

Line: MT24 / VIPER06

HCOMP limits comparison changing test condition

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Technical Documentation

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TECHNICAL DOCUMENTATION	Report #: 20161019 / 100	
	Distribution type: Free	
Line / c.p. : MT24 / VIPER06		
Title : HCOMP distribution and yield comparison between current and new test condition to have a more accurate measurement.		
NOTE: <i>CONFIDENTIAL INFORMATION</i>		
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- **Device:**

- Line: MT24AA6
- Parts already tested: 1k pcs
- RL: 9MJG*MT24AA6
- FG: VIPER06LN-3HF/

- **Testing:**

- Tester model: EST364
- Tester name: Teradyne
- Handler: MT9308
- Program name: MT24FAL3
- Program rev: 01
- Jig FT # N/A



- **Reason:** Changed test condition of HCOMP parameter in order to increase the accuracy.
- **Requested by:** Division.
- **Results:** all parameters inside the datasheet target spec
- **(Next) Action required (owner):** N/A
- **Conclusion:** Changing HCOMP test condition from current COMP=1V and COMP=2V to new COMP=1.2V and COMP=1.8V we increase the accuracy of this parameter because we reduce the spread. In fact the datasheet limits change from old 4 – 9 (with a spread of 5 point), to 3 – 6 (with spread of 3 point).



HCOMP Yield comparison

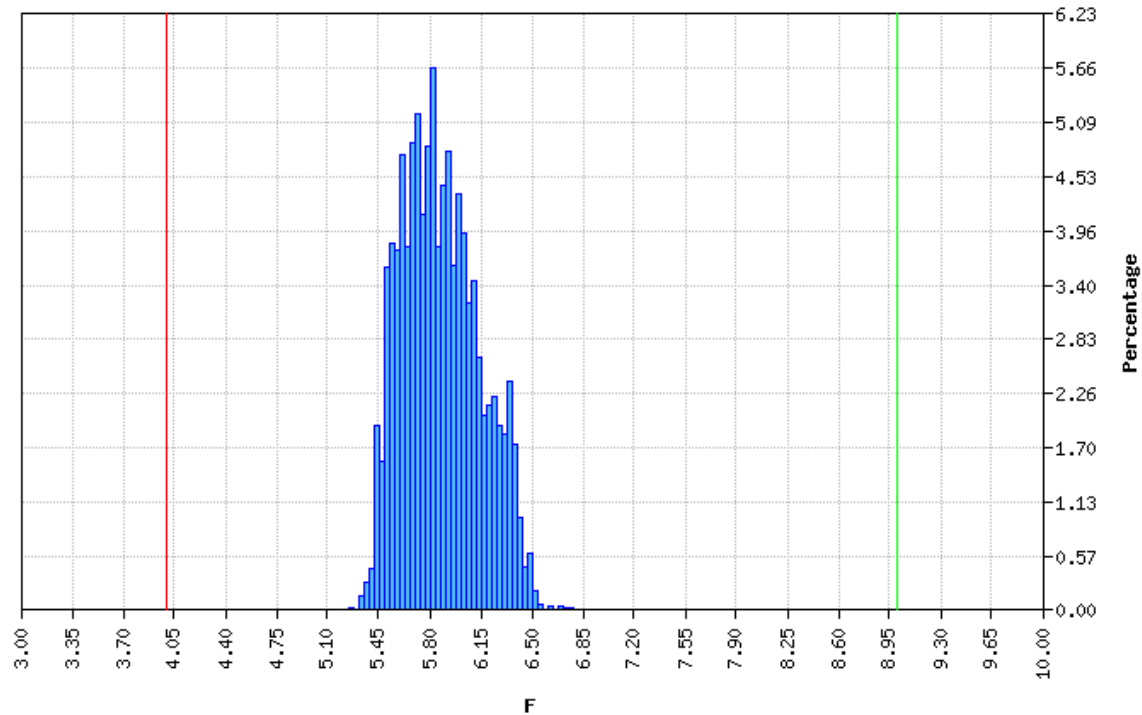
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- Lot tested with two different test conditions gives same results from yield point of view, so no difference have been highlighted.

Lot tested with current limits 4 - 9

122. HFB DUT1

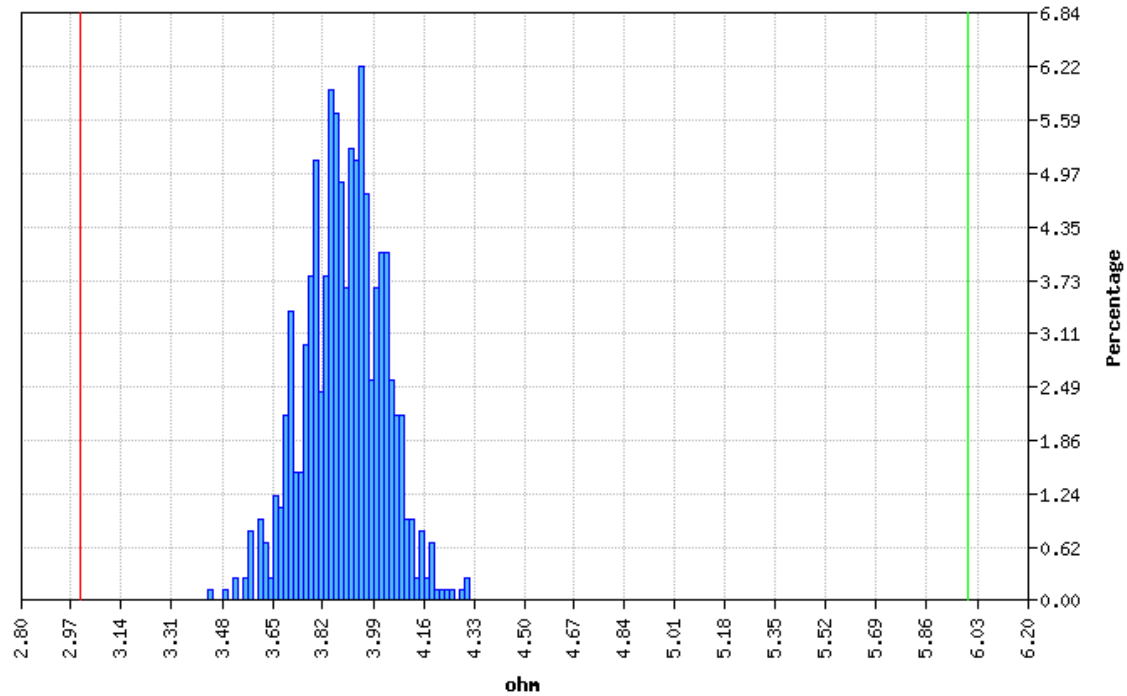
	All pop	Plot pop	Spec pop		Low	High
Samples	4417	4409	4409	Spec	4.000	9.000
Mean	8.960	5.873	5.873	Plot	3.000	10.000
Std dev	78.252	0.264	0.264			
Cpk	N/A	3.628	2.365	Histo bar width	0.035 F	
Lowest	5.273	5.273	5.273			
Highest	2518.613	6.757	6.757			



Lot tested with new limits 3 – 6

3400005. H_COMP

	All pop	Plot pop	Spec pop		Low	High
Samples	740	740	740	Spec	3.000	6.000
Mean	3.890	3.890	3.890	Plot	2.800	6.200
Std dev	0.133	0.133	0.133			
Cpk	N/A	2.739	2.236	Histo bar width	0.017 ohm	
Lowest	3.445	3.445	3.445			
Highest	4.301	4.301	4.301			



- We have done an accurate and complete evaluation on MT24 device in order to verify if new HCOMP test conditions can improve the electrical spread of the parameter. We have following details:

Test yield with current test conditions = 100%

Test yield with new test conditions = 100%

Spread of current datasheet limits (4-9) = #5

Spread of new datasheet limits (3-6) = #3

So we have a reduction of 40% in the parameter spread giving a more accurate value of same percentage.

- Taking into account what above specified from testing point of view the new HCOMP parameter limits and test conditions can be released for production.



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PCI Title : VIPER06 datasheet update

PCI Reference : AMG/17/10056

Subject : Public Products List

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VIPER06HN	VIPER06XS	VIPER06LS
VIPER06XN	VIPER06XSTR	VIPER06LN
VIPER06HS	VIPER06HSTR	VIPER06LSTR



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