



Product Change Notification: DSNO-17TVWI575

Date:

24-Feb-2025

Product Category:

8-Bit Microcontrollers, Interface- Infrared Products, KEELOQ® Encoder Devices

Notification Subject:

CCB 7364.006 Initial Notice: Qualification of Microchip Technology Gresham – Fab 4 (GRTM) as a new fabrication location for selected HCS370, MCP2150, MCP2155, PIC16F627, PIC16F628, PIC16F84A, PIC16F870, PIC16F871, PIC16F872, PIC16F873, PIC16F874, PIC16F876 and PIC16F877 device families available in various packages.

Affected CPNs:

[DSNO-17TVWI575_Affected_CPN_02242025.pdf](#)

[DSNO-17TVWI575_Affected_CPN_02242025.csv](#)

PCN Status: Initial Notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the files found in the Affected CPNs section.

Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change: Qualification of Microchip Technology Gresham – Fab 4 (GRTM) as a new fabrication location for selected HCS370, MCP2150, MCP2155, PIC16F627, PIC16F628, PIC16F84A, PIC16F870, PIC16F871, PIC16F872, PIC16F873, PIC16F874, PIC16F876 and PIC16F877 device families available in various packages.

Pre and Post Summary Changes:

	Pre Change	Post Change
Fabrication Site	Microchip Technology Tempe – Fab 2 (TMGR)	Microchip Technology Gresham – Fab 4 (GRTM)

Wafer Size	8"	8"
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Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve manufacturability and on time delivery performance by qualifying a new fabrication location (GRTM - FAB 4), which is a Microchip-owned facility that offers significant expansion potential to better meet future client demand. *Note: The attached file called Tempe_Fab2_IATF_Decertification is for the manufacturing site deactivation of Microchip Technology Tempe – Fab 2 (TMGR), contact your local Microchip sales office for inquiries.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: October 2025

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

Timetable Summary:

	February 2025					>	October 2025				
Work Week	05	06	07	08	09		40	41	42	43	44
Initial PCN Issue Date					X						
Qual Report Availability								X			
Final PCN Issue Date								X			

Method to Identify Change: Traceability Code

Qualification Plan: Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History: February 24, 2025: Issued initial notification.

Note: The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable product.

Attachments:

[Tempe_Fab2_IATF_Decertification.pdf](#)

[PCN_DSNO-17TVWI575_Qualification-Plan.pdf](#)

Please contact your local **Microchip sales office** with questions or concerns regarding this notification.

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If you wish to change your PCN profile, including opt out, please go to the **PCN home page** select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

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Affected Catalog Part Numbers (CPN)

PIC16F876-04/SO

PIC16F876-20/SO

PIC16LF876-04/SO

PIC16F876-04I/SO

PIC16F876-20I/SO

PIC16LF876-04I/SO

PIC16F876T-20/SO

PIC16LF876T-04/SO

PIC16F876T-20I/SO

PIC16F873-04/SO

PIC16F873-20/SO

PIC16LF873-04/SO

PIC16F873-04I/SO

PIC16F873-20I/SO

PIC16LF873-04I/SO

PIC16F873T-04/SO

PIC16F873T-20/SO

PIC16F873T-04I/SOVAO

PIC16F873T-20I/SO

PIC16LF873T-04I/SO

PIC16F628-04/SS

PIC16F628-20/SS

PIC16LF628-04/SS

PIC16F628-04E/SS

PIC16F628-20E/SS

MCP2150-I/SSRVB

MCP2155-I/SSRVB

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MCP2150-I/SS

MCP2155-I/SS

PIC16F628-04I/SS

PIC16F628-20I/SS

PIC16LF628-04I/SS

MCP2150-I/SSRVC

MCP2155-I/SSRVC

PIC16F628T-04/SS

PIC16F628T-20/SS

MCP2150T-I/SSRVB

MCP2155T-I/SSRVB

MCP2150T-I/SS

MCP2155T-I/SS

PIC16LF628T-04I/SS

MCP2150T-I/SSRVC

MCP2155T-I/SSRVC

PIC16F870-E/SS

PIC16F870-I/SS

PIC16LF870-I/SS

PIC16F870T-I/SS

PIC16LF870T-I/SS

PIC16F870T-E/SS

PIC16F84A-04/SS

PIC16F84A-20/SS

PIC16LF84A-04/SS

PIC16F84A-04I/SS

PIC16F84A-20I/SS

PIC16LF84A-04I/SS

PIC16F84AT-20/SS

PIC16F628-04I/P043

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PIC16F876-04/SP

PIC16F876-20/SP

PIC16LF876-04/SP

PIC16F876-04I/SP

PIC16F876-20I/SP

PIC16F876-04E/SOVAO

PIC16LF627-04/SS

PIC16F627-04I/SS

PIC16F627-20I/SS

PIC16LF627-04I/SS

PIC16F627T-20I/SS

PIC16F871-I/PT

PIC16LF871-I/PT

PIC16F877-04/PT

PIC16F877-20/PT

PIC16LF877-04/PT

PIC16F871-I/P

PIC16LF871-I/P

HCS370-I/SL

PIC16F84A-04/P

PIC16F84A-20/P

PIC16LF84A-04/P

PIC16F84A-04E/P

PIC16F84A-20E/P

PIC16F84A-04I/P

PIC16F84A-20I/P

PIC16LF84A-04I/P

PIC16F627-04/P

PIC16F627-20/P

PIC16LF627-04/P

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PIC16F627-04I/P

PIC16F627-20I/P

PIC16LF627-04I/P

PIC16F628-04/P

PIC16F876-20I/SOVAO

PIC16F628-04/SO

PIC16F628-20/SO

PIC16LF628-04/SO

PIC16F628-04E/SO

PIC16F628-20E/SO

MCP2150-I/SORVB

MCP2155-I/SORVB

MCP2150-I/SO

MCP2155-I/SO

PIC16F628-04I/SO

PIC16F628-20I/SO

PIC16LF628-04I/SO

MCP2150-I/SORVC

MCP2155-I/SORVC

PIC16F628T-04/SO

PIC16LF628T-04/SO

MCP2150T-I/SORVB

MCP2155T-I/SORVB

MCP2150T-I/SO

MCP2155T-I/SO

PIC16F628T-04I/SO

PIC16F628T-20I/SO

MCP2150T-I/SORVC

MCP2155T-I/SORVC

PIC16F870-E/SP

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PIC16F870-I/SP

PIC16LF870-I/SP

PIC16F877-04/P

PIC16F877-20/P

PIC16LF877-04/P

PIC16F877-04E/P

PIC16F877-10E/P

PIC16F877-04I/P

PIC16F877-20I/P

PIC16LF877-04I/P

PIC16F874-04/PQ

PIC16F874-20/PQ

PIC16F874-04I/PQ

PIC16F874-20I/PQ

PIC16LF874-04I/PQ

PIC16F877-04/PQ

PIC16F877-20/PQ

PIC16LF877-04/PQ

PIC16F877-10E/PQ

PIC16F877-04I/PQ

PIC16F877-20I/PQ

PIC16LF877-04I/PQ

PIC16F627-04/SO

PIC16F627-20/SO

PIC16LF627-04/SO

PIC16F627-04E/SO

PIC16F627-20E/SO

PIC16F627-04I/SO

PIC16F627-20I/SO

PIC16LF627-04I/SO

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PIC16F627T-04I/SO
PIC16F84A-04/SO
PIC16F84A-20/SO
PIC16LF84A-04/SO
PIC16F84A-04I/SO
PIC16F84A-20I/SO
PIC16F877-04E/PT
PIC16F877-10E/PT
PIC16F877-04I/PT
PIC16F877-20I/PT
PIC16LF877-04I/PT
PIC16F877T-20I/PT
MCP2150-I/SSGRVB
MCP2150T-I/SSGRVB
MCP2155T-I/SSG
MCP2150T-I/SSRVCG
MCP2155T-I/SSRVCG
PIC16F874-04/P
PIC16F874-20/P
PIC16LF874-04/P
PIC16F874-04I/P
PIC16F874-20I/P
PIC16LF84A-04I/SO
PIC16F84AT-04/SO
PIC16F84AT-20/SO
PIC16F84AT-04I/SO
PIC16LF84AT-04I/SO
PIC16F872-E/SOVAO
PIC16F872-I/SOVAO
PIC16F872T-E/SOVAO

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PIC16LF84AT-04I/SSVAO

PIC16F628-20E/SSVAO

PIC16LF84AT-04I/SOVAO

PIC16F873-20/SOV01

PIC16F873T-20/SOV01

PIC16F874-04/PT

PIC16F874-20I/PT

PIC16F873-04/SO041

PIC16F872T-I/SS034

PIC16F628-20/P

PIC16F628-04E/P

MCP2150-I/PRVB

MCP2155-I/PRVB

MCP2150-I/P

MCP2155-I/P

PIC16F628-04I/P

PIC16F628-20I/P

PIC16LF628-04I/P

MCP2150-I/PRVC

MCP2155-I/PRVC

PIC16F871-I/L

PIC16LF871-I/L

PIC16F871T-I/L

PIC16F872-E/SP

PIC16F872-I/SP

PIC16LF872-I/SP

PIC16F873-04/SP

PIC16F873-20/SP

PIC16LF873-04/SP

PIC16F873-04I/SP

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PIC16F873-20I/SP

PIC16F877-04/L

PIC16F877-20/L

PIC16LF877-04/L

PIC16F877-04I/L

PIC16F877-20I/L

PIC16LF877-04I/L

PIC16F877T-04/L

PIC16F877T-20/L

PIC16F877T-20I/L

PIC16F874-04/L

PIC16F874-20/L

PIC16F874-04I/L

PIC16F874-20I/L

PIC16LF874-04I/L

PIC16LF874T-04I/L

PIC16F870-E/SO

PIC16F870-I/SO

PIC16LF870-I/SO

PIC16F870T-I/SO

PIC16LF870T-I/SO

PIC16F872-E/SO

PIC16F872-I/SO

PIC16LF872-I/SO

PIC16F872T-I/SO

PIC16LF872T-I/SO

PIC16F872-E/SS

PIC16F872-I/SS

PIC16LF872-I/SS

PIC16F872T-I/SS

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PIC16LF872T-I/SS



QUALIFICATION PLAN SUMMARY

PCN ID#: DSNO-17TVWI575

**Date:
January 15, 2025**

Qualification of Microchip Technology Gresham – Fab 4 (GRTM) as a new fabrication location for selected HCS370, MCP2150, MCP2155, PIC16F627, PIC16F628, PIC16F84A, PIC16F870, PIC16F871, PIC16F872, PIC16F873, PIC16F874, PIC16F876 and PIC16F877 device families available in various packages.



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PRODUCT QUALIFICATION

Purpose: Qualification of Microchip Technology Gresham – Fab 4 (GRTM) as a new fabrication location for selected HCS370, MCP2150, MCP2155, PIC16F627, PIC16F628, PIC16F84A, PIC16F870, PIC16F871, PIC16F872, PIC16F873, PIC16F874, PIC16F876 and PIC16F877 device families available in various packages.

CCB No.: 7364.006

Test Item	Number of Lots	Sample Size per Lot	Total Samples	Conditions
ELFR	3	800	2400	48 hours @ 125°C
DLT	3	77	231	1000 Hours @ 125°C
Retention Bake	3	231	693	1008 hours @ 150°C
Endurance Cycling (DLT)	3	77	231	64 bytes Data EE/2K Words Flash @25C
Endurance Cycling (Retention Bake)	3	231	693	64 bytes Data EE/2K Words Flash @25C
ESD (HBM)	1	12	12	3 each @ ±250V, ±500V, ±1KV & ±2KV
ESD (CDM)	1	9	9	3 each @ ±250V, ±500V, ±750V
Latch Up	1	12	12	6 room, 6 125°C AECQ100-004
Electrical Distribution	3	10	30	Data log parameters at room, hot, and cold temperatures at Vcc min/max and Frequency min/max.



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PACKAGE QUALIFICATION

Purpose: Qualification of Microchip Technology Gresham – Fab 4 (GRTM) as a new fabrication location for selected HCS370, MCP2150, MCP2155, PIC16F627, PIC16F628, PIC16F84A, PIC16F870, PIC16F871, PIC16F872, PIC16F873, PIC16F874, PIC16F876 and PIC16F877 device families available in various packages. This is a Q006 Grade 1 qualification. This is a Q006 Grade 1 qualification.

CCB No.: 7413.005

<u>Misc.</u>	Assembly site	MTAI
	BD Number	A-066093 Rev A - Temp BD
	MP Code (MPC)	A50104N3XC40
	Part Number (CPN)	PIC16F872/PIC16LF872
	MSL information	1
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	27
	Reliability Site	NA
<u>Lead-Frame</u>	Paddle size	160x205 mils
	Material	CDA194
	DAP Surface Prep	Ag
	Treatment	Ag Spot Plated
	Process	Stamped
	Lead-lock	No
	Part Number	10102808
	Lead Plating	Matte Sn
<u>Bond Wire</u>	Wire Diameter	0.8
<u>Die Attach</u>	Part Number	3280
	Conductive	Yes
<u>MC</u>	Part Number	G600
<u>PKG</u>	Package Type	SOIC
	Pin/Ball Count	28L
	PKG width/size	.300in

Test Name	Conditions	Reliability Stress Read Point Grade 1: -40°C to +125°C (MCHP E Temp)	Pre & Post Reliability Stress Test Temperature Grade 1: -40°C to +125°C (MCHP E Temp)	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Standard Pb-free Solderability	J-STD-002D ; Perform 8 hours of steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages.			22	5	1	27	>95% lead coverage	5	Standard Pb-free solderability is the requirement.
Wire Bond Pull - WBP	Mil. Std. 883-2011			5	0	1	5	0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001			5	0	1	5	0	5	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108			10	0	3	30	0	5	
External Visual	Mil. Std. 883-2009/2010			All devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)	JESD22-A103 +125°C, +150°C or +175°C	<u>1st Readpoint:</u> Grade 1: 500 hrs (+175°C) or 1000 hrs (150°C) <u>2nd Readpoint:</u> Grade 1: 1000 hrs (+175°C) or 2000 hrs (150°C)	Grade 1: +25°C, +85°C, +125°C	45	5	3	150	0	21 - 167	Spares should be properly identified.
Preconditioning - Required for surface mount devices	J-STD-020 JESD22-A113 +150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020E for package type.		Grade 1: +25°C	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	JESD22-A101 or A110 +130°C/85% RH for 96 hrs or +110°C/85%RH for 264 hrs	<u>1st Readpoint:</u> Grade 1: 96 hrs (+130°C/85% RH) or 264 hrs (+110°C/85%RH) <u>2nd Readpoint:</u> Grade 1: 192 hrs (+130°C/85% RH) or 528 hrs (+110°C/85%RH)	Grade 1: +25°C, +85°C, +125°C	77	5	3	246	0	10 - 22	Spares should be properly identified. Use the parts which have gone through Pre-conditioning
uHAST	JESD22-A102, A118, or A101 +130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs	Grade 1: 96 hrs (+130°C/85% RH) or 264 hrs (+110°C/85% RH)	Grade 1: +25°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104 -55°C to +125°C, -55°C to +150°C	<u>1st Readpoint:</u> Grade 1: 1000 cycles (-55°C to +150°C) <u>2nd Readpoint:</u> Grade 1: 2000 cycles (-55°C to +150°C)	Grade 1: +25°C, +85°C, +125°C	77	5	3	246	0	15 - 120	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.



Date: January 30, 2025

RE: Tempe (Fab 2) Wafer Fabrication Facility ISO/IATF Decertification

IATF Certificate: 08435-2002-AQ-HOU-IATF-33RSTM

On December 2, 2024, Microchip announced manufacturing restructuring plans that include the closure of the Tempe (Fab 2) Wafer Fabrication Facility.

This memo is to further announce that as part of the facility closure, its active IATF-16949 certificate will be withdrawn, in early Q3, 2025. Additionally, the facility will be removed from Microchip's Corporate ISO-9001 certificate by the end of 2025.

Microchip is committed to ensuring product quality during the entire time that Fab 2 remains operational. All established and certified process control measures remain in place and adherence to these practices will continue for the life of the fab, regardless of the status of IATF-16949 certification. Additionally, all Microchip devices are 100% electrically tested, with only known good products shipped to customers.

Please contact your local [Microchip Sales Office](#) with questions or concerns regarding this notification.

Regards,
Microchip Corporate Quality Systems

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