16				12		
Features								
AT command interface			•	•	•		•	•
MCU (see footnotes)	M33	M33				LX6		
RAM [kB]	1216	1216				520		
NVM [MB]	8/16	8/16				4 / 8		
Matter	◆	◆				◆		
Bluetooth LE audio	◆	◆						
Max Bluetooth connections	16	16	8	8	8	8		
Low Energy Serial Port Service			•	•	•	◆		
Throughput [Mbit/s]	143	143	13	13	13	25	16	16
Micro Access Point [stations]	8	8	10	10	10	10	10	10
WPA3	◆	◆	•	•	•	◆	•	•
Wi-Fi enterprise security	◆	◆	•	•	•	◆	•	•
End-to-end security (TLS)	◆	◆	•	•	•	◆	•	•
Secure boot	◆	◆	•	•	•	◆	•	•

p = Antenna pin
a = Internal PCB antenna
m = internal metal PIFA antenna

LX6 = 240 MHz dual-core Xtensa LX6
M33 = 260 MHz Arm® Cortex-M33

◆ = Feature enabled by hardware. The actual support depends on the open CPU application software.

UBX-14003456 - R34 - February 2026



Host-based short range radio modules

S

Grade

Automotive
Professional
Standard

Physical

Multiradio (Wi-Fi and Bluetooth)

MAYA-W433

MAYA-W442

MAYA-W462

MAYA-W463

MAYA-W466

MAYA-W472

MAYA-W473

MAYA-W476

M2-
MAYA-W472

Image



Size [mm]	10.4 x 14.3 x 1.9								22 x 30 x 2.8
Operating temperature [°C]	-40 to +85								-40 to +85
Radio									
Chip inside	NXP IW610								NXP IW610
Bluetooth® Core qualified	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Bluetooth Low Energy	•	•	•	•	•	•	•	•	•
Bluetooth BR/EDR									
Bluetooth output power [dBm] *	<15	<15	<15	<15	<15	<15	<15	<15	<15
Wi-Fi output power [dBm] *	18	18	18	18	18	18	18	18	18
Wi-Fi IEEE 802.11 standards	b/g/n/ax	b/g/n/ax	a/b/g/n/ac/ax				a/b/g/n/ac/ax		a/b/g/n/ac/ax
Wi-Fi band [GHz]	2.4	2.4	2.4 and 5	2.4 and 5	2.4 and 5	2.4 and 5	2.4 and 5	2.4 and 5	2.4 and 5
Maximum Wi-Fi channel width [MHz]	20	20	20	20	20	20	20	20	20
LTE filter	o	o	o	o	o	o	o	o	o
Antenna type (see footnotes)	p	u	u	p	a	u	p	a	u
IEEE 802.15.4 (Thread/Zigbee)		•					•	•	•
OS support									
Android / Linux	•	•	•	•	•	•	•	•	•
RTOS	•	•	•	•	•	•	•	•	•
Interfaces									
High-speed UART [®]	1	1	1	1	1	1	1	1	1
SDIO [version] ^W	v3	v3	v3	v3	v3	v3	v3	v3	v3
PCM/I2S (Bluetooth audio)	1	1	1	1	1	1	1	1	1
SPI host interface		1				1	1	1	1
USB	2	2	2	2	2	2	2	2	
Features									
Bluetooth LE audio									
Bluetooth long range	•	•	•	•	•	•	•	•	•
Micro Access Point [max connects]	8	8	8	8	8	8	8	8	8
AES hardware support	•	•	•	•	•	•	•	•	•
Wi-Fi direct	•	•	•	•	•	•	•	•	•
Wi-Fi 802.11mc									
WPA3	•	•	•	•	•	•	•	•	•
Wi-Fi speed** [Mbit/s]	up to 115								115
Factory calibrated RF in OTP	•	•	•	•	•	•	•	•	•
Secure boot	•	•	•	•	•	•	•	•	•

B = Bluetooth only p = antenna pin u = U.FL antenna connector
W = Wi-Fi only a = internal PCB antenna ** = Max. PHY data rate
* = EIRP for embedded antennas; conducted for pins and connectors

o = On request

UBX-23007679 - R06 - February 2026

	Multiradio (Wi-Fi and Bluetooth)										
	MAYA-W331	MAYA-W333	MAYA-W336	MAYA-W361	MAYA-W363	MAYA-W366	MAYA-W381	MAYA-W382	MAYA-W383	MAYA-W386	M2-MAYA-W382
Grade											
Automotive											
Professional	•	•	•	•	•	•	•	•	•	•	
Standard											•
Physical											
Image											
Size [mm]	10.4 x 14.3 x 1.9										22 x 30 x 2.8
Operating temperature [°C]	-40 to +85										-40 to +85
Radio											
Chip inside	IFX CYW55511			IFX CYW55512			IFX CYW55513				IFX CYW55513
Bluetooth® Core qualified	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Bluetooth Low Energy	•	•	•	•	•	•	•	•	•	•	•
Bluetooth BR/EDR	•	•	•	•	•	•	•	•	•	•	•
Bluetooth output power [dBm] *	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Wi-Fi output power [dBm] *	18	18	18	18	18	18	18	18	18	18	18
Wi-Fi IEEE 802.11 standards	b/g/n/ax			a/b/g/n/ac/ax			a/b/g/n/ac/ax				a/b/g/n/ac/ax
Wi-Fi band [GHz]	2.4			2.4 and 5			2.4, 5, and 6				2.4, 5, and 6
Maximum Wi-Fi channel width [MHz]	20	20	20	20	20	20	20	20	20	20	20
LTE filter	o	o	o	o	o	o	o	o	o	o	o
Antenna type (see footnotes)	2p	p	a	2p	p	a	2p	u	p	a	u
IEEE 802.15.4 (Thread/Zigbee)											
OS support											
Android / Linux	•	•	•	•	•	•	•	•	•	•	•
RTOS	•	•	•	•	•	•	•	•	•	•	•
Interfaces											
High-speed UART [®]	1	1	1	1	1	1	1	1	1	1	1
SDIO [version] ^W	v3	v3	v3	v3	v3	v3	v3	v3	v3	v3	v3
PCM/I2S (Bluetooth audio)	1	1	1	1	1	1	1	1	1	1	1
SPI host interface	1	1	1	1	1	1	1	1	1	1	1
USB											
Features											
Bluetooth LE audio	•	•	•	•	•	•	•	•	•	•	•
Bluetooth long range	•	•	•	•	•	•	•	•	•	•	•
Micro Access Point [max connects]	16	16	16	16	16	16	16	16	16	16	16
AES hardware support	•	•	•	•	•	•	•	•	•	•	•
Wi-Fi direct	•	•	•	•	•	•	•	•	•	•	•
Wi-Fi 802.11mc	•	•	•	•	•	•	•	•	•	•	•
WPA3	•	•	•	•	•	•	•	•	•	•	•
Wi-Fi speed** [Mbit/s]	143	143	143	143	143	143	143	143	143	143	143
Factory calibrated RF in OTP	•	•	•	•	•	•	•	•	•	•	•
Secure boot	•	•	•	•	•	•	•	•	•	•	•

B = Bluetooth onlyp = antenna pinu = U.FL antenna connector

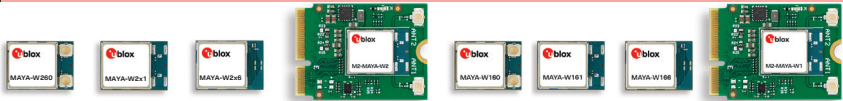
W = Wi-Fi onlya = internal PCB antenna** = Max. PHY data rate

* = EIRP for embedded antennas; conducted for pins and connectors

o = On request

Host-based short range radio modules

S

	Multiradio (Wi-Fi and Bluetooth)									
	MAYA-W260	MAYA-W261	MAYA-W266	MAYA-W271	MAYA-W276	M2-MAYA-W271	MAYA-W160	MAYA-W161	MAYA-W166	M2-MAYA-W161
Grade										
Automotive										
Professional	•	•	•	•	•		•	•	•	
Standard						•				•
Physical										
Image										
Size [mm]	10.4 x 14.3 × 1.9					22 x 30 x 2.8	10.4 x 14.3 × 1.9			22 x 30 x 2.8
Operating temperature [°C]	-40 to +85					-40 to +85	-40 to +85			-40 to +85
Radio										
Chip inside	NXP IW611		NXP IW612			NXP IW612	NXP IW416			NXP IW416
Bluetooth® Core qualified	5.3					5.3	5.2			5.2
Bluetooth Low Energy	•	•	•	•	•	•	•	•	•	•
Bluetooth BR/EDR	•	•	•	•	•	•	•	•	•	•
Bluetooth output power [dBm] *	<20	<20	<20	<20	<20	<20	10	10	10	10
Wi-Fi output power [dBm] *	18	18	18	18	18	18	18	18	18	18
Wi-Fi IEEE 802.11 standards	a/b/g/n/ac/ax					a/b/g/n/ac/ax	a/b/g/n	a/b/g/n	a/b/g/n	a/b/g/n
Wi-Fi band [GHz]	2.4 and 5					2.4 and 5	2.4 and 5	2.4 and 5	2.4 and 5	2.4 and 5
Maximum Wi-Fi channel width [MHz]	80	80	80	80	80	80	40	40	40	40
LTE filter	o	o	o	o	o	o	o	o	o	o
Antenna type (see footnotes)	2u	2p	a/p	2p	a/p	2u	2u	2p	a(p)	2u
IEEE 802.15.4 (Thread/Zigbee)				•	•	•				
OS support										
Android / Linux	•	•	•	•	•	•	•	•	•	•
RTOS	•	•	•	•	•	•	•	•	•	•
Interfaces										
High-speed UART ^B	1	1	1	1	1	1	1	1	1	1
SDIO [version] ^W	v3	v3	v3	v3	v3	v3	v3	v3	v3	v3
PCM/I2S (Bluetooth audio)	1	1	1	1	1	1	1	1	1	1
SPI host interface				1	1	1				
USB										
Features										
Bluetooth LE audio	•	•	•	•	•	•				
Bluetooth long range	•	•	•	•	•	•	•	•	•	•
Micro Access Point [max connects]	16	16	16	16	16	16	8	8	8	8
AES hardware support	•	•	•	•	•	•	•	•	•	•
Wi-Fi direct	•	•	•	•	•	•	•	•	•	•
Wi-Fi 802.11mc	•	•	•	•	•	•				
WPA3	•	•	•	•	•	•	•	•	•	•
Wi-Fi speed** [Mbit/s]	600	600	600	600	600	600	150	150	150	150
Factory calibrated RF in OTP	•	•	•	•	•	•	•	•	•	•
Secure boot	•	•	•	•	•	•	•	•	•	•

B = Bluetooth only p = antenna pin u = U.FL antenna connector
W = Wi-Fi only a = internal PCB antenna ** = Max. PHY data rate
* = EIRP for embedded antennas; conducted for pins and connectors

o = On request

UBX-23007679 - R06 - February 2026

Host-based short range radio modules

S

	Multiradio (Wi-Fi and Bluetooth)								
	JODY-W682	JODY-W683	M2-JODY-W683	JODY-W562	M2-JODY-W562	JODY-W354	JODY-W374	JODY-W377	M2-JODY-W377
Grade									
Automotive	•	•		•		•	•	•	
Professional									
Standard			•		•				•
Physical									
Image									
Size [mm]	15.6 x 19.8 x 2.5		13.8 x 19.8 x 2.5 — 22 x 30 x 4.2						
Operating temperature [°C]	-40 to +105		-40 to +85	-40 to +85/+105		-40 to +85			
Radio									
Chip inside	NXP AW693		NXP AW693	NXP AW611	NXP AW611	NXP AW690	NXP 88Q9098/ NXP 88W9098		NXP 88Q9098
Bluetooth® Core qualified	5.4	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.3
Bluetooth Low Energy	•	•	•	•	•	•	•	•	•
Bluetooth BR/EDR	•	•	•	•	•	•	•	•	•
Bluetooth output power [dBm] *	10	10	10	18	18	10	10	10	10
Wi-Fi output power [dBm] *	19	19	19	19	19	19	19	19	19
Wi-Fi IEEE 802.11 standards	a/b/g/n/ac/ax								
Wi-Fi band [GHz]	2.4, 5, and 6			2.4 and 5		2.4 and 5			
Maximum Wi-Fi channel width [MHz]	80	80	80	80	80	80	80	80	80
LTE filter	o	o	o	o	o	o	o	o	
Antenna type (see footnotes)	2p	3p	3u	2p	2u	2p	2p	3p	3u
OS support									
Android / Linux	•	•	•	•	•	•	•	•	•
RTOS	•	•	•	•	•	•	•	•	•
QNX (via third party)	•	•	•	•	•	•	•	•	•
Interfaces									
High-speed UART [®]	1	1	1	1	1	1	1	1	1
PCIe ^W	1	1	1			1	1	1	1
SDIO [version] ^W				v3	v3	v3	v3	v3	v3
PCM/I2S (Bluetooth audio)	1	1	1	1	1	1	1	1	1
Features									
Secure boot	•	•	•	•	•				
Bluetooth LE audio	•	•	•	•	•				
Bluetooth long range	•	•	•	•	•	•	•	•	•
Micro Access Point [max connects]	64	64	64	16	16	64	64	64	64
AES hardware support	•	•	•	•	•	•	•	•	•
Wi-Fi direct	•	•	•	•	•	•	•	•	•
Wi-Fi 802.11mc	•	•	•	•	•	•	•	•	•
WPA3	•	•	•	•	•	•	•	•	•
Wi-Fi speed** [Mbit/s]	up to 1344		up to 1344	600	600	up to 1500			up to 1500
Factory calibrated RF in OTP	•	•	•	•	•	•	•	•	•
Simultaneous STA/AP roles	•	•	•	•	•	•	•	•	•
2x2 MIMO	•	•	•			•	•	•	•
Dual MAC	•	•	•			•	•	•	•
Smart Link	•	•	•						

B = Bluetooth only 2p = 2 antenna pins, one each for Bluetooth and Wi-Fi
W = Wi-Fi only 3p = 3 pins, 2 for Wi-Fi and 1 for Bluetooth antenna

u = U.FL connector(s) for external antenna

o = On request

* = EIRP for embedded antennas; conducted for pins and connectors

** = Max. PHY data rate

UBX-23007679 - R06 - February 2026

Host-based short range radio modules

S

Grade

Automotive
Professional
Standard

Physical

Image

Multiradio (Wi-Fi and Bluetooth)					Bluetooth	Wi-Fi		
JODY-W263	M2-JODY-W263	JODY-W163	JODY-W164	JODY-W167	JODY-B151	LILY-W131	LILY-W132	LILY-W133
•		•	•	•	•	•	•	•
•	•							



Size [mm]	13.8 x 19.8 x 2.5	22 x 30 x 4.2	13.8 x 19.8 x 2.5			13.8 x 19.8 x 2.5	10.0 x 14.0 x 2.2 / 3.8		
Operating temperature [°C]	-40 to +85/+105		-40 to +85			-40 to +105	40 to +85		
Radio									
Chip inside	NXP 88W8987		CYW 88359/CYW 89359			QCA8695AU	NXP 88W8801		
Bluetooth® Core qualified	5.2	5.2	5.0			5.4			
Bluetooth Low Energy	•	•	•	•	•	•			
Bluetooth BR/EDR	•	•	•	•	•	•			
Bluetooth output power [dBm] *	10	10	10	10	10	14			
Wi-Fi output power [dBm] *	18	18	18	18	18		19	15	15
Wi-Fi IEEE 802.11 standards	a/b/g/n/ac	a/b/g/n/ac	a/b/g/n/ac				b/g/n	b/g/n	b/g/n
Wi-Fi band [GHz]	2.4 and 5	2.4 and 5	2.4 and 5				2.4	2.4	2.4
Maximum Wi-Fi channel width [MHz]	80	80	80				20	20	20
LTE filter	o		o	o	o	o	•		
Antenna type (see footnotes)	2p	2u	2p	2p	3p	p	p	m	m
OS support									
Android / Linux	•	•	•	•	•	•	•	•	•
RTOS	•	•					•	•	•
QNX (via third party)	•	•	•	•	•				
Interfaces									
High-speed UART [®]	1	1	1	1	1	1			
PCIe ^W				1	1				
SDIO [version] ^W	v3	v3	v3				v2	v2	v2
PCM/I2S (Bluetooth audio)	1	1	1	1	1	1			
USB							1	1	1
Features									
Bluetooth LE Audio + Long range						•			
Micro Access Point [max connects]	8	8	10	10	10		8	8	8
AES hardware support	•	•	•	•	•	•	•	•	•
Wi-Fi direct	•	•	•	•	•		•	•	•
Wi-Fi 802.11mc									
WPA3	•	•					•	•	•
Wi-Fi speed** [Mbit/s]	433	433	up to 866				up to 72		
Factory calibrated RF in OTP	•	•	•	•	•		•	•	•
Simultaneous STA/AP roles	•		•	•	•		•	•	•
2x2 MIMO			•	•	•				
Dual MAC			•	•					
Qualcomm® aptX™						•			

B = Bluetooth only
W = Wi-Fi only

2p = 2 antenna pins, one each for Bluetooth and Wi-Fi
3p = 3 pins, 2 for Wi-Fi and 1 for Bluetooth antenna
u = U.FL connector(s) for external antenna

p = pin for external antenna
m = Metal PIFA antenna

o = On request

* = EIRP for embedded antennas; conducted for pins and connectors

** = Max. PHY data rate

UBX-23007679 - R06 - February 2026

Host-based short range radio modules

S

	Multiradio (Wi-Fi and Bluetooth)						
	RUBY-W272	RUBY-W273	RUBY-W295	RUBY-W162	RUBY-W163	RUBY-W182	RUBY-W183
Grade							
Automotive	•	•	•	•	•	•	•
Professional							
Standard							
Physical							
Image							
Size [mm]	23 x 23 x 3		23 x 25 x 3		23 x 23 x 3		
Operating temperature [°C]	-40 to +105			-40 to +100			
Radio							
Chip inside	QCA6787AQ		QCA6797AQ		QCA6688AQ		QCA6698AQ
Bluetooth® Core qualified	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Bluetooth Low Energy	•	•	•	•	•	•	•
Bluetooth BR/EDR	•	•	•	•	•	•	•
Bluetooth output power [dBm] *	12	12	12	12	12	12	12
Wi-Fi output power [dBm] *	21	21	21	20	20	20	20
Wi-Fi IEEE 802.11 standards	a/b/g/n/ac/ax/be	a/b/g/n/ac/ax/be	a/b/g/n/ac/ax/be	a/b/g/n/ac/ax		a/b/g/n/ac/ax	
Wi-Fi band [GHz]	2.4, 5 and 6	2.4, 5 and 6	2.4, 5 and 6	2.4 and 5		2.4, 5 and 6	
Maximum Wi-Fi channel width [MHz]	160	160	320	80	80	160	160
Co-ex filters (LTE/5G/V2X)	o	o	o	o	o	o	o
Antenna type (see footnotes)	2p	3p	3p	2p	3p	2p	3p
OS support							
Android / Linux	•	•	•	•	•	•	•
Interfaces							
High-speed UART ^B	1	1	1	1	1	1	1
PCIe ^W	1	1	1	1	1	1	1
PCM/I2S (Bluetooth audio)	1	1	1	1	1	1	1
Features							
Bluetooth LE Audio	•	•	•	•	•	•	•
Bluetooth Long range	•	•	•	•	•	•	•
Qualcomm® aptX™	•	•	•	•	•	•	•
Micro Access Point [max connects]	64	64	64	64	64	64	64
AES hardware support	•	•	•	•	•	•	•
Wi-Fi direct	•	•	•	•	•	•	•
Wi-Fi 802.11mc	•	•	•	•	•	•	•
WPA3	•	•	•	•	•	•	•
Wi-Fi speed** [Mbit/s]	up to 5764			up to 2975			
Secure boot	c	c	c	c	c	c	c
Simultaneous STA/AP roles	•	•	•	•	•	•	•
2x2 MIMO	•	•	•	•	•	•	•
Dual MAC/MLO	DBS	DBS	HBS	Dual MAC		Dual MAC	

B = Bluetooth only
W = Wi-Fi only
2p = 2 antenna pins, one each for Bluetooth and Wi-Fi
3p = 3 pins, 2 for Wi-Fi and 1 for Bluetooth antenna
p = pin for external antenna

* = EIRP for embedded antennas; conducted for pins and connectors
** = Max. PHY data rate

DBS = dual band simultaneous 2.4 & 5/6 GHz
HBS = any two bands 2.4, 5 or 6 GHz
c = On request by the chipset provider

o = On request

