



## RF Encoder/Decoder Chipset

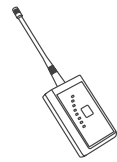
The RF Solutions RF600E and RF600D are easy to use encoder and decoder ICs. They have been designed to achieve the maximum possible range from any radio/InfraRed transmitter/receiver set. Unlike other encoder/decoder devices, the RF600E/600D provide an unprecedented level of security which prevents copying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

**B**

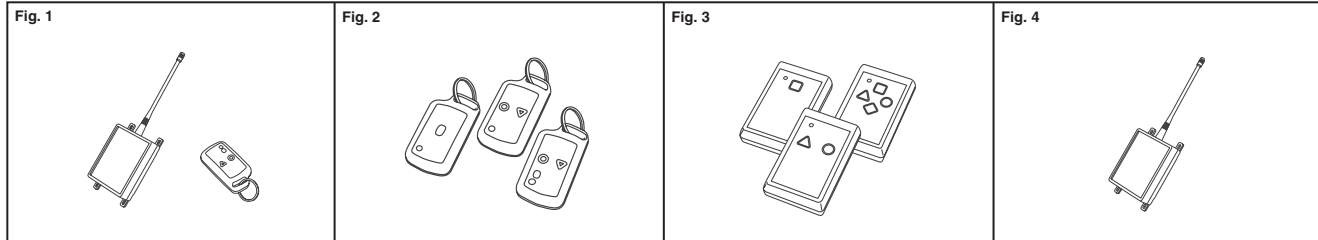


Fig.	Description	Freq. (MHz)	Digi-Key Part No.	Price Each
<b>Remote Control Systems</b>				
<b>AM Keyfob Systems</b>				
1	1 Channel System, 12/24Vdc	315	118C1-315AR1-ND	83.13
	3 Channel System, 12/24 Vdc	315	118C3-315AR1-ND	94.56
2	AM Keyfob Transmitter, 1 Button	315	AM110C1-315-ND	15.43
	AM Keyfob 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
<b>FM Keyfob Systems</b>				
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
<b>AM Radio Modules</b>				
<b>AM Super Hetrodyne Receivers</b>				
—	Superhetrodyne Receiver	315	AMRRQ3-315-ND	13.76
—	Superhetrodyne Receiver	433	AMRRQ3-433-ND	12.16
<b>AM Miniature Super Regenerative Receiver</b>				
—	SuperRegen Receiver, Miniature	433	AMHRR30-433-ND	7.95

Fig.	Description	Freq. (MHz)	Digi-Key Part No.	Price Each
<b>AM Super Regenerative Receiver Modules</b>				
—	SuperRegen Receiver	315	AMHRR3-315-ND	7.62
—	SuperRegen Receiver	433	AMHRR3-433-ND	7.62
<b>4 Pin Hybrid Transmitter Modules</b>				
—	Hybrid Transmitter Module, DIL Package	315	AMRT4-315-ND	7.25
—	Hybrid Transmitter Module, DIL Package	433	AMRT4-433-ND	7.25
<b>FM Radio Modules</b>				
<b>FM Hybrid Transmitter and Receiver Modules</b>				
—	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
<b>RF KEELOQ® Evaluation Kits</b>				
—	RF KEELOQ® Evaluation Kit	315	RFEVAL2-315-ND	254.10
—	RF KEELOQ® Evaluation Receiver	—	RFEVAL3-ND*	72.42
<b>Book</b>				
—	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
<b>TrueRF™ ICs — RoHS Compliant</b>												
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
<b>UHF — RoHS Compliant</b>												
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
<b>TrueRF Modules</b>												
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	—	—
<b>Kits</b>												
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
<b>Evaluation and Programming Boards</b>												
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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### SkyeModule™ M1-Mini

SkyeModule M1-mini provides a low power, high performance, and cost-effective platform designed to enable any device with RFID reader technology. The M1-mini is the world's smallest, self-contained OEM module.

**Features:**

- Multi-protocol, 13.56MHz ±7kHz • Smaller than a US quarter • Effective Range: 5.8cm – 8.5cm • Internal (On-board) Antenna • 50Ω port for External Antenna • Host-interface options: TTL Serial, I2C and SPI
- Operates from 3.2V – 6.0V; and as low as 50µA

**Benefits:**

- World's smallest form factor • Simple and intuitive API for fast integration/time to market • Low power consumption and high performance

**Target Applications:**

- Medical Equipment • Pharmaceuticals • Kiosks • Printers • Handhelds • Ticketing • Industrial Equipment

Description	Digi-Key Part No.	Price Each		Skyetek Part No.
		1	10	
M1-Mini Module with TTL Interface	753-1009-ND	60.98	55.76	SM-MN-00-HF-RC
M1-Mini Module with I2C Interface	753-1010-ND	60.98	55.76	SM-MN-00-HF-RCI2C
M1-Mini Module with SPI Interface	753-1011-ND	60.98	55.76	SM-MN-00-HF-RCSP1

### SkyeModule™ M7

SkyeModule M7 is the world's smallest, globally compliant UHF module. Its one-of-a-kind combination of high performance, security, and cost/space/power efficiency makes it the industry's price performance leader.

**Features:**

- Embedded RFID Module for OEM RFID • Smallest Footprint - smaller than a matchbook • 862MHz – 955MHz • Extensive tag compatibility and optimization with Tagnostic® and TagIQ™ • Minimal power consumption for maximum read range • Configurable output power • Simple firmware upgrades • Variety of host interfaces: TTL, USB • Simple and intuitive API

**Benefits:**

- Meets strict regulatory requirements for worldwide operation • Superior embeddability for fast integration and time-to-market • Support for the most tags with the most features • Low power consumption • Cost-effective and highly scalable • Common hardware and software interface with other SkyeModule readers for maximum design and solution flexibility

**Target Applications:**

- Printing/Encoding • Handheld Reading/Encoding • Item-Level Inventory Management • Patron Management • Access Control • Asset Management

Description	Digi-Key Part No.	Price Each	Skyetek Part No.
M7 Module	753-1021-ND	153.91	SM-M7-00-UF



### SkyeModule™ Multiplexer Accessories

SkyeTek™ offers the SkyePlus™ MXH and MXU antenna multiplexers to expand the reader's capability by adding up to 8 antennas. The addition of multiplexers can help significantly reduce overall solution cost and are best used in applications that require multiple read-points.

Description	Digi-Key Part No.	Price Each	Skyetek Part No.
HF 4-Port Multiplexer with M2 Module.....	753-1005-ND	108.17	SP-MX-04-HF-M2
UHF 4-Port Multiplexer with M9 Module.....	753-1006-ND	108.17	SP-MX-04-UF-M9
HF 8-Port Multiplexer with M2 Module.....	753-1007-ND	144.47	SP-MX-08-HF-M2
UHF 8-Port Multiplexer with M9 Module.....	753-1008-ND	144.47	SP-MX-08-UF-M9

### SkyeModule™ Developer Kits

The SkyeTek™ developer kit is a complete RFID development tool kit that enables quick demonstrations, proof-of-concepts, and trials when integrating RFID into numerous applications and products. The SkyeTek developer

kit includes all the components needed to get started, including: reader modules, sample tags, RFID antennas, connectors, demo software, device drivers, design guides, application notes, and more.

Description	Frequency	Size (mm) L x W x H	Effective Range	Digi-Key Part No.	Price Each	Skyetek Part No.
M1-Mini Development Kit with 1 M1 Module and 3 M1-Mini Modules (all TTL)	HF 13.56MHz	40 x 38 x 4	5.8cm – 8.5cm	753-1000-ND	725.27	DK-MN-00-HF-RC
M7 Development Kit with 1 M7 Module	UHF 862 – 955MHz	53 x 36 x 9	1m – 2m	753-1020-ND	943.07	DK-M7-00-UF



### RFID Evaluation Kit

The DEMOKITCRX14 tools are designed to demonstrate the STMicroelectronics short range product range that includes the SR176, SR1X512 and SR1X4K products. The SR176 / SR1X512 / SR1X4K is contactless memory, powered by a transmitted carrier radio wave at 13.56MHz. It contains a 176-bit (SR176), 512-bit (SR1X512) or 4096-bit (SR1X4K) EEPROM, with memory mapping organized as blocks of 16 or 32 bits. It conforms to the ISO 14443-B recommendation for the transfer of power and signals via radio transmission. The DEMOKITCRX14 reader circuitry amplitude modulates (10% modulation) the data on the carrier using amplitude shift keying (ASK). The SR176 / SR1X512 / SR1X4K replies by load modulating the data on the carrier using the BPSK (Bit Phase Shift Keying) coding using the 847kHz sub-carrier. The data transfer rate

in each direction is 106 Kbit/second. The purpose of the DEMOKITCRX14 program is to give an example of how the interfacing can be achieved. It does not allow the user to evaluate all of the different ISO 14443 modes. The DEMOKITCRX14 gives access to the full memory mapping. It is possible to read and write into the selected SR176 / SR1X512 / SR1X4K. This release of demonstration software, differentiated for each SR176 / SR1X512 / SR1X4K, allows all of the product features to be exercised.

- Kit Includes:** • One CD-ROM • One CRX14 board with I2C connector • One USB Transceiver with USB cable • Some SR176 and SR1X4K Samples • Documentation

**497-3704-ND** RFID Evaluation Kit..... **424.71**

### CR14 and CRX14 Coupler Chips



The CR14 and CR14X series are contactless couplers that are compliant with the short range ISO14443 type-B standard. They are controlled using the two wire I2C bus. They generate a 13.56MHz signal on an external antenna. Transmitted data is modulated using Amplitude Shift Keying (ASK). Received data is demodulated from the PICC (Proximity Integrated Coupling Card) load variation signal, induced on the antenna, using Bit Phase Shift Keying (BPSK) of a 847kHz sub-carrier. The Transmitted ASK wave is 10% modulated. The data transfer rate between the CR14/CRX14 and PICC is 106Kbit/second in both transmission and reception modes.

Type	Package	Digi-Key Part No.	1	Price Each	100	STMicroelectronics Part No.
Non-anti-clone .....	16-SOIC	497-5719-5-ND	6.43	5.28	4.45	CR14-MQP/1GE
Anti-clone .....	16-SOIC	497-5720-5-ND	9.00	7.97	6.43	CRX14-MQP/1GE

### Bluetooth® Modules



GS-BT2416xx is the new series of Bluetooth core embedded modules intended for audio Hi-Fi and Industrial applications based on the STLC2416 baseband controller with 4Mbit flash and the STLC2150 radio transceiver. The series supports protocol layers up to HCI and it represents a cost effective packaged solution for customers in need of a simple wireless link. The Bluetooth approach is facilitated by the Serial Port Profile (SPP) firmware embedded in GS-BT2416CX.AT1. This ready-to-go solution is simply managed

by AT commands. The modules are also available in Class 1 and Class 2 for either long range or low power. Bluetooth v1.2 compliant.

- Features:** • Class 1 (long) and Class 2 ranges • Bluetooth v1.2 compliant • Embedded SPP profile for cable replacement • AT commands set • HCI interface over UART and USB • Single 3.3V voltage supply with embedded voltage regulator

Class	Profile	Digi-Key Part No.	Price Each			STMicroelectronics Part No.
			1	10	100	
1	HCI	497-5788-ND	31.76	27.23	24.14	GS-BT2416C1
	HCI	497-6845-ND	21.60	18.52	16.42	GS-BT2416C1.H
	SPP	497-5789-ND	40.00	37.25	30.35	GS-BT2416C1.AT1
2	HCI	497-5790-ND	49.01	45.38	36.30	GS-BT2416C2
	HCI	497-6846-ND	21.60	18.52	16.42	GS-BT2416C2.H
	SPP	497-5791-ND	38.95	36.27	29.55	GS-BT2416C2.AT1
Board Demo for Class 1 Modules .....		497-5792-ND	63.53	—	—	GS-BT2416C1DB
Board Demo for Class 1 with Serial Port.....		497-5793-ND	44.47	—	—	GS-BT2416C1DBAT1
Board Demo for Class 2 with Serial Port.....		497-6224-ND	33.80	—	—	GS-BT2416C2DBAT1

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

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