CERTIFICATE OF COMPLIANCE

Certificate Number	UL-US-2245016-0
Report Reference	E528309-20221127
Date	28-Nov-2022
Issued to:	Shenzhen Liown Semiconductor Co.,LTD 239, Building 2, Baoxing Zhihui Town, No. 650 Zhoushi Road, Zhongwu Community, Hangcheng Street, Bao'An District, Shenzhen Shenzhen, GUANGDONG 518126 China
This is to certify that representative samples of	QVGQ2 - Isolated Loop Circuit Protectors - Component See Addendum Page for Product Designation(s).
	Have been evaluated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.
Standard(s) for Safety:	UL 497B, 4th Ed., Issue Date: 2004-06-14, Revision Date: 2017-02-10
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.

Deborah Jennings-Conner

Deborah Jennings-Conner, VP Regulatory Services

UL LLC

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
1.5SMC, 1.5SMC, followed by 6.8, 7.5, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 62, 68, 75, 82, 91, 100 ,110, 120, 130, 150, 160(+), 170(+), 180(+), 200(+), 220(+), 250(+), or 300(+), followed by A or CA. Where (+) indicates component may experience a short circuit condition or voltage breakdown levels outside of their rated range if the components are placed in a circuit that is exposed to lightning events having a peak current of 10A or greater (ie: 10 x 1000 us waveform, 10 A peak).	TVS Diodes
5.0SMDJ, 5.0SMDJ, followed by 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 0, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, 190, 200, 220, 250, or 300, followed by A or CA. Where (+) indicates component may experience a short circuit condition or voltage breakdown levels outside of their rated range if the components are placed in a circuit that is exposed to lightning events having a peak current of 10A or greater (ie: 10 x 1000 us waveform, 10 A peak).	TVS Diodes
P4SMA, P4SMA, followed by 6.8, 7.5, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43(+), 47(+), 51(+), 56(+), 62(+), 68(+), 75(+), 91(+), 110(+), 120(+), 130(+), 150(+), 160(+), or 170(+), followed by A or CA. Where (+) indicates component may experience a short circuit condition or voltage breakdown levels outside of their rated range if the components are placed in a circuit that is exposed to lightning events having a peak current of 10A or greater (ie: 10 x 1000 us waveform, 10 A peak).	TVS Diodes
P6SMB, P6SMB, followed by 3.8, 7.5, 8.2, 9.1, 10, 11, 12, 13, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 43, 47, 51, 56, 62, 68(+), 75(+), 82(+), 91(+), 100(+), 110(+), or 120(+), followed by A or CA. Where (+) indicates component may experience a short circuit condition or voltage breakdown levels outside of their rated range if the components are placed in a circuit that is exposed to lightning events having a peak current of 10A or greater (ie: 10 x 1000 us waveform, 10 A peak).	TVS Diodes
SMAJ, SMAJ, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5,	TVS Diodes

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9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36(+), 40(+), 43(+), 45(+), 48(+), 51(+), 54(+), 58(+), 60(+), 64(+), or 70(+), followed by A or CA. Where (+) indicates component may experience a short circuit condition or voltage breakdown levels outside of their rated range if the components are placed in a circuit that is exposed to lightning events having a peak current of 10A or greater (ie: 10 x 1000 us waveform, 10 A peak).	
SMBJ, SMBJ, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54(+), 58(+), 60(+), 64(+), 70(+), 75(+), 78(+), 85(+), 90(+), or 100(+), followed by A or CA.. Where (+) indicates component may experience a short circuit condition or voltage breakdown levels outside of their rated range if the components are placed in a circuit that is exposed to lightning events having a peak current of 10A or greater (ie: 10 x 1000 us waveform, 10 A peak).	TVS Diodes
SMC, SMC, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43, 45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150(+), 160(+), 170(+), 180(+), 190(+), 200(+), 210(+), 220(+), or 250(+), followed by A or CA. Where (+) indicates component may experience a short circuit condition or voltage breakdown levels outside of their rated range if the components are placed in a circuit that is exposed to lightning events having a peak current of 10A or greater (ie: 10 x 1000 us waveform, 10 A peak).	TVS Diodes
SMDJ, SMDJ, followed by 5.0, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 43 ,45, 48, 51, 54, 58, 60, 64, 70, 75, 78, 85, 90, 100, 110, 120, 130, 150, 160, 170, 180, 190, 200, 210, 220, 250, or 300(+), followed by A or CA. Where (+) indicates component may experience a short circuit condition or voltage breakdown levels outside of their rated range if the components are placed in a circuit that is exposed to lightning events having a peak current of 10A or greater (ie: 10 x 1000 us waveform, 10 A peak).	TVS Diodes

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