

SWAN- SMT Profile Verify Review

JBD-VN-ME
2022/04/21

Date :29/03/2022

96.1516T00-SMT profile to optimal

1.Customer Profile suggest

 (ALTech) SH Son
 2022-02-16 09:54
 developer -0009450

Hi Fu-chiang Young and Sean
 0001315:0009423

 OK. agree
 31 deg-C from 217 deg-C to **TP 248** so that needs 31s+31s=62s at least.
 and decrease 1 deg-C/s.

Please update fine tune to 65-75s for soldering time result

 Thanks
 SON

Profile flow customer request

2.Fii Profile verify & optimal

Profile feature	Fii suggest	Result
Ramp-up rate (T _{max} to T _p)	3°C/second max	1.03~1.06
Preheat Time (150-180°C) (ts)	60-120 seconds	74~84
Soldering time(TL>217°C) (tL)	50-90 seconds	74~75
Peak Temperature (T _p)	(Suggest 240-250°C)	247.0~248.0
Time within 5°C of actual peak temperature (tp)	20-40 seconds	27~29
Ramp-down rate (T _p to T _{max})	3°C/second max	-1.20 ~ -1.28

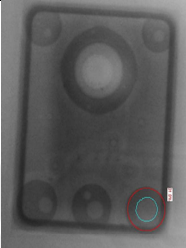
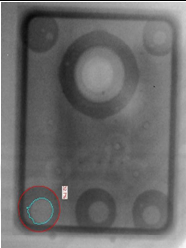
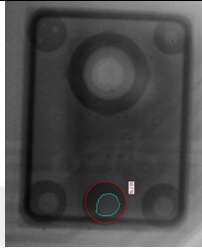
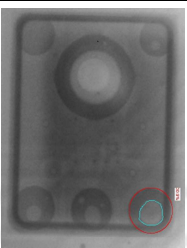
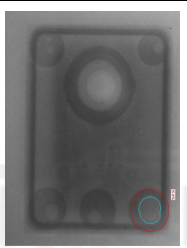
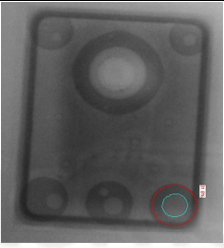
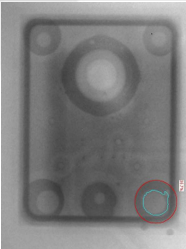
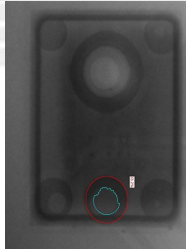
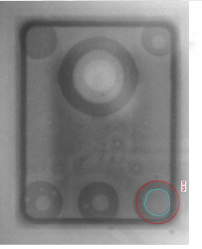
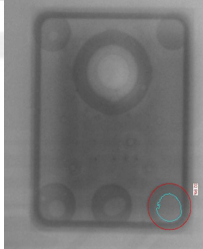
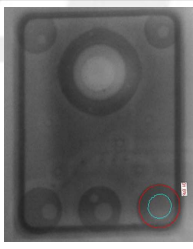
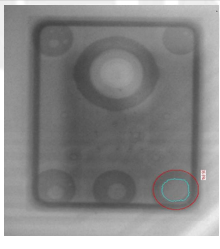


Status	Mass Product Stencil 0.10 mm Solder Paste: KOKI S3X58-M500		
	Fail Q'Ty	Total	Defect rate
Void solder >30%	22	2060	1.07%
O-ring not seal	0	515	0%

Summary: Fii take 515 pcs check X-ray 4 (MIC location) on boards Total : 2060 (MIC location).There are 22 (MIC location) solder void out standard (Standard <30%)

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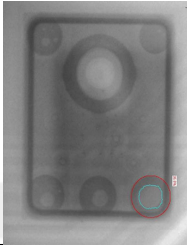
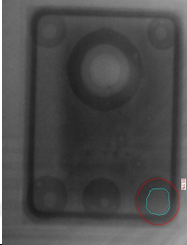
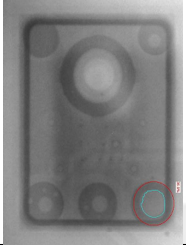
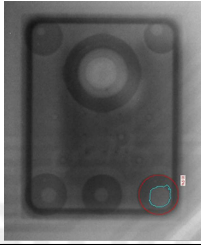
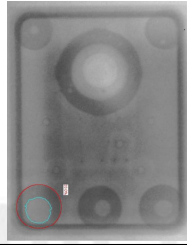
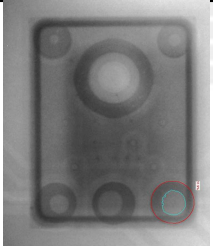
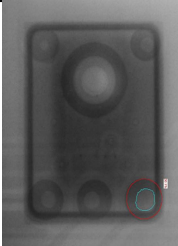
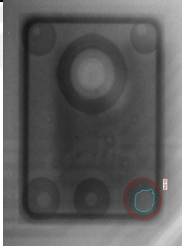
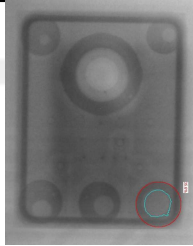
3.X-Ray Image confirm.

Defect Type	1	2	3	4	5	6
Solder Void Image						
Solder Void	31.8%	32.7%	30.1%	30.9%	35.8%	31.6%
Defect Type	7	8	9	10	11	12
Solder Void Image						
Solder Void	35.7%	33.2%	36.9%	32.9%	30.1%	36.9%

Summary : Check solder void with standard > 30% by X-ray machine:
 + Solder void with defect rate (22/2060=1.07%)

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3.X-Ray Image confirm.

Defect Type	13	14	15	16	
Solder Void Image					
Solder Void	35.5%	33.1%	35.9%	30.9%	33.0%
Defect Type	17	18	19	20	
Solder Void Image					
Solder Void	31.9%	30.1%	30.5%	31.8%	35.6%

Summary : Check solder void with standard > 30% by X-ray machine:
+ Solder void with defect rate (22/2060=1.07%).