



MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN #: RMES-06ZXIX068

**Date:
October 28, 2021**

**Qualification of G700LS molding compound for
AT17LV002-10SU catalog part number (CPN) available
in 20L SOIC package (300 mils) at ANAP assembly
site.**

Purpose: Qualification of G700LS molding compound for AT17LV002-10SU catalog part number (CPN) available in 20L SOIC package (300 mils) at ANAP assembly site.

CCB No. 4241.001

<u>Misc.</u>	Assembly site	ANAP
	BD Number	W35502SXU
	MP Code (MPC)	355027G5XC01
	Part Number (CPN)	AT17LV002-10SU
	MSL information	MSL 1, 260C
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	37
	Reliability Site	MCSO
<u>Lead-Frame</u>	Paddle size	190X300mils
	Material	C194
	DAP Surface Prep	Cu-Ag
	Treatment	Roughened
	Process	Etched
	Lead-lock	Yes
	Part Number	101420282
	Lead Plating	Matte Sn
	Strip Size	70x250mm
	Strip Density	56
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	8290
	Conductive	Conductive
<u>MC</u>	Part Number	G700LS
<u>PKG</u>	PKG Type	SOIC
	Pin/Ball Count	20
	PKG width/size	300mils

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
Standard Pb-free Solderability	J-STD-002D ; Perform 8 hour 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.	5	5	1	10	> 95% lead coverage	5	MCSO	MCSO	SOIC	Standard Pb-free solderability is the requirement. SnPb solderability (backward solderability-SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	MCSO	MCSO	SOIC	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MCSO	MCSO	SOIC	30 bonds from a min. 5 devices.
Wire Sweep								MCSO	MCSO	SOIC	
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	1	10	0	5	MCSO	MCSO	SOIC	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	1	ALL	0	5	MCSO	MCSO	SOIC	

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
Preconditioning - Required for surface mount devices	+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; Electrical test pre and post stress at +25°C. MSL 1, 260C	45	15	1	60	0	15	MCSO	MCSO	SOIC	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.