

# SMT First Article Inspection System SF900



- The programming is very simple. The system will automatically identify the BOM and CAD position.
- The detection program is generated in 5 minutes. The detection process compares the BOM to determine the PASS or NG,
- Automatic production test report after inspection.

# Application and features

- Used to verify if correct SMD chip parts (resistor and capacitor) are placed on PCB. Attention should be paid that high frequency inductor can't be verified by this machine.
- Easy to program. Follow wizard to import and merge BOM & CAD data, load PCB image, align each other, optimize test sequence and inspection program gets done.
- Simple to use. Operator follow graphical wizard – pick up and measure a chip, software compares the value with specification, it automatically jumps to the next test in case of pass, or let the user verify the test in case of NG.
- Details of every inspection are traceable with report.
- Significantly improve FAI efficiency.
- Reduce the possibility of making mistake in comparison with visual inspection.

# Programming: document required

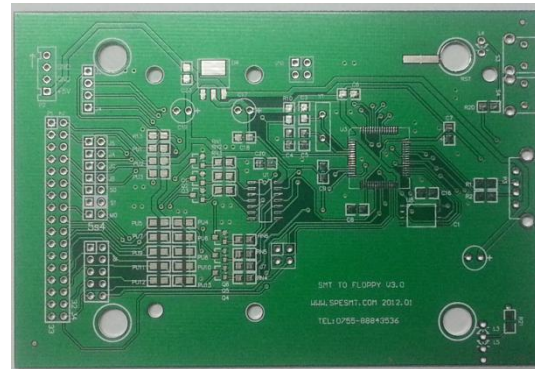
## 1, BOM information

Part Number	Reference	Specification
4210285	C16,C18,C23	10UF 0603 20%
4210385	C3,C4,C5,C6,C7,C8,C9	100NF 0603 20%
1430276	R1,R2,R10,R13	22R 0603 5%
1430997	R20,RU1,RU2,RU3,RU4,RU5,RU6,RU7,RU8,RU9	10R 0603 5%
1477465	R21	47R 0603 5%
1812367	RN1,RN2,RN3,RN4,RN5,RN6	47K 0603 5%
1495632	RU10,RU11,RU12,RU13	220K 0603 5%

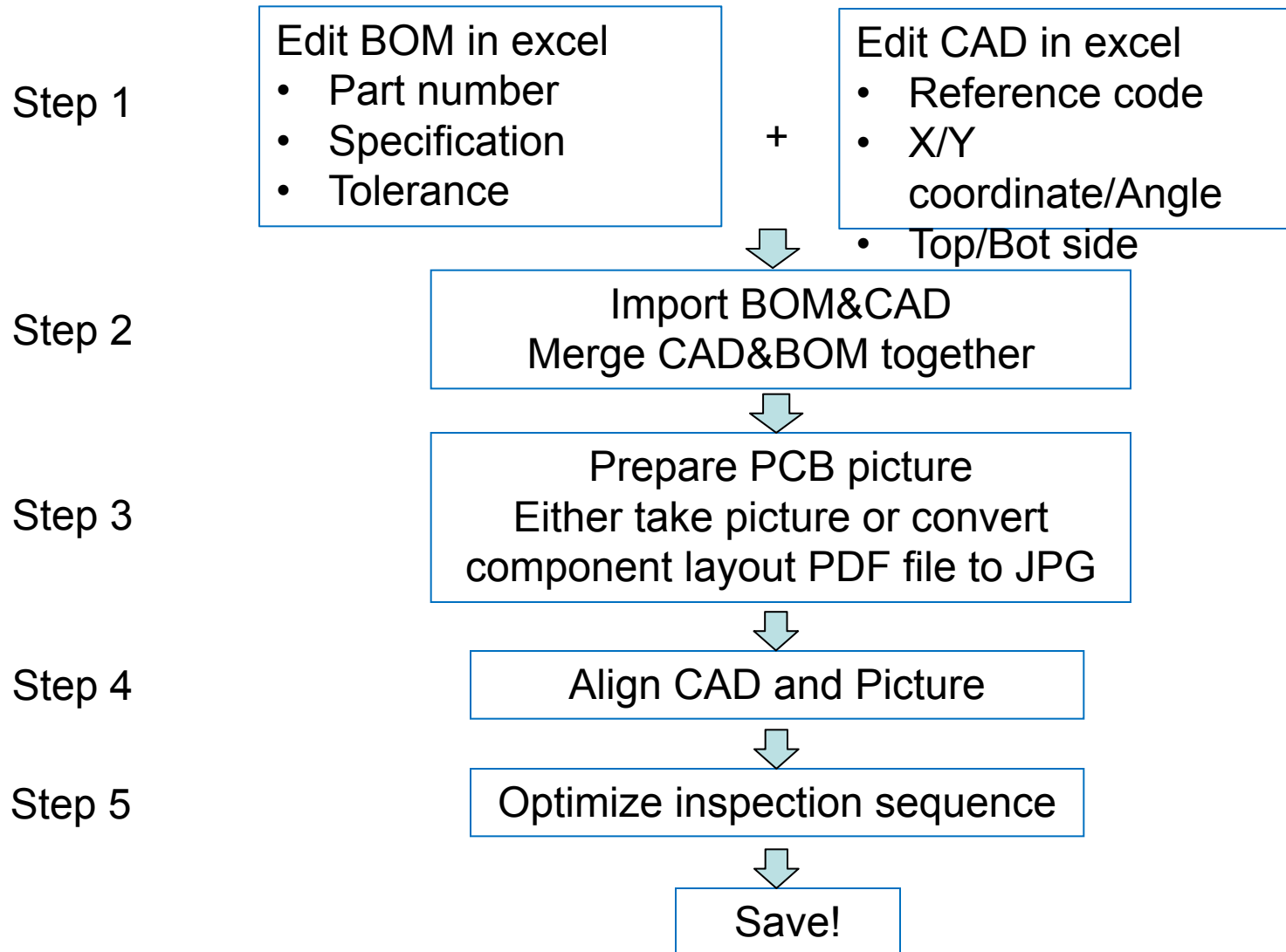
## 2, CAD information

Reference	X	Y	R	Layer
C23	18.91	32.31	90	top
R13	15.92	25.62	0	top
RU1	15.92	24.13	0	top
RU2	15.92	22.78	0	top
RU3	15.87	21.42	0	top
C18	25.16	25.4	0	top
...	...	...	..	...

## 3, PCB picture



# Programming: procedure



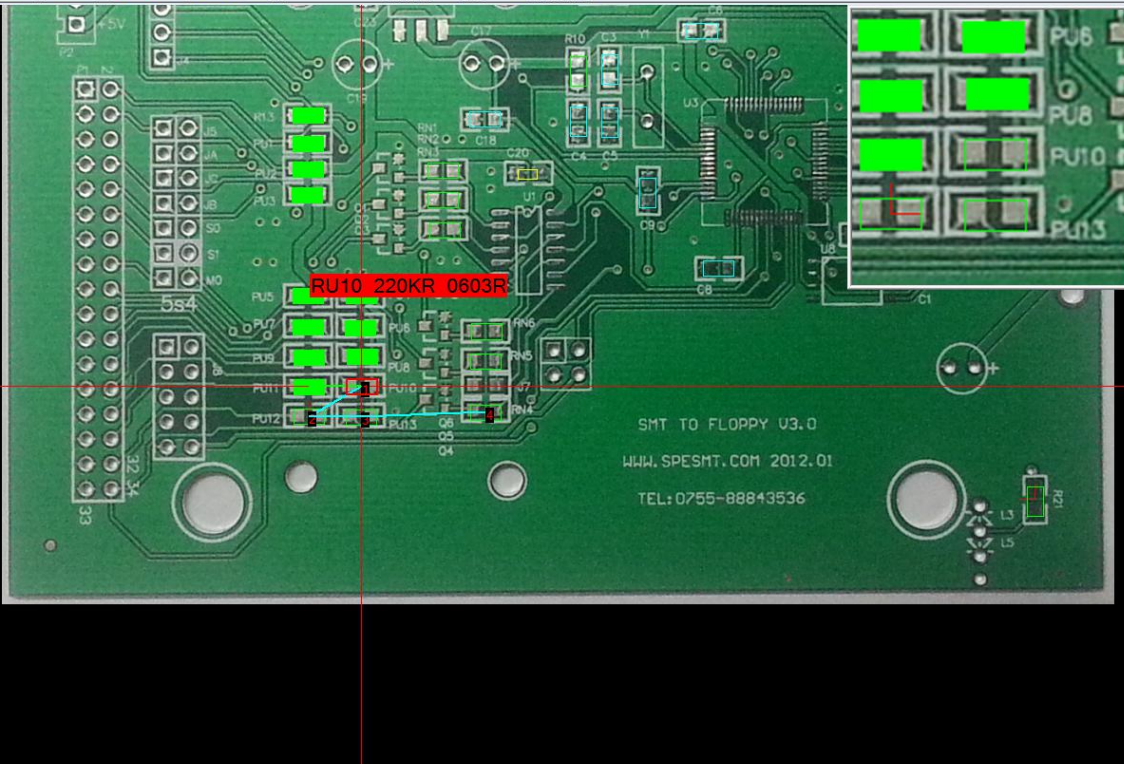
# FAI test:

FAI First Test - D:\SPE3.0\BOM-CAD\TEST-Optimized.B2C

NC DATA | Arrange Data | FAI Test | Inspect Report/Verify | Compare

Open merged file | Load PCB Image | Save merged file | Export Test Report | PDF | Show All F8 | Zoom In F9 | Zoom Out F10

RI [Green] LI [Blue] | AB [Cyan] | Filling color to tested parts | Display Rectangle | Display Cross | Display zoomed image | Zoom: 2016 %



SMT TO FLOPPY U3.0  
WWW.SPESMT.COM 2012.01  
TEL: 0755-88843536

Search Reference [v] 100% Match  
Keyword RU10 [Find] [Next]  
Rotate PCB | Mirror CAD Left-Right | Mirror CAD Up-Down  
Image +90 | Angle +90 | Optimize Sequence

NO	LCR results	LCR Found	Reference	Part No
1			C23	4210285
2	PASS	21.93 R	R13	1430276
3	PASS	10.18 R	RU1	1430997
4	PASS	10.03 R	RU2	1430997
5	PASS	10.00 R	RU3	1430997
6	PASS	10.02 R	RU5	1430997
7	PASS	10.02 R	RU4	1430997
8	PASS	9.93 R	RU6	1430997
9	PASS	10.05 R	RU7	1430997
10	PASS	9.99 R	RU8	1430997
11	PASS	9.94 R	RU9	1430997
12	PASS	216.51 KR	RU11	1495632
13			RU10	1495632
14			RU12	
15			RU13	
16			RU4	
17			RU5	
18			RU6	
19			RU3	1812367
20			RU2	1812367
21			RU1	1812367
22			C18	4210285
23			C4	4210385
24			C5	4210385
25			R10	1430276
26			C3	4210385
27			C6	4210385
28			C9	4210385
29			C8	4210385
30			R2	1430276
31			R1	1430276
32			C16	4210285
33			C7	4210385
34			R20	1430997
35			R21	1477465
36			C20	1677298

Close serial port [v] [R] [C] [L]

Read PASS  Display STD value  Display Package

**68528.59 MF**  Confirm PASS Space  Confirm NG Insert

Reference **RU10** Angle 0 **RU10** AVL Info/Silk Print

Part No 1495632  
Spec 220K 0603 5%  
STD Value **220** Unit KR  Decrease LL 20% for >100NF  
Upper Limit 231000 Lower Limit 205000  Increase UL 10% for >100NF  
Test Result open  Skip Tested Comp.  Confirm Silk Print P ASS Enter  Confirm Silk Print NG Home

Test Total: 36  
Pass: 11  
Fail: 0  
Not Test: 25  
NF: 0 Pass: 0  
Pass rate: 100 %

Open Calibration C: 0.5 NF Reference All OK  
Short Calibration R: 0.0347152 VOLT 1V  
LED test OFF speed F  
END Test F1 Time: 8Min 20Sec

# Export test report

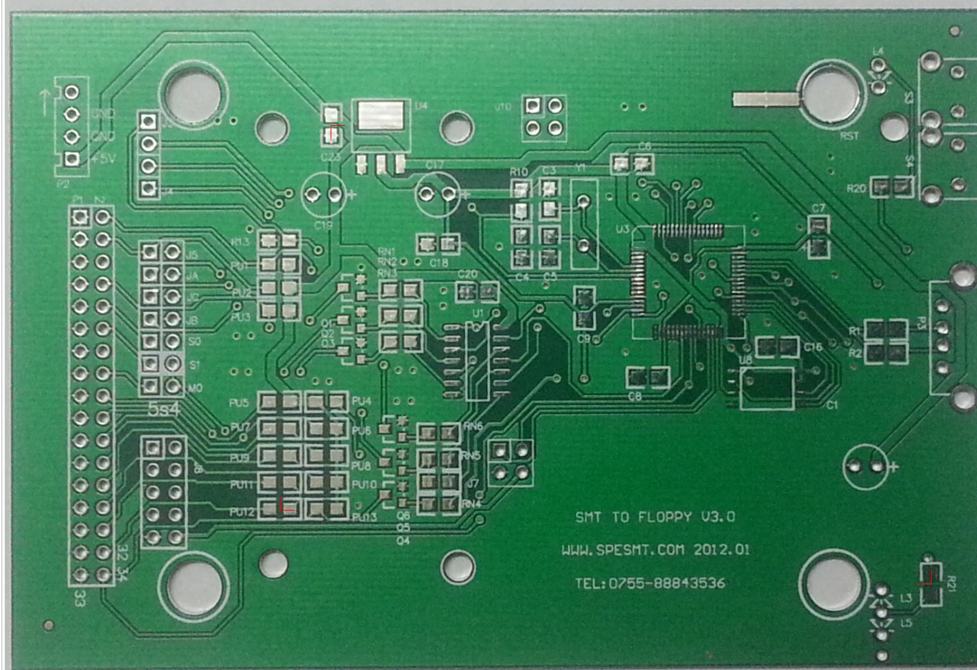
Background information



## FAI First Test Report

Result:PASS	Pass rate:100 %
Product Model:test board	Product Ver:v2.0
Customer:hotwin	Batch Volume:100 pcs
SMT Line:Line3	Sub-board#:3
Shift:A	User:Engineer
Date:2018/02/01	Test Time:2Min 46Sec
Test Total:36 Pass:36 NF:0 Pass:0 Fail:0 Not Test:0	

PCB picture



Part list with test result



NO	Reference	Part No	Spec	Found	Results
1	C23	4210285	10UF 0603 20%	9.14 uF	PASS
2	R13	1430276	22R 0603 5%	21.98 R	PASS
3	RU1	1430997	10R 0603 5%	10.04 R	PASS