

CEL IEEE 802.15.4 / ZigBee Transceiver Modules



Our ZigBee modules provide a fully integrated, easy-to-use solution for your IEEE 802.15.4 networks. Ideal for remote sensing, AMR/AMI, home and building automation, and security applications, they feature low power consumption, long range, and integrated antennas.

They're also FCC, IC and CE certified, which eliminates the need for a costly, time-consuming certification of your products.

NEW

MODULE ▶	FreeStar Pro	FreeStar	Apex	Apex LT	Matrix 10mW	Matrix 100mW	
MCU	<i>Transceiver Chipset</i>	Freemicro™ MC13224 32 bit, ARM7	Freemicro MC13192 8 bit, HCS08	Ember™ EM250 16 bit, XAP2b	Ember EM260 Network processor	TI™ CC2430 8 bit, 8051	TI CC2430 8 bit, 8051
	<i>Fmax</i>	26MHz	40MHz	12MHz	n/a	32MHz	32MHz
	<i>Inputs/Outputs</i>	TBD	16	17	n/a	18	18
NETWORK	<i>Network</i>	Mesh, Point-to-Point, Point-to-Multipoint	Mesh, Point-to-Point, Point-to-Multipoint	Mesh	Mesh	Mesh, Point-to-Point, Point-to-Multipoint	Mesh, Point-to-Point, Point-to-Multipoint
	<i>Software/ ZigBee Stack</i>	LSR STAR Protocol BeeStack™	LSR STAR Protocol BeeStack	Znet Pro 3.1 (ZigBee Pro Certified)	Znet Pro 3.1 (ZigBee Pro Certified)	LSR STAR Protocol Z-Stack™	LSR STAR Protocol Z-Stack
PERFORMANCE	<i>Tx Power Output</i>	+20dBm	+20dBm	+20dBm	+20dBm	+10dBm	+20dBm
	<i>Rx Sensitivity</i>	-95dBm	-92dBm	-97dBm	-97dBm	-92dBm	-92dBm
	<i>Range</i>	> 4000 ft	4000 ft	> 4000 ft	> 4000 ft	2000 ft	4000 ft
	<i>Vcc</i>	2.0 – 3.6V	2.4 – 3.6V	2.1 – 3.6V	2.1 – 3.6V	2.1 – 3.6V	2.1 – 3.6V
	<i>Rx Current</i>	24 mA	42 mA	37 mA	37 mA	27 mA	27 mA
	<i>Tx Current</i>	150 mA	150 mA	170 mA	170 mA	50 mA	130 mA
	<i>Standby Current</i>	1.1µA	5 µA	5 µA	5 µA	5 µA	5 µA
	<i>Dimensions</i>	23 x 31mm	25 x 36mm	25 x 33mm	25 x 33mm	23 x 29mm	23 x 31 mm
PART NO. ▶	ZFSM-210-1	ZFSM-101-1	ZAXM-201-1	ZALM-301-1	ZMXM-400-1	ZMXM-401-1	
EVAL KIT ▶	ZFSM-210-KIT-1	ZFSM-101-KIT-1	ZAXM-201-KIT-1	ZAXM-201-KIT-1	ZMXM-400-KIT-2	ZMXM-401-KIT-1	