

RF Receivers and RFID Transceivers

RF Receivers: Features: • Single superhet architecture for low external component count • FSK for digital data and FM reception • FM/FSK demodulation with phase-coincidence demodulator • For Analog Signal transmission • Low current consumption in active mode and very low standby current • Switchable LNA gain for improved dynamic range • RSSI allows signal strength indication and ASK detection **Operating Temperature Range:** -40°C ~ 85°C **MLX71120 and MLX71121: Operating Temperature Range:** -40°C ~ 125°C
RFID Transceivers: MLX90121 and MLX12115: Features: • Low external component count **Operating Temperature Range:** -40°C ~ 85°C **MLX90109: Features:** • Addressing 100kHz ~ 150kHz frequency range transponder • Biphasic and Manchester ASK • ON/OFF keying modulation **Operating Temperature Range:** -40°C ~ 85°C

B

Protocol	Package	Frequency (MHz)	Digi-Key Part No.	Price Each			Tape and Reel ‡	
				1	10	25	Qty.	Pricing
RF Receivers / Transceiver								
FSK/FM/ASK	32-LQFP	315 ~ 433	TH71101ENE-ND	10.68	8.03	6.18	—	—
	32-LQFP	315 ~ 433	TH71102ENE-ND	11.90	8.95	6.88	—	—
	32-LQFP	868 ~ 915	TH71111ENE-ND	12.32	9.49	7.30	—	—
	32-LQFP	868 ~ 915	TH71112ENE-ND	11.90	8.95	6.88	—	—
	32-LQFP	300 ~ 930	TH7122ENE-ND	14.73	11.07	8.52	2,000	3783.36/M
	32-QFN	300 ~ 930	MLX71120KLO-ND	12.53	9.41	7.24	—	—
	32-QFN	300 ~ 930	MLX71121KLO-ND	13.18	9.91	7.62	—	—
RFID Transceivers — RoHS Compliant								
—	20-SSOP	13.56	MLX90121EFRCT-ND	16.74	9.45	7.94	1,500	3781.00/M
	20-SSOP	13.56	MLX12115EFRCT-ND	21.07	11.90	10.00	1,500	4760.00/M
	8-SOIC	125kHz	MLX90109ECCCT-ND	11.02	6.23	5.23	2,600	2203.99/M

• RoHS Compliant ‡ For Tape and Reel part number, change -CT-ND to -TR-ND

RF Receiver and RFID Transceiver Evaluation Boards and Development Kits

Description	Digi-Key Part No.	Price Each
Evaluation Boards and Development Kits for RF/RFID		
Evaluation Board for TH71101 Receiver	EV871101B-315FSKC-ND	165.33
Evaluation Board for TH71101 Receiver	EV871101B-433FSKC-ND	165.33
Evaluation Board for TH71102 Receiver	EV871102B-315FSKC-ND	160.00
Evaluation Board for TH71102 Receiver	EV871102B-418FSKC-ND	160.00
Evaluation Board for TH71102 Receiver	EV871102B-433FSKC-ND	160.00
Evaluation Board for TH71111 Receiver	EV871111B-915FSKC-ND	160.00
Evaluation Board for TH71112 Receiver	EV871112B-868FSKC-ND	160.00
Evaluation Board for TH71112 Receiver	EV871112B-915FSKC-ND	160.00
Evaluation Board for TH7122ENE Transceiver	EV87122-433-FSK-C-ND	262.50
Evaluation Board for MLX90121	DV90121-ND	150.32
Development Kit for MLX90121	DV90121-ND	435.00
Evaluation Board for MLX90109	DV90109-ND	72.50
Development Kit for MLX90109	DV90109-ND	435.00
Kit for Door Access Demonstrator	DEM090121DA-ND	150.00
Kit for Long Range Reader Demonstrator	DEM090121LR-ND	340.00

MeshNetics ZigBee™ Modules and Development Kits



MeshNetics is a creator of easy-to-integrate 900 MHz and 2.4GHz 802.15.4/ZigBee wireless RF modules and free mesh networking software, used by OEMs and system integrators to add wireless connectivity to their products and solutions. MeshNetics RF modules feature industry-leading range performance with a link budget of up to 124 dB, long battery

life and ultra-small footprint. MeshNetics products are used to create reliable, self-healing wireless networks that enable solutions in building automation, energy management and efficiency, HVAC, AMR, predictive maintenance, asset tracking and other application areas.

Size (mm)	Supply Voltage (V)	Power Consumption Power Save (µA)	Power Consumption TX/RX (mA)	Frequency (MHz)	Max. Output Power (dBm)	Receiver Sensitivity (dBm)	Antenna Type	Digi-Key Part No.	Price Each		Digi-Key Part No.	Tape and Reel Pricing 500	MeshNetics Part No.
									1	10			
ZigBit™ Modules													
18.8 x 13.5	1.8 ~ 3.6	6	18/19	2400	+3	-101	Balance RF Output Pin	758-1000-1-ND†	22.90	22.40	758-1000-2-ND	15300.00	MNZB-24-B0
24 x 13.5	1.8 ~ 3.6	6	18/19	2400	+3	-101	Balanced Dual Chip Ceramic	758-1001-1-ND†	25.90	25.40	758-1001-2-ND	17549.98	MNZB-24-A2
38 x 13.5	3.0 ~ 3.6	6	50/23	2400	+20	-104	U.FL Connector	758-1011-1-ND†	37.50	37.00	758-1011-2-ND	17499.98	MNZB-A24-UFL
38 x 13.5	3.0 ~ 3.6	6	50/23	2400	+20	-104	Unbalanced RF Pin	758-1012-1-ND†	36.90	36.40	758-1012-2-ND	17200.03	MNZB-A24-U0
18.8 x 13.5	1.8 ~ 3.6	6	20/15	900	+11	-110	Balanced RF Pin	758-1007-1-ND†	36.50	36.00	758-1007-2-ND	16999.99	MNZB-900-B0
Development Kits and Boards													
MeshBean Board with PCB Antenna, Sensors (Light and Temperature)								758-1002-ND	125.00	—	—	—	MNZB-EVB-24-B0
MeshBean Board with Chip Antenna, Sensors (Light and Temperature)								758-1003-ND	125.00	—	—	—	MNZB-EVB-24-A2
MeshBean Board with SMA Connector, Sensors (Light and Temperature)								758-1004-ND	125.00	—	—	—	MNZB-EVB-24-SMA
Development Kit for ZigBit Modules, Includes: 3 MeshBean Boards, Software and Cables, 1-year Manufacturer Support								758-1005-ND	900.00	—	—	—	MNZB-DKC-24
Development Kit for ZigBit Modules, Includes: 3 MeshBean Boards, Software and Cables, 45-day Manufacturer Support								758-1006-ND	400.00	—	—	—	MNZB-DKL-24
Development Kit for ZigBit Amp, Includes: 3 MeshBean Boards, Software and Cables, 1-year Manufacturer Support								758-1014-ND	900.00	—	—	—	MNZB-DKC-A24
Development Kit for ZigBit Amp, Includes: 3 MeshBean Boards, Software and Cables, 45-day Manufacturer Support								758-1015-ND	400.00	—	—	—	MNZB-DKL-A24
MeshBean Board with RPSMA Connector, ZigBit Amp (U.FL version), Sensors (Light and Temperature)								758-1013-ND	150.00	—	—	—	MNZB-EVB-A24-UFL
Development Kit for ZigBit 900, Includes: 3 MeshBean Boards, Software and Cables, 1-year Manufacturer Support								758-1009-ND	900.00	—	—	—	MNZB-DKC-900
Development Kit for ZigBit 900, Includes: 3 MeshBean Boards, Software and Cables, 45-day Manufacturer Support								758-1010-ND	400.00	—	—	—	MNZB-DKL-900
MeshBean Board with RPSMA Connector, ZigBit 900 Module, Sensors (Light and Temperature)								758-1008-ND	150.00	—	—	—	MNZB-EVB-900-B0

† Cut Tape

MICREL QwikRadio™ RF Receivers



Description	Package	Digi-Key Part No.	Price Each			Micrel Part No.
			1	25	100	
QwikRadio Receiver/Data Demod	14-SOIC	576-1330-1-ND†	3.78	3.03	2.36	MICRF001YM TR
QwikRadio Receiver/Data Demod	14-SOIC	576-1330-2-ND†	—	3.53/2.500	—	MICRF001YM TR
QwikRadio Receiver/Data Demod	14-Dip	576-1331-ND	4.55	3.64	2.83	MICRF001YM
QwikRadio Receiver/Data Demod	14-SOIC	576-1336-ND	3.67	2.94	2.29	MICRF011YM
QwikRadio Receiver/Data Demod	14-Dip	576-1337-ND	4.41	3.53	2.75	MICRF011YM
QwikRadio 115kbps, 800MHz ~ 1GHz UHF Receiver	14-SOIC	576-1333-ND	4.88	3.91	3.04	MICRF005YM
QwikRadio LP UHF Receiver	8-SOIC	576-1334-ND	3.96	3.17	2.47	MICRF007YM
QwikRadio LP UHF Receiver	16-SOIC	576-1335-ND	3.96	3.17	2.47	MICRF009YM
QwikRadio LP UHF Receiver	8-SOIC	576-1962-5-ND	3.96	3.17	2.47	MICRF010YM
QwikRadio ASK Receiver 300 ~ 440MHz	16-SOIC	576-1332-ND	3.96	3.17	2.47	MICRF002YM
QwikRadio Sweep-Mode Receiver 300 ~ 440MHz	8-SOIC	576-1961-5-ND	2.77	2.22	1.73	MICRF008YM
QwikRadio ASK Receiver 300 ~ 440MHz	8-SOP	576-2420-ND	3.96	3.17	2.47	MICRF022YM-FS24
QwikRadio ASK Receiver 300 ~ 440MHz	8-SOP	576-2421-ND	3.96	3.17	2.47	MICRF022YM-FS48
QwikRadio Receiver 3V, 380 ~ 450MHz	16-QSOP	576-1964-5-ND	3.92	3.14	2.44	MICRF211AYQS
QwikRadio Receiver 3.3V, 300 ~ 350MHz	16-QSOP	576-1649-5-ND	3.92	3.14	2.44	MICRF213AYQS
QwikRadio Receiver 3.3V, 300 ~ 450MHz	16-QSOP	576-2997-ND	4.70	3.77	2.93	MICRF218AYQS
QwikRadio RF Receiver 300 ~ 450MHz	16-QSOP	576-3230-5-ND	4.50	3.60	2.80	MICRF221AYQS

† Cut Tape ‡ Tape and Reel

QwikRadio™ RF Transmitters



Description	Package	Digi-Key Part No.	Price Each			Micrel Part No.
			1	25	100	
QwikRadio UHF ASK Transmitter	8-SOIC	576-1338-ND	2.77	2.22	1.73	MICRF102YM
QwikRadio UHF ASK Transmitter	8-SOIC	576-1339-ND	3.42	2.74	2.13	MICRF103YM
QwikRadio ASK Transmitter 300 ~ 450MHz	SOT23-6	576-3229-1-ND†	1.73	1.38	1.04	MICRF113YM6 TR
QwikRadio ASK Transmitter 300 ~ 450MHz	SOT23-6	576-3229-2-ND†	—	2649.00/3,000	—	MICRF113YM6 TR
QwikRadio UHF ASK/FSK Transmitter	10-MSOP	576-1963-5-ND	2.10	1.68	1.26	MICRF112YM
290 ~ 980MHz ISM Band ASK/FSK Transmitter	24-MLF	576-1965-1-ND†	3.56	2.85	2.22	MICRF405YML TR
290 ~ 980MHz ISM Band ASK/FSK Transmitter	24-MLF	576-1965-2-ND†	—	2015.00/1,000	—	MICRF405YML TR
1.8V, QwikRadio UHF ASK Transmitter	14-SOIC	576-1340-ND	3.51	2.81	2.19	MICRF104YM

† Cut Tape ‡ Tape and Reel

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.

More Product Available Online: www.digikey.com