



Product Change Notification / MFOL-02TISW617

Date:

09-Mar-2023

Product Category:

16-Bit - Microcontrollers and Digital Signal Controllers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6123 Initial Notice: Qualification of Microchip Technology Gresham – Fab 4 (GRTM) as an additional fabrication site for HA4583T-I/PT, HA4584T-I/PT catalog part numbers (CPN) and selected HA7619xxx, DSPIC33EPxxxGPxxx, DSPIC33EPxxxMCxxx, PIC24EPxxxGPxxx, and PIC24EPxxxMCxxx device families available in various packages.

Affected CPNs:

[MFOL-02TISW617_Affected_CPN_03092023.pdf](#)
[MFOL-02TISW617_Affected_CPN_03092023.csv](#)

Notification Text:

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 an additional fabrication site for HA4583T-I/PT, HA4584T-I/PT catalog part numbers (CPN) and selected HA7619xxx, DSPIC33EPxxxGPxxx, DSPIC33EPxxxMCxxx, PIC24EPxxxGPxxx, and PIC24EPxxxMCxxx device families available in various packages.

Pre and Post Change Summary:

	Pre Change		Post Change		
Fab Site	Taiwan Semiconductor Manufacturing Corp. (Fab 3)*	Taiwan Semiconductor Manufacturing Corp. (Fab 11)	Taiwan Semiconductor Manufacturing Corp. (Fab 3)*	Taiwan Semiconductor Manufacturing Corp. (Fab 11)	Microchip Technology Gresham – Fab 4 (GRTM)
Wafer Diameter	8 inch	8 inch	8 inch	8 inch	8 inch
Quality Certification	ISO-9001/ IATF16949/IATF16949	IATF16949/ISO-14001	ISO-9001/ IATF16949/IATF16949	IATF16949/ISO-14001	ISO-9001/ IATF16949/ ISO-14001

Note: *Applies only to specific products dsPIC33EP64xx and PIC24EP64xx products

Impacts to Data Sheet:None

Change Impact:None

Reason for Change:To improve on-time delivery performance by qualifying Microchip Technology Gresham – Fab 4 (GRTM) as an additional fab assembly site.

Change Implementation Status:In Progress

Estimated Qualification Completion Date:December 2023

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.

Time Table Summary:

	March 2023					>	December 2023				
Workweek	0 9	1 0	1 1	1 2	1 3		49	50	51	52	53
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:March 09, 2023: Issued initial notification.

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

Attachments:

[PCN_MFOL-02TISW617_Qual Plan.pdf](#)

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

Terms and Conditions:

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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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QUALIFICATION PLAN SUMMARY

PCN #: MFOL-02TISW617

**Date:
January 19, 2023**

Qualification of Microchip Technology Gresham – Fab 4 (GRTM) as an additional fabrication site for HA4583T-I/PT, HA4584T-I/PT catalog part numbers (CPN) and selected HA7619xxx, DSPIC33EPxxxGPxxx, DSPIC33EPxxxMCxxx, PIC24EPxxxGPxxx, and PIC24EPxxxMCxxx device families available in various packages. This is AEC Q100 Grade 0 qualification.

PROCESS QUAL PLAN

#	Qual Item	Test Condition	Sample Size	#of Lots	Spec (Cum)	Spec (Lot)	Test equipment model
Screen	Burn in	@125C Disturb: 20X disturb pulses HTOL: 1.4XVcc, 12hrs WL stress: 6V, 6 hours, Cycling: 100 program/ erase cycles+300 mass erase	large quantity	large quantity	NA	large quantity	Novtek Test - NTS3700
Qual item:							
1	Endurance Test (ENDR)	10K W/E cycling @125C	77ea/lot	3	0/231	0/77	Novtek Test - NTS3700
		10K W/E cycling @25C	77ea/lot	3	0/231	0/77	Novtek Test - NTS3700
		10K W/E cycling@ -40C	77ea/lot	3	0/231	0/77	Novtek Test - NTS3700
2	ELFR	1. ENDR 1K W/E cycling @125C 2. 125C 1.4Vcc, 48hr	800ea/lot	3	0/2400	0/800	ENDR+ TABAI ESPEC MBI series
3	Data Retention Storage Life Test(DRSL)	1. ENDR 10K W/E cycling @25C 2. "FF" pattern bake at 150C for 168/500/1000/2000(ref) hrs	77ea/lot	3	0/231	0/77	ENDR+ TABAI ESPEC STPH- 201
4	High Temperature Operation Life Test (HTOL)	1. ENDR 10K W/E cycling @125C 2. 1.4Vcc, 125C for 168/500/1000hrs, 1MHz Read	100ea/lot	3	0/300	0/100	ENDR+ TABAI ESPEC MBI series

Purpose: _____ Qualification of Microchip Technology Gresham – Fab 4 (GRTM) as an additional fabrication site for HA4583T-I/PT, HA4584T-I/PT catalog part numbers (CPN) and selected HA7619xxx, DSPIC33EPxxxGPxxx, DSPIC33EPxxxMCxxx, PIC24EPxxxGPxxx, and PIC24EPxxxMCxxx device families available in various packages. This is AEC Q100 Grade 0 qualification.

CCB: _____ 6123
MP Code: _____ TLAE14V2XMFD
Part No.: _____ DSPIC33EP256MC506-E/PT
BD No: _____ BD-001231-01

Package:

Type: _____ 64L TQFP
Width or Size: _____ 10x10x1.0mm

Leadframe:

Paddle Size: _____ 200x200 mils
Paddle Plating: _____ Bare Cu
Process: _____ Stamped
Treatment: _____ BOT
Lead Lock: _____ No
Material: _____ C7025
Part Number: _____ 10106405
Thickness: _____ 5 mils

Wire:

Material: _____ Au

Die Attach Epoxy:

Part Number _____ 3280
Conductive _____ Yes

Mold Compound:

Part Number: _____ G700HA

Lead Finish: _____ 100% Matte Sn

Test Name	Conditions	Reliability Stress Read Point Grade 0: -40°C to +150°C (MCHP H Temp)	Pre & Post Reliability Stress Test Temperature Grade 0: -40°C to +150°C (MCHP H 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
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		5	30 bonds from a min. 5 devices.
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, +150°C or +175°C	Grade 0: 1000 hrs (+175°C) or 2000 hrs (150°C)	Grade 0: +25°C, +85°C, +125°C, +150°C	45	5	1	50	0	21 - 83	Spares should be properly identified.
Preconditioning - Required for surface mount devices	J-STD-020JESD22-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. MSL-1/260°C		Grade 0: +25°C	231	15	3	738	0	15	Spares should be properly identified.

Test Name	Conditions	Reliability Stress Read Point Grade 0: -40°C to +150°C (MCHP H Temp)	Pre & Post Reliability Stress Test Temperature Grade 0: -40°C to +150°C (MCHP H 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
HAST	JESD22-A101 or A110 +130°C/85% RH for 96 hrs or +110°C/85%RH for 264 hrs	Grade 0: 96 hrs (+130°C/85% RH)	Grade 0: +25°C, +85°C, +125°C, +150°C	77	5	3	246	0	10 - 14	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 0: 96 hrs (+130°C/85% RH)	Grade 0: +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 and Appendix 3 -55°C to +125°C, -55°C to +150°C or -65°C to +150°C	Grade 0: 2000 cycles (-55°C to +150°C)	Grade 0: +85°C, +125°C, +150°C	77	5	3	246	0	15 - 60	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

Affected Catalog Part Numbers(CPN)

- PIC24EP32MC202-E/SO
- DSPIC33EP32GP504-E/MV
- DSPIC33EP32MC204-E/MV
- DSPIC33EP32MC504-E/MV
- PIC24EP32GP204-E/MV
- PIC24EP32MC204-E/MV
- PIC24EP32GP203-E/M5
- PIC24EP32MC203-E/M5
- DSPIC33EP32GP503-E/M5
- DSPIC33EP32MC503-E/M5
- DSPIC33EP32GP504-E/ML
- DSPIC33EP32MC204-E/ML
- DSPIC33EP32MC504-E/ML
- PIC24EP32GP204-E/ML
- PIC24EP32MC204-E/ML
- DSPIC33EP32GP504-E/PT
- DSPIC33EP32MC204-E/PT
- DSPIC33EP32MC504-E/PT
- PIC24EP32GP204-E/PT
- DSPIC33EP32GP502-I/MM
- DSPIC33EP32MC202-I/MM
- DSPIC33EP32MC502-I/MM
- PIC24EP32GP202-I/MM
- PIC24EP32MC202-I/MM
- DSPIC33EP32GP502-I/SP
- DSPIC33EP32MC202-I/SP
- DSPIC33EP32MC502-I/SP
- PIC24EP32GP202-I/SP
- PIC24EP32MC202-I/SP
- DSPIC33EP32GP502-I/SS
- DSPIC33EP32MC202-I/SS
- DSPIC33EP32MC502-I/SS
- PIC24EP32GP202-I/SS
- PIC24EP32MC202-I/SS
- DSPIC33EP32GP502-I/SO
- DSPIC33EP32MC202-I/SO
- DSPIC33EP32MC502-I/SO
- PIC24EP32GP202-I/SO
- PIC24EP32MC202-I/SO
- DSPIC33EP32GP504-I/MV
- DSPIC33EP32MC204-I/MV
- DSPIC33EP32MC504-I/MV

PIC24EP32GP204-I/MV
PIC24EP32MC204-I/MV
PIC24EP32GP203-I/M5
PIC24EP32MC203-I/M5
DSPIC33EP32GP503-I/M5
DSPIC33EP32MC503-I/M5
DSPIC33EP32GP504-I/ML
DSPIC33EP32MC204-I/ML
DSPIC33EP32MC504-I/ML
PIC24EP32GP204-I/ML
PIC24EP32MC204-I/ML
DSPIC33EP32GP504-I/PT
DSPIC33EP32MC204-I/PT
DSPIC33EP32MC504-I/PT
PIC24EP32GP204-I/PT
PIC24EP32MC204-I/PT
DSPIC33EP32GP504T-H/MV
DSPIC33EP32MC204T-H/MV
DSPIC33EP32MC504T-H/MV
PIC24EP32GP204T-H/MV
PIC24EP32MC204T-H/MV
DSPIC33EP32GP504T-H/ML
DSPIC33EP32MC204T-H/ML
DSPIC33EP32MC504T-H/ML
PIC24EP32GP204T-H/ML
PIC24EP32MC204T-H/ML
DSPIC33EP32GP504T-H/PT
DSPIC33EP32MC204T-H/PT
DSPIC33EP32MC504T-H/PT
PIC24EP32GP204T-H/PT
PIC24EP32MC204T-H/PT
DSPIC33EP32MC202-H/MM
DSPIC33EP32GP504-H/MV
DSPIC33EP32MC204-H/MV
DSPIC33EP32MC504-H/MV
PIC24EP32GP204-H/MV
PIC24EP32MC204-H/MV
PIC24EP32GP203-H/M5
PIC24EP32MC203-H/M5
DSPIC33EP32GP503-H/M5
DSPIC33EP32MC503-H/M5
DSPIC33EP32MC204-H/PT
DSPIC33EP32GP502T-I/MM
DSPIC33EP32MC202T-I/MM
DSPIC33EP32MC502T-I/MM
PIC24EP32GP202T-I/MM
DSPIC33EP32GP502T-I/SS

DSPIC33EP32MC202T-I/SS
PIC24EP32GP202T-I/SS
DSPIC33EP32GP502T-I/SO
DSPIC33EP512MC506-I/PT
PIC24EP512GP206-I/PT
PIC24EP512MC206-I/PT
DSPIC33EP512GP502T-H/MM
DSPIC33EP512MC202T-H/MM
DSPIC33EP512MC502T-H/MM
PIC24EP512GP202T-H/MM
PIC24EP512MC202T-H/MM
DSPIC33EP512GP506T-H/MR
DSPIC33EP512MC206T-H/MR
DSPIC33EP512MC506T-H/MR
PIC24EP512GP206T-H/MR
PIC24EP512MC206T-H/MR
DSPIC33EP512GP504T-H/MV
DSPIC33EP512MC204T-H/MV
DSPIC33EP512MC504T-H/MV
PIC24EP512GP204T-H/MV
PIC24EP512MC204T-H/MV
DSPIC33EP512GP504T-H/ML
DSPIC33EP512MC204T-H/ML
DSPIC33EP512MC504T-H/ML
PIC24EP512GP204T-H/ML
PIC24EP512MC204T-H/ML
DSPIC33EP512GP504T-H/PT
DSPIC33EP512MC204T-H/PT
DSPIC33EP512MC504T-H/PT
PIC24EP512GP204T-H/PT
PIC24EP512MC204T-H/PT
PIC24EP512MC206T-H/PT
DSPIC33EP512GP506T-H/PT
DSPIC33EP512MC206T-H/PT
DSPIC33EP512MC506T-H/PT
PIC24EP512GP206T-H/PT
DSPIC33EP512GP502-H/MM
DSPIC33EP512MC202-H/MM
DSPIC33EP512MC502-H/MM
PIC24EP512GP202-H/MM
PIC24EP512MC202-H/MM
DSPIC33EP512GP502-H/SP
DSPIC33EP512MC502-H/SP
PIC24EP512MC202-H/SO
DSPIC33EP512GP506-H/MR
DSPIC33EP512MC206-H/MR
DSPIC33EP512MC506-H/MR

PIC24EP512GP206-H/MR
PIC24EP512MC206-H/MR
DSPIC33EP512GP504-H/MV
DSPIC33EP512MC204-H/MV
DSPIC33EP512MC504-H/MV
PIC24EP512GP204-H/MV
PIC24EP512MC204-H/MV
DSPIC33EP512GP504-H/ML
DSPIC33EP512MC204-H/ML
DSPIC33EP512MC504-H/ML
PIC24EP512GP204-H/ML
PIC24EP512MC204-H/ML
DSPIC33EP512GP504-H/PT
DSPIC33EP512MC204-H/PT
DSPIC33EP512MC504-H/PT
PIC24EP512GP204-H/PT
PIC24EP512MC204-H/PT
DSPIC33EP512GP506-H/PT
DSPIC33EP512MC206-H/PT
DSPIC33EP512MC506-H/PT
PIC24EP512GP206-H/PT
PIC24EP512MC206-H/PT
DSPIC33EP512GP502T-I/MM
DSPIC33EP512GP502T-I/SO
DSPIC33EP512GP506T-I/MR
DSPIC33EP512MC206T-I/MR
DSPIC33EP512MC506T-I/MR
PIC24EP512GP206T-I/MR
PIC24EP512MC206T-I/MR
DSPIC33EP512GP504T-I/MV
DSPIC33EP512MC204T-I/MV
DSPIC33EP32MC202T-I/SO
DSPIC33EP32MC502T-I/SO
PIC24EP32GP202T-I/SO
DSPIC33EP32GP504T-I/MV
DSPIC33EP32MC204T-I/MV
DSPIC33EP32MC504T-I/MV
PIC24EP32GP204T-I/MV
PIC24EP32MC204T-I/MV
DSPIC33EP32GP504T-I/ML
DSPIC33EP32MC204T-I/ML
DSPIC33EP32MC504T-I/ML
PIC24EP32GP204T-I/ML
PIC24EP32MC204T-I/ML
DSPIC33EP32GP504T-I/PT
DSPIC33EP32MC204T-I/PT
DSPIC33EP32MC504T-I/PT

PIC24EP32GP204T-I/PT
DSPIC33EP32GP502T-E/MM
DSPIC33EP32MC202T-E/MM
DSPIC33EP32MC502T-E/MM
PIC24EP32GP202T-E/MM
DSPIC33EP32GP502T-E/SS
DSPIC33EP32MC202T-E/SS
DSPIC33EP32MC502T-E/SS
PIC24EP32GP202T-E/SS
PIC24EP32MC202T-E/SS
DSPIC33EP32GP502T-E/SO
DSPIC33EP32MC502T-E/SO
PIC24EP32GP202T-E/SO
DSPIC33EP32GP504T-E/MV
DSPIC33EP32MC204T-E/MV
DSPIC33EP32MC504T-E/MV
PIC24EP32GP204T-E/MV
PIC24EP32MC204T-E/MV
DSPIC33EP32GP504T-E/ML
DSPIC33EP32MC204T-E/ML
DSPIC33EP32MC504T-E/ML
PIC24EP32GP204T-E/ML
PIC24EP32MC204T-E/ML
DSPIC33EP32GP504T-E/PT
DSPIC33EP32MC204T-E/PT
PIC24EP32GP204T-E/PT
DSPIC33EP256MC204T-E/MLC02
DSPIC33EP32MC204-E/PTA8
DSPIC33EP64MC204-I/PTC02
DSPIC33EP64MC206-E/PTA8
HA4583T-I/PT
HA4584T-I/PT
HA7619-I/ML027
HA7619-I/MM028
HA7619T-I/ML025
HA7619T-I/ML027
HA7619T-I/MM028
PIC24EP128GP202-I/MM038
PIC24EP128GP202T-I/MM038
PIC24EP128GP204-I/PT030
PIC24EP128GP204-I/PT035
PIC24EP128GP204-I/PT037
PIC24EP128GP204T-I/PT030
PIC24EP128GP204T-I/PT032
PIC24EP128GP204T-I/PT035
PIC24EP128GP204T-I/PT037
PIC24EP256GP204T-I/ML029

PIC24EP256GP204T-I/MV030
PIC24EP32MC202-E/MM021
PIC24EP32MC202T-E/MM021
PIC24EP64GP204-I/PTC03
PIC24EP64MC204-I/PTC06
DSPIC33EP512GP502-E/MM
DSPIC33EP512MC202-E/MM
DSPIC33EP512MC502-E/MM
PIC24EP512GP202-E/MM
DSPIC33EP512GP502-E/SP
DSPIC33EP512MC202-E/SP
DSPIC33EP512MC502-E/SP
PIC24EP512GP202-E/SP
PIC24EP512MC202-E/SP
DSPIC33EP512MC502-E/SO
PIC24EP512GP202-E/SO
DSPIC33EP512GP506-E/MR
DSPIC33EP512MC206-E/MR
DSPIC33EP512MC506-E/MR
PIC24EP512GP206-E/MR
PIC24EP512MC206-E/MR
DSPIC33EP512GP504-E/MV
DSPIC33EP512MC204-E/MV
DSPIC33EP512MC504-E/MV
PIC24EP512GP204-E/MV
PIC24EP512MC204-E/MV
DSPIC33EP512GP504-E/ML
PIC24EP128MC206-H/PT
DSPIC33EP128GP502T-I/MM
DSPIC33EP128MC202T-I/MM
DSPIC33EP128MC502T-I/MM
DSPIC33EP128MC202T-I/SS
PIC24EP128GP202T-I/SS
DSPIC33EP128GP506T-I/MR
DSPIC33EP128MC206T-I/MR
DSPIC33EP128MC506T-I/MR
PIC24EP128GP206T-I/MR
PIC24EP128MC206T-I/MR
DSPIC33EP128GP504T-I/MV
DSPIC33EP128MC204T-I/MV
DSPIC33EP128MC504T-I/MV
PIC24EP128GP204T-I/MV
PIC24EP128MC204T-I/MV
DSPIC33EP128GP504T-I/ML
DSPIC33EP128MC204T-I/ML
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PIC24EP128MC204T-I/ML
DSPIC33EP128MC204T-I/PT
PIC24EP128GP204T-I/PT
DSPIC33EP128GP506T-I/PT
DSPIC33EP128MC206T-I/PT
DSPIC33EP128MC506T-I/PT
PIC24EP128GP206T-I/PT
DSPIC33EP512MC504T-I/MV
PIC24EP512GP204T-I/MV
PIC24EP512MC204T-I/MV
DSPIC33EP512GP504T-I/ML
DSPIC33EP512MC204T-I/ML
DSPIC33EP512MC504T-I/ML
PIC24EP512GP204T-I/ML
PIC24EP512MC204T-I/ML
PIC24EP512GP204T-I/PT
DSPIC33EP512GP506T-I/PT
DSPIC33EP512GP502T-E/MM
DSPIC33EP512MC502T-E/MM
DSPIC33EP512GP506T-E/MR
DSPIC33EP512MC206T-E/MR
DSPIC33EP512MC506T-E/MR
PIC24EP512GP206T-E/MR
PIC24EP512MC206T-E/MR
DSPIC33EP512GP504T-E/MV
DSPIC33EP512MC204T-E/MV
DSPIC33EP512MC504T-E/MV
DSPIC33EP512MC204T-E/ML
DSPIC33EP512MC504T-E/ML
PIC24EP512GP204T-E/ML
PIC24EP512MC204T-E/ML
DSPIC33EP64GP502-E/MM
DSPIC33EP64MC202-E/MM
DSPIC33EP64MC502-E/MM
PIC24EP64GP202-E/MM
PIC24EP64MC202-E/MM
DSPIC33EP64GP502-E/SP
DSPIC33EP64MC202-E/SP
DSPIC33EP64MC502-E/SP
PIC24EP64MC202-E/SP
DSPIC33EP64GP502-E/SS
DSPIC33EP64MC202-E/SS
DSPIC33EP64MC502-E/SS
PIC24EP64MC202-E/SS
DSPIC33EP64GP502-E/SO
DSPIC33EP64MC202-E/SO
DSPIC33EP64MC502-E/SO

PIC24EP64GP202-E/SO
DSPIC33EP512MC204-E/ML
DSPIC33EP512MC504-E/ML
PIC24EP512GP204-E/ML
PIC24EP512MC204-E/ML
DSPIC33EP512GP504-E/PT
DSPIC33EP512MC504-E/PT
DSPIC33EP512GP506-E/PT
DSPIC33EP512MC206-E/PT
DSPIC33EP512MC506-E/PT
PIC24EP512GP206-E/PT
DSPIC33EP512GP502-I/MM
DSPIC33EP512MC202-I/MM
DSPIC33EP512MC502-I/MM
PIC24EP512GP202-I/MM
PIC24EP512MC202-I/MM
DSPIC33EP512GP502-I/SP
DSPIC33EP512MC202-I/SP
DSPIC33EP512MC502-I/SP
PIC24EP512GP202-I/SP
PIC24EP512MC202-I/SP
DSPIC33EP512GP502-I/SO
DSPIC33EP512MC202-I/SO
DSPIC33EP512MC502-I/SO
PIC24EP512GP202-I/SO
PIC24EP512MC202-I/SO
DSPIC33EP512GP506-I/MR
DSPIC33EP512MC206-I/MR
DSPIC33EP512MC506-I/MR
PIC24EP512GP206-I/MR
PIC24EP512MC206-I/MR
DSPIC33EP512GP504-I/MV
DSPIC33EP512MC204-I/MV
DSPIC33EP512MC504-I/MV
PIC24EP512GP204-I/MV
PIC24EP512MC204-I/MV
DSPIC33EP512GP504-I/ML
DSPIC33EP512MC204-I/ML
DSPIC33EP512MC504-I/ML
PIC24EP512GP204-I/ML
PIC24EP512MC204-I/ML
DSPIC33EP512GP504-I/PT
DSPIC33EP512MC204-I/PT
DSPIC33EP512MC504-I/PT
PIC24EP512GP204-I/PT
PIC24EP512MC204-I/PT
DSPIC33EP512GP506-I/PT

DSPIC33EP512MC206-I/PT
PIC24EP64MC202-E/SO
DSPIC33EP64GP506-E/MR
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