

GBNG-06LXXH156 - CCB 2856 Initial Notice: Qualification of Microchip Fabrication site (FAB 4) for Atmel ATMEGA168PB device family manufactured with the 59.91K process technology.

Affected Catalog Part Numbers (CPN)

PCN_GBNG-06LXXH156
Catalog Part Numbers
ATMEGA168PB-AN
ATMEGA168PB-ANR
ATMEGA168PB-AU
ATMEGA168PB-AUR
ATMEGA168PB-MN
ATMEGA168PB-MNR
ATMEGA168PB-MU
ATMEGA168PB-MUR



MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN #: GBNG-06LXXH156

Date

February 22, 2017

**Qualification of Microchip Fabrication site (FAB 4) for Atmel
ATMEGA168PB device family manufactured with the 59.91K
process technology.**

Process Qualification Reliability Test

Qualification Test	#Lots (total)	MCHP QCI39000-er QCI39000-002c	SS/Lot (incl. spares)	Total Sample	Bias Vdd(V)	Temp (°C)	Duration (Hrs or Cyc)	Comments
ELF	3	800	825	2475	5.5	150	48	
HTOL	4	200	210	840	5.5	(125) 150	(1000) 504	AUTO: Read out at -40/25/105
Endurance (read-out @10Kc / 100Kc)	3	77	82	246	5.5	25 85	100Kc	
Data Retention (Package level with 10K pre-cycling)	3	77	82	246	--	25 175	504	
Temperature Cycle	3	77	82	246	--	-65/150	504	
Biased HAST	3	77	82	246	5.5	130/85% (110/85%)	96 (264)	
Unbiased HAST	3	77	82	246	--	130/85% (110/85%)	96 (264)	

Product Qualification Reliability Test

Qualification Test	#Lots (total)	MCHP QCI39000-er QCI39000-002c	SS/Lot (incl. spares)	Total Sample	Bias Vdd(V)	Temp (°C)	Duration (Hrs or Cyc)	Comments
ESD HBM	1	27	30	30	--	25		
ESD MM	1	12	30	30		25		Still required for AVR parts
ESD CDM	1	15	30	30	--	25		
Latch Up - TQFP	1	12	30	30	--	125		

Package Qualification Reliability Test

Qualification Test	#Lots (total)	MCHP QCI39000-er QCI39000-002c	SS/Lot (incl. spares)	Total Sample	Bias Vdd(V)	Temp (°C)	Duration (Hrs or Cyc)	Comments
Solderability	1	15	18	18	--	260	168	
Bond Pull	1	15	18	18	--	25	168	
Ball Bond Shear	1	15	18	18	--	25	168	