

## **MPC79 Notes:**

# THINGS TO COME IN MPC79

● MESSAGE #3: REQ ↔ ACK game Lynn, Alan

● LIBRARY DOCUMENTATION (overglassing?) Dick

● MESSAGE #4: Copyrights, ---, Logos, ---  
"How to think of your design" and  
the publishing analogy Lynn

● Message #6: Space War: The Rules, Guidelines.

● Message #7: Details: Packaging, no overglassing, --

Note: Be able to get BB easily

check in  
Dick

● CIF: Message #4: warnings of problems on use  
of wind, polygons, etc.  
DD's? Symb. #5.

## → Meet with HP on 30 Oct

- $\lambda$ , thresholds, oxide thickness, AMOS site Dpl. 1.0
- NO OVERGLASSING
- NO SUBSTRATE BIAS (needed)
- VDD = 5V
- Shooting Frame Align Marks, Test Patterns

- MASK POLARITY (Get info before meeting)
- Relative Time Schedule to keep going at full speed.
- Quantity: 2 mask set, etc.
- MASK PLATE TYPE: thickness, mt's

HP meeting Preparation:

SHOW THEM OUR STARTING FRAME STUFF

ALIGNMENT MARKS (esp. if POS resist used)

LAYER NAMES

SCRIBE LINES

EXAMPLE LOGOS

DISCRETE TRANS-TEST PATTERNS

ETCH TESTERS

C/D'S

4x4 x 10mils ARCHROME

• Mask Types: Thickness, materials, etc.

Questions: • Resist Polarities (mask polarities) (All Negative)

• Scribes lines OK?

• Really confirm  $\lambda = 205\text{nm}$  ✓

• Stretches & Shrinks?

• Confirm 2 mask sets & start 48/set.

FACTS ABOUT MPC79

• NO OVERGLASSING (?) Test lot, 1 lot w/o

~~NO BURIED CONTACTS~~

• No Buried contacts.

## HOW TO HANDLE CONTINGENCIES (TIME)

EX: MICRO MASK SLOW OR SOFTWARE DIFFICULTIES:

SOLN: STAGGER MASK SETS OR MASKS WITHIN A SET.

- QUESTION: In what order do they need MASKS?
- " " : What are relative dates?
- We're going to try for ever bit 7A - but no hat on time: best year should be way to best.

PROCESS: Get There standard nMOS facts - see FOX.

- $V_{DD} = 5V$  ✓
- nMOS, dept. mode loads, s.l. on gate ✓
- ~~sub~~ substrate bias: like to be able to run OK w/ no-t.
- $V_{th} \sim 0.2 V_{DD}$  ;  $V_{dep} \sim 0.6-8 V_{DD}$
- Ox.  $\text{th}$ : NSIL I 1100 Å NSIL II 700 Å
- Poly : " " 3200 Å
- Metal : ?
- How they prepare the back side of wafers, what state in for use of conducting epoxy?
- Mean, var of Poly  $R/\square$ ? estimate?

GET SAMPLE MASK INTERFACE FORMS ] HAVE DATA  
TO SHOW THEM. CHECK IF  
NEED ANY FACTS FROM THEM.  
[ALAN: get the "water maps"]

### GIVE TO HP FOLKS

- MIT Blurbs
- PARC Blurbs
- (SHOW IMPL. GUIDE) - mention <sup>of</sup> <sub>outsourcing</sub>
- Hardcopies of MSGs.
- ARPANET DIRECTORY

GIVE THEM

PARTICIPANTS: ALL registered in UNIV. COURSE,

except for (i) some faculty members  
(ii) Xerox-MIT Scheme Chgo.  
(iii) M.I. OH?

We'll probably build a Logo + "participati cred. f" lines  
to include in starting frame.

Meet Merrill Brooksby  
at Antipre, Thursday 4 Oct  
at 11:30.

CONTACT MERRILL BROOKSBY

H.P. 1501 Page Mill Rd. Palo Alto CA 94304

Main Number: 415 / ~~415-1501~~ 856-1501

Merrill's # 856-4170

- Talked to Joe Allen. He indicated HP might be int. in a collaboration similar to last year.
- I thought I'd outline our plans - give you a feeling for the overall effort. Then perhaps you could discuss that with HP Dear Creek to see if it might be possible. (MIT, STANFORD, CATERN, CMU, UNIV. OF ROCHE.) ~ 100 projects.
- One important thing: we are quite a bit flexible in our notion of how to provide the forward software --- we'd be pleased to have some of your technical people interact with us --- sit in on the actual operations here, if that would be of interest.
- General idea: from HP Dear Creek's point of view, the effort would appear very similar to last year's. Probably one week set. ~ same # users run.
- We have greatly improved all the rest of the procedure, so HP will not be under great pressure to do a test & demo as last year. Even if it took twice as long, the overall time will be less.
- If you confirm an interest - I suggest we have a meeting here at PARC for us to describe the general plan and have our technical people get to know each other, so they can work out the latter details of defining the work flow involved for this year's run.

	<u>School</u>	<u>Die</u>	<u># Projects</u>	<u>Shipment:</u>				<u>Send to</u>
				color plates	BW plates	order forms	color copies	
✓ sent	<u>MIT</u>	B	8	3	3	50	40	RANDY
		C	3	3		40		
		G	3	3		40		
		H	1	3	3	40		
✓ sent to Doug	<u>CALTECH</u>	J	12	3	3	50	40	DOUG
		L	8	3	3		40	
		M	3	3	3		40	
		G	1	3	3		40	
✓ sent	<u>STANFORD</u>	I	9	3	3	60	60	ROB 20
		K	8	3	3		60	
		Z	2	3	3		60	
✓ sent	<u>CMU</u>	F	5	3	3	10	20	KUNG
✓ sent	<u>UCB:</u>	M	4	2	2	5	10	CARLO
✓ sent	<u>ILLINOIS</u>	D	4	2	2	5	20	JACOB
		E	1	2	2		20	
✓ sent	<u>ROCHESTER</u>	Z	5	3	3	15	20	Feldman
✓	Kehl	M	1	1		2	3	
	Murray	E	1	1		2	3	
	Rogers	E	1	1		1	3	
✓	Snyder	G	1	2	2	2	4	