TELEDYNE e2v
Everywhereyoulook™

Class-Y Flow

Ceramic Non-hermetic Flip Chip package

In accordance with MIL-PRF-38535

Rev. A4

#	Process Flow Steps	Method / Condition	Sampling
1	Wafer Lot Acceptance	MIL-STD-883 TM5007	By diffusion Lot
2	Die Sawing and Select	Internal procedure and MIL-STD-883 TM2010 / A	100%
3	Internal Visual Inspection	Internal procedure / MIL-STD-883 TM2010 A / ESCC 20400	100%
4	T-e2v Precap (flip chip) / Customer precap	MIL-STD-883 TM2010 A / ESCC 20400	100%
5	Flip Chip die attach / cure	Internal or Subcontractor procedure	100%
6	Underfill dispense / cure / C-SAM	Internal procedure / MIL-STD-883 TM 2030	100%
7	SMD report / reflow	Internal procedure	100% / If appl.
8	Solder balls report / reflow	Internal procedure	100% / If appl.
9	Internal Visual Inspection	MIL-STD-883 TM2010 / ESCC 20400	100%
10	T-e2v Precap	Internal procedure / MIL-STD-883 TM2010 / ESCC 20400	100%
11	Heat sink attach	Internal procedure	100% / If appl.
12	PIND test	MIL-STD-883 TM2020 / A	100% / If appl.
13	Marking	Internal Procedure / per Device Specification	100%
14	Serialization Marking	Internal Procedure / per Device Specification	100%
15	Temperature Cycling	MIL-STD-883 TM1010 Cond C / +150°C / -65°C / 10cy	100%
16	Xray inspection	MIL-STD-883 TM 2012	100% / If appl.
17	C-SAM	Internal procedure / 1 view per interface	100% / If appl.
18	Pre-Burn-in electrical	Per Device Specification / +25°C / +datalog	100%
19	Dynamic Burn-In	MIL-STD-883 TM1015 / 240h / 125°C	100%
20	Post-Burn-In (Interim) Electrical	Per Device Specification / +25°C / +datalog	100%
21	Static Burn-in	MIL-STD-883 TM1015 / 144h / 125°C	100%
22	Post Static Burn-In Electrical	Per Device Specification / +25°C / +datalog	100%
23	Drift calculation	Per Device Specification (amb temp) / +datalog	100%
24	PDA	5% PDA (amb temp) / +datalog	By lot
25	PDA	3% functional parameters (amb temp) / +datalog	By lot
26	Extreme temp. Electrical (+Group A)	Per Device Specification / +125°C / -55°C / +datalog	100%
27	Termination report	Internal or Subcontractor procedure	100% / If appl.
28	Final Electrical (+Group A)	Per Device Specification / +25°C	100% / If appl.
29	Extreme temp. Electrical	Per Device Specification (-55°C / +125°C)	100% / If appl.
30	Physical dimension control	Per Device Specification	100%
31	External Visual	MIL-STD-883 TM2009	100%
32	Customer / e2v inspector inspection	MIL-STD-883 TM2009 / A (final source)	By lot
33	Bake	J-STD-033 / 125°C	100%
34	Packing	Internal procedure	100%
35	Certificate of Compliance	MIL-PRF-38535	By delivery

Quality Conformance Inspection (QCI)	Method / Condition	Termination	Sampling
Group A - Ambient temp. Elect. test	MIL-PRF-38535 - Table III - in accordance with SMD	Yes	All lots
Group A - Extreme temp. Elect. test	MIL-PRF-38535 - Table III - in accordance with SMD	No	All lots
Group B – Assembly Capability	MIL-PRF-38535 - Table II - Subgroup 1, 2, 3, 4	Yes	All lots
Group C - Steady-state life test	MIL-PRF-38535 - Table IV - Subgroup 1	No	Per diffusion lot
Group D - Package related test	MIL-PRF-38535 - Table V - Subgroup 1, 2, 3, 4, 5, 6	No	All lots
Group E – RHA	MIL-PRF-38535	-	If required in PO

* Quality notes		Sampling
100% Non Destructive Bond Pull test TM2023 substituted by monitoring Destructive Bond Pull test per TM2011		All lots
Flight Models delivered with CD-rom including :	- Flight Model treacibility / Final source inspection report - Internal source inspection report - Wafer Lot Acceptance report - SEM analysis (Die construction analysis) - X-Ray / C-SAM report - Electrical measurements of delivered FM - QCI report - CoC	By delivery

Useful address / Link	
Mil Specs and Drawings	www.landandmaritime.dla.mil
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