

OMRON[®]

Touch Sensors



B6TS Features:

The B6TS has successfully integrated the various functions required for a capacitance touch sensor including sensitivity setting, noise processing and compensation into just one IC combined with a few peripheral components. In addition, we supply a tool called the Workbench to make full use of the IC by providing total support for all work required in designing - electrode design, sensitivity adjustment, threshold setting, mode selection and signal monitoring.

B6TW Features:

The B6TW is a tool for using the B6TS series touch sensor IC, and includes PC software and an interface board. Use of Workbench allows easy execution of the operations required in design - electrode design, sensitivity adjustment, threshold setting, mode selection and signal monitoring and makes it easy for users to incorporate highly reliable touch sensors into devices. Workbench can be used not only for product design, but also for prior verification of functions.

Functions:

- Runs on Windows PCs (*Windows XP and 2000 recommended*)
- Connects with a PC via serial communication
- Comes with an evaluation board for four or eight channels for immediate evaluation

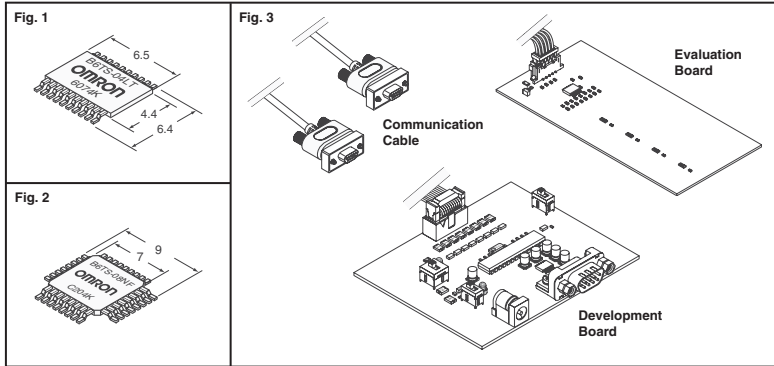


Fig.	Description	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Omron Part No.
			1	25	50		Qty.	Pricing	
1	4 Channel, Touch Sensor IC, 20 pin SOP	Z2564CT-ND	4.53	4.08	3.62	Z2564TR-ND	2,500	2263.00/M	B6TS-04LT
2	8 Channel, Touch Sensor IC, 34 pin QFP	Z2565-ND†	5.30	4.77	4.24	—	—	—	B6TS-08NF
3	Development Kit, 4 Channel, Includes Software and Cable	Z2566-ND	—	504.90/1	—	—	—	—	B6TW-S04LT
	Development Kit, 8 Channel, Includes Software and Cable	Z2567-ND	—	504.90/1	—	—	—	—	B6TW-S08NF

† Bulk

QUANTUM[®] Sensors



QProx™/QTouch™ Charge-Transfer ("QT") General Description: These are self-contained digital capacitance ICs capable of detecting proximity, touch, and fluid level. With appropriate electrodes they can sense through sealed surfaces made of glass, plastic, stone, ceramic, and wood, up to thicknesses of several inches. This capability coupled with an ability to

continuously calibrate leads to new product concepts. They are designed specifically for control panels in home appliances, PC peripherals, machinery, security systems, lighting controls, or anywhere a mechanical switch or button may be found. Versions also available for fluid sensing.

Description	Supply Voltage (V)		Supply Current (Typical)	Operating Temperature (°C)	Package	Digi-Key Part No.	Price Each			Digi-Key Part No.	Tape & Reel		Quantum Part No.
	Minimum	Maximum					1	50	100		Qty.	Pricing	
QT110 QProx 8-Pin Sensor IC	2.5	5.5	9.5-26µA	0 ~ 70	8-Dip	427-1091-ND	4.19	2.44	2.27	—	—	—	QT110-DG
QT110 QProx 8-Pin Sensor IC	2.5	5.5	9.5-26µA	-40 ~ 85	8-SOIC	427-1092-1-ND	4.53	2.63	2.45	427-1092-2-ND	3,300	2004.00/M	QT110-ISO
QT113 QProx 8-Pin Sensor IC	2.5	5.5	600µA	-40 ~ 85	8-SOIC	427-1096-1-ND	4.53	2.63	2.45	—	—	—	QT113-ISO
QT115 QProx 8-Pin Sensor IC	2.5	5.25	20µA	-40 ~ 85	8-SOIC	427-1122-1-ND	5.31	3.08	2.87	427-1122-2-ND	3,300	2352.00/M	QT115-ISO
QT117 QProx 8-Pin Sensor IC	2.5	5.5	600µA	-40 ~ 85	8-SOIC	427-1097-1-ND	8.36	4.85	4.52	—	—	—	QT117L-ISO
QT140 QProx 4-Key Sensor IC	3.0	5.0	5.0mA	-40 ~ 105	28-SSOP	427-1111-1-ND	8.24	7.48	6.62	427-1111-2-ND	2,100	5679.10/M	QT140-ASG
QT160 QProx 6-Key Sensor IC	3.0	5.5	5.0mA	0 ~ 70	28-Dip	427-1100-ND	7.55	6.81	6.12	—	—	—	QT160-DG
QT160 QProx 6-Key Sensor IC	3.0	5.5	5.0mA	-40 ~ 85	28-SSOP	427-1101-1-ND	7.33	6.65	5.89	427-1101-2-ND	2,100	5054.00/M	QT160-ISO
QT161 QTouch 6-Key Sensor IC	3.0	5.5	2.5mA	-40 ~ 105	28-SSOP	427-1112-1-ND	10.53	9.50	8.54	—	—	—	QT161-ASG
QT220 QTouch 2-Key Sensor IC	3.9	5.5	1.5mA	-40 ~ 85	20-SSOP	427-1114-1-ND	3.09	2.80	2.48	427-1114-2-ND	2,000	2160.00/M	QT220-ISO-G
QT240 QTouch 4-Key Sensor IC	3.9	5.0	1.5mA	-40 ~ 85	20-SSOP	427-1102-1-ND	3.46	3.15	2.81	427-1102-2-ND	2,000	2400.00/M	QT240-ISO-G
QT320 QTouch 2-Key Sensor IC	1.8	5.0	600µA	-40 ~ 85	8-SOIC	427-1121-1-ND	3.93	2.30	2.14	427-1121-2-ND	2,000	1750.00/M	QT320-ISO
QT401 QSlide™ Touch Slider IC	2.5	5.5	110-180µA	-40 ~ 85	14-SOIC	427-1103-1-ND	5.92	5.39	4.81	427-1103-2-ND	2,600	2487.00/M	QT401-ISO
QT401 QSlide Touch Slider IC	2.5	5.5	110-180µA	-40 ~ 85	14-TSSOP	427-1104-1-ND	5.94	5.39	4.78	427-1104-2-ND	2,500	4096.00/M	QT401-ISOSS
QT411 QSlide Touch Slider IC	2.5	5.5	110-180µA	-40 ~ 85	14-TSSOP	427-1116-1-ND	3.74	3.40	3.01	—	—	—	QT411-ISOSS
QT510 QWheel™ Touch Slider IC	2.5	5.5	110-180µA	-40 ~ 85	14-SOIC	427-1105-1-ND	7.85	7.16	6.37	427-1105-2-ND	2,600	2979.00/M	QT510-ISO
QT510 QWheel Touch Slider IC	2.5	5.5	110-180µA	-40 ~ 85	14-TSSOP	427-1106-1-ND	7.89	7.16	6.34	427-1106-2-ND	2,500	5440.00/M	QT510-ISOSS
QT511 QWheel Touch Slider IC	2.5	5.5	110-180µA	-40 ~ 85	14-TSSOP	427-1117-1-ND	6.20	5.62	4.98	427-1117-2-ND	2,500	4275.00/M	QT511-ISOSS
QT1080 QTouch 8-Key Sensor IC	2.8	5.0	1.3-4.5mA	-40 ~ 85	32-QFN	427-1090-1-ND	3.63	3.29	2.92	427-1090-2-ND	2,500	2500.00/M	QT1080-ISO
QT1081 QTouch 8-Key Sensor IC	2.8	5.0	1.6mA	-40 ~ 85	32-QFN	427-1127-1-ND	3.65	2.18	2.06	427-1127-2-ND	2,500	1620.00/M	QT1081-ISO
QT1100 QTouch 10-Key Sensor IC	3.3	5.0	1.4-2.9mA	-40 ~ 85	48-SSOP	427-1093-1-ND	9.11	5.29	4.93	427-1093-2-ND	1,000	4030.00	QT1100A-ISO
QT1100 QTouch 10-Key Sensor IC	2.8	5.0	1.5-4.5mA	-40 ~ 85	32-QFN	427-1094-1-ND	6.52	3.78	3.53	427-1094-2-ND	2,500	2880.00/M	QT1101-ISO
QT1103 QTouch 10-Key Sensor IC	2.8	5.0	1.4mA	-40 ~ 85	32-QFN	427-1129-1-ND	2.70	2.45	2.17	427-1129-2-ND	2,500	1800.00/M	QT1103-ISO
QT1106 QTouch 7-Key Sensor IC	2.8	5.0	1.3mA	-40 ~ 85	32-QFN	427-1115-1-ND	6.06	3.54	3.30	427-1115-2-ND	2,500	2690.00/M	QT1106-ISO
QT60160 QMatrix™ 16-Key Touch IC	1.8	5.25	1.02mA	-40 ~ 85	32-MLF	427-1125-1-ND	4.79	2.91	2.74	427-1125-2-ND	3,000	2190.00/M	QT60160-ISO
QT60168 QProx 16-Key QMatrix IC	3.0	5.25	10mA	-40 ~ 105	32-TQFP	427-1107-ND	5.23	4.71	4.24	—	—	—	QT60168-ASG
QT60240 QMatrix 24-Key Touch IC	1.8	5.25	1.02mA	-40 ~ 85	32-MLF	427-1126-1-ND	5.17	3.11	3.01	427-1126-2-ND	3,000	2400.00/M	QT60240-ISO
QT60248 QProx 24-Key QMatrix IC	3.0	5.25	10mA	-40 ~ 105	32-TQFP	427-1108-ND	6.57	5.93	5.34	—	—	—	QT60248-ASG
QT60326 QProx 32-Key QMatrix IC	4.75	5.25	15mA	-40 ~ 105	44-TQFP	427-1109-ND	8.22	7.41	6.99	—	—	—	QT60326-ASG
QT60486 QProx 48-Key QMatrix IC	4.75	5.25	15mA	-40 ~ 105	44-TQFP	427-1110-ND	9.86	8.90	8.39	—	—	—	QT60486-ASG

Evaluation Boards



Description	Digi-Key Part No.	Price Each	Quantum Part No.	Description	Digi-Key Part No.	Price Each	Quantum Part No.
E3A Evaluation Board for QT300	427-1069-ND	89.00	E3A	E1103 Evaluation Board for QT1103-ISO	427-1134-ND	39.00	E1103 KIT
E100S Evaluation Board for QT100	427-1128-ND	11.75	E100S	E1106 Evaluation Board for QT1106 IC	427-1124-ND	156.00	E1106 KIT
E102 Evaluation Kit for QT102-ISO QTouch™ 3-Key Sensor IC	427-1133-ND	23.50	E102 KIT	E6248 Evaluation Board for QT60248 24-Key QMatrix™ IC	427-1087-ND	185.00	E6248
E240B Evaluation Board for QT240	427-1113-ND	30.00	E240B	E6486 Evaluation Board for QT60486 48-Key QMatrix IC	427-1088-ND	190.00	E6486
E1081 Evaluation Board for QT1081-ISO 8-Key Sensor IC	427-1130-ND	63.50	E1081 KIT	E6240 Evaluation Board for QT60160/QT60240 IC	427-1123-ND	95.00	E6240 KIT



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Toll-Free: 1-800-344-4539 • Phone 218-681-6674 • Fax: 218-681-3380

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