



RF Encoder/Decoder Chipset

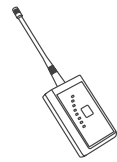
The RF Solutions RF600E and RF600D are easy to use encoder and decoder ICs. They have been designed to achieve the maximum possible range from any radio/InfraRed transmitter/receiver set. Unlike other encoder/decoder devices, the RF600E/600D provide an unprecedented level of security which prevents copying or grabbing while also obtaining optimum range from the transmitter and receiver.

Features: Highly secure KEELOQ® protocol • Simple to use • Stand Alone operation • Achieves maximum range from RF modules • Decoder serial output • LED indication of transmission • Directly compatible with KEELOQ® decoder • Easy learn feature of transmitters

RF600D-ND	Receiver/Decoder 18-DIP	6.50
RF600E-ND	Transmitter/Encoder 8-DIP	3.27

Hand Held RF Meter

A miniature RF meter which can be used to show the presence of a radio signal. Briefly press the power switch and the LED bargraph shows RF activity within the local environment. The peak signal is held for one second. This can be invaluable when installing a radio system to determine if other RF signals are present (interference) and also validate the signal strength of the radio transmitter to be installed.



006-315R1-ND	Hand Held RF Meter 315MH	90.75
006-433R2-ND	Hand Held RF Meter 433MH	90.75

Wireless Communication

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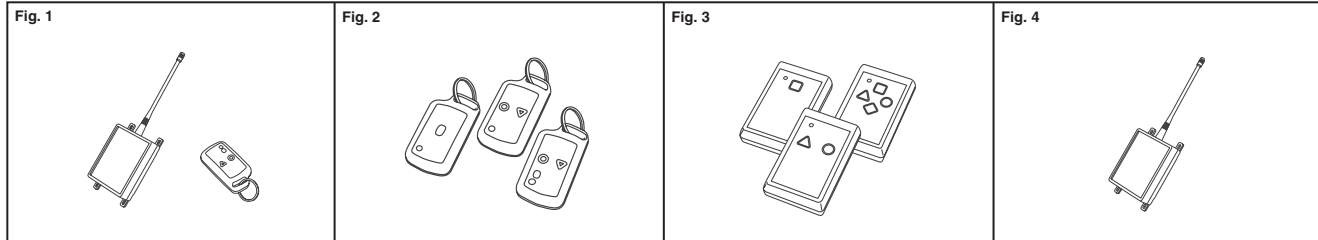


Fig.	Description	Freq. (MHz)	Digi-Key Part No.	Price Each
Remote Control Systems				
AM Keyfob Systems				
1	1 Channel System, 12/24Vdc	315	118C1-315AR1-ND	83.13
	3 Channel System, 12/24 Vdc	315	118C3-315AR1-ND	94.56
2	AM Keyfob Transmitter, 1 Button	315	AM110C1-315-ND	15.43
	AM Keyfob Transmitter, 2 Button	315	AM110C2-315-ND	16.04
	AM Keyfob Transmitter, 3 Button	315	AM110C3-315-ND	16.59
—	RF Receiver/Decoder Hybrid	315	AMHIRK-315AR3-ND	24.83
FM Keyfob Systems				
3	FM Handheld Transmitter, 1 Switch	315	102C1-315FR1-ND	58.08
	FM Handheld Transmitter, 2 Switch	315	102C2-315FR1-ND	63.89
	FM Handheld Transmitter, 4 Switch	315	102C4-315FR1-ND	69.70
	FM Remote Receiver Decoder	315	008-315F-ND	112.46
AM Radio Modules				
AM Super Hetrodyne Receivers				
—	Superhetrodyne Receiver	315	AMRRQ3-315-ND	13.76
—	Superhetrodyne Receiver	433	AMRRQ3-433-ND	12.16
AM Miniature Super Regenerative Receiver				
—	SuperRegen Receiver, Miniature	433	AMHRR30-433-ND	7.95

Fig.	Description	Freq. (MHz)	Digi-Key Part No.	Price Each
AM Super Regenerative Receiver Modules				
—	SuperRegen Receiver	315	AMHRR3-315-ND	7.62
—	SuperRegen Receiver	433	AMHRR3-433-ND	7.62
4 Pin Hybrid Transmitter Modules				
—	Hybrid Transmitter Module, DIL Package	315	AMRT4-315-ND	7.25
—	Hybrid Transmitter Module, DIL Package	433	AMRT4-433-ND	7.25
FM Radio Modules				
FM Hybrid Transmitter and Receiver Modules				
—	FM Transmitter, DIL Package	315	FMRTFQ1-315-ND	10.13
	FM Transmitter, DIL Package	433	FMRTFQ1-433-ND	9.43
	FM Transmitter, SIL Package	433	FMRTFQ2-433R-ND	9.80
	FM Receiver, SIL Package	315	FMRRFQ1-315-ND	20.51
	FM Receiver, SIL Package	433	FMRRFQ1-433-ND	18.69
	FM Receiver, SIL Package	433	FMRRFQ2-433-ND	16.08
RF KEELOQ® Evaluation Kits				
—	RF KEELOQ® Evaluation Kit	315	RFEVAL2-315-ND	254.10
—	RF KEELOQ® Evaluation Receiver	—	RFEVAL3-ND*	72.42
Book				
—	Introduction to Low Power Radio Book	—	BK-RADIO-ND	24.32

*PCB Assembly only (RF Modules and antenna not supplied)



RF Modules and Kits

ZMN2405HP Features: • Zigbee 2006 Modules Utilize 2.4GHz Direct Sequence Spread Spectrum (DSSS) • Ad Hoc mesh network • Low Power (see chart) • SPI and UART Interface • FCC and CE Certified for Unlicensed Operation Coordinator (-C), Router (-R) and End Device (-E) versions available

WIT2450 Features: • 2.4GHz Frequency Hopping Spread Spectrum (FHSS) • Auto Ranging • Low Power (see chart) • FCC and ETSI Certified for unlicensed operation • RS-232 asynch interface

WIT910 Features: • 900MHz FHSS • 20+ mile range (Line of Sight) with Omni-Directional Antenna • FCC Certified for unlicensed operation • RS-232 asynch interface

Transceiver Modules

Power Output (mW)	Receive Sensitivity (dBm)	Operating Temperature (C°)	Operating Voltage (Vdc)	Data Rate (Max. Kbps)	Power Consumption Sleep/Rec./Time	Digi-Key Part No.	Price Each	RFM Part No.
+18dBm	-95	-40 - 85	2.7 - 3.6	250	3µ/33mA/150mA	583-1016-ND	26.18	ZMN2405HP-C
						583-1018-ND	26.18	ZMN2405HP-E
						583-1017-ND	26.18	ZMN2405HP-R
0dBm	-92	-40 - 85	3.3 - 5.5	250	3µ/33mA/130mA	583-1023-ND	15.54	ZMN2430-C
						583-1025-ND	15.54	ZMN2430-E
						583-1024-ND	15.54	ZMN2430-R
18dBm	-95	-40 - 85	3.3 - 5.5	250	3µ/33mA/130mA	583-1026-ND	26.18	ZMN2430HP-C
						583-1028-ND	26.18	ZMN2430HP-E
						583-1027-ND	26.18	ZMN2430HP-R
10, 63, 250†	-92	-40 - 70	3.3 - 10	460.8	750µA/40mA/150mA	583-1006-ND	106.87	WIT2450
						583-1008-ND	202.55	WIT910
10, 100, 500†	-103	-40 - 85	3.3 - 10	172.8	250µA/100mA/100mA			

† Software Selectable

Development Kits and Boards

Description	Digi-Key Part No.	Price Each	RFM Part No.
ZMN2405HP Daughter Board	583-1019-ND	141.93	ZMN2405HPDB
Zigbee Developer's Kit with ZMN2405HP (2), Antennas, Cables, and Software	583-1020-ND	240.45	ZMN2405HPDK
Zigbee Developer's Kit with ZMN2405HP (4), Serial Gateway, Antennas, Cables and Software	583-1021-ND	403.08	ZMN2405HPDK PRO
Zigbee Basic Developer's Kit with Serial Modem and Developer's Board, Antennas, Cables and Software	583-1022-ND	160.30	ZMN2405HPDK-B
Developer's Kit for WIT2450 Module with Modems (2), Antennas, Cables and Configuration Software	583-1007-ND	362.27	WIT2450DK
Developer's Kit for WIT910 Module with Modems (2), Antennas, Cables and Configuration Software	583-1009-ND	580.07	WIT910DK

Free shipping on orders over £50! All prices are in British pound sterling and include duties.

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(UK091) 541

Semtech TrueRF™ product provides high data rates up to 153.2 kbps, drop-in modules are available for multiple frequencies. Output power is programmable on both the ICs and the modules. XM12xx modules come with antennas (RPSMA). GPS products include fully autonomous modules that can be interfaced to any application controller through a simple serial interface. Codex feature a 16-bit Sigma-Delta ADC and 16-bit PWM DAC, operating down to 1.8V in either a TSSOP or Chip-Scale package. Data Acquisition features the unique ZoomingADC™ technology, includes low-power micro-controller based sensor interface.

RF Transceivers

Frequency (MHz)	Typical Supply Voltage (V)	Current (Rx)	Modulation	Output Device Type	Power (dBm)	Package	Digi-Key Part No.	Price Each	Tape and Reel†			
								1	25	100	Qty.	Pricing
TrueRF™ ICs — RoHS Compliant												
433 / 868 / 915	2.4 - 3.6	14mA	2-FSK	Wideband Transceiver	0 / +5 / +10 / +15	48-VQFN	XE1203F063CT-ND†	6.59	4.38	3.69	2,300	3505.06/M
433 / 868 / 915	2.4 - 3.6	14mA	2-FSK	Narrow-band Transceiver	0 / +5 / +10 / +15	48-VQFN	XE1205I074CT-ND†	6.86	4.56	3.85	2,300	3649.90/M
433 / 868 / 915	2.0 - 3.6	14mA	2-FSK	Transmitter	+10	24-TQFN	SX1223I073CT-ND†	2.27	1.51	1.28	3,000	1225.13/M
UHF — RoHS Compliant												
868 / 915 / 955	2.1 - 3.6	3mA	FSK / OOK	Wideband Transceiver	-8.5 - 12.5	32-TQFN	SX1211I084CT-ND†	2.87	1.91	1.61	3,000	1548.56/M
TrueRF Modules												
433	2.4 - 3.6	14mA	2-FSK	Wideband Transceiver Module	15	Module 30 x 55mm	XM1203FC433XE1-ND	81.68	54.24	45.74	—	—
868	2.4 - 3.6	14mA	2-FSK	Wideband Transceiver Module	15	Module 30 x 55mm	XM1203FC868XE1-ND	81.68	54.24	45.74	—	—
915	2.4 - 3.6	14mA	2-FSK	Wideband Transceiver Module	15	Module 30 x 55mm	XM1203FC915XE1-ND	81.68	54.24	45.74	—	—
433	2.4 - 3.6	14mA	2-FSK	Narrow-band Transceiver	15	Module 30 x 55mm	XM1205C433XE1-ND	81.68	54.24	45.74	—	—
868	2.4 - 3.6	14mA	2-FSK	Narrow-band Transceiver	15	Module 30 x 55mm	XM1205C868XE1-ND	81.68	54.24	45.74	—	—
915	2.4 - 3.6	14mA	2-FSK	Narrow-band Transceiver	15	Module 30 x 55mm	XM1205C915XE1-ND	81.68	54.24	45.74	—	—
Kits												
Evaluation Starter Kit for the XE1203 433MHz.....							XE1203SKC433XE2-ND	249.02	—	—	—	—
Evaluation Starter Kit for the XE1203 868MHz.....							XE1203SKC868XE2-ND	249.02	—	—	—	—
Evaluation Starter Kit for the XE1203 915MHz.....							XE1203SKC915XE2-ND	249.02	—	—	—	—
Evaluation Starter Kit for the XE1205 433MHz.....							XE1205SKC433XE1-ND	249.02	—	—	—	—
Evaluation Starter Kit for the XE1205 868MHz.....							XE1205SKC868XE1-ND	249.02	—	—	—	—
Evaluation Starter Kit for the XE1205 915MHz.....							XE1205SKC915XE1-ND	249.02	—	—	—	—
Evaluation Starter Kit for the SX1211 868MHz.....							SX1211SK868-ND◆	181.50	—	—	—	—
Evaluation Starter Kit for the SX1211 915MHz.....							SX1211SK915-ND◆	181.50	—	—	—	—
Evaluation Starter Kit for the XE1223 433MHz.....							SX1223SK433-ND◆	203.28	—	—	—	—
Evaluation Starter Kit for the XE1223 868MHz.....							SX1223SK868-ND◆	203.28	—	—	—	—
Evaluation Starter Kit for the XE1223 915MHz.....							SX1223SK915-ND◆	203.28	—	—	—	—

CODECS



ADC	SNR (Fsync=20kHz)	THD (Fsync=20kHz, 1/4 FS)	Supply Voltage (V)	Sampling Rate (kHz)	DAC	Package	Digi-Key Part No.	Cut Tape Price Each	Tape and Reel†			
								1	25	100	Qty.	Pricing
16-bit $\Sigma \Delta$	78	0.5	1.8	4-48	16-bit PWM	20-TSSOP	XE3005I033CT-ND	3.18	2.11	1.78	2,500	1690.13/M
16-bit $\Sigma \Delta$	78	0.5	1.8	4-48	16-bit PWM	20-UCSP	XE3005I064CT-ND	2.98	1.98	1.67	2,000	1583.41/M

Data Acquisition - ZoomingADC™

MCU MIPS	Max Speed CPU (MHz)	RAM (bytes)	Supply Voltage Min. / Max.	MTP (Multiple time Programmable ROM) KB	Temperature	Package	Digi-Key Part No.	Price Each	Tape and Reel†			
								1	25	100	Qty.	Pricing
2	4	520	2.4 / 5.5	22	-40°C - 85°C	44-LQFP	XE8807AM1027LF-ND◆	10.37	6.89	5.81	—	—
2	4	1032	2.4 / 5.5	22		100-LQFP	XE8802M1035LF-ND◆	16.61	11.03	9.31	—	—
2	5	520	2.4 / 5.5	22		64-LQFP	XE8805AM1028LF-ND◆	11.24	7.46	6.30	—	—
2.5	5	520	2.4 / 5.5	22		32-TQFP	XE8806AM1026CT-ND◆†	6.86	4.56	3.85	2,000	3649.89/M
5	5	520	2.4 / 5.5	22		32-TQFP	XE8807AM1026CT-ND◆†	6.86	4.56	3.85	2,000	3649.89/M
—	—	—	2.4 / 5.5	—		44-MLPG	SX8722I070FCT-ND◆†	10.19	6.77	5.71	2,000	5498.36/M
—	—	—	2.4 / 5.5	—	-40°C - 125°C	12-MLPD	SX8723E083CT-ND◆†	4.09	2.72	2.29	3,000	2205.23/M
—	—	—	2.4 / 5.5	—		16-MLPQ	SX8724E082CT-ND◆†	4.99	3.32	2.80	3,000	2695.28/M
—	—	—	2.4 / 5.5	—		12-MLPD	SX8725E083CT-ND◆†	3.25	2.16	1.82	3,000	1754.38/M
Evaluation and Programming Boards												
Evaluation Board for the XE8801.....							XE8000EV101-ND	225.06	—	—	—	—
Evaluation Board for the XE8805.....							XE8000EV104-ND	225.06	—	—	—	—
Evaluation Board for the XE8806/XE8807.....							XE8000EV108-ND	225.06	—	—	—	—
Evaluation Board for the XE8802.....							XE8000EV110-ND	319.44	—	—	—	—
Program Board and the ProStart2 Card for the XE88xx series.....							XE8000MP-ND	203.28	—	—	—	—
Evaluation Board for the SX8722.....							XE8000EV120-ND◆	81.31	—	—	—	—
Evaluation Board for the SX8723/24.....							XE8000EV121-ND◆	145.20	—	—	—	—

† Cut Tape ‡ For Tape and Reel part number, change CT-ND to TR-ND. ◆ RoHS Compliant



802.15.4-2.4-DK Development Kit

The 2.4GHz 802.15.4 Development Kit (802.15.4-2.4-DK) includes all of the hardware and software necessary to immediately begin developing an 802.15.4 solution. This comprehensive development platform allows customers to focus on application development rather than hardware selection and integration. Silicon Laboratories' industry-compliant (tested for compliance by TÜV Rheinland) 802.15.4 development platform benefits customers by ensuring multi-vendor interoperability.

The **802.15.4-2.4-DK** contains the following items: • Two 2.4GHz 802.15.4 ZigBee Target Boards • Two Antennas • Two 9V batteries • 2.4GHz 802.15.4 Development Kit User's Guide • AC to DC power adapter • USB debug adapter (USB to debug interface) • Two USB cables

336-1295-ND 2.4GHz 802.15.4-2.4-DK Development Kit 409.65

RF Synthesizers

Silicon Laboratories' wireless solutions are the world's most integrated, robust, reliable and easiest to use wireless solutions available in the market today. By eliminating more discrete and requiring fewer external components than alternate solutions, our products empower our customers to add value-rich features and speed time to market. Best of all, we develop and design these world-class products in proven, standard CMOS process technology.

Features: • CMOS RF synthesizers with integrated VCOs, loop filters and varactors • Low profile packages

Description	RF1 (MHz)	RF2 (MHz)	IF (MHz)	Settling Time (µs)	Input RF (MHz)	Package	Digi-Key Part No.	Price Each	Silicon Labs Part No.	Evaluation Board Digi-Key Part No.	Price Each	Silicon Labs Part No.
								1	25			
IF OUT, Lead Free, QFN	900 - 1.8	750 - 1.5	62.5 - 1000	200§	2 - 26	28-QFN	336-1170-ND◆	4.33	3.85	—	—	—
IF OUT, Lead Free, TSSOP	900 - 1.8	750 - 1.5	62.5 - 1000	200§	2 - 26	24-TSSOP	336-1171-ND◆	4.33	3.85	—	—	—
General Purpose RF1/RF2 OUT, Lead Free, TSSOP	900 - 2050	750 - 1.5	N/A	200§	2 - 26	28-MLP	336-1099-ND◆	6.42	5.71	—	—	—
General Purpose RF1/RF2 OUT, Lead Free, TSSOP	900 - 1.8	750 - 1.5	62.5 - 1000	200§	2 - 26	24-TSSOP	336-1172-ND◆	6.42	5.71	—	—	—
General Purpose RF2/IF OUT, Lead Free, TSSOP	N/A	750 - 1500	62.5 - 1000	200§	2 - 26	28-MLP	336-1103-ND◆	6.42	5.71	—	—	—
General Purpose RF2/IF OUT, Lead Free, TSSOP	900 - 1.8	750 - 1.5	62.5 - 1000	200§	2 - 26	24-TSSOP	336-1173-ND◆	6.42	5.71	—	—	—
RF1/IF OUT, Lead Free, QFN	900 - 1.8	750 - 1.5	62.5 - 1000	200§	2 - 26	28-QFN	336-1174-ND◆	6.42	5.71	—	—	—
802.11b.g and ISM Band 2.3GHz/IF OUT	N/A	2025 - 2300	62.5 - 1000	80†	2 - 50	28-MLP	336-1111-ND	6.34	5.71	—	—	—
2.3GHz/IF OUT, Lead Free	2300 - 2500	2025 - 2300	62.5 - 1000	80†	2 - 50	28-MLP	336-1176-ND	6.34	5.71	—	—	—
2.3GHz/IF OUT, Lead Free	N/A	2025 - 2300	62.5 - 1000	100†	2 - 50	28-MLP	336-1289-5-ND◆	6.42	5.71	—	—	—
General Purpose RF1/RF2/IF OUT, Lead Free, TSSOP	900 - 2050	750 - 1.5	62.5 - 1000	200§	2 - 26	28-MLP	336-1113-ND◆	8.01	7.12	—	—	—
General Purpose RF1/RF2/IF OUT, Lead Free, TSSOP	900 - 1.8	750 - 1.5	62.5 - 1000	200§	2 - 26	24-TSSOP	336-1177-ND◆	8.01	7.12	—	—	—
802.11b.g and ISM Band 2.5GHz/2.3GHz/IF OUT, Lead Free	2300 - 2500	2025 - 2300	62.5 - 1000	80†	2 - 50	28-MLP	336-1118-ND	7.91	7.12	—	—	—
2.5GHz/2.3GHz/IF OUT, Lead Free	2300 - 2500	2025 - 2300	62.5 - 1000	80†	2 - 50	28-QFN	336-1178-ND◆	8.01	7.12	—	—	—
2.5GHz/2.3GHz/IF OUT, Lead Free	2300 - 2500	2025 - 2300	62.5 - 1000	100†	2 - 50	24-TSSOP	336-1291-5-ND◆	8.01	7.12	—	—	—

§ For a 200kHz update rate † For update rates > 500kHz ◆ RoHS Compliant

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over £50! All prices are in British pound sterling and include duties.

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