Anode Front-End electronics status.

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Anode Front-End electronics status

- AFEB production status
  - -CMP16-G ASIC
  - -AFEB production
  - -AFEB certification
  - -AFEB shipment
- Documentation
- AFEB-ALCT cable production
- Delay chip DEL16 test status

AFEB production status

CMP16_G ASIC

- Produced quantity 25,000
- Tested 16,500
- Selected for soldering for US 13,300
  sent to Dubna 1,472

- Yield rate 90%

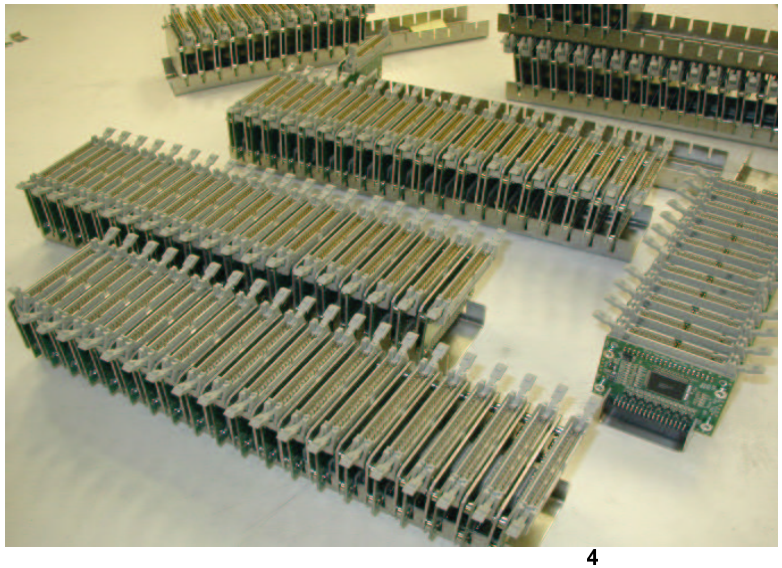
We have to test more 8,500 chips

AFEB production display

	CY2001					CY2002												Made	Total needed	Balance	Ship-ped out.	Total at FNAL
	prev.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov	Dec					
Delivered to FNAL	1109			747	2446																	
				984	1825																	
				833	684																	
				1066	226					1400	800							**12200**	12200	0		6414
Burned in		250	800	1200	1600	1800	1400	1800	1200		400							**10450**				
Assembled		250		580	1500	398	1879	2117										**8700**				
Tested		250		580	1500	255	1709	1894										**8262**				
Packaged			248			1008	1074	3636										**7200**				
Shipped to:																						
UF			124				539			360											**1023**	
UCLA			124				535			360											**1019**	
PNPI						1008		1152													**2160**	
IHEP/flat								720													**720**	
IHEP/tray								864													**864**	
																		Total shipped out:			**5786**	

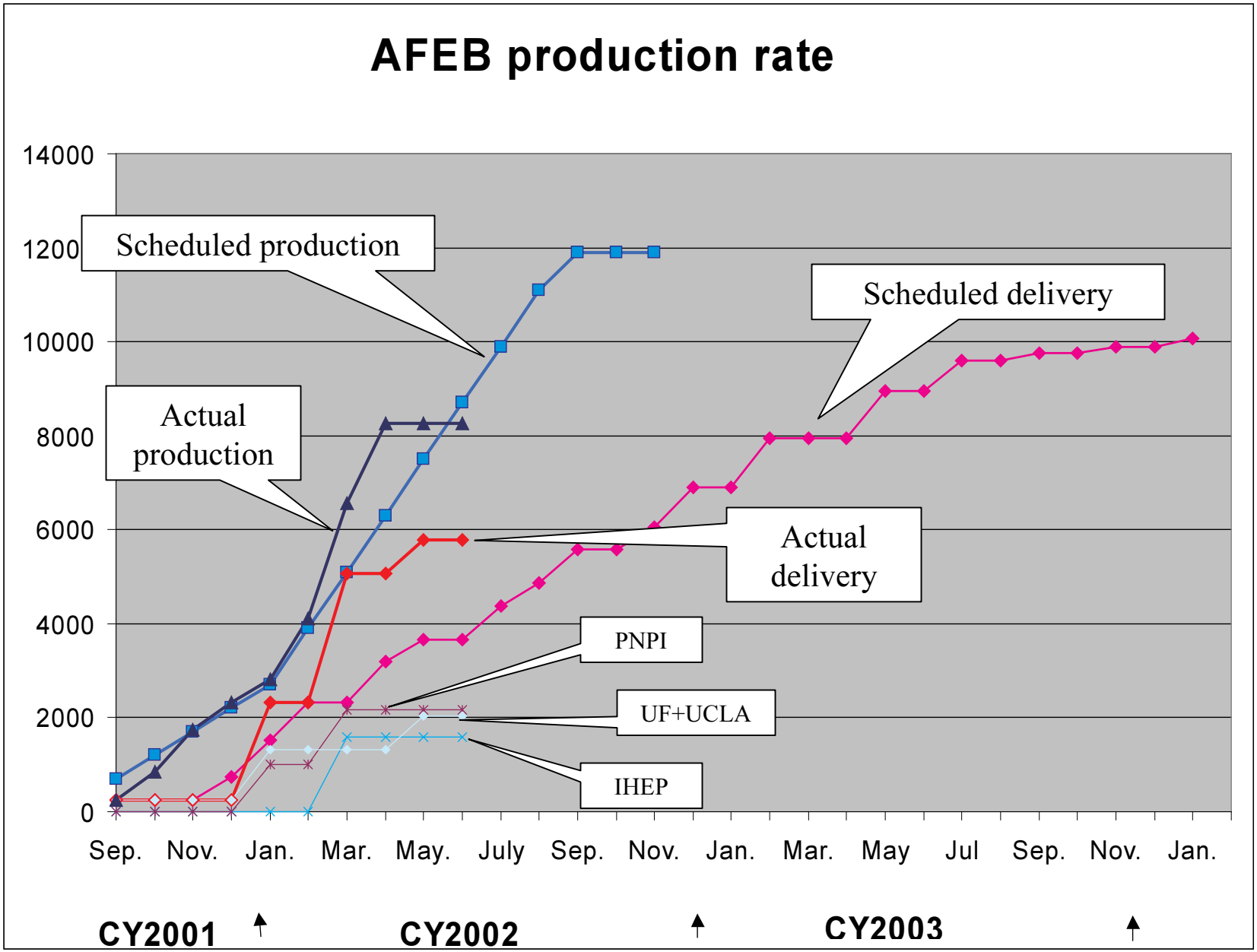
Need to produce 12,000
Total ordered 12,200
Total delivered to FNAL 12,200

Certification statistic: Total measured 8600
Total certified 8262
Yield rate after cuts 96%
Final yield rate (including chip selection) ~86%



Current situation is weekly updated on the following WEB page:
http://www-hep.phys.cmu.edu/cms/MASSPRTEST/AFEB/passmp.html

AFEB production and shipment rate



Anode electronics assembly instructions.

The following instructions and manuals were prepared and located at the following WEB site http://www-hep.phys.cmu.edu/cms/ :

AFEB AD16_F user manual

Instruction for AFEB installation

Instruction for AFEB-ALCT cables installation for ME234/2 chamber

Instruction for AFEB-ALCT cables installation for ME1/2 chamber

Instruction for AFEB-ALCT cables installation for ME2/1 chamber

Instruction for AFEB-ALCT cables installation for ME3/1 chamber

Instruction for repair broken M4 thread .

Preparation in progress:

Instruction for AFEB-ALCT cables installation for ME1/3 chamber - the chamber in Lab 7.

Instruction for AFEB-ALCT cables installation for ME4/1 chamber - the chamber in Lab 7.

AFEB-ALCT cables display

Chamber type	FAST site	CY2001 Mar	Apr	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	CY2002 Jan.	Feb.	Mar	Apr	May.	Jun.		Made	Total need-ded	Balance	Ship.	Stored at FNAL
ME 234/2	deliv.	8	10	10	10			10	10	10		10	10	10					98	148	50		15
	UF						15				16					12						43	
	UCLA					1	15				14					10						40	
ME1/2	deliv.	9	10	10	10			10	10	10		5							74	74	0		0
	IHEP												74									74	
ME1/3	deliv.							1	5	9		9	10	10					44	74	30		0
	IHEP													44								44	
ME2/1	deliv.		9	10	10			8											37	38	1		1
	PNPI										36											36	
ME3/1	deliv.								6	6		6	8	8					34	38	4		0
	PNPI											18		16								34	
ME4/1	deliv.																		0	38	38		0
	PNPI																					0	

Total cables to produce - 10760
Total produced cables - 7554
Production balance - 3206

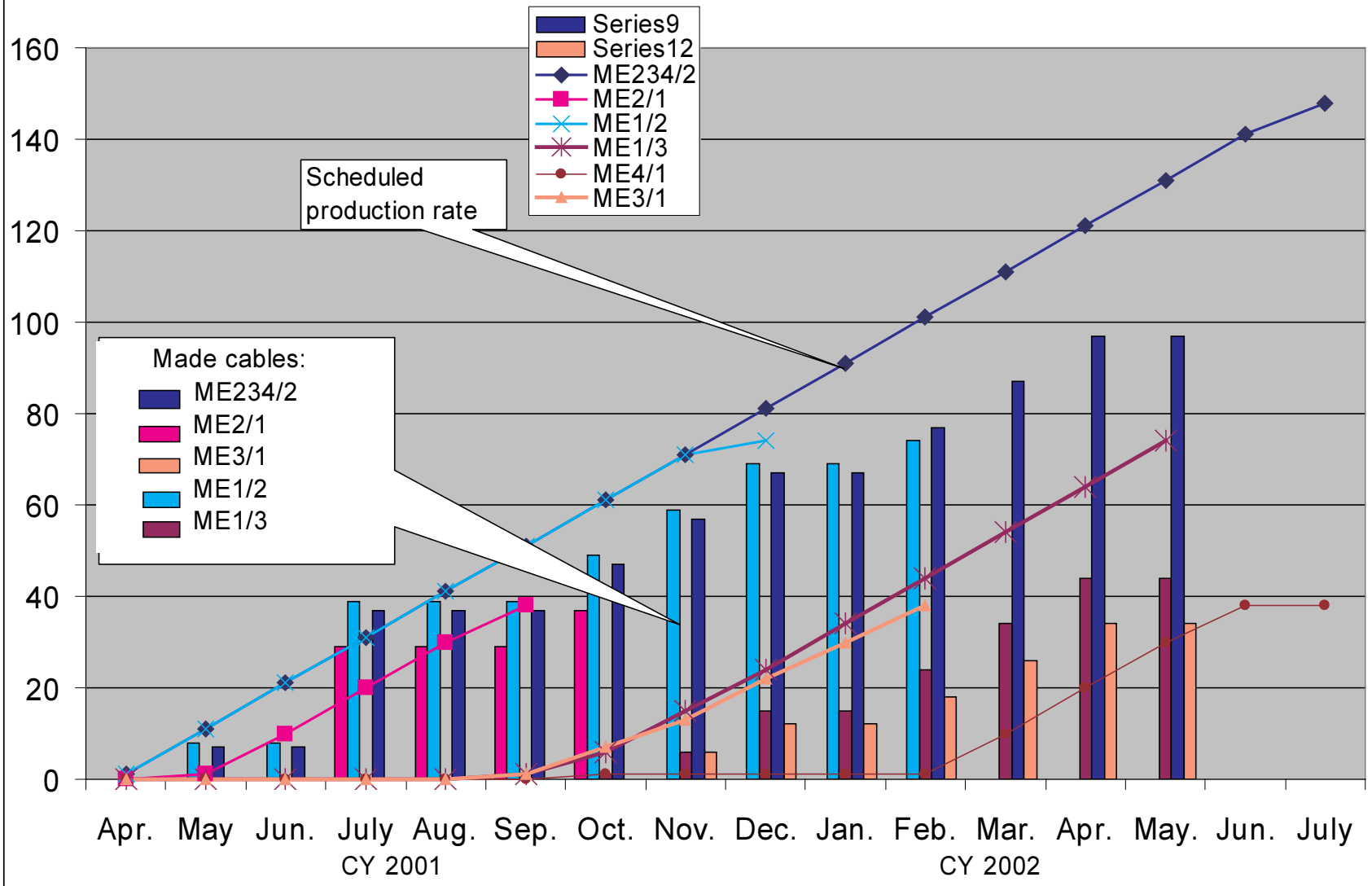
ME234/2 - 98 sets made, 83 shipped to FAST sites
ME2/1 - completed, shipped to PNPI.
ME3/1 - 34 sets made, shipment to PNPI.

ME1/2 - completed, shipped to IHEP
ME1/3 - 44 sets made, shipment to IHEP

ME4/1 - standby position.

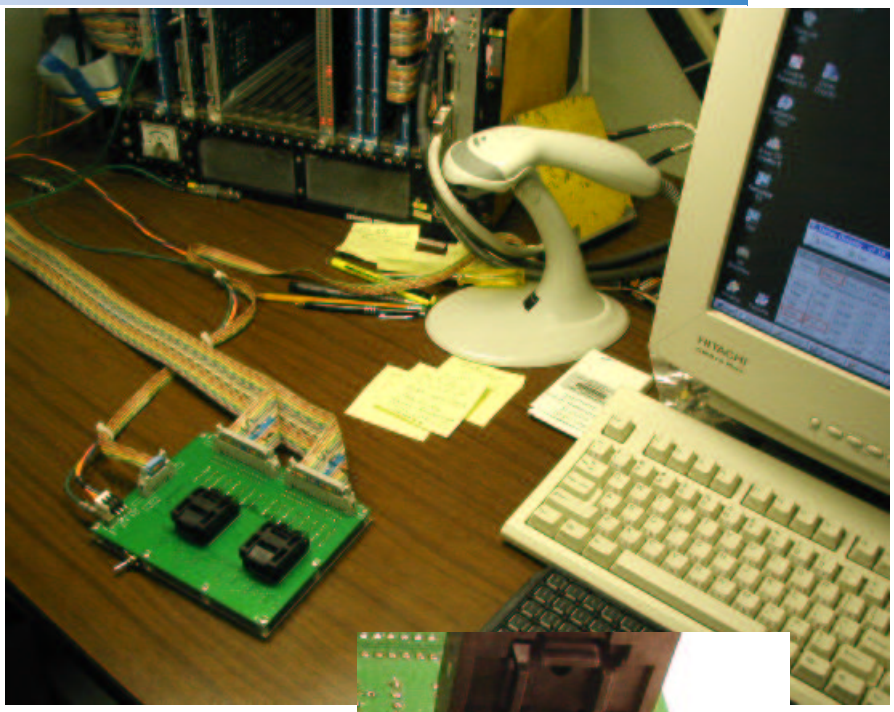
AFEB-ALCT cables display

AFEB-ALCT cable production rate

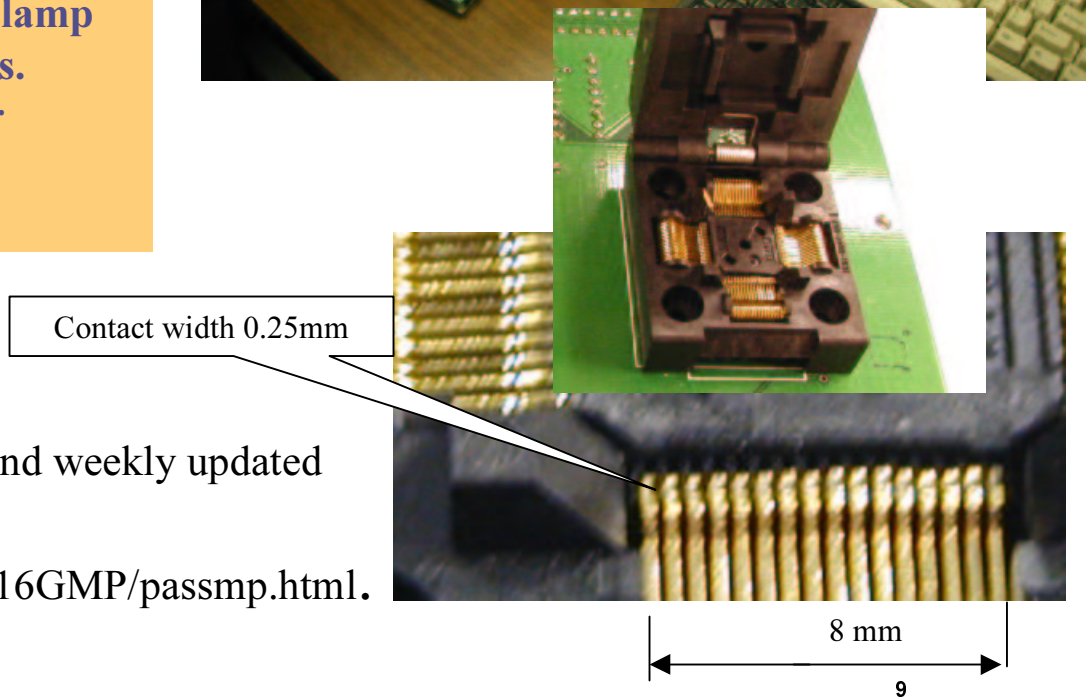


Delay chip DEL16 status.

Produced	25,000
Tested	19995
Good chips	17,138
Rejected - parameters out of nominal and dead	2,857
Yield rate (pass all cuts)	~ 86%



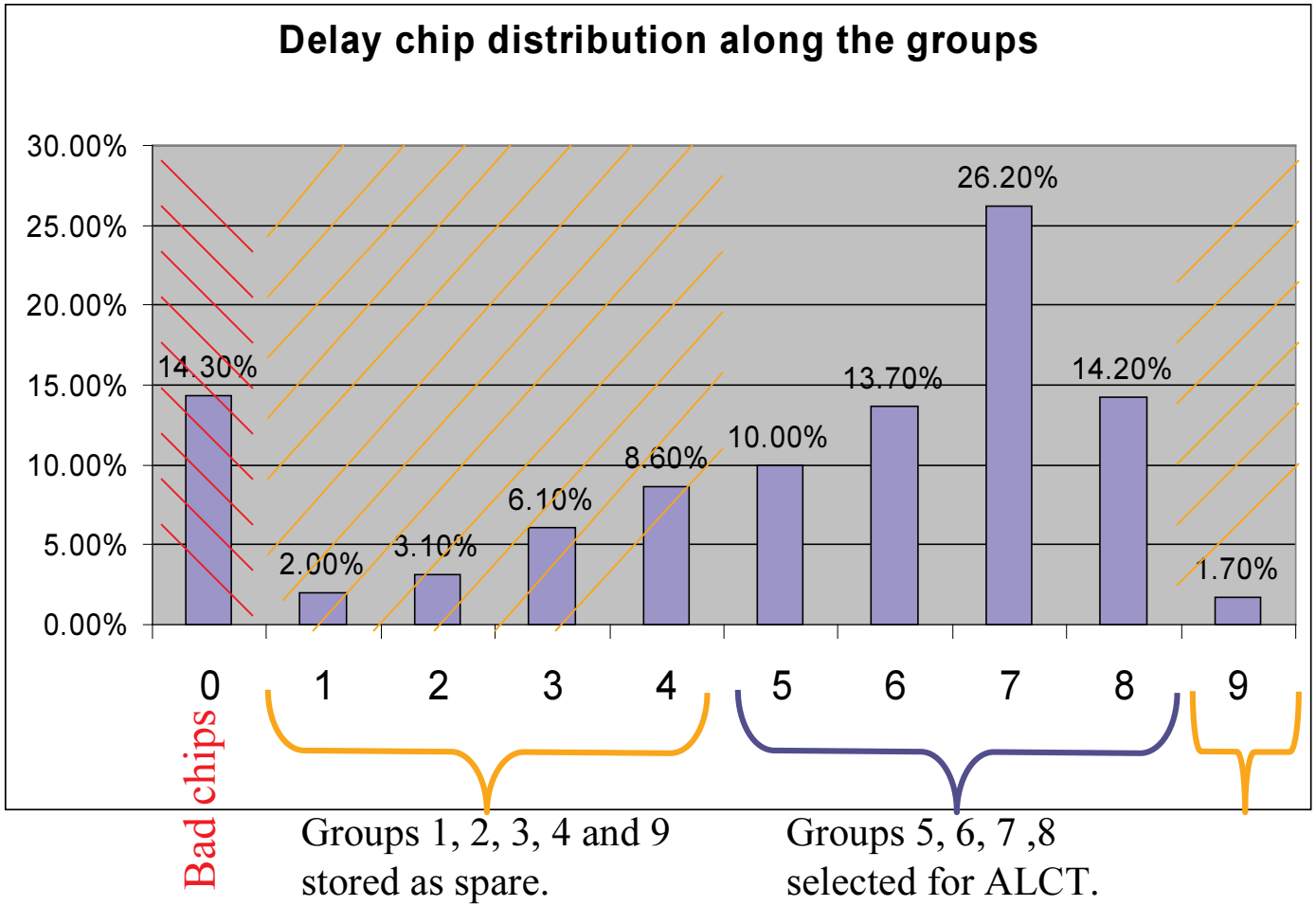
After about 1200 measured chips the adapter's clamp shell connector began to loose contacts with chips. Reason - the gold plated surface of the connector contact degradation.
We replaced the adapter with new one.



Current situation with the delay chip test is collected and weekly updated at the following WEB site:

http://www-hep.phys.cmu.edu/cms/MASSPRTEST/D16GMP/passmp.html.

Delay chip DEL16 status.



Expected number of good chips ~15900

Final yield rate after selection ~64%

Shipped to UCLA:	Grope 5	Group 6	Group 7	Group 8	Total
	1920	2240	4960	2560	1168