

 WIRELESS CONNECTIVITY

WIRELESS PRODUCTS SELECTOR GUIDE



**Tx**  
**Transmitters**



**Rx**  
**Receivers**



**TRx**  
**Transceivers**



## WIRELESS PRODUCTS SELECTOR GUIDE



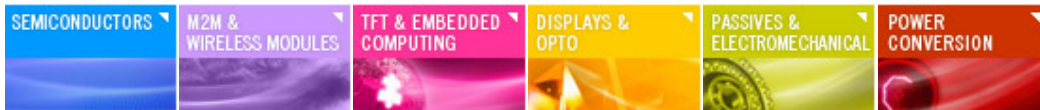
### Tx Transmitters

#### EZRadioPRO™

Device		IA4230	IA4231
Type		Transmitter	Transmitter
Modulation Scheme	OOK	■	■
	FSK	■	■
Datarate (Max)		FSK/GFSK=128 kbps OOK=128 kbps	FSK/GFSK=128 kbps OOK=128 kbps
Frequency Range	240-930 MHz	n/a	■
	900-960 MHz	■	n/a
Output Power Range		-8 to +13 dBm	-8 to +13 dBm
Tx Current	(0 dBm)	13 mA	13 mA
	(+13 dBm)	21 mA	21 mA
	(+20 dBm)	n/a	n/a
Package		QFN-16	QFN-16

#### EZRadio®

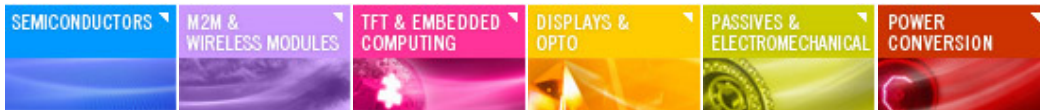
Device		IA4220	IA4221	IA4222
Type		Transmitter	Transmitter	Transmitter
Modulation Scheme	OOK	■	■	n/a
	FSK	■	■	■
Datarate (Max)		FSK=256 kbps OOK=256 kbps	FSK=115 kbps OOK=512 kbps	FSK=115 kbps
Frequency Bands <sup>(1)</sup>	315 MHz	■	n/a	n/a
	434 MHz	■	■	n/a
	868 MHz	■ <sup>(2)</sup>	■	■
	915 MHz	■	■	■
P(Max) in 868MHz Band (EIRP)		1 dBm	6 dBm	6 dBm
P(Max) in 434MHz Band (EIRP)		3 dBm	8 dBm	n/a
Supply Voltage		2.2 – 5.4V	2.2 – 5.4V	2.2 – 3.8V



<b>FIFO</b>		n/a	1 bit	64 bit
<b>Frequency Step Resolution</b>		2.5 – 7.5kHz	2.5 – 7.5kHz	20kHz
<b>PLL Startup Time</b>		250µs	250µs	500µs
<b>Idle Current</b>		1.5mA	1.5mA	0.5mA
<b>Package</b>		TSOP-16	TSOP-16	TSOP-16
<b>Network Readiness</b>	Proprietary Schemes	■	■	■

**NOTES:**

- (1) A Freq band is a group of frequencies named by the centre frequency
- (2) Engineers designing at 868MHz are recommended to look at the 4x21 equivalent as the 4x21 products offer superior performance in the 868MHz band



## WIRELESS PRODUCTS SELECTOR GUIDE



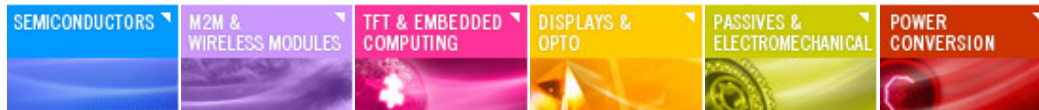
### Rx Receivers

#### EZRadiopro™

<b>Device</b>		<b>IA4330</b>
<b>Type</b>		Receiver
<b>Modulation Scheme</b>	OOK	■
	FSK	■
<b>Datarate (Max)</b>		FSK/GFSK=128 kbps OOK=40 kbps
<b>Frequency Range</b>	240-930 MHz	■
	900-960 MHz	■
<b>Output Power Range</b>		n/a
<b>Sensitivity (40 kbps)</b>		-117 dBm
<b>Rx Current</b>		17 mA
<b>Package</b>		QFN-20

#### EZRadiio®

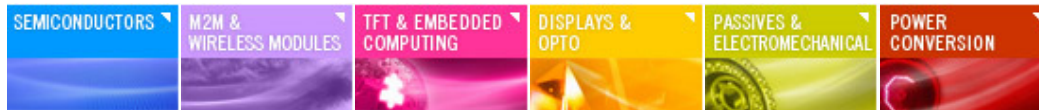
<b>Device</b>		<b>IA4315</b>	<b>IA4320</b>	<b>IA4322</b>
<b>Type</b>		Receiver	Receiver	Receiver
<b>Modulation Scheme</b>	OOK	■	■ <sup>(1)</sup>	n/a
	FSK	n/a	■	■
<b>Datarate (Max)</b>		OOK=20 kbps	FSK=256 kbps	FSK=256 kbps
<b>Frequency Bands<sup>(2)</sup></b>	315 MHz	n/a	■	n/a
	434 MHz	■	■	n/a
	868 MHz	■	■	■
	915 MHz	■	■	■
<b>Best Attainable Sensitivity (1.2 kbps)</b>		-110 dBm	-109 dBm	-108 dBm
<b>Sensitivity (in 868 MHz Band) (9.6 kbps, 0.1% BER)</b>		-102 dBm	-102 dBm	-104 dBm



<b>Supply Voltage</b>		2.2 – 3.8 V	2.2 – 5.4 V	2.2 – 3.8 V
<b>FIFO</b>		64 bit	16 bit	48 bit
<b>Frequency Step Resolution</b>		10 – 20 kHz	2.5 – 7.5 kHz	20 kHz
<b>PLL Startup Time</b>		500 $\mu$ s	250 $\mu$ s	500 $\mu$ s
<b>Idle Current</b>		0.6 mA	3.0 mA	0.5 mA
<b>Package</b>		TSOP-16	TSOP-16	TSOP-16
<b>Network Readiness</b>	Proprietary Schemes	■	■	■

**NOTES:**

(1) IA4320 OOK Receiver datarate is limited to 1kbps



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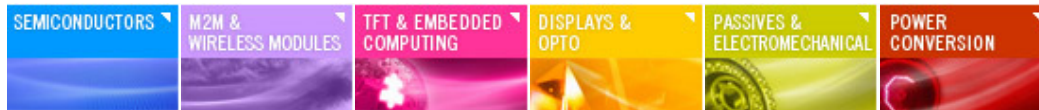
### TRx Transceivers

#### EZRadioPRO™

Device		IA4430	IA4431	IA4432
Type		Transceiver	Transceiver	Transceiver
Modulation Scheme	OOK	■	■	■
	FSK	■	■	■
Datarate (Max)		FSK/GFSK=128 kbps OOK=40 kbps	FSK/GFSK=128 kbps OOK=40 kbps	FSK/GFSK=128 kbps
Frequency Range	240-930 MHz	n/a	■	■
	900-960 MHz	■	n/a	n/a
Output Power Range		-8 to +13 dBm	-8 to +13 dBm	+11 to +20 dBm
Tx Current	(0 dBm)	13 mA	13 mA	n/a
	(+13 dBm)	21 mA	21 mA	24 mA
	(+20 dBm)	n/a	n/a	60 mA
Sensitivity		-117 dBm	-117 dBm	-117 dBm
Package		QFN-20	QFN-20	QFN-20

#### EZRadio®

Device		IA4420	IA4221	IA4520
Type		Transceiver	Transceiver	Transceiver
Modulation Scheme	OOK	n/a	n/a	n/a
	FSK	■	■	■
Datarate (Max)		256 kbps	115 kbps	256 kbps
Frequency Bands <sup>(1)</sup>	315 MHz	■	n/a	■
	434 MHz	■	■	■
	868 MHz	■	■	■
	915 MHz	■	■	■
P(Max) in 868MHz Band (EIRP)		2 dBm	7 dBm	4 dBm
P(Max) in 434MHz Band (EIRP)		3 dBm	5 dBm	8 dBm



<b>Best Attainable Sensitivity</b> (1.2 kbps)	-109 dBm	-112 dBm	-109
<b>Sensitivity</b> (in 868MHz Band) (9.6 kbps, 0.1% BER)	-102 dBm	-103 dBm	-102
<b>Supply Voltage</b>	2.2 – 5.4 V	2.2 – 3.8 V	2.2 – 3.8 V
<b>FIFO</b>	16 bit	16 bit	16-bit
<b>Frequency Step Resolution</b>	2.5 – 7.5kHz	2.5 – 7.5kHz	2.5 – 7.5kHz
<b>PLL Startup Time</b>	250µs	200µs	250µs
<b>Idle Current</b>	3.0mA	0.6mA	0.6mA
<b>Package</b>	TSOP-16	TSOP-16	QFN-36
<b>Network Readiness</b>	Proprietary Schemes	■	■
	EZMac	■	■

**NOTES:**

- (1) A Freq band is a group of frequencies named by the centre frequency
- (2) Engineers designing at 868MHz are recommended to look at the 4x21 equivalent as the 4x21 products offer superior performance in the 868MHz band