DOCUMENT NO.	HIPRO Electronics (Dongguan) Company Limited		BOOK NO.
I-ENG-61			I-ENG-61

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2K02018	FEB,29.2000	"MULTI_POWER Electronics Company	1
		"HIPRO Electronics(Dongguan)Co.,Ltd, "	
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		DOCUMENT CENTER 2001.8.03	

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	NAME/DEPARTMENT	SIGNATURE	DATE
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HIPRO

PMP (PROCESS MANAGEMENT PLAN)

Part :CMP1457F3Q	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED	Control Location	DOCUMENT CENTER	Page: 2	Rev:3
Part Number : 124848-001	Facility : CHINA	- Receiving inspection		Date:2001/8/03	
		- In-Process	2001.8.03		
		- Final Inspection		DOC NO: I-ENG-61-01	

Process	Control Points	Control limits	Evaluation	Responsibility	Sample size	Frequency	Reactions if out of control
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	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.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.818~0.822	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.7~3.0M/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	CM-P1457F3Q	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)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/shift	Replace fixture
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
		4-6kg.cm(s/c)(NMB Fan 3610KL-04W-B50)					
	Screw driver torque	4-6kg.cm(s/c)(Inlet)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	7-9kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	Screw driver torque	6-8kg.cm(s/c)(Screw SSW)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	9-12kg.cm(s/c)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	7-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Twice/hift	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	Set up parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Twice/shift	Corrective action
		Breakdown Arc Detection=10ms	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	Correction	±20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CM-P145H	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	Q-QRA-08-09	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		CM-P145H/L	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect -Major	MA=0.1 A=0 ,R=1					
	-Minor		Check List	OOBA	AQL=0.1	Once/Lot Lot size=288X4	Corrective action
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop Shipping

Prepared by: Approve by:

HIPRO

PMP (PROCESS MANAGEMENT PLAN)

Part :CM146SNQ1	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED	DOCUMENT CENTER	Control Location	Page: 3	Rev:3
Part Number : 173609-001	Facility : CHINA	2001.8.03	- Receiving inspection - In-Process - Final Inspection	Date:2001/8/03	
	P.E:		Plan Effective Date:2001/3/15	DOC NO: I-ENG-61-02	

Process	Control Points	Control limits	Methods — Evaluation	Responsibility	Sample size	Frequency	Reactions if out of control
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	Replace
Wave Solder	Solder temp.	240~250 Deg c	X-R Chart	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Preheat temp.	350~370 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Preheat temp.	370~410 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Preheat temp.	460~480 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.81~0.83	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.8~2.2M/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	CM146SNQ1	Check List	IPQC	100%	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)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/day	Replace fixture
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
	Screw driver torque	7-9kg.cm(s/c)(NIDEC Fan D08T-12PG) 4-6kg.cm(s/c)(NMB Fan 3110GL-B4W-H00 N/A-NMB Fan 3110KL-04W-B40-J20)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	4-6kg.cm(s/c)(Inlet)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	7-9kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	Screw driver torque	4-6kg.cm(s/c)(Screw ssc)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	10-11kg.cm(s/c)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	8-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Twice/hift	Adjust torque
Burn-in Test	All output	Pass/Fail	LED display	MFG	100%	Once/1Hr	Tag/rework
	80% - 100% LOAD	Setup parameter	Check List	IPQC	40PCS	Once/day	Corrective action
	Room temp.	40+/-5DEG C	Check List	IPQC	100%	4 time /day	Stop operation
Hipot Test	Set up parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Once/shift	Corrective action
		Breakdown Arc Detection=10ms	Check List	IPQC	100%	Once/shift	Stop operation
	Fixture	Pass/Fail	Check List	IPQC	100%	Once/shift	Stop operation
Grounding Test	Resistance=0.1 ohm under 25A	Pass/Fail	Check List	IPQC	100%	Once/shift	Corrective action
	Grounding Fail	Pass/Fail	Check List	IPQC	100%	Once/day	Stop operation
Cable Test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Once/shift	Corrective action
Short circuit test (Input 230v)	Fixture verification	Pass/Fail	Check List	IPQC	100%	Once/shift	Corrective action
	Wire polarity & Continuity	Pass/Fail	Check List	IPQC	100%	Once/shift	Stop operation
Capacitive load test: Add 4700uF*4pcs capacitors parallel to +5v output	Fixture verification	Pass/Fail	Check List	IPQC	100%	Once/shift	Corrective action
Add 4700uF*4pcs capacitors parallel to +3.3v output	Fixture verification	Pass/Fail	Check List	IPQC	100%	Once/shift	Corrective action
Add 4700uF*4pcs capacitors parallel to +12v output	Fixture verification	Pass/Fail	Check List	IPQC	100%	Once/shift	Corrective action
Final Test	Correction	+20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CM146SNQ1	Check List	IPQC	100%	Once/day	Stop operation
Packing	Label,Clean	Pass/Fail	Check List	MFG	100%	Once/day	Stop operation
Out of box	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Q-QRA-08-11	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	CM146SNQ1	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect criteria-Major	C=0	Check List	OOBA	AQL=0.1	Once/Lot Lot size=288X4	Corrective action
	-Minor	A=0 R=1	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop operation

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HIPRO

PMP (PROCESS MANAGEMENT PLAN)

Part :CMI200XA3	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED		Control Location	Page: 4	Rev:3
Part Number : 386461-001	Facility : CHINA		- Receiving inspection	Date:2001/8/03	
	DOCUMENT CENTER		- In-Process		
			- Final Inspection		
	2001.8.03		Plan Effective Date:3/18/2000	DOC NO: I-ENG-61-03	

Process	Control Points	Control limits	Methods Evaluation	Responsibility	Sample size	Frequency	Reactions if out of control
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	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.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.818~0.822	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.7~3.0M/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	CMI200XA3	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)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/shift	Replace fixture
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
	Screw driver torque	7-9kg.cm(s/c)(NIDEC Fan D09T-12PS1) 4-6kg.cm(s/c)(NMB Fan 3610KL-04W-B50)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	4-6kg.cm(s/c)(Inlet)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	8-10kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	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)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	8-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Twice/hift	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	Set up parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Twice/shift	Corrective action
		Breakdown Arc Detection=10ms	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	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
Short circuit test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
(Input 230v)	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	Correction	+20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CM200XA3	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	Q-QRA-08-10	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		CM200XA3	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect criteria-Major	C=0					
	-Minor		Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		A=0 R=1				Lot size=180X4	
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop Shipping

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PMP (PROCESS MANAGEMENT PLAN)

Part :CMI200XA3P	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED		Control Location	Page: 5	Rev:3
Part Number : 173609-001	Facility : CHINA	DOCUMENT CENTER 2001.8.03	- Receiving inspection - In-Process - Final Inspection	Date:2001/8/03	
			Plan Effective Date:2001/3/15	DOC NO: I-ENG-61-04	

Process	Control Points	Control limits	Methods			Frequency	Reactions if out of control
			Evaluation	Responsibility	Sample size		
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	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.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.818~0.822	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.7~3.0M/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	CM-I200XA3	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)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/shift	Replace fixture
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
	Screw driver torque		Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	4-6kg.cm(s/c)(Screw FAN) 4-6kg.cm(s/c)(Screw Inlet)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	7-9kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	Screw driver torque	4-6kg.cm(s/c)(Screw SSW)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	4-6kg.cm(s/c)(Screw PFC)	Check List	IPQC	200%	Once/shift	Adjust torque
	Screw driver torque	9-12kg.cm(s/c)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	7-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Twice/hift	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	Set up parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Twice/shift	Corrective action
		Breakdown Arc Detection=10ms	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	Correction	+20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CMI200H	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	Q-QRA-08-16	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		CMI200L/H	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect criteria-Major: 0.1 -Minor 1.0	C=0	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		A=0 R=1				Lot size=180X4	
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop Shipping

Prepared by: Approve by:

HIPRO

PMP (PROCESS MANAGEMENT PLAN)

Part :CMQ201XC3	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED		Control Location	Page: 6	Rev:3
Part Number : 161071-001	Facility : CHINA	DOCUMENT CENTER 2001.8.03	- Receiving inspection	Date:2001/8/03	
			- In-Process		
			- Final Inspection		
			Plan Effective Date:2001/3/15	DOC NO: I-ENG-61-05	

Process	Control Points	Control limits	Methods — Evaluation	Responsibility	Sample size	Frequency	Reactions if out of control
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	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.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.818~0.822	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.7~3.0M/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	CM-Q201XC3	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)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/shift	Replace fixture
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
	Screw driver torque	7-9kg.cm(s/c)(NIDEC Fan D09T-12PS1) 4-6kg.cm(s/c)(NMB Fan 3610KL-04W-B50)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	4-6kg.cm(s/c)(Inlet)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	8-10kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	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)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	8-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Twice/hift	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	Set up parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Twice/shift	Corrective action
		Breakdown Arc Detection=10ms	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	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
Short circuit test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
(Input 230v)	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	Correction	+20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CM-Q201H	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	Q-QRA-08-08	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		CM-201H/L	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect criteria-Major	C=0					
	-Minor		Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		A=0 R=1				Lot size=180X4	
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop Shipping

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PMP (PROCESS MANAGEMENT PLAN)

Part :CMQ201XC3P	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED		DOCUMENT CENTER	Control Location	Page: 7	Rev:3
Part Number : 173609-001	Facility : CHINA		2001.8.03	- Receiving inspection - In-Process - Final Inspection	Date:2001/8/03	
				Plan Effective Date:2001/3/15	DOC NO: I-ENG-61-06	

Process	Control Points	Control limits	Methods				Frequency	Reactions if out of control
			Evaluation	Responsibility	Sample size			
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	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.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.818~0.822	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.7~3.0M/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	CM-Q201XC3P	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)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/shift	Replace fixture
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
	Screw driver torque		Check List	IPQC	100%	Once/shift	Adjust torque
		4-6kg.cm(s/c)(Screw FAN)					
	Screw driver torque	4-6kg.cm(s/c)(Screw Inlet)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	7-9kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	Screw driver torque	4-6kg.cm(s/c)(Screw SSW)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	4-6kg.cm(s/c)(Screw SSW)	Check List	IPQC	200%	Once/shift	Adjust torque
	Screw driver torque	9-12kg.cm(s/c)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	7-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Twice/hift	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	Set up parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Twice/shift	Corrective action
		Breakdown Arc Detection=10ms	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	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
Short circuit test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
(Input 230v)	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	Correction	+20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CM-Q201XC3P L/H	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	Q-QRA-08-15	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		CMQ201L/H	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect criteria-Major: 0.1	C=0					
	-Minor 1.0		Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		A=0 R=1				Lot size=180X4	
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop Shipping

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PMP (PROCESS MANAGEMENT PLAN)

Part :CMQ203GF3	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED	DOCUMENT CENTER	Control Location	Page: 8	Rev:3
Part Number : 190769-001	Facility : CHINA		- Receiving inspection	Date:2001/8/03	
		2001.8.03	- In-Process		
			- Final Inspection		
			Plan Effective Date:2001/3/15	DOC NO: I-ENG-61-07	

Process	Control Points	Control limits	Methods — Evaluation	Responsibility	Sample size	Frequency	Reactions if out of control
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	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.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.818~0.822	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.7~3.0M/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	CM-Q203GF3	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)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/shift	Replace fixture
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
	Screw driver torque		Check List	IPQC	100%	Once/shift	Adjust torque
		4-6kg.cm(s/c)(Screw FAN)					
	Screw driver torque	4-6kg.cm(s/c)(Screw Inlet)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	7-9kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	Screw driver torque	4-6kg.cm(s/c)(Screw SSW)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	10-11kg.cm(s/c)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	8-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Twice/hift	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	Set up parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Twice/shift	Corrective action
		Breakdown Arc Detection=10ms	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	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
Short circuit test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
(Input 230v)	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	Correction	+20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CM203GFH	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	Q-QRA-08-14	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		CM203GFH	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect criteria-Major: 0.4	C=0					
	-Minor 1.0		Check List	OOBA	AQL=0.1	Once/Lot Lot size=288X4	Corrective action
		A=0 R=1					
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop Shipping

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PMP (PROCESS MANAGEMENT PLAN)

Part :CMP207WF3P	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED		Control Location	Page: 9	Rev:3
Part Number : 221269-001	Facility : CHINA		- Receiving inspection	Date:2001/8/03	
		DOCUMENT CENTER 2001.8.03	- In-Process - Final Inspection		
			Plan Effective Date:2001/3/15	DOC NO: I-ENG-61-08	

Process	Control Points	Control limits	Methods Evaluation	Responsibility	Sample size	Frequency	Reactions if out of control
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	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.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.818~0.822	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.7~3.0M/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	CM-I200XA3	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)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/shift	Replace fixture
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
	Screw driver torque		Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	4-6kg.cm(s/c)(Screw FAN)					
	Screw driver torque	4-6kg.cm(s/c)(Screw Inlet)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	7-9kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	Screw driver torque	4-6kg.cm(s/c)(Screw SSW)	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	9-12kg.cm(s/c)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	7-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Twice/hift	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	Set up parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Twice/shift	Corrective action
		Breakdown Arc Detection=10ms	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	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
Short circuit test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
(Input 230v)	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	Correction	+20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CM-P207WF3P L/H	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	Q-QRA-08-17	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		CMP207 L/H	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect criteria-Major: 0.1	C=0					
	-Minor 1.0		Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		A=0 R=1				Lot size=288X4	
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop Shipping

Prepared by:　　　　　　　Approve by:

HIPRO

PMP (PROCESS MANAGEMENT PLAN)

Part :CMQ250GF3	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED	Page:11	Control Location	Page: 10	Rev:3
Part Number : 152769-001	Facility : CHINA		- Receiving inspection	Date:2001/8/03	
			- In-Process		
			- Final Inspection		
			Plan Effective Date:2001/3/15	DOC NO: I-ENG-61-09	

Process	Control Points	Control limits	Methods Evaluation	Responsibility	Sample size	Frequency	Reactions if out of control
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	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.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.818~0.822	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.7~3.0M/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	CM-Q250GF3	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)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/shift	Replace fixture
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
	Screw driver torque		Check List	IPQC	100%	Once/shift	Adjust torque
		4-6kg.cm(s/c)(Screw FAN)					
	Screw driver torque	4-6kg.cm(s/c)(Screw Inlet)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	7-9kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	Screw driver torque	4-6kg.cm(s/c)(Screw SSW)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	10-11kg.cm(s/c)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
Before B/I	Screw case	8-10kg.cm(s/c)(Screw cover)	Check List	IPQC	100%	Twice/hift	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	Set up parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Twice/shift	Corrective action
		Breakdown Arc Detection=10ms	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	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
Short circuit test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
(Input 230v)	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	Correction	+20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CM250H	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	Q-QRA-08-12	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		CM250L/H	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect criteria-Major: 0.1	C=0					
	-Minor 1.0		Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		A=0 R=1				Lot size=288X4	
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop Shipping

Prepared by: Approve by:

HIPRO

PMP (PROCESS MANAGEMENT PLAN)

Part :CMU250XC3	Supplier : HIPRO ELECTRONIC PUBLIC COMPANY LIMITED		Control Location	Page: 11	Rev:3
Part Number : 243890-001	Facility : CHINA	DOCUMENT CENTER 2001.8.03	- Receiving inspection	Date:2001/8/03	
			- In-Process		
			- Final Inspection		
			Plan Effective Date:2001/7/15	DOC NO: I-ENG-61-10	

Process	Control Points	Control limits	Evaluation	Responsibility	Sample size	Frequency	Reactions if out of control
Hand Insertion	BOM	Pilot run	Check List	IPQC	5	Once/day and Change model	Find Root cause problem
	ESD - Wrist strap	Pass/Fail	Check List	IPQC	100%	Once/day	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.	250~500 Deg c	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Flux gravity	0.818~0.822	Check List	Engineering	100%	Once/2Hrs	Adjust,stop operation
	Chain speed	1.7~3.0M/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	CM-U250XC3	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
Case Prep	Solder iron temp	343~440 DEG C	Check List	IPQC	100%	Once/shift	Change solder iron
	Screw driver torque	4~6kg.cm(s/c)(Screw INLET)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	6~8kg.cm(s/c)(Screw FAN)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	8-10kg.cm(s/c)(Ground screw)	Check List	IPQC	100%	Once/shift	Adjust torque
Case Assy	Screw driver torque	8~10kg.cm(s/c)(Screw PCB)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	8-10kg.cm(s/c)(Screw bracket of EMI)	Check List	IPQC	100%	Once/shift	Adjust torque
	Screw driver torque	8-10kg.cm(s/c)(Screw PCB of EMI)	Check List	IPQC	100%	Once/shift	Adjust torque
ACT Test (Input 110V)	Correction	±20mV	Verify fixture	Engineering	100%	Once/day	Replace fixture
			Check List	IPQC	100%	Once/shift	Replace fixture
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+/-5 ^{0}C	Check List	IPQC	100%	Once/2hrs	Stop operation
Hipot Test	Setup parameter	600uA @ 3sec 2200VDC	Check List	IPQC	100%	Twice/shift	Corrective action
		Breakdown Arc Detection=10ms	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	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
Short circuit test	Fixture verification	Pass/Fail	Check List	IPQC	100%	Twice/shift and change model	Corrective action
(Input 230v)	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	Correction	±20mV	Verify Fixture	Engineering	100%	Once/day	Stop operation
	File name	CMU250XC3	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	Q-QRA-08-23	600uA @ 3sec 2200VDC	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	G-QRA-06	Pass/Fail	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		CMU250H/L	Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
	Defect criteria-Major: 0.1	C=0					
	-Minor 1.0		Check List	OOBA	AQL=0.1	Once/Lot	Corrective action
		A=0 R=1				Lot size=180X4	
Shipping	Shipping information	Shipping information	Check list	OOBA	100%	Lot	Stop Shipping

Prepared by:Joe_Ren   Approve by: