CYPRESS
EMBEDDED IN TOMORROW™

INDUSTRY'S BROADEST
BLUETOOTH PORTFOLIO

Cypress Dual-Mode and BLE-only Bluetooth silicon and module solutions deliver best-in-class RF performance, ease-of-use, and cost efficiency

Home Automation

Key Segment Requirements	Use Case Examples	Silicon	Module	Reasoning
• Processing power for sensors and lighting • Long range connectivity for "Whole Home Coverage" • Low power consumption • Support for Bluetooth SIG Mesh • Security • Extended temperature	Smart Bulbs, Switches, Locks, Sensors, Sprinklers, etc.	CYW20819[1]/ CYW20820[1]	CYBT-213043-02[1]/ CYBT-243053-02[1]	Mesh Support, 2 Mbps PHY, 96-MHz CM4, Ultra-Low-Power Radio, Extended Temp, 10 dBm Tx (CYW20820), Low Cost
	Smart Bulbs, Switches, Locks, Sensors, Sprinklers, etc.	CYW20719	CYBT-423028-02	Cost-Optimized Module, Small Form Factor
	Smart Bulbs, Sprinklers, etc.	CYW20706	CYBT-343151-02	Mesh Support, Extended Temp, 400m Range
			CYBT-343026-01	Mesh Support, Cost-Optimized Module
	Non-Mesh Smart Home Products	PSoC 6 BLE	CYBLE-416045-02	CM4 and CM0+ Dual-Core w/ FPU, Ultra-Low-Power, Integrated Security, CapSense, Rich Analog and Digital Peripherals
	Non-Mesh Smart Home Products	PSoC 4 BLE	CYBLE-224116-01	400m Range, Rich Analog and Digital Peripherals

Industrial

Key Segment Requirements	Use Case Examples	Silicon	Module	Reasoning
• Low power consumption • Extended temperature • Security • PWMs, ADC, I2C, SPI, peripherals • Modules with long range capability • Modules with external antenna • Bluetooth SIG Mesh support	Sensor Nodes, Robotics, Remote Display, Cable Replacement, Industrial Lighting	CYW20819[1]	CYBT-213043-02[1]	Mesh Support, Best in Class Coex, 2 Mbps PHY, 96-MHz CM4, Ultra-Low-Power Radio, Small Form Factor, Extended Temp
			CYBT-273063-02	Mesh Support, Best in Class Coex, 2 Mbps PHY, 96-MHz CM4, Ultra-Low-Power Radio, Small Form Factor, Ext. Temp, 400m Range
			CYBT-2630xx-02	Mesh Support, Best in Class Coex, 2 Mbps PHY, 96-MHz CM4, Ultra-Low-Power Radio, Small Form Factor, Ext. Temp, Ext. Antenna, 400m Range
		CYW20719	CYBT-413034-02	Mesh Support, 96-MHz CM4 w/ FPU, 2 Mbps PHY, 1 MB Flash
			CYBT-483039-02	1 Km Ultra-Long Range, Mesh Support, 96-MHz CM4 w/ FPU, 2 Mbps PHY, 1 MB Flash
		PSoC 6 BLE	CYBLE-416045-02	CM4 and CM0+ Dual-Core w/ FPU, Integrated Security, CapSense, Rich Analog and Digital Peripherals
		PSoC 4 BLE	CYBLE-212006-01	400m Range, Rich Analog and Digital Peripherals, CapSense
			CYBLE-224116-01	400m Range, Rich Analog and Digital Peripherals, CapSense, Extended Temp
			CYBLE-202007-01	400m Range, Rich Analog and Digital Peripherals, CapSense, External Antenna
	Robotics, Remote Display, Industrial Lighting	CYW20706	CYBT-343151-02	Mesh Support, 400m Range, Extended Temp

Beacons and Trackers

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Key Segment Requirements	Use Case Examples	Silicon	Module	Reasoning
• Low power • Cost-optimized • Support for sensor processing • Mesh support • Extended temperature ranges for ruggedness	Outdoor and Mobile Trackers, Short and Mid-range Beacons	CYW20819[1]/ CYW20820[1]	CYBT-213043-02[1] /CYBT-243053-02[1]	Mesh Support, 2 Mbps PHY, 96-MHz CM4, Ultra-Low-Power Radio, Extended Temp, 10 dBm Tx (CYW20820), Low Cost
			CYBT-223058-02[1] /CYBT-253059-02[1]	Mesh Support, 2 Mbps PHY, 96-MHz CM4, Ultra-Low-Power Radio, Extended Temp, 10 dBm Tx (CYW20820), Low Cost, Small Form Factor
	All Beacons and Tags	CYW20736	CYBLE-013025-00	Cost-Optimized Module, Small Form Factor

	Key Segment Requirements	Use Case Examples	Silicon	Module	Reasoning
HID	• Analog and PDM interface • Ultra low power LE • Ultra low power EDR for voice-based HID • Extensive GPIOs • Small footprint	Keyboard, Mice, Remotes, Stylus, Front Panel Controls	CYW20819[1]/ CYW20820[1]	CYBT-213043-021	10 dBm Tx (CYW20820), Up to 40 GPIOs, Small Form Factor, Ultra-Low-Power Radio Analog Mic Interface, Key Scanner, Quadrature Decoder, PDM Interface
			CYW20735	CYBT-343052-02	10 dBm Tx, Analog Mic Interface, Low Standby Power, Key Scanner, Quadrature Decoder, PDM Interface

	Key Segment Requirements	Use Case Examples	Silicon	Module	Reasoning
Audio	• Bluetooth Enhanced Data Rate (EDR) • Support for Audio Source and Sink • Ultra low power • Small form factor • Interoperability with cellular phones	Earbuds, Headsets, Hearing Aids, Earphones, Wearables with Audio Capabilities	CYW20721	CYBT-423060-02 /CYBT-413061-02	Ultra Low Power EDR, Most Widely Deployed BT Stack, Small Form Factor, Wireless Audio Stereo Synchronization (WASS) Solution
		Speakers, Headsets	CYW20706	CYBT-343026-01	EDR Support, Most Widely Deployed BT Stack, 10 dBm Tx Power, Small Form Factor

	Key Segment Requirements	Use Case Examples	Silicon	Module	Reasoning
Medical and Fitness	• Audio connections with EDR • EDR and 2 Mbps LE for high throughput • Low power operation • Display interface • Analog front ends • Robust capacitive touch • Good Coex • Security	Wearables, Sports Accessories, Medicine Administration, All Medical Instruments Such as Thermometer, Pulse Oximeter, Baby Monitor	CYW20819[1]/ CYW20820[1]	CYBT-213043-02[1] /CYBT-243053-02[1]	Ultra-Low-Power Radio, 2 Mbps PHY, Best in Class Coex, 96-MHz CM4, BR/EDR/ BLE Support, Low Cost
				CYBT-223058-02[1] /CYBT-253059-02[1]	Ultra-Low-Power Radio, 2 Mbps PHY, Best in Class Coex, 96-MHz CM4, BR/EDR/ BLE Support, Small Form Factor
			CYW20719	CYBLE-022001-00	2 Mbps PHY, 96-MHz CM4, Best in Class Coex, 1 MB flash, MIPI Display Interface, BR/EDR/BLE Support
		Above Applications with Increased Processing Power and Integrated Security	PSoC 6 BLE	CYBLE-416045-02	CM4 and CM0+ dual-core w/ FPU, Integrated Security, CapSense, Rich Analog and Digital Peripherals

	Key Segment Requirements	Use Case Examples	Silicon	Module	Reasoning
Toys and Accessories	• Cost-optimized • Small form factor • Long range communication • 2 Mbps PHY for high throughput • Low-power operation • Capacitive touch	Gaming Controllers, Toys, Drones, Accessories	CYW20819[1]/ CYW20820[1]	CYBT-213043-02[1] /CYBT-243053-02[1]	10 dBm Tx (CYW20820), 2 Mbps PHY, Ultra-Low-Power Radio, Low Cost
				CYBT-223058-02[1] /CYBT-253059-02[1]	10 dBm Tx (CYW20820), 2 Mbps PHY, Ultra-Low-Power Radio, Small Form Factor
		RC Toys, Accessories	CYW20706	CYBT-353027-02	2 Mbps PHY, 10 dBm Tx, Ultra-Small Form Factor Module
		RC Toys, Drones		CYBT-343026-01	2 Mbps PHY, 10 dBm Tx, Cost Optimized Module
		RC Toys, Accessories	CYW20736	CYBLE-013025-00	Cost Optimized Module, Small Form Factor Module

[1]Sampling Now, Production Q2 2020

Resources

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