

Bluetooth Chipset Selection Guide



Product Summary		GR5526 Series				GR551x Series					
		GR5526VGBIP	GR5526VGBI	GR5526RGNIP	GR5526RGNI	GR5515IGND	GR5515IONDA	GR5515IENDU	GR5515RGBD	GR5515GGBD	GR5513BENDU
Status		Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
PROTOCOL	Bluetooth® LE ^[1]	5.3	5.3	5.3	5.3	5.1	5.1	5.1	5.1	5.1	5.1
	ISO	●	●	●	●						
	Direction Finding	●	●	●	●						
	Bluetooth® Mesh	●	●	●	●	●	●	●	●	●	●
CORE SYSTEM	CPU	Cortex®-M4F	Cortex®-M4F	Cortex®-M4F	Cortex®-M4F	Cortex®-M4F	Cortex®-M4F	Cortex®-M4F	Cortex®-M4F	Cortex®-M4F	Cortex®-M4F
	Clocks	96 MHz/32kHz	96 MHz/32kHz	96 MHz/32kHz	96 MHz/32kHz	64 MHz/32 kHz	64 MHz/32 kHz	64 MHz/32 kHz	64 MHz/32 kHz	64 MHz/32 kHz	64 MHz/32 kHz
	Cache	8 KB	8 KB	8 KB	8 KB	8 KB	8 KB	8 KB	8 KB	8 KB	8 KB
	RAM	512 KB	512 KB	512 KB	512 KB	256 KB	256 KB	256 KB	256 KB	256 KB	128 KB
	PSRAM	8 MB		8 MB							
	Flash	1 MB	1 MB	1 MB	1 MB	1 MB	External Flash	512 KB	1 MB	1 MB	512 KB
GPU	2.5D GPU	●		●							
SECURITY	Root-Of-Trust	●	●	●	●	●	●	●	●	●	●
	Secure Key Store	4	4	4	4	4	4	4	4	4	4
	PKC	●	●	●	●	●	●	●	●	●	●
	RSA	●	●	●	●	●	●	●	●	●	●
	AES	●	●	●	●	●	●	●	●	●	●
	ECC	●	●	●	●	●	●	●	●	●	●
	TRNG	●	●	●	●	●	●	●	●	●	●
RADIO	Frequency	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz
	Maxium Tx Power	7 dBm	7 dBm	7 dBm	7 dBm	7 dBm	7 dBm	7 dBm	7 dBm	7 dBm	7 dBm
	Rx Sensitivity	-98 dBm(@1Mbps)	-98 dBm(@1Mbps)	-98 dBm(@1Mbps)	-98 dBm(@1Mbps)	-96 dBm(@1Mbps)	-96 dBm(@1Mbps)	-96 dBm(@1Mbps)	-96 dBm(@1Mbps)	-96 dBm(@1Mbps)	-96 dBm(@1Mbps)
PERIPHERAL	UART	6	6	6	6	2	2	2	2	2	2
	SPI	1 x SPIM/ 1 x SPIS	1 x SPIM/ 1 x SPIS	1 x SPIM/ 1 x SPIS	1 x SPIM/ 1 x SPIS	1 x SPIM/ 1 x SPIS	1 x SPIM/ 1 x SPIS	1 x SPIM/ 1 x SPIS	1 x SPIM/ 1 x SPIS	1 x SPIM/ 1 x SPIS	1 x SPIM/ 1 x SPIS
	I2C	6	6	6	6	2	2	2	2	2	2
	ISO7816	1	1	1	1	1	1	1	1	1	1
	USB	1 x USB 2.0	1 x USB 2.0	1 x USB 2.0	1 x USB 2.0						
	QSPI	3	3	3	3	2	2	2	2	2	2
	DSPI	1	1	1	1						
	DC	1		1							
	Timers	5	5	5	5	5	5	5	5	5	5
	PWM	6	6	6	6	6	6	6	6	6	6
	RTC	2	2	2	2	1	1	1	1	1	1
	I2S	1 x I2SM/ 1xI2SS	1 x I2SM/ 1xI2SS	1 x I2SM/ 1xI2SS	1 x I2SM/ 1xI2SS	1 x I2SM/ 1xI2SS	1 x I2SM/ 1xI2SS	1 x I2SM/ 1xI2SS	1 x I2SM/ 1xI2SS	1 x I2SM/ 1xI2SS	1 x I2SM/ 1xI2SS
	PDM	●	●	●	●						
	ADC	13-bit	13-bit	13-bit	13-bit	13-bit	13-bit	13-bit	13-bit	13-bit	13-bit
	Comparator	●	●	●	●	●	●	●	●	●	●
	Temperature sensor	●	●	●	●	●	●	●	●	●	●
PACKAGES	GPIO	50	50	48	48	39	39	39	39	29	22
	Type & Pins Dimensions	BGA83 4.3 x 4.3 mm	BGA83 4.3 x 4.3 mm	QFN68 7.0 x 7.0 mm	QFN68 7.0 x 7.0 mm	QFN56 7.0 x 7.0 mm	QFN56 7.0 x 7.0 mm	QFN56 7.0 x 7.0 mm	BGA68 5.3 x 5.3 mm	BGA55 3.5 x 3.5 mm	QFN40 5.0 x 5.0 mm
Certification		SIG BQB (QDID: 179976,181083)				PSA Level 1 SIG BQB (QDID: 119449)					
Operating Temperature		-40°C - 85°C	-40°C - 85°C	-40°C - 85°C	-40°C - 85°C	-40°C - 85°C	-40°C - 85°C	-40°C - 85°C	-40°C - 85°C	-40°C - 85°C	-40°C - 85°C
Supply Voltage Range		2.4V - 4.35V	2.4V - 4.35V	2.4V - 4.35V	2.4V - 4.35V	2.2V - 3.8V	2.2V - 3.8V	2.2V - 3.8V	2.2V - 3.8V	2.2V - 3.8V	2.2V - 3.8V
Development Kits		GR5526_Starter_Kit				GR5515_Starter_Kit					

^[1] 1M-PHY,2M-PHY,Long Range supported by default