

ATARI INTEROFFICE MEMORANDUM

To: Phil Suen
 From: Peter and Dave
 Date: 8-10-84
 Subject: 65105 Vendors for gate array development (preliminary quotes)

| Vendor | Schedule | Implementataion | Cost | Unit price | Die size | Comments |
|--------|----------|-----------------|------|------------|----------|--------------------|
| ----- | ----- | ----- | ---- | ----- | ----- | ----- |
| NCR | 9-27 | Gate array | 22K | n/a | n/a | Array Technology |
| NCR | 9-20 | Std Cell | 35K | n/a | 27.2K* | Pin limited 68 die |
| USI | 9-13 | Gate Array | 30K | \$13.25 | 45.8K | Proven Record |
| USI | 11-30 | Full Custom | 39K | <\$6 | 26.2K | Pin limited 68 die |
| ASG | 9-30 | Std Cell | n/a | n/a | 36K | (estimated) |

My confidence level for achieving this die size in std cell is very low.

Notes: A 68 pin limited device is about 19 X 8 mils on a side ~ 25.6K sq mils
 It is very desirable to force the 65105 into a pin limited device.

The most reasonable schedule for prototypes is 9-20-84 for both NCR and USI with a follow up full custom design as soon as gate array logic is proven. The gate array device is gate limited at 1500 gates and not pin limited. A 900 gate array is 68 pin limited die size.