

PRODUCT MANUALS

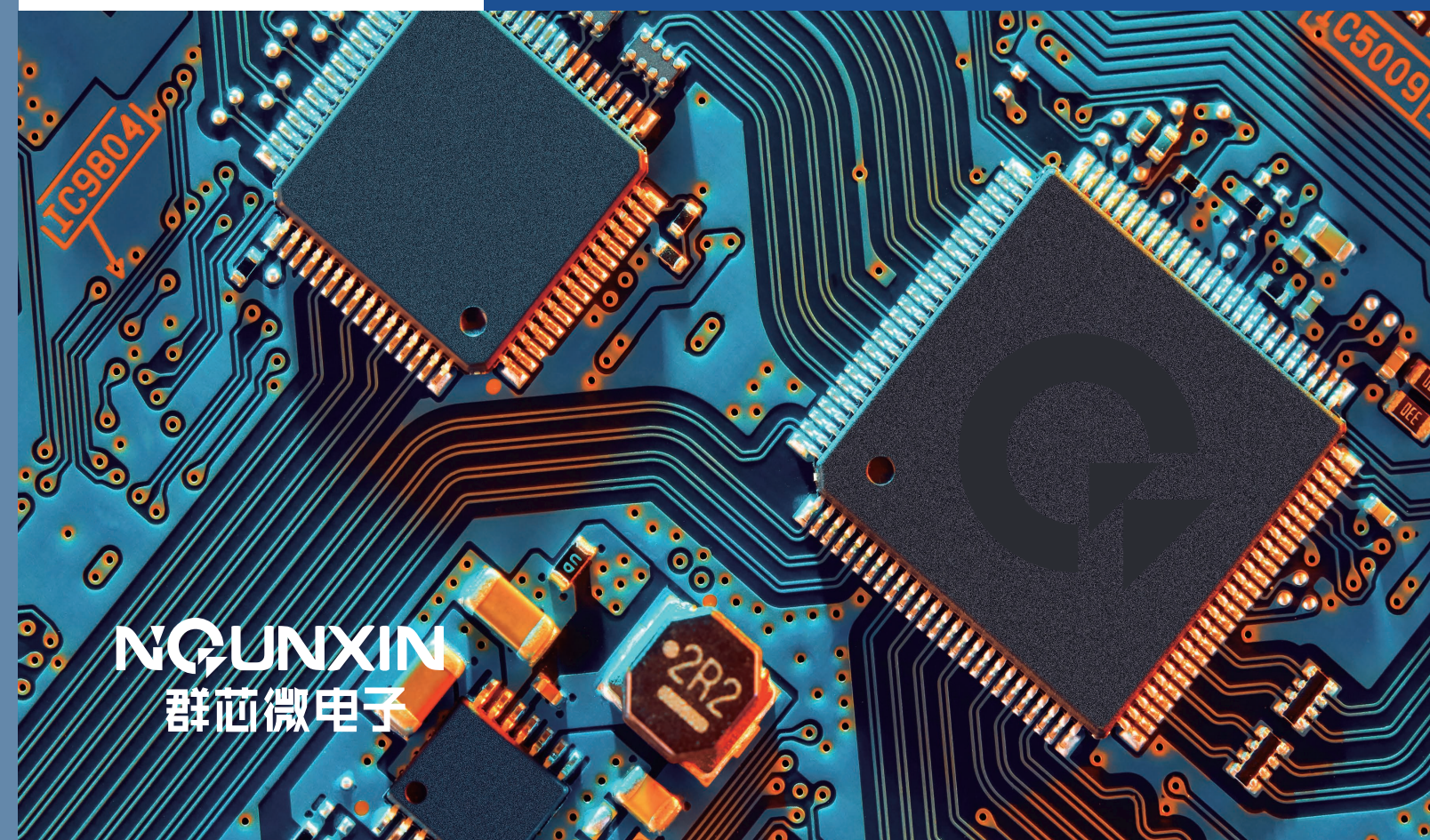
产品手册

www.qxmicro.com

宁波群芯微电子股份有限公司
NINGBO QUNXIN MICROELECTRONICS CO., LTD.

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QUNXIN
群芯微电子

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COMPANIES INTRODUCTION

企业介绍

宁波群芯微电子股份有限公司成立于2018年7月，位于宁波杭州湾新区。

群芯微电子的团队成员主要来自于国内外大型半导体公司，在集成电路芯片设计、工艺制程、封装测试及应用方面拥有丰富的经验。

芯片技术代表着世界最高水平的制造加工技术，是全球高科技国力竞争的战略必争制高点，与仅仅专注于某一项芯片技术的企业相比，群芯的光电集成电路产品几乎覆盖了芯片制造的全工艺环节。特别是所拥有的超薄磨片工艺、划片道工艺和电镀工艺，使得我们的产品可以快速迭代，并满足客户个性化的需求。

群芯微电子有着技术共享、平台开放、合作创新、共同发展的经营理念，推进各行业电子产品向高度智能化方向发展。我们可以根据客户的产品进行功能定义、系统集成、技术创新等，并提供方案参考。

公司目前的产品包括：光电耦合器（包括栅极驱动光耦、智能栅极驱动光耦、IPM接口光耦、光继电器、高速光耦、高压光耦、晶体管光耦等），MCU，电源管理芯片，MOSFET，温湿度传感器，距离传感器，压力传感器，硅麦等，产品广泛应用于智能家居、智能仪表、新能源汽车、医疗设备、通讯设备、工业控制等消费级和工业级领域。

让我们携手共建更美好的未来！

Ningbo Qunxin Microelectronics Co., Ltd. was established in July 2018, located in Hangzhou Bay New District, Ningbo.

The team members of Qunxin Microelectronics mainly come from large semiconductor companies at home and abroad, and have rich experience in IC chip design, process, packaging, testing and application.

Chip technology represents the highest level of manufacturing and processing technology in the world, and is also the strategic commanding height of global high-tech national strength competition. Compared with companies that only focus on a certain chip technology, Qunxin optoelectronic products almost cover the entire process of chip manufacturing. In particular, we have the ultra-thin grinding process, narrow scribing process and electroplating process, this enable our products to iterate quickly and meet the individual needs of customers.

Qunxin Microelectronics has the business philosophy of technology sharing, platform opening, cooperative innovation, and common development, and promotes the development of electronic products in various industries to a highly intelligent direction. According to customer's products, we can provide function definition, system integration, technological innovation, and solution reference.

Our company's current products include: optocouplers (gate drive optocouplers, intelligent gate drive optocouplers, IPM interface optocouplers, photo relay, high-speed optocouplers, Photo Triac, transistor optocouplers, etc.), MCU, power management Chips, MOSFETs, Temperature and humidity sensor, distance sensors, pressure sensors, Silicon Microphone, etc., Our products are widely used in consumer-grade and industrial-grade fields such as smart homes, smart meters, new energy vehicles, medical equipment, communication equipment, and industrial control.

Let us join hands to build a better future!



PRODUCT BRIEF INTRODUCTION

产品简介

光电耦合器是一种由光发射器和光接收器组成，以光为介质实现光—电—光转换的耦合器，多应用于要求输入和输出之间隔离的电路设计。群芯微电子提供一系列光电耦合器供客户选择，满足通信、开关控制和电源控制等功能的需求。

The optocoupler is a coupler that is composed of an optical transmitter and an optical receiver, and uses light as a medium to realize optical-electrical-optical conversion. It is mostly used in circuit design that requires isolation between input and output. Qunxin Microelectronics provides a series of optocouplers to meet the needs of functions, such as communication, switch control and power control for customers to choose.



产品选型表
Product selection table



INPUT TYPE	Vce	Viso	DIP-4 DIP-4M SMD-4	DIP-6 DIP-6M SMD-6	DIP-8 DIP-8M SMD-8	LSOP-4	SSOP-4	SOP-4	SSOP-16
AC	General (80V)	3750V					QX3H4	QX354	QX3H4-4
		5000V	QX814						
DC	General (30~80v)	3750V					QX3H7 QX8801	QX356 QX357 QX8801	QX3H7-4
		5000V	QX816 QX817 QX8801	QX4Nxx (25-28, 35-38)	QX826 QX827	QX101x QX8801			
	High Voltage (350V)	5000V	QX851						

交流输入型 AC INPUT TYPE

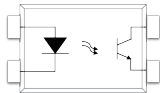
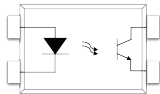
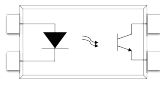
产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	CTR				Vce (V)	Viso @1min (Vrms)
			Rank	Min(%)	Max(%)	@IF (mA)	@Vce (V)	
QX3H4		SSOP-4	A B -	50 80 20	150 300 300	±1	5	3750
QX354		SOP-4						5000
QX814		DIP-4 DIP-4M SMD-4						
QX3H4-4		SSOP-16						3750

Photo Transistor
晶体管光耦

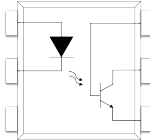
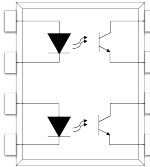
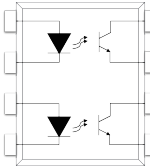
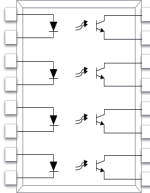
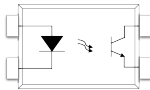
直流输入型 DC INPUT TYPE

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	CTR					Vce (V)	Viso @1min (Vrms)
			Rank	Min(%)	Max(%)	@IF (mA)	@Vce (V)		
QX8801		SSOP-4 SOP-4	A B C	80 130 200	160 260 400	1	5	80	3750
		LSOP-4 DIP-4 DIP-4M SMD-4							5000
QX356		SOP-4	C D1 D2	200 300 380	400 450 600	5	5	80	3750
QX816		DIP-4 DIP-4M SMD-4							5000
		QX3H7	SSOP-4	A B C D L Q --	80 130 200 300 80 100 100 80				160 260 400 600 100 200 600
QX817		DIP-4 DIP-4M SMD-4	5000						
QX357		SOP-4	A B C D E F --	80 130 200 300 80 150 80	160 260 400 600 100 300 600				3750
QX101x		LSOP-4	1010 1017 1018 1019 1020	50 80 130 200 300	600 160 260 400 450	5	5	80	5000
			1012 1013 1014	63 100 160	125 200 320	10			
			1012 1013 1014	22 34 56	-- -- --	1			

直流输入型 DC INPUT TYPE

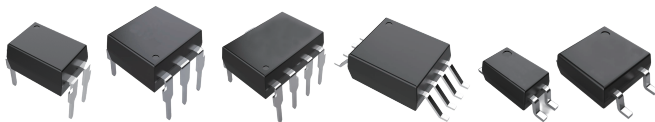
产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	CTR					Vce (V)	Viso @1min (Vrms)
			Rank	Min(%)	Max(%)	@IF (mA)	@Vce (V)		
QX4Nxx		DIP-6 DIP-6M SMD-6	4N25	20	--	10	10	30	5000
			4N26	20	--				
			4N27	20	--				
			4N28	10	--				
			4N35	100	--				
			4N36	100	--				
			4N37	100	--				
			4N38	20	--				
QX826		DIP-8	C	200	400	5	5	80	5000
DIP-8M		D1	300	450					
SMD-8		D2	380	600					
QX827		DIP-8 DIP-8M SMD-8	A	80	160	5	5	80	5000
			B	130	260				
			C	200	400				
			D	300	600				
			BC	130	400				
			CD	200	600				
			--	80	600				
QX3H7-4		SSOP-16	A	80	160	5	5	80	3750
			B	130	260				
			C	200	400				
			D	300	600				
			E	80	100				
			F	150	300				
			--	80	600				
QX851		DIP-4 DIP-4M SMD-4	--	50	600	5	5	350	5000

直流输入型 DC INPUT TYPE

产品选型表

Product selection table



Vce	Viso	DIP-4 DIP-4M SMD-4	DIP-6 DIP-6M SMD-6	DIP-8 DIP-8M SMD-8	DIP-8W DIP-8S	SO8S	SSOP-4	SOP-4
General (30~80v)	3750V						QX215	QX415
	5000V	QX815	QX4Nxx (29~33)	QX825 QX6N138 QX6N139	QXN138 QXN139	QXK70A		
High Voltage (300~350V)	3750V							QX352 QX452
	5000V	QX852	QX752					

产品型号参数表

Product model parameter table

Part Number	Pin Configuration	Package	CTR					Vce (V)	Viso @1min (Vrms)
			Rank	Min(%)	Max(%)	@IF (mA)	@Vce (V)		
QX6N138		DIP-8	--	300	2600	1.6	4.5	7	5000
QX6N139		DIP-8M SMD-8	--	500	2600			18	
QXN138		DIP-8W	--	300	2600	1.6	4.5	7	
QXN139		DIP-8S	--	500	2600			18	
QXK70A		SO8S	--	300	5000	1.6	5	18	
QX4Nxx		DIP-6 DIP-6M SMD-6	4N29	100	--	10	10	30	5000
			4N30	100	--				
			4N31	50	--				
			4N32	500	--				
			4N33	500	--				
QX215		SSOP-4	--	600	7500	1	2	40	3750
QX415		SOP-4	--	600	7500				5000
QX815		DIP-4 DIP-4M SMD-4	--	600	7500				
QX825		DIP-8 DIP-8M SMD-8	--	600	7500	1	2	40	5000
QX352		SOP-4	--	1000	--	1	2	300	3750
QX452			--	1000	--	1	2	350	
QX852		DIP-4 DIP-4M SMD-4	--	1000	--	1	2	350	5000
QX752		DIP-6 DIP-6M SMD-6	--	1000	--	1	2	350	5000

Photo Darlington

达林顿光耦

Photo relay

光继电器



产品选型表
Product selection table

Form TYPE	V _L	Viso	I _L	R _{ON}	SOP-4	DIP-4 DIP-4M SMD-4	DIP-5 DIP-5M SMD-5	DIP-6 DIP-6M SMD-6	DIP-8 DIP-8M SMD-8	SO8S	SOP16
FORM – A (Normally Open)	60V	3750V	0.5A	0.8Ω	QX172						
			2A	0.58Ω	QX172-2						
		5000V	0.5A	0.8Ω		QX212			QX222		
			2A	0.58Ω		QX212-2			QX222-2		
			3.5A	0.08Ω				QXV252			
	100V	3750V	1.25A	0.25Ω	QX173						
		5000V	1.25A	0.25Ω		QX213			QX223		
			3.5A	0.033Ω				QXV253			
	400V	3750V	0.12A	10Ω	QX174						
		5000V				QX214			QX224		
	600V	3750V	0.04A	14Ω	QX176						
		5000V				QX216			QX226		
	800V	5000V	0.1A	50Ω			QX15A	QX25A		QXS21A	QX16A
	1000V	5000V	0.03A	85Ω			QX159	QX259		QXS219	QX169
	1200V	5000V	0.75A	1Ω			QX15B	QX25B		QXS21B	QX16B
	1500V	5000V	0.02A	345Ω			QXV158	QXV258		QXS218	QX168
FORM – B (Normally Closed)	60V	3750V	0.5A	0.8Ω	QX412S						
			2A	0.58Ω	QX412S-2						
		5000V	0.5A	0.8Ω		QX412			QX422		
			2A	0.58Ω		QX412-2			QX422-2		
			3.5A	0.08Ω				QXV452			
	100V	3750V	1.25A	0.25Ω	QX413S						
		5000V	1.25A	0.25Ω		QX413			QX423		
			3.5A	0.033Ω				QXV453			
	400V	3750V	0.12A	10Ω	QX414S						
		5000V				QX414			QX424		
	600V	3750V	0.04A	14Ω	QX416S						
		5000V				QX416			QX426		
	800V	5000V	0.1A	50Ω			QX35A	QX45A		QXS41A	QX36A
	1000V	5000V	0.03A	85Ω			QX359	QX459		QXS419	QX369
	1200V	5000V	0.75A	1Ω			QX35B	QX45B		QXS41B	QX36B
	1500V	5000V	0.02A	345Ω			QXV358	QXV458		QXS418	QX368
	1700V	5000V	0.35A	2.2Ω			QX35C	QX45C		QXS41C	QX36C
	2500V	5000V	0.35A	2.2Ω			QX35D	QX45D		QXS41D	QX36D

触点常开型 FORM-A CONTACT

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	Device Name	V _L Min (V)	I _L Min (A)	R _{ON} Typ (Ω)	I _{FON} Max (mA)	T _{ON} Max (ms)	T _{OFF} Max (ms)	Viso @1min (Vrms)
QX17x		SOP-4	QX172-2	60	2	0.58	3	5	1	3750
			QX172	60	0.5	0.8	3	2	1	
			QX173	100	1.25	0.25	3	8	1	
			QX174	400	0.12	10	3	2	1	
			QX176	600	0.04	14	3	2	1	
QX21x		DIP-4 DIP-4M SMD-4	QX212-2	60	2	0.58	3	5	1	5000
			QX212	60	0.5	0.8	3	2	1	
			QX213	100	1.25	0.25	3	8	1	
			QX214	400	0.12	10	3	2	1	
			QX216	600	0.04	14	3	2	1	
QX22x		DIP-8 DIP-8M SMD-8	QX222-2	60	2	0.58	3	5	1	5000
			QX222	60	0.5	0.8	3	2	1	
			QX223	100	1.25	0.25	3	8	1	
			QX224	400	0.12	10	3	2	1	
			QX226	600	0.04	14	3	2	1	
QXV15x		DIP-5 DIP-5M SMD-5	QXV158	1500	0.02	345	1.4	1	1	5000
QX15x			QX15A	800	0.1	50	3	2	1	
			QX159	1000	0.03	85	3	2	1	
			QX15B	1200	0.75	1	3	2	1	
			QX15C	1700	0.35	2.2	3	2	1	
			QX15D	2500	0.35	2.2	3	2	1	
QXV25x		DIP-6 DIP-6M SMD-6	QXV252	60	3.5	0.033	3	5	0.5	5000
			QXV253	100	3.5	0.033	3	5	3	
QXV258			1500	0.02	345	1.4	1	0.2		
QX25x			QX25A	800	0.1	50	3	2	1	
			QX259	1000	0.03	85	3	2	1	
			QX25B	1200	0.75	1	3	2	1	
			QX25C	1700	0.35	2.2	3	2	1	
			QX25D	2500	0.35	2.2	3	2	1	
QXS21x		SO8S	QXS21A	800	0.1	50	3	2	1	5000
			QXS219	1000	0.03	85	3	2	1	
			QXS21B	1200	0.75	1	3	2	1	
			QXS218	1500	0.02	345	1.4	1	1	
			QXS21C	1700	0.35	2.2	3	2	1	
			QXS21D	2500	0.35	2.2	3	2	1	
QX15x		SOP16	QX16A	800	0.1	50	3	2	1	5000
			QX169	1000	0.03	85	3	2	1	
			QX16B	1200	0.75	1	3	2	1	
			QX168	1500	0.02	345	1.4	1	1	
			QX16C	1700	0.35	2.2	3	2	1	
			QX16D	2500	0.35	2.2	3	2	1	

触点常闭型 FORM-B CONTACT

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	Device Name	V _L Min (V)	I _L Min (A)	R _{ON} Typ (Ω)	I _{FO} N Max (mA)	T _{ON} Max (ms)	T _{OFF} Max (ms)	Viso @1min (Vrms)
QX41xS		SOP-4	QX412S-2	60	2	0.58	3	5	1	3750
			QX412S	60	0.5	0.8	3	2	1	
			QX413S	100	1.25	0.25	3	8	1	
			QX414S	400	0.12	10	3	2	1	
			QX416S	600	0.04	14	3	2	1	
QX41x		DIP-4 DIP-4M SMD-4	QX412-2	60	2	0.58	3	5	1	5000
			QX412	60	0.5	0.8	3	2	1	
			QX413	100	1.25	0.25	3	8	1	
			QX414	400	0.12	10	3	2	1	
			QX416	600	0.04	14	3	2	1	
QX42x		DIP-8 DIP-8M SMD-8	QX422-2	60	2	0.58	3	5	1	5000
			QX422	60	0.5	0.8	3	2	1	
			QX423	100	1.25	0.25	3	8	1	
			QX424	400	0.12	10	3	2	1	
			QX426	600	0.04	14	3	2	1	
QXV35x		DIP-5 DIP-5M SMD-5	QXV358	1500	0.02	345	1.4	1	1	5000
QX35x			QX35A	800	0.1	50	3	2	1	
			QX359	1000	0.03	85	3	2	1	
			QX35B	1200	0.75	1	3	2	1	
			QX35C	1700	0.35	2.2	3	2	1	
			QX35D	2500	0.35	2.2	3	2	1	
QXV45x		DIP-6 DIP-6M SMD-6	QXV452	60	3.5	0.033	3	5	0.5	5000
			QXV453	100	3.5	0.033	3	5	3	
QXV458			1500	0.02	345	1.4	1	0.2		
QX45x			QX45A	800	0.1	50	3	2	1	
			QX459	1000	0.03	85	3	2	1	
			QX45B	1200	0.75	1	3	2	1	
			QX45C	1700	0.35	2.2	3	2	1	
			QX45D	2500	0.35	2.2	3	2	1	
QXS41x		SO8S	QXS41A	800	0.1	50	3	2	1	5000
			QXS419	1000	0.03	85	3	2	1	
			QXS41B	1200	0.75	1	3	2	1	
			QXS418	1500	0.02	345	1.4	1	1	
			QXS41C	1700	0.35	2.2	3	2	1	
			QXS41D	2500	0.35	2.2	3	2	1	
QX36x		SOP16	QX36A	800	0.1	50	3	2	1	5000
			QX369	1000	0.03	85	3	2	1	
			QX36B	1200	0.75	1	3	2	1	
			QX368	1500	0.02	345	1.4	1	1	
			QX36C	1700	0.35	2.2	3	2	1	
			QX36D	2500	0.35	2.2	3	2	1	

Photo Triac

可控硅光耦



产品选型表
Product selection table



V _{DRM}	Viso	ZC or NZC	DIP-4 DIP-4M SMD-4	DIP-5 DIP-5M SMD-5	DIP-6 DIP-6M SMD-6	DIP-7 DIP-7M SMD-7	SOP-4
250V	3750V	ZC					QXM303x
	5000V	NZC		QX201x	QX301x		
		ZC	QX53x	QX203x	QX303x		
400V	3750V	NZC					QXM302x
		ZC					QXM304x
	5000V	NZC	QX52x	QX202x	QX302x		
		ZC	QX54x	QX204x	QX304x		
600V	3750V	NZC					QXM305x
		ZC					QXM306x
	5000V	NZC	QX55x	QX205x	QX305x	QXx223	
		ZC	QX56x	QX206x	QX306x	QXx213	
800V	3750V	ZC					QXM308x
	5000V	ZC	QX58x	QX208x	QX308x		

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	ZC or NZC	Device Name	I _{T(RMS)} (A)	I _{FT} Max (mA)	V _{DRM} Min (V)	I _{DRM} Max (nA)	V _{TM} Max (V)	Viso @1min (Vrms)
QXx223		DIP-7 DIP-7M SMD-7	NZC	QX0223	0.3	10	600	100	2.5	5000
				QX1223	0.6					
				QX2223	0.9					
				QX3223	1.2					
QXx213		DIP-7 DIP-7M SMD-7	ZC	QX0213	0.3	10	600	100	2.5	5000
				QX1213	0.6					
				QX2213	0.9					
				QX3213	1.2					

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	ZC or NZC	Device Name	I _{T(RMS)} (mA)	I _{FT} Max (mA)	V _{DRM} Min (V)	I _{DRM} Max (nA)	V _{TM} Max (V)	Viso @1min (Vrms)						
QX201x		DIP-5 DIP-5M SMD-5	NZC	QX2010	100	15	250	100	2.5	5000						
QX2011				10												
QX2012				5												
QX202x					DIP-5 DIP-5M SMD-5	ZC	QX2020	100	30		400	100	2.5			
QX2021							15									
QX2022							10									
QX2023							5	600	100		2.5					
QX2051							15									
QX2052							10									
QX2053	5	5000														
QX203x			DIP-5 DIP-5M SMD-5				ZC	QX2031	100	15	250	100	3			
QX2032								10								
QX2033				5												
QX204x					DIP-5 DIP-5M SMD-5	ZC		QX2041	100	15	400	100	3			
QX2042								10								
QX2043								5								
QX206x									DIP-5 DIP-5M SMD-5	ZC	QX2061	100	15	600	500	3
QX2062											10					
QX2063		5														
QX208x		DIP-5 DIP-5M SMD-5	ZC				QX2081				100	15	800	500	3	
QX2082							10									
QX2083							5									
QX301x					DIP-6 DIP-6M SMD-6	NZC	QX3010				100	15	250	100	2.5	5000
QX3011							10									
QX3012							5									
QX302x								DIP-6 DIP-6M SMD-6	NZC	QX3020	100	30	400	100	2.5	
QX3021										15						
QX3022										10						
QX3023	5	600	100							2.5						
QX3051	15															
QX3052	10															
QX3053	5	5000														
QX303x			DIP-6 DIP-6M SMD-6	ZC	QX3031	100				15	250	100	3			
QX3032					10											
QX3033					5											
QX304x						DIP-6 DIP-6M SMD-6	ZC	QX3041	100	15	400	100	3			
QX3042								10								
QX3043								5								
QX306x									DIP-6 DIP-6M SMD-6	ZC	QX3061	100	15	600	500	3
QX3062											10					
QX3063		5														
QX308x		DIP-6 DIP-6M SMD-6	ZC	QX3081							100	15	800	500	3	
QX3082				10												
QX3083				5												

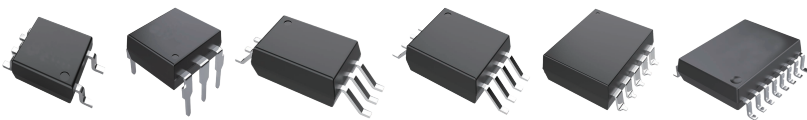
产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	ZC or NZC	Device Name	I _{T(RMS)} (mA)	I _{FT} Max (mA)	V _{DRM} Min (V)	I _{DRM} Max (nA)	V _{TM} Max (V)	Viso @1min (Vrms)			
QX52x		DIP-4 DIP-4M SMD-4	NZC	QX520	100	30	400	100	2.5	5000			
QX55x				QX521		15							
				QX522		10							
QX53x				QX523	5	600	100	2.5					
				QX551					15				
									QX552		10		
QX54x				QX553	5	800	500	3					
				QX56x					15				
									QX562	10			
QX58x				QX563	5	250	100	3					
				QX581					15				
									QX582	10			
QXM302x				QX583	5	400	100	2.5					
				QXM305x					15				
									QXM3052	10			
QXM303x				QXM3053	5	600	100	2.5					
				QXM304x					15				
									QXM3042	10			
QXM306x				QXM3043	5	250	100	3					
				QXM306x					15				
									QXM3062	10			
QXM308x				QXM3063	5	400	100	3					
				QXM308x					15				
									QXM3082	10			
				QXM3083	5	600	500	3					
									15				

High-speed
Optocouplers

高速光耦

产品选型表
Product selection table



Data Rate (typ)	Output Type	DIP-6 DIP-6M SMD-6	DIP-8 DIP-8M SMD-8	DIP-8W DIP-8S	SOP-5	SOP6-P SOP6-W	SOP-8		SO8S		SO10S	SOP16
							1 CH	2 CH	1 CH	2 CH	1 CH	4 CH
1Mbps	Schmitt Trigger	QXH11L1 QXH11L2 QXH11L3										
	Open collector		QX6N135 QX6N136	QXN135 QXN136	QXM501 QXM511	QXW501	QX0501	QX0530 QX0531 QX0534	QXH50L	QXK54L		
5Mbps	Open collector			QXN2201 QXN2211								
10Mbps	Open collector		QX6N137 QXN137 QXN2611		QXM600 QXM601 QXM611	QXW600 QXW601 QXW611	QX0601	QX0630 QX0631			QX2601 QX260E	QX6N437
	Push-pull			QXN261L					QXH61L	QXK64L		
15Mbps	Push-pull		QX7720		QXM720	QXW720	QX0720	QX074L		QXK73L		
25Mbps	Push-pull		QX7721		QXM721	QXW721	QX0721					
50Mbps	Push-pull		QX7723		QXM723	QXW723	QX0723					

施密特触发型 Schmitt Trigger TYPE

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	DTR (Mbps)	I _F (on) Max (mA)	I _F (off) Typ (mA)	Output		V _{CC} (V)	t _{on} Max (us)	t _{off} Max (us)	Viso @1min (Vrms)
						t _R (us)	t _F (us)				
QXH11L1		DIP-6 DIP-6M SMD-6	1	1.6	1	0.1	0.1	15	4	4	5000
QXH11L2				10	1						
QXH11L3				5	1						

推挽输出型 PUSH-PULL TYPE

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	DTR (Mbps)	Output		Vcc (V)	t _{PHL} Max (ns)	t _{PLH} Max (ns)	CMR Min (V/us)	Viso @1min (Vrms)
				t _R (ns)	t _F (ns)					
QX7720		DIP-8 DIP-8M SMD-8	15	30	30	5.5	55	55	10000	5000
QX7721			25	9	8	5.5	40	40	10000	
QX7723			50	8	6	5.5	22	22	10000	
QX0720		SOP-8	15	30	30	5.5	55	55	10000	3750
QX0721			25	9	8	5.5	40	40	10000	
QX0723			50	8	6	5.5	22	22	10000	
QXH61L		SO8S	10	10	10	5.5	100	100	20000	5000
QXN261L		DIP-8W DIP-8S	10	10	10	5.5	95	95	20000	5000
QXM720			15	30	30	5.5	55	55	10000	3750
QXM721			25	9	8	5.5	40	40	10000	
QXM723			50	8	6	5.5	22	22	10000	
QXW720		SOP6-P SOP6-W	15	30	30	5.5	55	55	10000	3750
QXW721			25	9	8	5.5	40	40	10000	
QXW723			50	8	6	5.5	22	22	10000	
QXK64L		SO8S	10	10	10	5.5	80	80	20000	5000
QXK73L		SO8S	15	3.5	3.5	5.5	55	55	10000	5000
QX074L		SOP-8	15	20	25	6	50	50	10000	3750

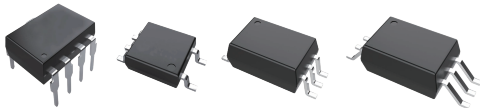
集电极断开型 Open collector TYPE

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	DTR (Mbps)	CTR		Vcc (V)	t _{PHL} Max (us)	t _{PLH} Max (us)	CMR Min (V/us)	Viso @1min (Vrms)
				Min (%)	Max (%)					
QX6N135		DIP-8	1	5	50	30	2	1	10000	5000
QX6N136		DIP-8M SMD-8		15	50	30	2	1	10000	
QXN135		DIP-8W	1	5	50	30	1.5	1.5	10000	5000
QXN136		DIP-8S		15	50	30	0.8	0.8	10000	
QX0501		SOP-8	1	15	50	30	0.8	0.8	10000	3750
QXH50L		SO8S	1	31	80	30	1	1	15000	5000
QXM501		SOP-5	1	15	50	30	0.8	0.8	5000	3750
QXM511				15	50	30	0.8	0.8	10000	
QXW501		SOP6-P SOP6-W	1	15	50	30	0.8	0.8	5000	5000
QX0530		SOP-8	1	7	50	30	1.5	1.5	1000	3750
QX0531				19	50	30	0.8	0.8	1000	
QX0534				19	50	30	0.8	0.8	15000	
QXK54L		SO8S	1	53	200	30	1	1	15000	5000
QXN2201		DIP-8W DIP-8S	5	--	--	20	0.3	0.3	1000	5000
QXN2211				--	--	20	0.3	0.3	10000	
QX6N137		DIP-8	10	-	-	5.5	0.1	0.1	1000	5000
QXN137		DIP-8M SMD-8		--	--	5.5	0.1	0.1	5000	
QXN2611		DIP-8W DIP-8S		--	--	5.5	0.1	0.1	15000	
QX0601		SOP-8		--	--	5.5	0.075	0.075	5000	
QX2601		DIP-10W DIP-10S	10	--	--	5.5	0.12	0.12	20000	5000
QX260E				--	--	5.5	0.12	0.12	20000	
QXM600		SOP-5	10	--	--	5.5	0.1	0.1	--	3750
QXM601				--	--	5.5	0.1	0.1	5000	
QXM611				--	--	5.5	0.1	0.1	20000	
QXW600		SOP6-P SOP6-W	10	--	--	5.5	0.1	0.1	--	5000
QXW601				--	--	5.5	0.1	0.1	5000	
QXW611				--	--	5.5	0.1	0.1	20000	
QX0630		SOP-8	10	--	--	5.5	0.075	0.075	5000	3750
QX0631				--	--	5.5	0.075	0.075	10000	
QX6N437		WSOP-16	10	--	--	5.5	0.1	0.1	5000	5000

Gate Drive Optocoupler

栅极驱动光耦

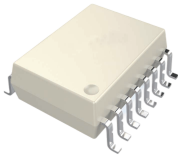


产品选型表
Product selection table

Output Peak Current	DIP-8 DIP-8M SMD-8	DIP-8S SMD-8S	SOP-5	SOP6-P SOP6-W
0.6A			QXM314	QX314
1A			QX155	QX340
1.5A	QX3150			
2.5A	QX350 QX3120	QXN3120 QXN3130		
3A			QXM341	QX341
4A			QXM343	QX343

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	IO _{PEAK} Max (A)	I _{FLH} Max (mA)	V _{CC} (V)	t _{PHL} Max (us)	t _{PLH} Max (us)	CMR Min (V/us)	Viso @1min (Vrms)
QX3150		DIP-8 DIP-8M SMD-8	1.5	5	30	0.5	0.5	35000	5000
QX3120			2.5	5	30	0.5	0.4	35000	
QXN3120		DIP-8W DIP-8S	2	8	35	0.5	0.5	35000	5000
QXN3130			2.5	8	35	0.5	0.5	40000	
QX350		DIP-8 DIP-8M SMD-8	2.5	5	30	0.4	0.4	25000	5000
QXM314		SOP-5	0.6	7	30	0.7	0.7	25000	3750
QX155			0.6	15	30	0.2	0.2	20000	
QXM341			3	4	30	0.2	0.2	35000	
QXM343			4	4	30	0.2	0.2	35000	
QX314		SOP6-P SOP6-W	0.6	7	30	0.7	0.7	25000	5000
QX340			1	4	30	0.2	0.2	20000	
QX341			3	4	30	0.2	0.2	35000	
QX343			4	4	30	0.2	0.2	35000	



产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	IO _{PEAK} Max (A)	I _{FON} Min (mA)	V _{CC} (V)	t _{PHL} Max (us)	t _{PLH} Max (us)	CMR Min (V/us)	Viso @1min (Vrms)	Features
QX316J		SOP-16	2.5	--	30	500	500	15000	5000	2.5A IGBT Gate Driver with Integrated (VCE) Desaturation Detection, UVLO, Fault Feedback
QX330J		SOP-16	1.5	8	30	250	250	15000	5000	1.5A IGBT Gate Driver with Integrated (VCE) Desaturation Detection, UVLO, Fault Feedback, Active Miller Clamp and Auto-Fault Reset
QX331J		SOP-16	1.5	8	30	250	250	15000	5000	1.5A IGBT Gate Driver with Integrated (VCE) Desaturation Detection, UVLO, Fault Feedback and Active Miller Clamp
QX332J		SOP-16	2.5	7	30	250	250	15000	5000	2.5A IGBT Gate Driver with Integrated (VCE) Desaturation Detection, UVLO, Fault Feedback and Active Miller Clamp
QX333J		SOP-16	2.5	7	30	250	250	15000	5000	2.5A IGBT Gate Driver with Integrated (VCE) Desaturation Detection, UVLO, Fault Feedback and Active Miller Clamp and Auto-Fault Reset

Smart Gate Drive

智能栅极驱动光耦

Intelligent Power Module and Gate Drive Interface Optocoupler

智能功率模块接口光耦

产品选型表
Product selection table



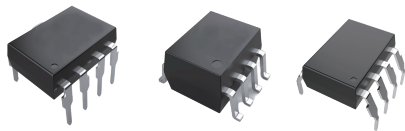
Output Type	DIP-8 DIP-8M SMD-8	DIP-8W DIP-8S	SOP-5	SOP6-P SOP6-W	SO8S
Open collector	QX4504 QX4506	QXN4504	QXM456		QXK453
Push-pull	QX4800		QXM480 QXM481	QX480 QX481	

产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	I _{Fon} Min (mA)	CTR			t _{PHL} Max (us)	t _{PLH} Max (us)	PDD Max (us)	CMR Min (V/us)	Viso @1min (Vrms)
				Min (%)	Max (%)	@I _F (mA)					
QX480		SOP6-P SOP6-W	6	--	--	--	0.35	0.35	0.25	20000	5000
QXM480		SOP-5	6	--	--	--	0.35	0.35	0.25	20000	3750
QX481		SOP6-P SOP6-W	6	--	--	--	0.35	0.35	0.25	20000	5000
QXM481		SOP-5	6	--	--	--	0.35	0.35	0.25	20000	3750
QXM456		SOP-5	10	44	>90	10	0.4	0.55	0.45	15000	3750
QX4504		DIP-8 DIP-8M SMD-8	12	26	65	12	1	1.4	1.3	15000	5000
QXN4504		DIP-8W DIP-8S	16	25	63	12	1	1.4	1.3	15000	5000
QXK453		SO8S	16	19	50	16	1	1	1	15000	5000
QX4506		DIP-8 DIP-8M SMD-8	10	44	>90	10	0.4	0.55	0.45	15000	5000
QX4800		DIP-8 DIP-8M SMD-8	6	--	--	--	0.35	0.35	0.25	30000	5000

Isolation Amplifier

隔离运算放大器

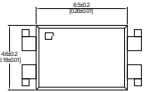
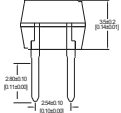
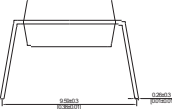
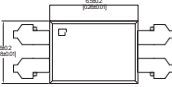
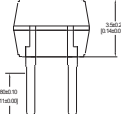
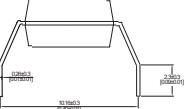
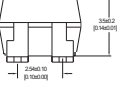
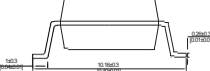
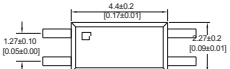
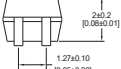
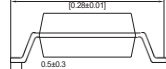
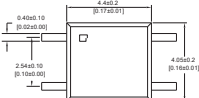
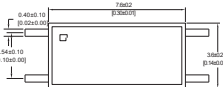
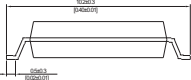
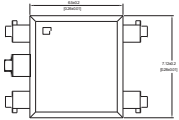
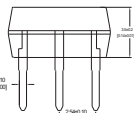
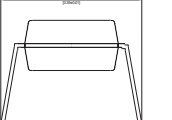
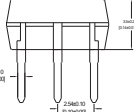
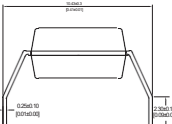


产品型号参数表
Product model parameter table

Part Number	Pin Configuration	Package	Gain Error at 25 °C Max (%)	Nonlinearity Typ (%)	Band width Typ (kHz)	VDD (V)	CMR Min (V/us)	Viso @1min (Vrms)
QX7840		DIP-8 DIP-8M SMD-8	±5	0.0037	100	5.5	10000	5000
QXC790		SO8S	±3	0.05	200	5.5	10000	5000
QXC79A		SO8S	±1	0.05	200	5.5	10000	5000
QXC79B		SO8S	±0.5	0.05	200	5.5	10000	5000
QXC87AT		SO8S	±1	0.05	100	5.5	10000	5000
QXC87BT		SO8S	±0.5	0.05	100	5.5	10000	5000

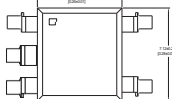
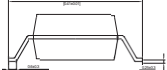
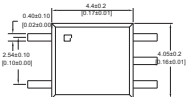
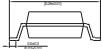
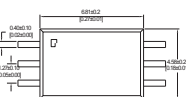
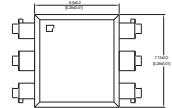
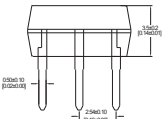
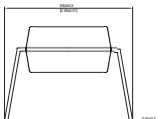
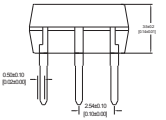
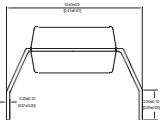
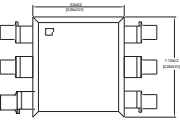
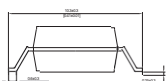
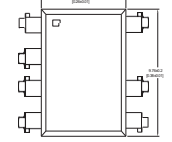
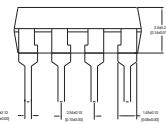
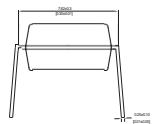
封装类型 Package

封装类型尺寸
Package Dimensions

封装类型 Package	顶面视图 Top view	左右侧视图 Left/rightside view	前后侧视图 Front/rear side views
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 DIP-4M			
 SMD-4			
 SSOP4			
 SOP4			
 LSOP4			
 DIP-5			
 DIP-5M			

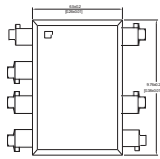
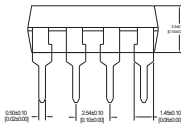
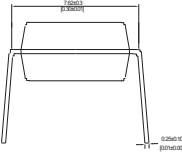
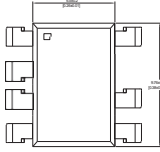
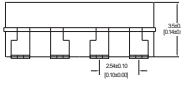
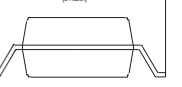
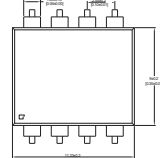
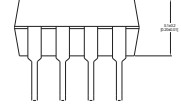
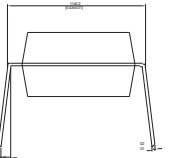
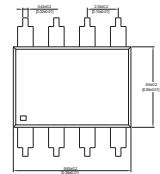
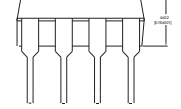
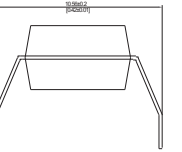
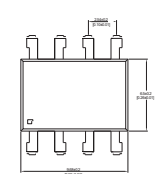
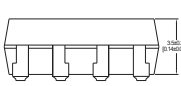
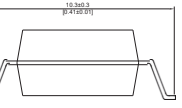
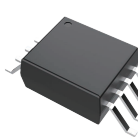
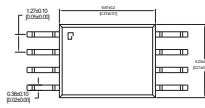
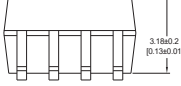
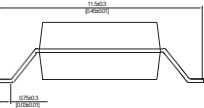
封装类型 Package

封装类型尺寸
Package Dimensions

封装类型 Package	顶面视图 Top view	左右侧视图 Left/rightside view	前后侧视图 Front/rear side views
 SMD-5			
 SOP-5			
 SOP6-P			
 SOP6-W			
 DIP-6			
 DIP-6M			
 SMD-6			
 DIP-7			

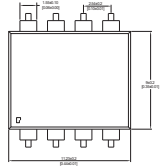
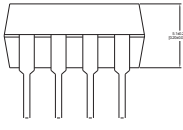
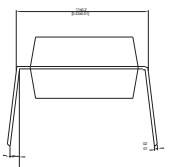
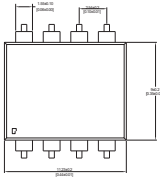
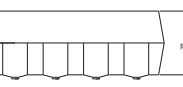
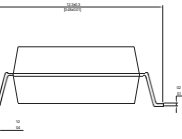
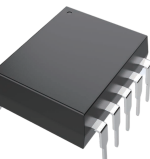
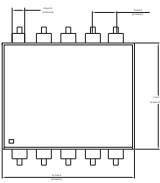
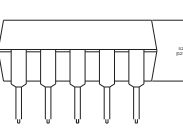
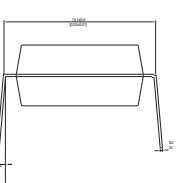
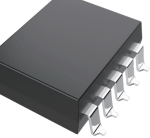
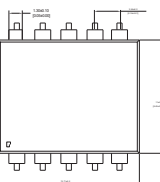
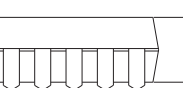
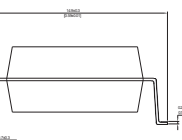
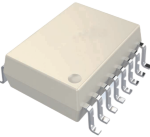
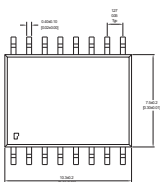
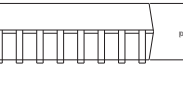
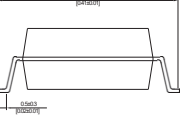
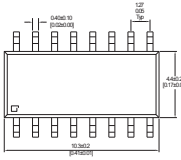
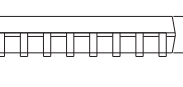
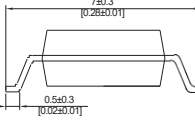
封装类型 Package

封装类型尺寸
Package Dimensions

封装类型 Package	顶面视图 Top view	左右侧视图 Left/right side view	前后侧视图 Front/rear side views
 DIP-7M			
 SMD-7			
 DIP-8			
 DIP-8M			
 SMD-8			
 SO8S			

封装类型 Package

封装类型尺寸
Package Dimensions

封装类型 Package	顶面视图 Top view	左右侧视图 Left/right side view	前后侧视图 Front/rear side views
 DIP-8W			
 DIP-8S			
 DIP-10W			
 DIP-10S			
 SOP-16			
 SSOP-16			

Dimensions: millimeters (Inches)

QUALITY GUARANTEE

品质保证



可靠性测试
Reliability test

可靠性实验室针对各产品进行1000H可靠性验证
Reliability laboratory carries out 1000H reliability verification for each product



高温高湿测试
High temperature and humidity test

在85℃高温和85%高湿条件，针对器件在高温高湿环境下的电气性能、封装质量及气密性进行验证
The electrical performance, package quality and air tightness of the devices were verified at high temperature of 85℃ and humidity of 85%



高压测试
High voltage test

6KV RMS 高压测试，爬电及击穿电压均高于业界常规器件
6KV RMS high voltage test, creepage and breakdown voltage are higher than the industry conventional devices



X-RAY检验
X - RAY test

X-RAY设备检验每批打线及上芯情况，出货前检验成品
X-RAY equipment to inspect each batch of wiring and core, inspection of finished products before shipment



视觉系统外观检测
Vision System Appearance Inspection

测试后通过视觉外观检验确认芯片外观、印字、引脚符合品质需求
After the test, the chip's appearance, printing and pins are confirmed to meet the quality requirements through visual appearance inspection



视觉系统点胶检测
Vision System Dispensing Inspection

点胶后通过视觉系统检验保证点胶质量，防止漏点胶产品漏出
After-dispensing through the visual system inspection to ensure the quality of dispensing, to prevent leakage dispensing products leaking out

PRODUCT AND SYSTEM CERTIFICATION

产品及体系认证



公司已通过ISO9001、ISO14001、ISO45001、IATF16949等认证
产品已陆续通过CQC、VDE、UL、国网认证
Our company has passed ISO9001, ISO14001, ISO45001, IATF16949 etc
And our products have successively passed CQC, VDE, UL, State Grid certification.

RELIABILITY ANALYSIS

可靠性分析

序号 (SN)	设备名称 (Device)	型号 (Model No)	实验内容 (The experiment content)
1	TCT(冷热冲击试验箱) Temperature Cycling Test Chamber	STST-80-65-3A	TCT高低温冲击实验 (-65°C-150°C) 【温 度范围:-70°C-200°C】 Temperature Cycling Test (-65°C-150°C) 【Temperature Range:-70°C-200°C】
2	高温存储试验箱 High Temperature Storage Chamber	TV91-200	HTST高温存储实验【温度范围:25°C-200°C】 High Temperature Storage Life 【Temperature Range: 25°C-200°C】
3	恒温恒湿试验箱 Temperature-Humidity Test Chamber	MQ-80-OYO	THT恒温恒湿实验【温度范围:-70°C-150°C 湿度范围:25%RH-98RH】 Temperature-Humidity Test 【Temperature Range:-70°C-150°C Humidity Range:25%RH-98%RH】
4	IR无铅回流焊炉 IR lead-free reflow oven	A600	IR回流焊【温度范围:25°C-350°C】12个加热区 Reflow【Temperature range:25°C-350°C】Twelve heating zones
5	影像测量仪 Image measuring instrument	CM300-C	测量(站高/脚长/跨度等系列)(测量精度1微米) Measure (Standing height, Feet length or span, etc.) (Measurement accuracy 1 um)
6	X-RAY	Cheetah EVO	X射线 (观察焊线/塑封胶体分层等) X-RAY (Observe the welding line or plastic colloid layering, etc.)
7	PCT老化试验箱 Pressure Cook Test Chamber	KQT-105B	HAST实验(130°C,85%RH)/PCT实验(121 °C,100%RH) 【温度范围:0-200°C湿度范围:0-100%RH 压力范围:0-0.4MPa】 Highly Accelerated Stress Test (130°C,85%RH)/Pressure Cook Test (121°C,100%RH) 【Tempera-ture Range:0°C-200°C, Humidity Range:0-100RH,Pressure Range:0-0.4Mpa】
8	快速温变试验箱 Thermal Shock Test Chamber	MQ-225-TE	温度范围-55°C~150°C◆ 湿度范围 0%, 温度均匀度 ±2°C, 温度波动度≤±0.5°C, 升温速率≥3°C/min, 降温速率≥1°C/min Thermal Shock Test (Temperature Range: -55°C~150°C) Humidity Range:0%,Temperature Uniformity:+2°C,Temperature Fluctuation:≤±0.5°C, Heating rate:≥3°C/min, cooling rate:≥1°C/min
9	SAT超声波扫描仪 Scanning Acoustic Microscope	ECHO LS	A/B/C/T SCAN, 扫描范围:300*300mm以上, 3.6GHZ模拟型号转换, 最小点距1um A/B/C/T SCAN (Scan range:300*300mm)3.6G HZ Analog signal conversion, Minimum resolution:1um

全球光电传感器行业领航者
Top 1 Player of Optoelectronics & Sensors

