



PRELIMINARY

H&D Wireless Connectivity Guide 2022-2023

A Selector Guide for IoT, Industry 4.0 and Digital Media market

www.hd-wireless.com/products/connectivity-modules/

Support & Documentation: support.hd-wireless.com



Summary: H&D Wireless Connectivity Guide 2022-2023



Module part#	SPB620	SPB437	SPB611	SPB209	SPB438
Data rates	Up to 1.6 Gbps	Up to 1.6 Gbps	Up to 600Mbps	Up to 433 Mbps	Up to 600Mbps
Wi-Fi	802.11ax/ac/a/b/g/n 2.4 and 5GHz	802.11ax/ac/a/b/g/n 2.4 and 5GHz	802.11ax/ac/a/b/g/n 2.4 and 5GHz	a/b/g/n/ac 2.4 and 5GHz	802.11ax/ac/a/b/g/n 2.4 and 5GHz
	2x2 MU-MIMO	2x2 MU-MIMO	1x1 MU-MIMO	Bluetooth 4.2 Classic and BLE	1x1 MU-MIMO
Bluetooth	Bluetooth 5.3	Bluetooth 5.3	Bluetooth 5	yes	Bluetooth 5
Dual band	yes	yes	yes	yes	yes
Dual mode	yes	yes	yes	14x14mm, 14x21mm w onboard ant	yes
Format	16x20mm, external antenna	M.2 2230 MODULE, 22x30mm	14x14mm, 14x21mm w. onboard ant.	LTE filter, with antenna	M.2 2230 MODULE, 22x30mm
Operating Temp	Industrial: -40 to +85 °C	Industrial: -40 to +85 °C	Industrial: -40 to +85 °C	Industrial: -40 to +85 °C	Industrial: -40 to +85 °C
I/F	PCIe, 4-bit SDIO 3.0, HS-UART,	PCIe, 4-bit SDIO 3.0, HS-UART,	PCIe, 4-bit SDIO 3.0, HS-UART,	SDIO 3.0, HS UART, PCM	PCIe, 4-bit SDIO 3.0, HS-UART,
EVK	HDA620	HDA437	HDA611	HDA209	HDA438 incl antennas
Samples available	June/2022	June/2022	Q4/2022	Yes	Q4/2022



Module part#	SPB228	SPB432	SPB229	HDG229
Data rates	Up to 800Mbps	Up to 800Mbps	Up to 150Mbps	Up to 150Mbps
Wi-Fi	802.11 a/b/g/n/ac 2.4 and 5GHz	802.11 a/b/g/n/ac 2.4 and 5GHz	802.11 a/b/g/n/ 2.4 and 5GHz	802.11 a/b/g/n/ 2.4 and 5GHz
	2x2 Wave2 MU-MIMO	2x2 Wave2 MU-MIMO	Bluetooth 5 Classic and BLE	Bluetooth 5 Classic and BLE
Bluetooth	Bluetooth 5 Classic and BLE	Bluetooth 5 Classic and BLE	yes	yes
Dual band	yes	yes	M2 12x16mm standard size solderdown pin	yes
Dual mode	yes	yes	yes	8x8mm with integrated shield
Format	Industrial: -40 to +85 °C	Industrial: -40 to +85 °C	Industrial: -40 to +85 °C	Industrial: -40 to +85 °C
Operating Temp	M.2 12x16mm solder down standard	M.2 2230 MODULE, 22x30mm	SDIO 3.0, UART, PCM	SDIO 3.0, UART, PCM
I/F	PCIe 3.0, USB 3.0, SDIO 3.0, UART, PCI	PCIe, SDIO and USB Interfaces	HDA229	HDA229
EVK	HDA228	HDA228	MOQ: 100K	MOQ: 100K
Samples available	Yes	Yes	contact sales@hd-wireless.se	contact sales@hd-wireless.se

For order options and data sheets please contact: sales@hd-wireless.se and visit support.hd-wireless.com

SPB620



SPB620 WiFi6 2x2 concurrent dual Wi-Fi module

Module	SPB620
Data rates	Up to 1.6 Gbps
Wi-Fi	802.11ax/ac/a/b/g/n 2.4 and 5GHz 2x2 MU-MIMO
Bluetooth	Bluetooth 5.3
Dual band	yes
Dual mode	yes
Format	16x20mm, external antenna
Operating Temp	Industrial: -40 to +85 °C
I/F	PCIe, 4-bit SDIO 3.0, HS-UART,
EVK	HDA620
Samples available	June/2022

SPB437



SPB437 WiFi6 2x2 concurrent dual Wi-Fi module

Module	SPB437
Data rates	Up to 1.6 Gbps
Wi-Fi	802.11ax/ac/a/b/g/n 2.4 and 5GHz 2x2 MU-MIMO
Bluetooth	Bluetooth 5.3
Dual band	yes
Dual mode	yes
Format	M.2 2230 MODULE, 22x30mm
Operating Temp	Industrial: -40 to +85 °C
I/F	PCIe, 4-bit SDIO 3.0, HS-UART,
EVK	HDA437
Samples available	June/2022

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SPB611



SPB611 WiFi6 1x1 module / PCIe, SDIO Interface

Module	SPB611
Data rates	Up to 600Mbps
Wi-Fi	802.11ax/ac/a/b/g/n 2.4 and 5GHz 1x1 MU-MIMO
Bluetooth	Bluetooth 5
Dual band	yes
Dual mode	yes
Format	14x14mm, 14x21mm w. onboard antenna
Operating Temp	Industrial: -40 to +85 °C
I/F	PCIe, 4-bit SDIO 3.0, HS-UART,
EVK	HDA611
Samples available	Q4/2022

SPB209



SPB209 WiFi5 1x1 module / SDIO Interface

Module	SPB209
Data rates	Up to 433 Mbps
Wi-Fi	a/b/g/n/ac 2.4 and 5GHz
Bluetooth	Bluetooth 4.2 Classic and BLE
Dual band	yes
Dual mode	yes
Format	14x14mm, 14x21mm w onboard antenna
Options	LTE filter, with antenna
Operating Temp	Industrial: -40 to +85 °C
I/F	SDIO 3.0, HS UART, PCM
EVK	HDA209
Mass production	Yes

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SPB438



SPB438 WiFi6 1x1 module / PCIe, SDIO Interface

Module	SPB438
Data rates	Up to 600Mbps
Wi-Fi	802.11ax/ac/a/b/g/n 2.4 and 5GHz 1x1 MU-MIMO
Bluetooth	Bluetooth 5
Dual band	yes
Dual mode	yes
Format	M.2 2230 MODULE, 22x30mm
Operating Temp	Industrial: -40 to +85 °C
I/F	PCIe, 4-bit SDIO 3.0, HS-UART,
EVK	HDA438 incl antennas
Samples available	Q4/2022

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SPB228



SPB228 WiFi5 2x2 module / PCIe / SDIO / USB Interface

Module	SPB228
Data rates	Up to 800Mbps
Wi-Fi	802.11 a/b/g/n/ac 2.4 and 5GHz 2x2 Wave2 MU-MIMO
Bluetooth	Bluetooth 5 Classic and BLE
Dual band	yes
Dual mode	yes
Operating Temp	Industrial: -40 to +85 °C
Format	M.2 12x16mm solder down standard pinning format
I/F	PCIe 3.0, USB 3.0, SDIO 3.0, UART, PCM
EVK	HDA228
Mass production	Yes

SPB432



SPB432 WiFi5 2x2 M.2 card / PCIe / SDIO / USB Interface

Module	SPB432
Data rates	Up to 800Mbps
Wi-Fi	802.11 a/b/g/n/ac 2.4 and 5GHz 2x2 Wave2 MU-MIMO
Bluetooth	Bluetooth 5 Classic and BLE
Dual band	yes
Dual mode	yes
Operating Temp	Industrial: -40 to +85 °C
Format	M.2 2230 MODULE, 22x30mm
I/F	PCIe, SDIO and USB Interfaces
EVK	HDA228
Mass production	Yes

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SPB229



SPB229 WiFi4 1x1 module, MOQ: 100K

Module	SPB229
Data rates	Up to 150Mbps
Wi-Fi	802.11 a/b/g/n/ 2.4 and 5GHz
Bluetooth	Bluetooth 5 Classic and BLE
Dual band	yes
Format	M2 12x16mm standard size solder down pinning
Dual mode	yes
Operating Temp	Industrial: -40 to +85 °C
I/F	SDIO 3.0, UART, PCM
EVK	HDA229
Availability	MP ramp up on short notice possible, MOQ: 100K (contact sales@hd-wireless.se)

HDG229



HDG229 WiFi4 1x1 SIP, MOQ: 100K

Module	HDG229
Data rates	Up to 150Mbps
Wi-Fi	802.11 a/b/g/n/ 2.4 and 5GHz
Bluetooth	Bluetooth 5 Classic and BLE
Dual band	yes
Dual mode	yes
Format	8x8mm with integrated shield
Operating Temp	Industrial: -40 to +85 °C
I/F	SDIO 3.0, UART, PCM
EVK	HDA229
Availability	MP ramp up on short notice possible, MOQ: 100K (contact sales@hd-wireless.se)

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