

Embed +60 Years of
Wireless Expertise &
Performance Into Your
Connected Solution

THE CEL ADVANTAGE



Optimal Network Performance

- Best in class wireless connectivity
- Lowest system power consumption
- Product testing & verification



Commercial /Industrial Grade Quality & Reliability

- 100% RF tested w/traceability
- Extensive JESD22 qualifications
- No field failures, RMAs, truck rolls...



North American Technical Support

- HW, FW, Antenna design reviews
- Software drivers and support
- Performance Testing



Lowest Total Lifecycle Cost

- Efficient system deployments
- Reduced service calls & field issues
- Fewer system components



Home
Automation



Building
Automation



Connected
Lighting

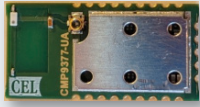


Industrial



Smart
Energy

High-performance Dual-Band 802.11a/b/g/n/ac Wave2 & BT5.0



- CMP9377-xx
- Hosted
- SDIO and USB interface options
- +20dBm/WiFi, +14dBm/BT, +4dBm/BLE
- On-board and external antenna options
- Miniature form factor
- Industrial Temp.
- Rasp. Pi 3B Ref. Platform, source code
- Qualcomm config/calib/test tools
- IAR and GCC ARM compilers
- Drivers: Linux and Android

Dual-Band WiFi & BT w/PCle in M.2



- CMP9377-P
- Hosted
- 802.11 a/b/g/n/ac Wave2
- BT5.0
- +20dBm/WiFi, +14dBm/BT, +4dBm/BLE
- 30mm x 16.5mm in M.2
- Rasp. Pi 3B Ref. Platform, source code
- Qualcomm config/calib/test tools
- IAR and GCC ARM compilers
- Drivers: Linux, Android, WinIoT

Multi-Protocol 802.15.4

ZigBee 3.0/Thread 1.1/BLE 5.0/NFC

- CMP53x
- Ultra low-power
- Optimized wireless for harsh environments
- Industrial Grade Quality
- Cortex M4
- 640kB/1.64Mb Flash, 152kB RAM
- 22 GPIO, 2 x UART/SPI/USART
- +10dBm/+20dBm
- -40 to +105 Deg C
- MCUXpresso IDE, SDK, examples, source
- GCC Toolchain (compile any platform)
- Azure RTOS, AWS FreeRTOS
- ZB Smart Home demo/dev kit



COMING SOON

Long Range, Low Power WiFi + BLE w/Dual-Core MCUs

- CMP4010
- Hosted or Hostless
- 802.11 b/g/n
- BT5.0
- M0 and M4
- 16Mb Flash, 4Mb PSRAM, 512kB SRAM
- AমেbaD SDK, examples, source
- AWS FreeRTOS support
- GCC, IAR compiler support
- AWS/Google Cloud/Azure Certified Platforms
- Alexa & Homekit Support



COMING SOON

Low-power, Long Range BLE 5.0 w/NFC

- CBT250
- Cortex M4
- 640kB/1.64Mb Flash, 152kB RAM
- 22 GPIO, 2 x UART/SPI/USART
- +10dBm
- -40 to +105 Deg C
- MCUXpresso IDE, SDK, examples, source
- GCC Toolchain (compile any platform)
- Azure RTOS, AWS FreeRTOS



COMING SOON

PLANNING



Dual-Band 802.11N w/BT5.1

- Hosted w/SDIO
- 802.11mc indoor location
- 802.11s mesh, Dynamic Multi-Hop Relay
- BLE LR, AoA/AoD, Mesh



PRODUCT OFFERINGS & TECHNICAL INFORMATION



Based on EM3588 SoC



Based on EM357 SoC



Based on EFR32MG12 SoC



MeshConnect Part Numbers		ZICM3588SP0-1 ZICM3588SP0-1C	ZICM3588SP2-2 ZICM3588SP2-2C	ZICM357SP0-1 ZICM357SP0-1C	ZICM357SP2-2 ZICM357SP2-2C	ZB3212F6R4SP2-1,1C
		Standard	Extended Range	Standard	Extended Range	Standard
MCU	Radio Parameters	2405 to 2480 MHz / DSSS / IEEE 802.15.4		2405 to 2480 MHz / DSSS / IEEE 802.15.4		2405 to 2480 MHz / DSSS / IEEE 802.15.4
	Memory on Chip	512 kB Flash, 64 kB RAM		192 kB Flash, 12 kB RAM		1MB Flash, 256kB RAM
	Inputs/Outputs	Up to 23		Up to 22		Up to 24
	USB	USB 2.0 (full speed)		-		-
NETWORK	Protocol	Zigbee, Thread		Zigbee		Zigbee, Thread, BTLE
	Mesh Networks	✓		✓		✓
	Over-the-Air Data Rate	250 kbps		250 kbps		250kbps
	Over-the-Air Security	128-bit AES Encryption		128-bit AES Encryption		128/256-bit AES Encryption
PERFORMANCE	ZigBee Stack	EmberZNet PRO™ (ZigBee PRO)		EmberZNet PRO™ (ZigBee PRO)		EmberZNet PRO™
	Tx Output Power	+ 8 dBm	+ 20 dBm	+ 8 dBm	+ 20 dBm	+20dBm
	Rx Sensitivity	- 100 dBm	- 103 dBm	- 100 dBm	- 103 dBm	-101dBm
	RF Link Budget	+108 dB	+123 dB	+108 dB	+123 dB	+121dBm
	Power Supply Voltage	2.1 to 3.6 V		2.1 to 3.6 V		2.4-3.8V
	Rx Current	30 mA	34 mA	30 mA	34 mA	12mA
	Tx Current@ Max Power	44 mA	150 mA	44 mA	150 mA	120mA
	Sleep/Suspend Current	2.4 µA		1.0 µA		.43uA
	Dimensions	23.9 x 16.6 x 3.9mm		23.9 x 16.6 x 3.9mm		23.9x16.6.x3.9mm
	Footprint Compatible	✓		✓		✓
	Integrated Antenna	✓		✓		✓
	RF Port for External Antenna	✓		✓		✓
	Temperature Range	-40°C to 85°C		-40°C to 85°C		-40°C to +85°C