

SyncLink Consortium Confidential

Minutes of May 13, 1996 meeting

**CONFIDENTIAL, DISTRIBUTION LIMITED to Attendees
and SyncLink Consortium Members**

SyncLink Consortium meeting at Hyundai and telecon, May 13, 1996

Attendees:

At Hyundai:

T. C. Chou, Hyundai Electronics
Sam Chen, Mitsubishi
Peter Cheng, Samsung
David Gustavson, SCizzL
Atsushi Sukeno, Fujitsu
Farhad Tabrizi, Hyundai Electronics

By phone:

Peter Gillingham, MOSAID
Cormac O'Connell, MOSAID
Bill Vogley, TI
Terry Walther, Micron
Hans Wiggers, HP

Next meeting is May 24, 0900 at SCU

Terry: we don't want to close SyncLink off and make it a closed Consortium standard, we want a standard that's open. Objection to trademarking SyncLink. Trademark tends to prevent everyone else in industry from using the name, prevents name from being as widely used.

What we all want is a public standard.

Mosaids: TM the name but don't play hardball unless we need it.

Hyundai lawyer suggested using TM mark just to stake out the territory, inform people we consider the name significant. After it is registered, one uses ® instead. We don't need to register necessarily.

Do we need to TM SLDRam also? What about SLController.

We conclude we'll use TM freely, but not try to enforce it. Will decide later whether to register. Registration is expensive when done internationally, and is expensive to maintain also.

Walthers' March comments didn't make it into the bylaws, in particular one change: obey all laws, strike "antitrust laws" wording. Sounds reasonable. DBG will add to draft 3.

DBG's emailed response on Walthers' comments on the disposition of excess income upon dissolving the Consortium was acceptable to Walthers, so no change is needed.

Should we register with the national cooperative research organization? We need to find out more, it's too new now, no one knows how to deal with it.

The idea of the Consortium owning patents is too clumsy (Walthers)

We need a JEDEC-like clause. (Which is similar to ANSI clause, which is similar to IEEE clause, which is to be changed because of problems with today's patent realities, which requires ANSI clause to be changed for the same reason, so the situation is murky.)

SyncLink Consortium Confidential

Minutes of May 13, 1996 meeting

page 1

SyncLink Consortium Confidential

Minutes of May 13, 1996 meeting

MOSAID contract says Consortium owns patents, so there *will* be some, and we have to handle them properly in our Bylaws etc.

We do the filings to raise the value of Consortium membership, so more will join to share costs.

Walthers is concerned that the DRAM part be free, but controller is significant IP.

We all agree we want the SyncLink standard to be an open IEEE standard, so anyone can build it with no fees, and there should be an open cookbook that makes it easy to use.

However, membership in the Consortium is valuable because it will provide other IP that is not essential for using SyncLink, but may make implementation easier.

Get block diagrams, brief descriptions for initial filings.

When can MOSAID get them done? By 24th!!

9 at \$500 ea. Maybe 12? Apple filed already.

Need to know Fujitsu and Hyundai patent position by 24th meeting.

Questions about how to handle licensing of various technologies to and through the Consortium. MOSAID says they are not a problem, but Fujitsu might be. Anything F or H presented to Consortium that we put in spec needs to be free.

Clause to Bylaws needed to protect against companies holding consortium for ransom. Proposal from attorney was faxed to all, and a draft Bylaws incorporating that has been posted. (Walthers rewording about obeying all laws hasn't been edited in to the draft yet.)

How put speed grade? Walthers: just print it on the package.

Invite 3M, Robinson Nugent, AMP, to our May 24 meeting

Consider objections to the report of excessively long signals required for vertical mount package.

Need to increase promotion.

Mosaaid didn't get much press from their release.

ISSCC Panel. Hot Chips panel? Publish Simulations in Micro?

Get disclosure situation under control at 24th meeting, Fujitsu etc. Do a press release, generic, agree at that meeting. Time frame, SyncLink roadmap. Mitsubishi has a tentative schedule: 1999 commercial samples of 64 Meg

Show at JEDEC meeting June 3-6?

Hand in patent stuff 24th, should free us to talk more in general. Propose a package in June. Had two first showings in JEDEC already.

Wiggers making a test board layout soon, happy to do a SyncLink test layout. Enthusiastic response from all.

Hyundai willing to do a test chip with SSTL driver, register. (Tabrizi action item.) TI has sample SSTL, Mitsubishi has also.

Gustavson contact 3M, MOSAID contact RN, Walthers contact Jim Lenny of AMP: invite to meeting on the 24th.

SyncLink Consortium Confidential

Minutes of May 13, 1996 meeting

page 2

SyncLink Consortium Confidential

Minutes of May 13, 1996 meeting

Want to present hilites of simulation publicly.

JEDEC is our vehicle for the pinout, IEEE is arch and spec.

SyncLink future meeting schedule: planned June 20 moves to June 26, Wednesday

Gustavson: get spreadsheet from MOSAID in PS and put on Server

June 11-13-15 VLSI in Honolulu, anyone on a panel there?

Gillingham, please find someone to represent us there from one of our companies.

Gustavson: Please generate and post the minutes within one week, max, from now on.

Digital showing interest in joining, Rick Herrington invited to attend next meeting. (Peter Cheng)

What about Intel? Tabrizi trying to help them decide. Might Rambus get access to our stuff through Intel? Sam Calvin is reliable, no need to worry about NDA situation with Intel.

Peter Cheng: Do we need an NDA within Consortium?

Generate an NDA form? IBM won't come then. Walthers: invitees only get docs if sign? No, just emphasize it's confidential.

Give DEC minutes, OK. Spec, OK(??)

Tabrizi will make a short presentation available corresponding to his Hyundai internal presentation on SyncLink. Wants feedback from others.

Rambus has a new concurrent access, same page again selected via single wire.

Next meetings:

May 24, 0900, SCU

June 10 conference call, 10 AM, Hyundai

(warning: there was talk of this being on 7th, but due to conflicts it was moved to 10th).

June 26, 0900, SCU

Adjourned 2:54 PM.

Notes by David Gustavson, Consortium Secretary (Version 1.0)

SyncLink Consortium Confidential

Minutes of May 13, 1996 meeting

page 3

SyncLink Consortium Confidential

Minutes of May 13, 1996 meeting

Sam Chen
Mitsubishi
1050 E. Arques Ave.
Sunnyvale, CA 94086
P: 408-774-3072
F: 408-730-4972
E: schen@msm.mea.com

Peter Cheng
Samsung Semiconductor, Inc.
3655 North First Street
San Jose, CA 95134-1713
P: 408-954-6924
F: 408-922-8383
E: pcheng@ssi.samsung.com

T. C. Chou
Hyundai Electronics
510 Cottonwood Dr.
Milpitas, CA 95035
P: 408-232-8350
F: 408-232-8125
E: tcchou@hea.com

Peter Gillingham
MOSAID
P.O.Box 13579
Kanata, Ontario
CANADA K2K 1X6
P: 613-836-3134 x213
F: 613-831-0796
E: gillingham@mosaid.com

David B. Gustavson
IEEE P1596 Chair
SCizzL Executive Director
1946 Fallen Leaf Lane
Los Altos, CA 94024-7206
P: 415-961-0305
H: 415-961-3539
F: 415-961-3530
E: dbg@sunrise.scu.edu

Cormac O'Connell
MOSAID
P.O.Box 13579
Kanata, Ontario
CANADA K2K 1X6
P: 613-836 3134 ext. 218
F: 613-831-0796
E: oconnell@mosaid.com

Atsushi Sukeno
Fujitsu
3545 N. First Street Bldg 1
San Jose, CA 95134
P: 408-922-9469
F: 408-943-1348
E: asukeno@fmi.fujitsu.com

Farhad Tabrizi
Hyundai Electronics
510 Cottonwood Dr.
Milpitas, CA 95035
P: 408-232-8338
F: 408-232-8125
E: ftabrizi@hea.com

Bill Vogley
MOS Memory, TI Semi. Group
12201 Southwest Freeway
P.O. Box 1443, MS 692
Houston, Texas 77001
P: 713-274-3894
H: 713-438-8751
F: 713-274-3896
E: wcv@dlep1.itg.ti.com

Terry Walther
Micron Technology, MS 607
8000 S. Federal Way
PO Box 6
Boise, ID 83707-0006
P: 208-368-3949
F: 208-368-4431
E: twalther@vax.micron.com

Hans Wiggers
Hewlett Packard Co., MS 4L2
1501 Page Mill Road
Palo Alto, CA 94304-1126
P: 415-857-2433
H: 408-255-9739
F: 415-852-8127
E: wiggers@hpl.hp.com

SyncLink Consortium Confidential

Minutes of May 13, 1996 meeting

page 4