

HIPRO Electronics (Dongguan)Co.,Ltd

高 效 電 子 (東 莞) 有 限 公 司

CHG編號	制修訂日期	修訂頁次	制 修 訂 內 容 略 述	封面版次	索 引	
-	2001/05/16	-	新 制 訂	0	頁次(PAGE)	版本(REV)
					2	1
					3	1

會 簽 單 位	廠 長	廠 務 部	資 材 部	採 購 部	品 保 部	R & D 部	製 工 制 一 處 長	制 二 課	製 工 制 六 處 長	
會 簽 欄										


承辦: <u>姚勇/品保</u> 姓 名 / 部 門		審查 <u>徐建東/品保</u> 姓 名 / 部 門		核準 <u>王在純/品保</u> 姓 名 / 部 門		實施日期:	
<u>姚勇</u> 簽 名		<u>徐建東</u> 簽 名		<u>王在純</u> 簽 名		<div style="border: 1px solid blue; padding: 5px; text-align: center;"> DOCUMENT CENTER 2001.5.22 </div>	


標題: 制程標準(QC工程圖) INWIN 標準	頁次: 1	總頁數: 5	文件編號: I-ENG-58
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
HIPRO
PMP (PROCESS MANAGEMENT PLAN)

Model :IPS-1506A	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED	Control Location		Page: 3	Rev:0
	Facility : CHINA	- Receiving inspection - In-Process - Final Inspection		Date:2001/05/16	
Product Revision : 0					
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	2001.5.22		Plan Effective Date:2001/05/22	DOC NO:I-ENG-58	

Process	Control Points	Methods				Frequency	Reactions if out of control
		Control limits	Evaluation	Responsibility	Sample size		
Hand Insertion	BOM ESD - Wrist strap	Pilot run Pass/Fail	Check List Check List	IPQC IPQC	5 100%	Once/day andChange model Once/day	Find Root cause problem Replace
Wave Solder	Solder temp. Preheat temp. Preheat temp. Flux gravity Chain speed	240~250 Deg c 250~500 Deg c 250~500Deg c 0.81+/-0.02 1.2~3.0M/min	X-R Chart Check List Check List Check List Check List	Engineering Engineering Engineering Engineering Engineering	100% 100% 100% 100% 100%	Once/2Hrs Once/2Hrs Once/2Hrs Once/2Hrs Once/2Hrs	Adjust,stop operation Adjust,stop operation Adjust,stop operation Adjust,stop operation Adjust,stop operation
Touch-up	Solder iron temp.	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
ICT Test	ICT Program Component polarity Missing component Value Wire Test	IPS-1506A Defect unit>3(Continus) Defect unit>3(Continus) Defect unit>3(Continus) Defect unit>3(Continus)	Check List Check List Check List Check List Check List	IPQC MFG MFG MFG MFG	100% 100% 100% 100% 100%	Twice/shift andChange model Once/2Hrs Once/2Hrs Once/2Hrs Once/2Hrs	Stop operation Corrective action Corrective action Corrective action Corrective action
ACT Test (Input 110V)	Tolerance	±20mV	Verify fixture Check List	Engineering IPQC	100% 100%	Once/day Twice/day	Replace fixture Replace fixture
Case Assy	Screw driver torque Screw driver torque Screw driver torque Screw driver torque	4-6kg.cm(s/c)(Screw FAN) 8-10kg.cm(s/c)(Screw PCB) 4-6kg.cm(s/c)(Screw SSW) 8-10kg.cm(s/c)(Gronuding Screw)	Check List Check List Check List Check List	IPQC IPQC IPQC IPQC	100% 100% 100% 100%	Once/shift Once/shift Once/shift Once/shift	Adjust torque Adjust torque Adjust torque Adjust torque
Before B/I	Screw case	8-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Once/shift	Adjust torque
Burn-in Test	All output Room temp.	Pass/Fail 40+/-5DEG C	LED display Check List	MFG IPQC	100% 100%	Once/1Hr Once/2Hrs	Tag/rework Stop operation
Hipot Test	Pri--GND Pri--Sec Fixture	1800VAC/3S<10ms & I<10mA 1800VAC/3S<10ms & I<10mA Pass/Fail	Check List Check List Check List	IPQC IPQC IPQC	100% 100% 100%	Twice/shift Twice/shift Twice/shift	Corrective action Stop operation Stop operation
Grounding Test	Resistance=0.1 ohm under 25A Grounding Fail	Pass/Fail Pass/Fail	Check List Check List	IPQC IPQC	100% 100%	Twice/shift Twice/shift	Corrective action Stop operation
Cable Test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and Change model	Corrective action
Short circuit test (Input 230v)	Fixture verification Wire polarity & Continuity Fixture verification Fixture verification Fixture verification	Pass/Fail Pass/Fail Pass/Fail Pass/Fail Pass/Fail	Check List Check List Check List Check List Check List	IPQC IPQC IPQC IPQC IPQC	100% 100% 100% 100% 100%	Twice/shift and Change model Twice/shift and Change model Twice/shift and Change model Twice/shift and Change model Twice/shift and Change model	Corrective action Corrective action Stop operation Corrective action Corrective action
Final Test	Tolerance File name	±20mV IPS1506H/L	Verify Fixture Check List	Engineering IPQC	100% 100%	Once/day Twice/shift and Change model	Stop operation Stop operation
Packing	Label,Clean	Pass/Fail	Check List	MFG	100%	Once/day	Stop operation
Out of box		1800VAC/3S<10ms & I<10mA 1800VAC/3S<10ms & I<10mA Resistance=0.1 ohm under 25A	Check List	OOBA	AQL=0.4	Once/Lot	Corrective action
	Q-QRA-22-08 G-QRA-06	Pass/Fail IPS1506H/L	Check List	OOBA	AQL=0.4	Once/Lot	Corrective action
	Defect criteria-Major -Minor	A=0 R=1 A=1 R=2	Check List	OOBA	AQL=0.4	Once/Lot Lot size=300 Once/Lot	Corrective action
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop shipping

 Prepare by: 


 Check by: 


 Approve by: 


HIPRO
PMP (PROCESS MANAGEMENT PLAN)

Model :IPS-1506	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED	Control Location	Page: 2	Rev:0
Product Revision : 0	Facility : CHINA	- Receiving inspection - In-Process - Final Inspection	Date:2001/05/16	
	DOCUMENT CENTER	Plan Effective Date:2001/05/22	DOC NO:I-ENG-58	
	2001.5.22			

Process	Control Points	Methods				Frequency	Reactions if out of control
		Control limits	Evaluation	Responsibility	Sample size		
Hand Insertion	BOM ESD - Wrist strap	Pilot run Pass/Fail	Check List Check List	IPQC IPQC	5 100%	Once/day and Change model Once/day	Find Root cause problem Replace
Wave Solder	Solder temp. Preheat temp. Preheat temp. Flux gravity Chain speed	240~250 Deg c 250~500 Deg c 250~500Deg c 0.81+/-0.02 1.2~3.0M/min	X-R Chart Check List Check List Check List Check List	Engineering Engineering Engineering Engineering Engineering	100% 100% 100% 100% 100%	Once/2Hrs Once/2Hrs Once/2Hrs Once/2Hrs Once/2Hrs	Adjust,stop operation Adjust,stop operation Adjust,stop operation Adjust,stop operation Adjust,stop operation
Touch-up	Solder iron temp.	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
ICT Test	ICT Program Component polarity Missing component Value Wire Test	IPS-1506 Defect unit>3(Continus) Defect unit>3(Continus) Defect unit>3(Continus) Defect unit>3(Continus)	Check List Check List Check List Check List Check List	IPQC MFG MFG MFG MFG	100% 100% 100% 100% 100%	Twice/shift and Change model Once/2Hrs Once/2Hrs Once/2Hrs Once/2Hrs	Stop operation Corrective action Corrective action Corrective action Corrective action
ACT Test (Input 110V)	Tolerance	±20mV	Verify fixture Check List	Engineering IPQC	100% 100%	Once/day Twice/day	Replace fixture Replace fixture
Case Assy	Screw driver torque Screw driver torque Screw driver torque Screw driver torque	4-6kg.cm(s/c)(Screw FAN) 8-10kg.cm(s/c)(Screw PCB) 4-6kg.cm(s/c)(Screw SSW) 8-10kg.cm(s/c)(Gronuding Screw)	Check List Check List Check List Check List	IPQC IPQC IPQC IPQC	100% 100% 100% 100%	Once/shift Once/shift Once/shift Once/shift	Adjust torque Adjust torque Adjust torque Adjust torque
Before B/I	Screw case	8-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Once/shift	Adjust torque
Burn-in Test	All output Room temp.	Pass/Fail 40+/-5DEG C	LED display Check List	MFG IPQC	100% 100%	Once/1Hr Once/2Hrs	Tag/rework Stop operation
Hipot Test	Pri--GND Pri--Sec Fixture	1800VAC/3S<10ms & I<10mA 1800VAC/3S<10ms & I<10mA Pass/Fail	Check List Check List Check List	IPQC IPQC IPQC	100% 100% 100%	Twice/shift Twice/shift Twice/shift	Corrective action Stop operation Stop operation
Grounding Test	Resistance=0.1 ohm under 25A Grounding Fail	Pass/Fail Pass/Fail	Check List Check List	IPQC IPQC	100% 100%	Twice/shift Twice/shift	Corrective action Stop operation
Cable Test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and Change model	Corrective action
Short circuit test (Input 230v)	Fixture verification Wire polarity & Continuity Fixture verification Fixture verification Fixture verification	Pass/Fail Pass/Fail Pass/Fail Pass/Fail Pass/Fail	Check List Check List Check List Check List Check List	IPQC IPQC IPQC IPQC IPQC	100% 100% 100% 100% 100%	Twice/shift and Change model Twice/shift and Change model Twice/shift and Change model Twice/shift and Change model Twice/shift and Change model	Corrective action Corrective action Stop operation Corrective action Corrective action
Final Test	Tolerance File name	±20mV IPS1506H/L	Verify Fixture Check List	Engineering IPQC	100% 100%	Once/day Twice/shift and Change model	Stop operation Stop operation
Packing	Label,Clean	Pass/Fail	Check List	MFG	100%	Once/day	Stop operation
Out of box	Q-QRA-22-07 G-QRA-06 Defect criteria-Major -Minor	1800VAC/3S<10ms & I<10mA 1800VAC/3S<10ms & I<10mA Resistance=0.1 ohm under 25A Pass/Fail IPS1506H/L A=0 R=1 A=1 R=2	Check List Check List Check List	OOBA OOBA OOBA	AQL=0.4 AQL=0.4 AQL=0.4	Once/Lot Once/Lot Once/Lot Lot size=300 Once/Lot	Corrective action Corrective action Corrective action
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop shipping

 Prepare by: 

 Check by: 

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HIPRO
PMP (PROCESS MANAGEMENT PLAN)

Model :IPS-1506-P2	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED	Control Location	Page: 4	Rev:0
Product Revision : 0	Facility : CHINA	- Receiving inspection - In-Process - Final Inspection	Date:2001/05/16	
	DOCUMENT CENTER	Plan Effective Date:2001/05/22		
	2001.5.22			DOC NO:I-ENG-58

Process	Control Points	Methods				Frequency	Reactions if out of control
		Control limits	Evaluation	Responsibility	Sample size		
Hand Insertion	BOM ESD - Wrist strap	Pilot run Pass/Fail	Check List Check List	IPQC IPQC	5 100%	Once/day and Change model Once/day	Find Root cause problem Replace
Wave Solder	Solder temp.	240~250 Deg c	X-R Chart	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Preheat temp.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Preheat temp.	250~500Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.81+/-0.02	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.2~3.0M/min	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
Touch-up	Solder iron temp.	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
ICT Test	ICT Program	IPS-1506P2	Check List	IPQC	100%	Twice/shift and Change model	Stop operation
	Component polarity	Defect unit>3(Continus)	Check List	MFG	100%	Once/2Hrs	Corrective action
	Missing component	Defect unit>3(Continus)	Check List	MFG	100%	Once/2Hrs	Corrective action
	Value	Defect unit>3(Continus)	Check List	MFG	100%	Once/2Hrs	Corrective action
	Wire Test	Defect unit>3(Continus)	Check List	MFG	100%	Once/2Hrs	Corrective action
ACT Test (Input 110V)	Tolerance	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Twice/day	Replace fixture
Case Assy	Screw driver torque	4-6kg.cm(s/c)(Screw FAN)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	4-6kg.cm(s/c)(Screw PFC)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	8-10kg.cm(s/c)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	4-6kg.cm(s/c)(Screw SSW)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	8-10kg.cm(s/c)(Gronuding Screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	8-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Once/shift	Adjust torque
Burn-in Test	All output	Pass/Fail	LED display	MFG	100%	Once/1Hr	Tag/rework
	Room temp.	40+/-5DEG C	Check List	IPQC	100%	Once/2Hrs	Stop operation
Hipot Test	Pri--GND	1800VAC/3S<10ms & I<10mA	Check List	IPQC	100%	Twice/shift	Corrective action
	Pri--Sec	1800VAC/3S<10ms & I<10mA	Check List	IPQC	100%	Twice/shift	Stop operation
	Fixture	Pass/Fail	Check List	IPQC	100%	Twice/shift	Stop operation
Grounding Test	Resistance=0.1 ohm under 25A	Pass/Fail	Check List	IPQC	100%	Twice/shift	Corrective action
	Grounding Fail	Pass/Fail	Check List	IPQC	100%	Twice/shift	Stop operation
Cable Test Short circuit test (Input 230v)	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and Change model	Corrective action
	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and Change model	Corrective action
	Wire polarity & Continuity	Pass/Fail	Check List	IPQC	100%	Twice/shift and Change model	Stop operation
	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and Change model	Corrective action
	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and Change model	Corrective action
	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and Change model	Corrective action
Final Test	Tolerance	±20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	IPS1506H/L	Check List	IPQC	100%	Twice/shift and Change model	Stop operation
Packing	Label,Clean	Pass/Fail	Check List	MFG	100%	Once/day	Stop operation
Out of box		1800VAC/3S<10ms & I<10mA 1800VAC/3S<10ms & I<10mA Resistance=0.1 ohm under 25A	Check List	OOBA	AQL=0.4	Once/Lot	Corrective action
	Q-QRA-22-07 G-QRA-06	Pass/Fail IPS1506H/L	Check List	OOBA	AQL=0.4	Once/Lot	Corrective action
	Defect criteria-Major -Minor	A=0 R=1 A=1 R=2	Check List	OOBA	AQL=0.4	Once/Lot Lot size=300 Once/Lot	Corrective action
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop shipping

Prepare by: 王立军


Check by: 王立军


Approve by: 王立军

HIPRO
PMP (PROCESS MANAGEMENT PLAN)

Model :IPS-1506A-P2	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED	Control Location	Page: 5	Rev:0
Product Revision : 0	Facility : CHINA	- Receiving inspection - In-Process - Final Inspection	Date:2001/05/16	
	DOCUMENT CENTER	Plan Effective Date:2001/05/22		
	2001.5.22			DOC NO:I-ENG-58

Process	Control Points	Methods				Frequency	Reactions if out of control
		Control limits	Evaluation	Responsibility	Sample size		
Hand Insertion	BOM ESD - Wrist strap	Pilot run Pass/Fail	Check List Check List	IPQC IPQC	5 100%	Once/day andChange model Once/day	Find Root cause problem Replace
Wave Solder	Solder temp. Preheat temp. Preheat temp. Flux gravity Chain speed	240~250 Deg c 250~500 Deg c 250~500Deg c 0.81+/-0.02 1.2~3.0M/min	X-R Chart Check List Check List Check List Check List	Engineering Engineering Engineering Engineering Engineering	100% 100% 100% 100% 100%	Once/2Hrs Once/2Hrs Once/2Hrs Once/2Hrs Once/2Hrs	Adjust,stop operation Adjust,stop operation Adjust,stop operation Adjust,stop operation Adjust,stop operation
Touch-up	Solder iron temp.	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
ICT Test	ICT Program Component polarity Missing component Value Wire Test	IPS-1506A-P2 Defect unit>3(Continus) Defect unit>3(Continus) Defect unit>3(Continus) Defect unit>3(Continus)	Check List Check List Check List Check List Check List	IPQC MFG MFG MFG MFG	100% 100% 100% 100% 100%	Twice/shift andChange model Once/2Hrs Once/2Hrs Once/2Hrs Once/2Hrs	Stop operation Corrective action Corrective action Corrective action Corrective action
ACT Test (Input 110V)	Tolerance	±20mV	Verify fixture Check List	Engineering IPQC	100% 100%	Once/day Twice/day	Replace fixture Replace fixture
Case Assy	Screw driver torque Screw driver torque Screw driver torque Screw driver torque Screw driver torque	4-6kg.cm(s/c)(Screw FAN) 4-6kg.cm(s/c)(Screw PFC) 8-10kg.cm(s/c)(Screw PCB) 4-6kg.cm(s/c)(Screw SSW) 8-10kg.cm(s/c)(Gronuding Screw)	Check List Check List Check List Check List Check List	IPQC IPQC IPQC IPQC IPQC	100% 100% 100% 100% 100%	Once/shift Once/shift Once/shift Once/shift Once/shift	Adjust torque Adjust torque Adjust torque Adjust torque Adjust torque
Before B/I	Screw case	8-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Once/shift	Adjust torque
Burn-in Test	All output Room temp.	Pass/Fail 40+/-5DEG C	LED display Check List	MFG IPQC	100% 100%	Once/1Hr Once/2Hrs	Tag/rework Stop operation
Hipot Test	Pri--GND Pri--Sec Fixture	1800VAC/3S<10ms & I<10mA 1800VAC/3S<10ms & I<10mA Pass/Fail	Check List Check List Check List	IPQC IPQC IPQC	100% 100% 100%	Twice/shift Twice/shift Twice/shift	Corrective action Stop operation Stop operation
Grounding Test	Resistance=0.1 ohm under 25A Grounding Fail	Pass/Fail Pass/Fail	Check List Check List	IPQC IPQC	100% 100%	Twice/shift Twice/shift	Corrective action Stop operation
Cable Test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and Change model	Corrective action
Short circuit test (Input 230v)	Fixture verification Wire polarity & Continuity Fixture verification Fixture verification Fixture verification	Pass/Fail Pass/Fail Pass/Fail Pass/Fail Pass/Fail	Check List Check List Check List Check List Check List	IPQC IPQC IPQC IPQC IPQC	100% 100% 100% 100% 100%	Twice/shift and Change model Twice/shift and Change model Twice/shift and Change model Twice/shift and Change model Twice/shift and Change model	Corrective action Corrective action Stop operation Corrective action Corrective action
Final Test	Tolerance File name	±20mV IPS1506H/L	Verify Fixture Check List	Engineering IPQC	100% 100%	Once/day Twice/shift andChange model	Stop operation Stop operation
Packing	Label,Clean	Pass/Fail	Check List	MFG	100%	Once/day	Stop operation
Out of box	1800VAC/3S<10ms & I<10mA 1800VAC/3S<10ms & I<10mA Resistance=0.1 ohm under 25A Pass/Fail IPS1506H/L A=0 R=1 A=1 R=2	1800VAC/3S<10ms & I<10mA 1800VAC/3S<10ms & I<10mA Resistance=0.1 ohm under 25A Pass/Fail IPS1506H/L A=0 R=1 A=1 R=2	Check List Check List Check List	OOBA OOBA OOBA	AQL=0.4 AQL=0.4 AQL=0.4	Once/Lot Once/Lot Once/Lot Lot size=300 Once/Lot	Corrective action Corrective action Corrective action
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop shipping

 Prepare by: 

 Check by: 

 Approve by: 