

*In accordance with EEE-INST-002 / PEM-INST-001*

Process Flow Steps		Method / Condition	Sampling		
#	NASA level	x =	1	2	3
1	Plastic Encapsulating Microcircuits (PEM) Assembly	Internal or Subcontractor procedure		100%	
2	Incoming inspection	Internal procedure		If appl.	
3	Marking & serialization	Internal procedure / per Device Specification		100%	
4	Temperature Cycling	MIL-STD-883 TM1010 / Cond B / +125°C / -55°C / 20 cycles		100%	
5	Xray inspection	MIL-STD-883 TM 2012 / 1 view / +datalog		100%	
6	C-SAM	Internal procedure / 1 view per interface		100%	
7	Pre-Burn-in electrical	Per Device Specification / +25°C / +datalog		100%	
8	Burn-In	MIL-STD-883 TM1015 / D / 125°C	240Hrs	160Hrs	160Hrs
9	Post-Burn-In (Interim) Electrical	Per Device Specification / +25°C / +datalog		100%	
10	Static Burn-in	MIL-STD-883 TM1015 / 125°C	120Hrs	-	-
11	Post-Burn-In (Static burn-in) Electrical	Per Device Specification / +25°C / +datalog	100%	-	-
12	Drift calculation	Per Device Specification (amb temp) / +datalog	100%	-	-
13	PDA	PDA (amb temp) / +datalog	5%	10%	10%
14	Extreme temp. Electrical	Per Device Specification / +125°C / -55°C / +datalog		100%	
15	Physical dimension control	Per Device Specification		100%	
16	External Visual	MIL-STD-883 TM2009		100%	
17	Bake	J-STD-033 / 125°C		100%	
18	Packing	Internal procedure		100%	
19	Certificate of Compliance	MIL-PRF-38535		By delivery	

Qualification Lot	Method / Condition	Termination		Sampling
Radiation Verification Tests	TID and SEE		if appl.	
Preconditioning	C-SAM / Moisture soak / Reflow simulation / C-SAM	32 parts	32 parts	17 parts
Subgroup 1a - Life testing	MIL-STD-883 TM1005 / D / 125°C	1500H 22#	1000H 22#	500H 10#
Subgroup 1b - Temp cycling	MIL-STD-883 TM 1010 / B + DPA	500cy 22#	200cy 22#	100cy 10#
- DPA	EEE-INST-002	on 5#	on 5#	-
Subgroup 2 - Biased HAST	JESD22-A110 / 96 hours / +130°C / 85% RH	on 10#	-	-
- Unbiased HAST	JESD22-A118 / A / 96 hours / +130°C / 85% RH	-	on 10#	on 7#

* Quality notes	Sampling
Screening for Plastic Encapsulating Microcircuits (PEM) packages	-
Flight Models delivered with CD-rom including :	By delivery
- Flight Model traceability / Final source inspection report	
- Electrical measurements of delivered FM	
- Qualification report	
- DPA report	
- SEM analysis (Die construction analysis)	
- X-Ray / C-SAM reports	
- CoC	

Useful address / Link	
Mil Specs and Drawings	<a href="http://www.landandmaritime.dla.mil">www.landandmaritime.dla.mil</a>
Contact Teledyne-e2v Marketing	<a href="mailto:semiconductors.MKT@Teledyne-e2v.com">semiconductors.MKT@Teledyne-e2v.com</a>
Visit teledyne-e2v website	<a href="http://www.Teledyne-e2v.com">www.Teledyne-e2v.com</a>