



MICROCHIP

PPO Online Objective/Features

Mar 04, 2016

- **Objective**
 - Clear information
 - Reduce time for issue/dispose
 - Traceability
 - To have PPO database for tracking and data analysis
 - Verification data is identical with MES

- **Features/Functions**

- Auto created datalog folder [Link](#)
- Show lot on hold by product responsibility [Link](#)
- Auto email and data verification [Link](#)
- Automatic get lot information data from web service for online request [Link](#)
- Automatic get disposition result from MES [Link](#)
- Automatic get name/badge/date time disposed lot from MES [Link](#)
- Search feature [Link](#)

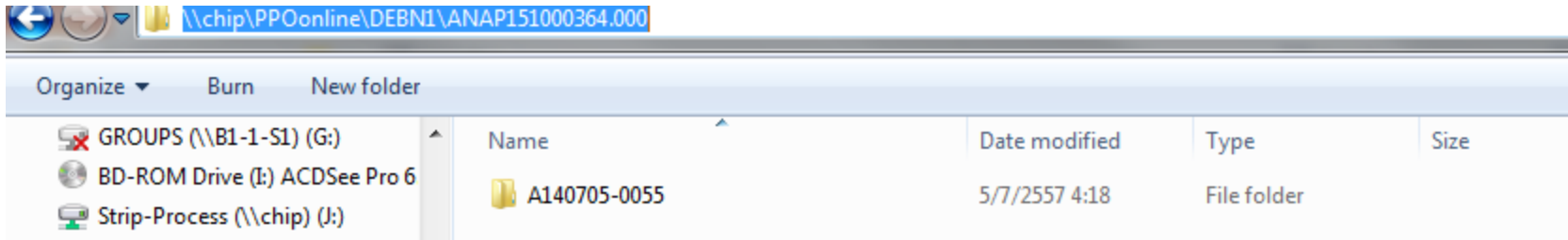
- **Features/Functions**

- Advance search feature [Link](#)
- Supersede feature [Link](#)
- Print blank from via web [Link](#)
- Smart gen PPO number [Link](#)
- Link to related/concern web. [Link](#)
 - MES web link
 - PPO data verification folder
- Summary all hold lots by pie chart [Link](#)




- **Features/Functions**

- Email attached [Link](#)
- Systematic protect for wrong online request [Link](#)
- Show PPO verify status [Link](#)
- Auto backup and remove old PPO not dispose
- Manage user level groups [Link](#)
 - Operator-Viewer/Requestor
 - Technician/Engineer-Viewer/Requestor/Disposition
 - Administrator-Viewer/Requestor/Disposition/System management

- **Auto Created Datalog Folder**
 - Auto created PPO folder at share drive
 - Standard path format
 - `\\Chip\PPOonline\Mask\Lot\PPOnumber`



- Show Lot on Hold by product Responsibility

 HOME
 OPERATOR
 TECH/ENG

Hello K.Akkapol Chainamon [Logout]

Disposition

Supersede

My Responsibility

Disposition

Dispose

Lot ID

My Responsibility

Verified Wait Verify

PPO#	Lot	MPC	Division	Step	TestFlow	Cycle Time	Reason	Verify By
M160304-0270	NSEB164600792.000	DEBA27B3XB04	MCU08	RT1@25C	RT1	0.0	100% YIELD	
A160304-0257	MTAI164603145.000	UGAA1TM4XBXF	MCU08	QC1_ST@-40C	SFQFQ_ST	0.0	QC REJECT	
A160304-0250	NSEB164600931.000	LEAM2TG4XB04	MCU08	QC1_ST@85C	SQQ_ST	0.1	QC REJECT	
A160304-0236	MTAI164900770.000	DECT1TG4XAXF	MCU08	FS1_ST@25C	SQQ_ST	0.1	LOW YIELD	
A160304-0232	NSEB164800240.000	DECT17G5XAXF	MCU08	FT1_MC@25C	FQQ_MC	0.1	LOW YIELD	
A160304-0224	MMT-164700930.000	DE024YC2XB04	MCU08	IS1_ST@125C	SIQ_ST	0.1	LOW YIELD	B12745
A160304-0215	ANAP164500817.000	LEAU1TV2XAXF	MCU08	QC1_ST@-40C	SSQQ_ST	0.1	QC REJECT	

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● Auto Email and Data Verification

From: Katawut Maihara - B16833
Sent: Tuesday, March 01, 2016 3:37 AM
To: #MTHAI-Singulated Test Process Engineering
Cc: #MTHAI-STO Product Technician; #MTHAI-STO Supervisor; #MTHAI-STO Flexcell Supervisor; #STO Production Control; #MTHAI-Product Test Engineer-MCU8; Katawut Maihara - B16833
Subject: SETUP NOT PASS >> MPC: DEBD1TC2X056 LOT: MTAI164702610.000 STEP: QC1_ST@85C Failure: m_rd_pc_qtp_512.

Dear Process Team,

Production found setup not pass issue failure [m_rd_pc_qtp_512](#) on [DEBD1TC2X056](#) [MTAI164702610.000](#) step: [QC1_ST@85C](#).

Lot Information

- LOT ID : MTAI164702610.000 MPC : DEBD1TC2X056
- Qty In = 300 ea Qty Out = 0 ea
- Lot Yield = 0% CTRL Yield = 0%
- Test Program = DEBD0_C14A.XLS

Pre-Verification Result

- Manual on singulate L/B >> Result --> **FAIL**.
- Confirm with previous TP >> Result --> **FAIL**.
- Change loadboard >> From: [TR-3374](#) To: [TR-1458](#) Result --> **FAIL**.
- Change tester >> From: [INT#102](#) To: [INT#279](#) Result --> **FAIL**.

Verification Result

Verify on [INT#279](#) [TR-1458](#),

- Samples 5 ea : Fail [#5200 # M_RD_PC_QTP_512](#) All temp and do all only fail,

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- Automatic get lot information data from web service for online request

MICROCHIP		PRODUCT PROBLEM ORDER	
FORM E003 REV.H		PPO NO. : A160304-0229	
REFER SPEC. NO. PI-91005		SUPERSEDE PPO NO. :	
		FY-WW : 2016-49	
HOLD DATE	: 03-04-2016 12:41	OPR NO.	: B13074
MPC	: DECH1YM4XV06	LOCATION/SHIFT	: MTAI / D
DIVISION	: MCU08 (MCHP)	LOT NO.	: NSEB164800020.000
PE OWNER / EXT.	: Narongrit N. / 1427	WAFER LOT NO.	: TMPE216236510.700
PE SUPPORT / EXT.	: Jirapat P. / 1603	TRACECODE	: 1608SEE
TOP MARK	: PIC18LF2520T-E/MLV06	FLOW STEP	: SQQ_ST
TEST STEP	: QC2_ST	FLOW TEMP	: 25C/125C/-40C
TEST TEMP	: -40C	FLOW NUMBER	: 185880
FLOW TYPE	: STD	TOTAL REJECT	: 1 EA
LOT QUANTITY	: 3621 EA	PA	: 1 EA
QTY IN	: 244 EA	FU	: 0 EA
QTY OUT	: 243 EA	O/S	: 0 EA
GOOD BIN 1	: 0 EA	PAT	: 0 EA
GOOD BIN 2	: 0 EA	LOSS	: 0 EA
CTRL YIELD	: 100 %	V/M	: 0 EA
ACTUAL YIELD	: 99.59 %	DROP	: 0 EA
O/S CTRL YIELD	: 0 %	OTHERS	: 0 EA
ACTUAL O/S YIELD	: 0 %		
SET UP DETAIL :			
TEST PROG. NAME	: DECH0_F24C.XLS	TESTER NAME / NO.	: MTAI_INT184
JOB / TEST FLOW	: Q1-PRD-STD	HANDLER NAME / NO.	: RAS069
		LOAD BOARD NAME / NO.	: TR-4200

● Automatic Get Disposition Result from MES

VERIFICATION RESULT (OPTIONAL)

FU#1#3 : F_SRM_MIN QC@-40C DO ALL MANY FAIL , START FAIL@-35C.

FU#2 : F_SRM_MIN QC@ ALL TEMP DO ALL MANY FAIL , AFTER RE-FLOW PASS AS NORMAL ON INT#279 TR-1669.

"KEEP GOOD 1 EA , FU 3 EA"

MES SYSTEM RESULT

FA NUMBER : N/A

BIN	QTY	CODE	FAILURE DESCRIPTION
FU	2	FC32: Product Fail Temp	FU#1#3 : F_SRM_MIN QC@-40C DO ALL MANY FAIL , START FAIL@-35C.
FU	1	FC51: Spurious (During QC)	FU#2 : F_SRM_MIN QC@ ALL TEMP DO ALL MANY FAIL , AFTER RE-FLOW PASS AS NORMAL ON INT#279 TR-1669.
OTHERS	1	FC10: Engineer Evaluation	KEEP GOOD

QC REJECT PASSCODE VERIFICATION : (BEFORE SUBMITTING TO FA)

: DATALOG INCLUDING PASSCODE TEST

: DEVICE NO PASSCODE

: READ PASSCODE FROM ENGINEERING TOOLS-DATA ATTACHED

: CANNOT READ

: READ PASSCODE FROM PROGRAM - DATA ATTACHED

TEST BACK WITH PREVIOUS FT FLOW : PASS FAIL

- **Automatic Get Name/Badge/Date Time Disposed lot from MES**

ACTION / DISPOSITION : การแก้ปัญหา / การตัดสินใจ

✓ : ACCEPT YIELD : ยอมรับยิวได้	✓ : MOVE LOT : ปล่อย LOT
✓ : KEEP REJECT FOR ENGINEER : เก็บตัวเสียให้ ENGINEER	✓ : RESCREEN 100% : TEST ใหม่ทั้ง LOT
: RETEST GOOD UNITS : TEST งานดีใหม่	: RETEST REJECT UNITS : TEST งานเสียใหม่
: MOVE GOOD, SPLIT REJECT ปล่อยงานดี แยกงานเสีย	: RE-DO QC SAMPLING : ทำ QC SAMPLE ชุดใหม่
✓ : OTHERS : อื่นๆ RESCREEN 100%QC@-40C-->SAM QC@-40C-->HOLD LOT.	
: RESCREEN LOT AS PER CN/NCRB NO. : ทำการ RESCREEN ภายใต้อคำสั่ง CN/NCRB NO.	

SPECIAL DISPOSITION: คำสั่งพิเศษ :

VERIFY BY: **KHEANGKHAI LARNSANTAD** BADGE: **B17263** DATE : **3/4/2016 9:11:52 AM**





- **Search Feature**
 - Search by Lot ID
 - Search by PPO Number



The screenshot displays the PPO Online web application interface. At the top left is the Microchip Thailand logo. The main header features the text "PPO online" in large blue letters, with "Product Problem Order Online" underneath. A status bar below the header indicates "MTAI Implementation On 4/21/2014 | MMT Implementation On 12/9/2014 | Online User : 82". A navigation bar contains three options: "HOME" (with a house icon), "OPERATOR" (with a person icon), and "TECH/ENG" (with two people icons). The central search area is titled "Search" and contains two input fields: "Lot ID" and "PPO Number", both highlighted in yellow. Below these fields is a note: "*You can input only Lot ID or PPO Number." At the bottom of the search area are two buttons: "Search" (with a magnifying glass icon) and "Cancel" (with a red 'X' icon).

- Advance Search Feature

HOME

 OPERATOR
 TECH/ENG

↓ Export Excel

HOLD DATE	From:	<input type="text" value="03/04/2016"/>	TO:	<input type="text" value="03/04/2016"/>
Dispose By:	<input type="text" value="--ALL--"/>	Mask:	<input type="text" value="--ALL--"/>	
Division:	<input type="text" value="--ALL--"/>	Package:	<input type="text" value="--ALL--"/>	
Step:	<input type="text" value="--ALL--"/>	MPC:	<input type="text" value="--ALL--"/>	
Temp:	<input type="text" value="--ALL--"/>	Reason On Hold:	<input type="text" value="--ALL--"/>	
Department:	<input type="text" value="--ALL--"/>	Status:	<input type="text" value="--ALL--"/>	
Test Location:	<input type="text" value="--ALL--"/>			

- **Supersede Function**

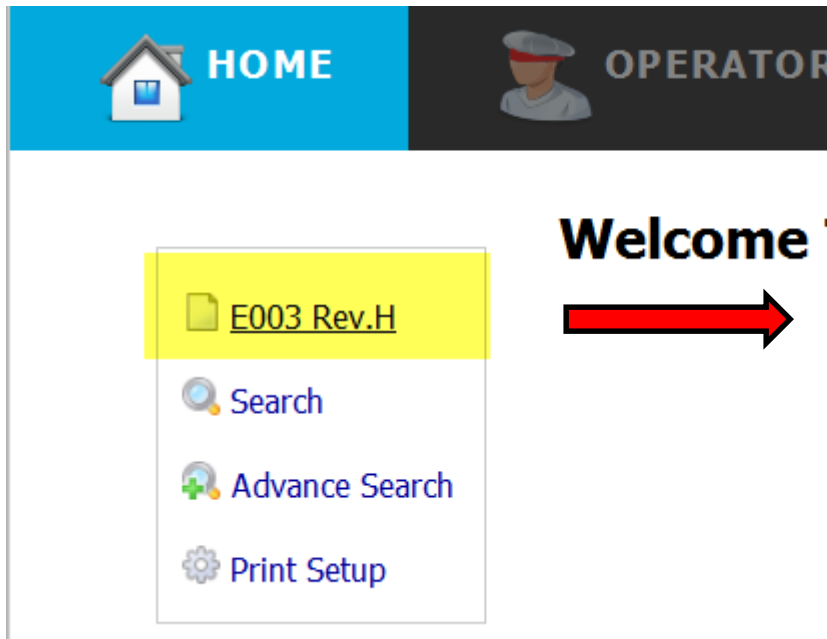
Supersede

Supersede

PPO Number	<input type="text" value="A160304-0131"/>
-------------------	---

 Submit

- Print Blank Form via WEB



MICROCHIP				PRODUCT PROBLEM ORDER			
REASON SPEC. NO. P0-91005		PRO NO. :		SUPERSEDE PRO NO. :		PW-NO :	
HOLD DATE :		OPR. NO. :		LOCATION/SHIFT :			
MFC :		LOT NO. :		WAFER LOT NO. :			
DISPOSITION :		TRAC CODE :		FLOW STEP :			
RE ORDER / EXT. :		FLOW TEMP :		FLOW NUMBER :			
RE SUPPORT / EXT. :		TOTAL REJECT :	EA				
TOP MARK :							
TEST STEP :							
TEST TEMP :							
FLOW TYPE :							
LOT QUANTITY :	EA	PA	EA				
QTY IN :	EA	RD	EA				
QTY OUT :	EA	Q/S	EA				
GOOD BIN 1 :	EA	PAT	EA				
GOOD BIN 2 :	EA	LOSS	EA				
CTRL YIELD :	%	VM	EA				
ACTUAL YIELD :	%	DROP	EA				
Q/S CTRL YIELD :	%	OTHERS	EA				
ACTUAL Q/S YIELD :	%						
SET UP DETAIL :				TESTER NAME / NO. :			
TEST PROG. NAME :		JOB / TEST FLOW :		HANDLER NAME / NO. :		LOAD & CHG. NAME / NO. :	
REASON ON HOLD :				100% YIELD (NOT INCLUDE VM, LOSS, DROP)			
: LOW YIELD				: SET UP NOT PASS			
: QC REJECT				: REORDERING CENTER			
: QA MONITOR REJECT				: OTHERS			
: Q/S YIELD > Q/S CTRL YIELD							
VERIFICATION RESULT (OPTIONAL)							
MES SYSTEM RESULT							
QC REJECT PASS CODE VERIFICATION : (BEFORE SUBMITTING TO FA)				FA NUMBER :			
: DATA LOG INCLUDING PASS CODE TEST				: DEVICE NO PASS CODE			
: READ PASS CODE FROM ENGINEERING TOOL-DATA ATTACHED				: CANNOT READ			
: READ PASS CODE FROM PROGRAM - DATA ATTACHED							
TEST BACK WITH PREVIOUS FT FLOW : PASS FAIL							
QA MONITOR LOT ONLY :							
RESULT AFTER VERIFY :	PASSED	EA	FAILED	EA			
: PRODUCT HARD FAIL	EA	: TEST ESCAPE	EA	: TEST EQUIPMENT	EA		
: PRODUCT FAIL TEMP	EA	: TEST PROGRAM	EA	: SOE	EA		
: PRODUCT MARGINAL AC/DC	EA	: UNTEST	EA	: SOE DURING (QC)	EA		
: PRODUCT MARGINAL TEMP	EA	: ASSEMBLY	EA	: OTHERS	EA		
: SERRIOUS PROGRAM	EA	: MIXED PART	EA				
ACTION / DISPOSITION : mmmmmmm / nnnnnnn							
: ACCEPT YIELD : mmmmmmm				: MOVE LOT : nnnnnnn			
: KEEP REJECT FOR ENGINEER : mmmmmmm ENGINEER				: REORDER 100% : TEST tw/n/lot			
: RETEST GOOD UNITS : TEST mmmmm				: RETEST REJECT UNITS : TEST mmmmm			
: MOVE GOOD, SPLIT REJECT mmmmmmmmmmm				: RE-DO QC SAMPLING : m QC SAMPLES/mmm			
: OTHERS : mm							
SPECIAL DISPOSITION : mmmmm							
VERIFY BY : BADGE : DATE :							

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- **Smart Gen PPO Number**

- It's a unique number of each PPO Online form.
- PPO Number format is TYYMMDD-XXXX.
 - "T" is input information type (A = Auto, M = Manual)
 - "YY" is Year
 - "MM" is Month
 - "DD" is Date
 - "XXXX" is Integer Number (0001-9999)




PRODUCT PROBLEM ORDER

FORM E003 REV.H
REFER SPEC. NO. PI-91005

PPO NO. : A160304-0266
SUPERSEDE PPO NO. :
FY-WW : 2016-49

● Link to Related/Concern WEB

- MES web link
- PPO data verification folder



PRODUCT PROBLEM ORDER

FORM E003 REV.H

REFER SPEC. NO. PI-91005

PPO NO. : A160122-0244

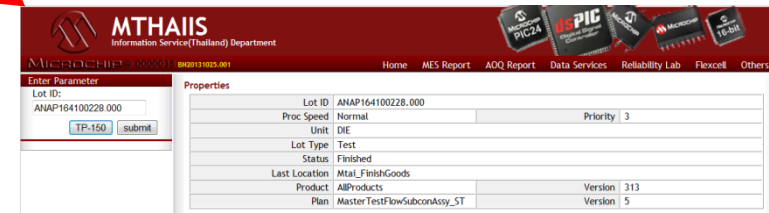
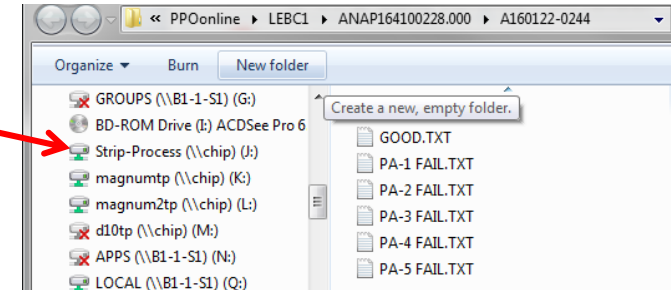
SUPERSEDE PPO NO. :

FY-WW : 2016-43

HOLD DATE	: 01-22-2016 16:53	OPR NO.	: B16111		
MPC	: LEB017N2XAXF	LOCATION/SHIFT	: MTAI / S		
DIVISION	: MCU08 (MCHP)	LOT NO.	: ANAP164100228.000		
PE OWNER / EXT.	: Narongrit N. / 1427	WAFER LOT NO.	: GRSM416110199.400		
PE SUPPORT / EXT.	: Patiwat C. / 1622	TRACECODE	: 1601VC4		
TOP MARK	: PIC18F25K80-I/SS	FLOW STEP	: SQQ_ST		
TEST STEP	: FS1_ST	FLOW TEMP	: 25C/85C/-40C		
TEST TEMP	: 25C	FLOW NUMBER	: 265543		
FLOW TYPE	: STD	TOTAL REJECT	: 103		EA
LOT QUANTITY	: 7221	EA	PA	: 53	EA
QTY IN	: 7221	EA	FU	: 13	EA
QTY OUT	: 7118	EA	O/S	: 37	EA
GOOD BIN 1	: 0	EA	PAT	: 0	EA
GOOD BIN 2	: 0	EA	LOSS	: 0	EA
CTRL YIELD	: 99.39	%	V/M	: 0	EA
ACTUAL YIELD	: 98.57	%	DROP	: 0	EA
O/S CTRL YIELD	: 0.5	%	OTHERS	: 0	EA
ACTUAL O/S YIELD	: 0.51	%			

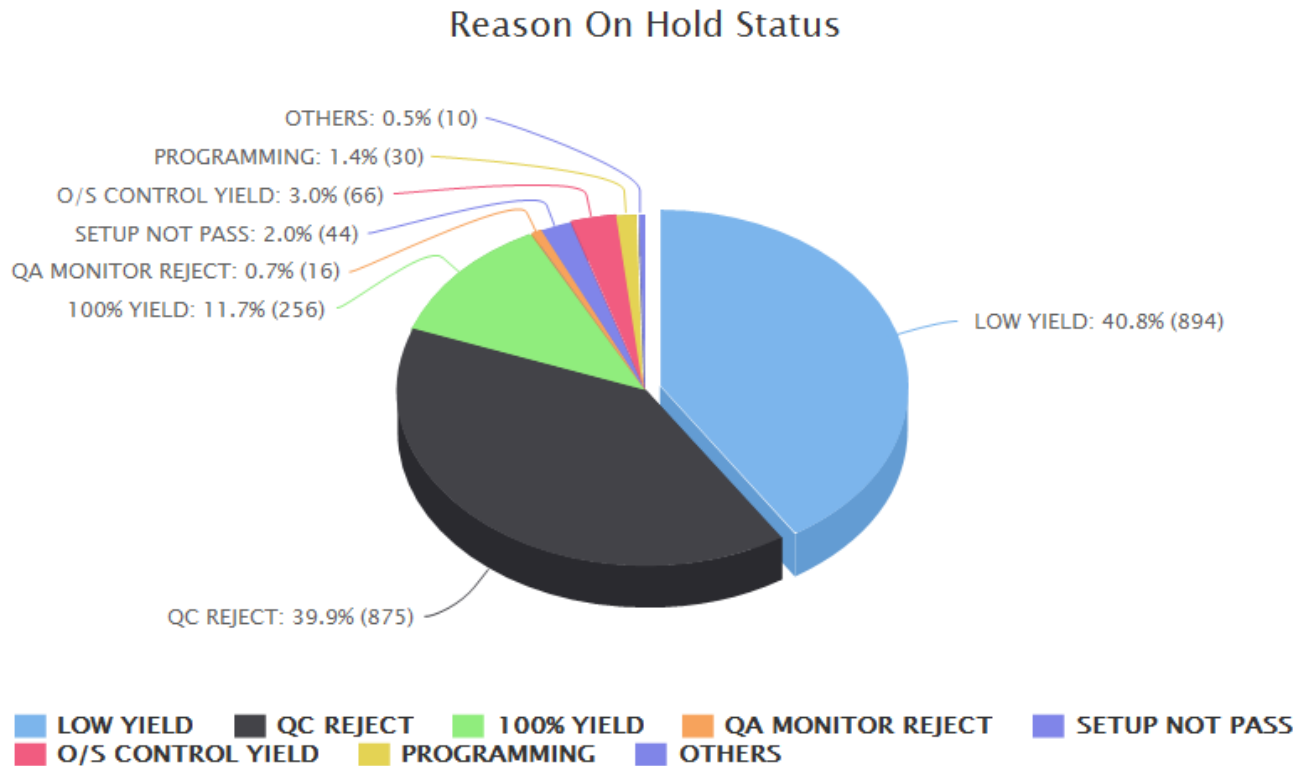
SET UP DETAIL :

TEST PROG. NAME :	LEBC0_C1A.XLS	TESTER NAME / NO. :	MTAI_INT303
JOB / TEST FLOW :	F1-PRD-TTR-ST	HANDLER NAME / NO. :	MCT078
		LOAD BOARD NAME / NO. :	STR-112



- Summary all Hold Lots by PIE Chart

Total PPO 1 Week : 2,191 issues



● Email Attached

All Status

Completed
 Superseded
 Wait Disposition

< First < 27 28 **29** 30 31 > Last >

PPO#	Lot	MPC	Division	Step	Cycle Time
A160303-0040	64700285.000	DE0244C2XB04	MCU08	IS1_ST@125C	0.1

ACTION / DISPOSITION : การแก้ปัญหา / การตัดสินใจ

- ✓ : ACCEPT YIELD : ยอมรับให้ได้
- ✓ : KEEP REJECT FOR ENGINEER : เก็บตัวเสียให้ ENGINEER
- : RETEST GOOD UNITS : TEST งานดีใหม่
- : MOVE GOOD, SPLIT REJECT ปล่อยงานดี แยกงานเสีย
- : OTHERS : อื่นๆ
- : RESCREEN LOT AS PER CN/NCRB NO. : ทำการ RESCREEN ภายใต้อคำสั่ง CN/NCRB NO.
- ✓ : MOVE LOT : ปล่อย LOT
- : RESCREEN 100% : TEST ใหม่ทั้ง LOT
- : RETEST REJECT UNITS : TEST งานเสียใหม่
- : RE-DO QC SAMPLING : ทำ QC SAMPLE ชุดใหม่

View E-mail.

SPECIAL DISPOSITION: คำสั่งพิเศษ :

VERIFY BY: **APISIT CHAPHUTHON**

BADGE: **B17009**

DATE : **3/3/2016 5:42:07 AM**

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Print

To **K. Apisit.**

I confirm to verify these rejects on manual (singulate L/B) fail around temp 125C+-3c and then after when we re-process FT@25c, FT@125c the rejects are passed. So I think the problem is step FS@25c.

Please move these lots to next step as normal.

See more about: Akkapol Chainamon - B07894.

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- Systematic Protect for Wrong Online Request
 - Human error detection

ACTUAL O/S YIELD : U %

SET UP DETAIL :
TEST PROG. NAME : DECNO_A36E.XLS
JOB / TEST FLOW : f1-prd-iqc-cte

REASON ON HOLD :
: LOW YIELD
✓ : QC REJECT
: QA MONITOR REJECT
: O/S YIELD > O/S CTRL YIELD

Message from webpage

เลือก Reason On Hold ไม่ถูกต้อง
เพราะงาน Lot นี้ไม่ได้มี QC Reject
กรุณาเลือกใหม่

OK

Submit Cancel

- **Show PPO Verify Status**

- Green = Complete
- Orange = Supersede
- White = Wait dispose

All Status


Completed
 Superseded
 Wait Disposition

< First < 3 4 5 6 7 > Last >

PPO#	Lot	MPC	Division	Step	Cycle Time	Reason	Disposition
A160304-0184	NSEB164800637.000	YHAA2TE3XA84	APID	QC2_MP@85C	0.2	QC REJECT	
A160304-0183	MMT-164800772.000	DFAW27C4XA00	MPD	FT1_MP@25C	0.0	100% YIELD	ACCEPT YIELD
A160304-0182	ANAP164700397.000	LEAX1TN2XB04	MCU08	RS1_ST@-40C	0.2	LOW YIELD	
A160304-0181	MTAI164800768.000	LEBH8TM4XB04	MCU08	FT1_MC@25C	0.1	100% YIELD	ACCEPT YIELD
A160304-0180	MTAI164600762.000	YGAS1TT3XBEA	MCU16	QC2_ST@-40C	0.0	QC REJECT	ACCEPT YIELD
A160304-0179	MTAI164702625.000	LECH47N2XL04	MCU08	RT1_MC@-40C	0.0	LOW YIELD	ACCEPT YIELD
A160304-0178	MTAI164702496.000	LECF17D3XB05	MCU08	IS2_ST@-40C	0.2	QC REJECT	
A160304-0177	MTAI164600762.000	YGAS1TT3XBEA	MCU16	QC2_ST@-40C	0.0	QC REJECT	ACCEPT YIELD

- **Manage User Level Groups**

- Operator-Viewer/Requestor
- Technician/Engineer-Viewer/Requestor/Disposition
- Administrator-Viewer/Requestor/Disposition/System management



The screenshot shows the PPO Online web application interface. At the top left is the Microchip Thailand logo. The main header features the 'PPO Online' logo and the text 'Product Problem Order Online'. Below this, a navigation bar includes 'HOME', 'OPERATOR', and 'TECH/ENG' with corresponding icons. A status bar indicates 'MTAI Implementation On 4/21/2014 | MMT Implementation On 12/9/2014 | Online User : 35'. The main content area displays 'Welcome To PPO Online' and a sidebar with links for 'E003 Rev.H', 'Search', 'Advance Search', and 'Print Setup'. A central message states 'Total PPO 1 Week : 2,198 issues' and 'Reason On Hold Status'.



MICROCHIP

Thank you