



www.digikey.com
Orders 1-800-344-4539
Fax 218-681-3380

Invoice # 57173019
U.S. \$

701 Brooks Ave. South, Thief River Falls, MN 56701-0677 USA

Sold To:
SHENGRONG YIN
UNIVERSITY OF HOUSTON/COMPUTER SCIENCE
PHILIP GUTHRIE HOFFMAN HALL (PGH501)
3551 CULLEN BLVD RM 501
HOUSTON TX 77204-3010

Bill To:
SHENGRONG YIN
UNIVERSITY OF HOUSTON/COMPUTER SCIENCE
PHILIP GUTHRIE HOFFMAN HALL (PGH501)
3551 CULLEN BLVD RM 501
HOUSTON TX 77204-3010

Terms Discover	Invoice Date 28-MAR-2017	Page 1
Customer Purchase Order		Sales Order 49903770
Back Orders Accepts to 23-MAR-2018		Account 1535262
Entered By / Date AUTO/28-MAR-2017	Shipped Via U2D	Ship Date 28-MAR-2017
Easy to Remember: 1-800-DIGI-KEY		

For Office Use Only	Received INTERNET	VAT/Tax ID	Billing BILL SHIP	Pack List No. 1	Printing Date 28-MAR-2017	Currency Type: U.S. \$	MSC # 0
------------------------	----------------------	------------	----------------------	--------------------	------------------------------	---------------------------	------------

Idx	Box	Ordered	Cancelled	Shipped	Item Number/Description	Back Order	Unit Price US \$	Amount US \$
1	1	500	0	500	311-324CRCT-ND RES SMD 324 OHM 1% 1/8W 0805 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: TAIWAN CAGE: 19701	UNAFFECTED	2.34	
2	1	500	0	500	311-470ARCT-ND RES SMD 470 OHM 5% 1/8W 0805 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: TAIWAN CAGE: 19701	UNAFFECTED	2.02	
3	1	500	0	500	311-100CRCT-ND RES SMD 100 OHM 1% 1/8W 0805 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: TAIWAN CAGE: 19701	UNAFFECTED	2.34	
4	1	30	0	30	296-36066-5-ND IC PHOTODIODE/AMPLIFIER 8DIP HTSUS: 8542.33.0001 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: THAILAND CAGE: 01295	UNAFFECTED	192.33	
5	1	500	0	500	RMCF0805JT68R0CT-ND RES SMD 68 OHM 5% 1/8W 0805 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH Mercury: Cert on File. For more information contact RoHS@DigiKey.com COUNTRY/ORIGIN: CHINA CAGE: 5CGT2	UNAFFECTED	1.87	
6	1	40	0	40	475-1077-ND PHOTODIODE 850NM 5MM CLEAR HTSUS: 8541.40.6050 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: MALAYSIA CAGE: 5WBQ9	UNAFFECTED	26.02	

Claims for pricing errors, shortages, and defective product must be reported within 30 days of invoice date.

Contact Customer Service at 1-800-858-3616

**All transactions with Digi-Key, including its
subsidiaries and/or affiliates, are subject to Digi-Key's Terms of Use and
Conditions of Order, available at www.digikey.com.**



www.digikey.com
Orders 1-800-344-4539
Fax 218-681-3380

Invoice # 57173019
U.S. \$

701 Brooks Ave. South, Thief River Falls, MN 56701-0677 USA

Sold To:

CUSTOMER 8929125
SHENGRONG YIN
UNIVERSITY OF HOUSTON/COMPUTER SCIENCE
PHILIP GUTHRIE HOFFMAN HALL (PGH501)
3551 CULLEN BLVD RM 501
HOUSTON TX 77204-3010

Terms	Invoice Date	Page
Discover	28-MAR-2017	2
Customer Purchase Order		Shipped Via
		U2D
Easy to Remember: 1-800-DIGI-KEY		

Idx	Box	Ordered	Cancelled	Shipped	Item Number/Description	Back Order	Unit Price US \$	Amount US \$
7	1	30	0	30	296-23635-1-ND IC ADC 12BIT 3MSPS SOT23-6 HTSUS: 8542.39.0001 ECCN: EAR99 LEAD: LEAD ALL ROHS: ROHS COMP REACH: REACH UNAFFECTED COUNTRY/ORIGIN: THAILAND CAGE: 01295		4.74300	142.29
8	1	500	0	500	YAG3688CT-ND RES SMD 100K OHM 1% 1/8W 0805 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: TAIWAN CAGE: 19701		.00936	4.68
9	1	500	0	500	311-1.00MCRCT-ND RES SMD 1M OHM 1% 1/8W 0805 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED COUNTRY/ORIGIN: TAIWAN CAGE: 19701		.00468	2.34
10	1	100	0	100	BSS138CT-ND MOSFET N-CH 50V 220MA SOT-23 HTSUS: 8541.21.0095 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED COUNTRY/ORIGIN: CHINA CAGE: 07263		.09920	9.92
11	1	500	0	500	RMCF0805JT10K0CT-ND RES SMD 10K OHM 5% 1/8W 0805 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED Mercury: Cert on File. For more information contact RoHS@DigiKey.com COUNTRY/ORIGIN: CHINA CAGE: 5CGT2		.00374	1.87
12	1	30	0	30	296-26739-1-ND IC OPAMP GP 2.25MHZ RRO 14SOIC HTSUS: 8542.33.0001 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED COUNTRY/ORIGIN: MEXICO CAGE: 01295		1.77100	53.13
13	1	500	0	500	311-1.0KARCT-ND RES SMD 1K OHM 5% 1/8W 0805 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED COUNTRY/ORIGIN: TAIWAN CAGE: 19701		.00404	2.02
14	1	25	0	25	308-2103-ND FIXED IND 33UH 1.1A 70 MOHM TH HTSUS: 8504.50.4000 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: CHINA CAGE: 6V4L0		.54280	13.57

Claims for pricing errors, shortages, and defective product must be reported within 30 days of invoice date.

Contact Customer Service at 1-800-858-3616

**All transactions with Digi-Key, including its
subsidiaries and/or affiliates, are subject to Digi-Key's Terms of Use and
Conditions of Order, available at www.digikey.com.**



www.digikey.com
Orders 1-800-344-4539
Fax 218-681-3380

Invoice # 57173019
U.S. \$

701 Brooks Ave. South, Thief River Falls, MN 56701-0677 USA

Sold To:

CUSTOMER 8929125
SHENGRONG YIN
UNIVERSITY OF HOUSTON/COMPUTER SCIENCE
PHILIP GUTHRIE HOFFMAN HALL (PGH501)
3551 CULLEN BLVD RM 501
HOUSTON TX 77204-3010

Terms	Invoice Date	Page
Discover	28-MAR-2017	3
Customer Purchase Order		Shipped Via
		U2D
Easy to Remember: 1-800-DIGI-KEY		

Idx	Box	Ordered	Cancelled	Shipped	Item Number/Description	Back Order	Unit Price US \$	Amount US \$
15	1	500	0	500	RMCF0805JT220KCT-ND RES SMD 220K OHM 5% 1/8W 0805 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED JUN-2016 Mercury: Cert on File. For more information contact RoHS@DigiKey.com COUNTRY/ORIGIN: CHINA CAGE: 5CGT2		.00374	1.87
16	1	25	0	25	P10321-ND CAP ALUM 47UF 20% 50V RADIAL HTSUS: 8532.22.0020 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED JUN-2015 COUNTRY/ORIGIN: MALAYSIA CAGE: 0J4G8		.16760	4.19
17	1	25	0	25	1N4001-TPMSCT-ND DIODE GEN PURP 50V 1A DO41 HTSUS: 8541.10.0080 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED JUN-2016 Mercury: Cert on File. For more information contact RoHS@DigiKey.com COUNTRY/ORIGIN: CHINA CAGE: 374W0		.09480	2.37
18	1	25	0	25	493-10498-1-ND CAP ALUM 0.1UF 20% 50V RADIAL HTSUS: 8532.22.0020 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED DEC-2015 COUNTRY/ORIGIN: MALAYSIA CAGE: 55680		.13760	3.44
19	1	100	0	100	399-1049-1-ND CAP CER 10PF 50V NP0 0603 HTSUS: 8532.24.0020 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED JUN-2016 COUNTRY/ORIGIN: MEXICO CAGE: 31433		.01480	1.48
20	1	30	0	30	MCP3008T-I/SLCT-ND IC ADC 10BIT 2.7V 8CH SPI 16SOIC HTSUS: 8542.39.0001 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED JUN-2016 COUNTRY/ORIGIN: THAILAND		1.87480	56.24
21	1	30	0	30	LT1301CN8#PBF-ND IC REG BOOST PROG 0.75A 8DIP HTSUS: 8542.39.0001 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED JUN-2016 COUNTRY/ORIGIN: MALAYSIA CAGE: 64155		3.17000	95.10
22	1	30	0	30	754-1615-ND LED RGB CLEAR 5MM ROUND T/H HTSUS: 8541.40.2000 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH UNAFFECTED DEC-2015 Mercury: Cert on File. For more information contact RoHS@DigiKey.com COUNTRY/ORIGIN: CHINA CAGE: 09MQ5		1.18000	35.40

Claims for pricing errors, shortages, and defective product must be reported within 30 days of invoice date.

Contact Customer Service at 1-800-858-3616

All transactions with Digi-Key, including its subsidiaries and/or affiliates, are subject to Digi-Key's Terms of Use and Conditions of Order, available at www.digikey.com.



www.digikey.com
Orders 1-800-344-4539
Fax 218-681-3380

Invoice # 57173019
U.S. \$

701 Brooks Ave. South, Thief River Falls, MN 56701-0677 USA

Sold To:

CUSTOMER 8929125
SHENGRONG YIN
UNIVERSITY OF HOUSTON/COMPUTER SCIENCE
PHILIP GUTHRIE HOFFMAN HALL (PGH501)
3551 CULLEN BLVD RM 501
HOUSTON TX 77204-3010

Terms	Invoice Date	Page
Discover	28-MAR-2017	4
Customer Purchase Order		Shipped Via
		U2D
Easy to Remember: 1-800-DIGI-KEY		

Idx	Box	Ordered	Cancelled	Shipped	Item Number/Description	Back Order	Unit Price US \$	Amount US \$
23	1	25	0	25	493-1059-ND CAP ALUM 33UF 20% 25V RADIAL HTSUS: 8532.22.0020 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: MALAYSIA CAGE: 55680	UNAFFFECTED	.11600	2.90
24	1	25	0	25	FQP30N06L-ND MOSFET N-CH 60V 32A TO-220 HTSUS: 8541.29.0095 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: CHINA CAGE: 07263	UNAFFFECTED	1.04800	26.20
25	1	100	0	100	541-33.0HCT-ND RES SMD 33 OHM 1% 1/10W 0603 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: ISRAEL CAGE: 2799A	UNAFFFECTED	.01290	1.29
26	1	100	0	100	541-20.0KHCT-ND RES SMD 20K OHM 1% 1/10W 0603 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: ISRAEL CAGE: 2799A	UNAFFFECTED	.01290	1.29
27	1	100	0	100	541-100KHCT-ND RES SMD 100K OHM 1% 1/10W 0603 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: ISRAEL CAGE: 2799A	UNAFFFECTED	.01290	1.29
28	1	100	0	100	541-49.9HCT-ND RES SMD 49.9 OHM 1% 1/10W 0603 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: ISRAEL CAGE: 18612	UNAFFFECTED	.01290	1.29
29	1	10	0	10	541-1.00MFCT-ND RES SMD 1M OHM 1% 1/4W 1206 HTSUS: 8533.21.0030 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: ISRAEL CAGE: 2799A	UNAFFFECTED	.05700	.57
30	1	6	0	6	J658-ND CONN SMA JACK STR 50OHM EDGE MNT HTSUS: 8536.69.4010 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH Mercury: Cert on File. For more information contact RoHS@DigiKey.com COUNTRY/ORIGIN: USA CAGE: 1VY65	UNAFFFECTED	5.22000	31.32
31	1	25	0	25	SAM8748-ND SHUNT JUMPER HTSUS: 8538.90.8180 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP REACH: REACH COUNTRY/ORIGIN: TAIWAN CAGE: 55322	UNAFFFECTED	.27000	6.75

Claims for pricing errors, shortages, and defective product must be reported within 30 days of invoice date.

Contact Customer Service at 1-800-858-3616

All transactions with Digi-Key, including its subsidiaries and/or affiliates, are subject to Digi-Key's Terms of Use and Conditions of Order, available at www.digikey.com.



www.digikey.com
Orders 1-800-344-4539
Fax 218-681-3380

Invoice # 57173019
U.S. \$

701 Brooks Ave. South, Thief River Falls, MN 56701-0677 USA

Sold To:

CUSTOMER 8929125
SHENGRONG YIN
UNIVERSITY OF HOUSTON/COMPUTER SCIENCE
PHILIP GUTHRIE HOFFMAN HALL (PGH501)
3551 CULLEN BLVD RM 501
HOUSTON TX 77204-3010

Terms	Invoice Date	Page
Discover	28-MAR-2017	5
Customer Purchase Order		Shipped Via
		U2D
Easy to Remember: 1-800-DIGI-KEY		

Idx	Box	Ordered	Cancelled	Shipped	Item Number/Description	Back Order	Unit Price US \$	Amount US \$
32	1	10	0	10	SAM9159-ND 2MM TERMINAL STRIP HTSUS: 8536.69.4040 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: USA		.42700	4.27
33	1	10	0	10	490-4789-1-ND CAP CER 0.1UF 100V X7R 0805 HTSUS: 8532.24.0020 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: JAPAN CAGE: 3EH09	REACH: REACH	.10600	1.06
34	1	50	0	50	490-1520-1-ND CAP CER 10000PF 25V X7R 0603 HTSUS: 8532.24.0020 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: SINGAPORE CAGE: 3EH09	REACH: REACH	.01320	.66
35	1	10	0	10	490-6259-1-ND CAP CER 0.1PF 50V NP0 0402 HTSUS: 8532.24.0020 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: JAPAN	REACH: REACH	.12600	1.26
36	1	5	0	5	490-10934-1-ND CAP CER 10UF 25V X5R 1206 HTSUS: 8532.24.0020 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: JAPAN	REACH: REACH	.56000	2.80
37	1	25	0	25	490-1451-1-ND CAP CER 1000PF 50V NP0 0603 HTSUS: 8532.24.0020 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: JAPAN CAGE: 3EH09	REACH: REACH	.02880	.72
38	1	10	0	10	ED90581-ND TERM TURRET SINGLE L=5.56MM TIN HTSUS: 8536.69.4040 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: USA CAGE: 3N087	REACH: REACH	.37200	3.72
39	1	4	0	4	SAM10192-ND 2MM TERMINAL STRIP HTSUS: 8536.69.4040 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP COUNTRY/ORIGIN: USA		.51000	2.04
40	1	2	0	2	365-1888-ND LED VCSEL FLAT LENS 850NM T-1 HTSUS: 8541.40.2000 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP Mercury: Cert on File. For more information contact COUNTRY/ORIGIN: MEXICO CAGE: 32694	REACH: REACH	5.34000	10.68

Claims for pricing errors, shortages, and defective product must be reported within 30 days of invoice date.

Contact Customer Service at 1-800-858-3616

All transactions with Digi-Key, including its subsidiaries and/or affiliates, are subject to Digi-Key's Terms of Use and Conditions of Order, available at www.digikey.com.



www.digikey.com
Orders 1-800-344-4539
Fax 218-681-3380


Invoice # 57173019
U.S. \$

701 Brooks Ave. South, Thief River Falls, MN 56701-0677 USA

Sold To:

CUSTOMER 8929125
SHENGRONG YIN
UNIVERSITY OF HOUSTON/COMPUTER SCIENCE
PHILIP GUTHRIE HOFFMAN HALL (PGH501)
3551 CULLEN BLVD RM 501
HOUSTON TX 77204-3010

Terms	Invoice Date	Page
Discover	28-MAR-2017	6
Customer Purchase Order		Shipped Via
		U2D
Easy to Remember: 1-800-DIGI-KEY		

Idx	Box	Ordered	Cancelled	Shipped	Item Number/Description	Back Order	Unit Price US \$	Amount US \$
41	1	1	0	1	1528-1391-ND LASER DIODE - 5MW 650NM RED HTSUS: 8541.40.2000 ECCN: EAR99 LEAD: LEAD FREE ROHS: ROHS COMP Mercury: Cert on File. For more information contact RoHS@DigiKey.com COUNTRY/ORIGIN: CHINA CAGE: 7CFA1 PACKAGE TRACKING #: 1Z5674320233066206 BOX 1 SHIPPED U2D WEIGHT 2 LBS 3 OZS (0.99 KG) BOX ID 1Z5674320233066206 TOTAL INVOICED 762.89 SHIPPING CHARGES APPLIED 35.75 ** CHARGES SUBTOTAL ** 798.64 TOTAL CHARGED TO CREDIT CARD 798.64 U.S. \$\$ YOUR CREDIT CARD HAS BEEN CHARGED THE ABOVE INDICATED AMOUNT TAX EXEMPT THE ORDER IS COMPLETE Ship To: SHENGRONG YIN UNIVERSITY OF HOUSTON/COMPUTER SCIENCE PHILIP GUTHRIE HOFFMAN HALL (PGH501) 3551 CULLEN BLVD RM 501 HOUSTON TX 77204-3010 Ship From: DIGI-KEY 701 BROOKS AVE. SOUTH P.O. BOX 677 THIEF RIVER FALLS MN 56701-0677 General - WEB ORDER ID: 166989523 These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations. CERTIFICATE OF COMPLIANCE: The Digi-Key components included in the above shipment are genuine components and were provided by the applicable manufacturer to Digi-Key. Test reports (chemical, physical, electrical, etc., together with results of any tests performed by the manufacturer) are on file (either here or in the plant of the manufacturer) and will be made available upon request. These components have been handled in accordance with the requirements of applicable quality standards. This certification is valid only to the original customer and is not transferable. Contact Customer Service at 800-858-3616 if you have any questions.  Kim Gilbert, Director, Customer Service		5.95000	5.95

Claims for pricing errors, shortages, and defective product must be reported within 30 days of invoice date.

Contact Customer Service at 1-800-858-3616

All transactions with Digi-Key, including its subsidiaries and/or affiliates, are subject to Digi-Key's Terms of Use and Conditions of Order, available at www.digikey.com.