

EM02R222 - Combination SRAM with Chinese Character ROM

Low Power 32Kx8 SRAM with 256Kx8 Mask ROM containing dot matrix GB chinese character codes with phrases (vertical sequence)

Overview

The EM02R222 is an integrated memory device containing both a low power 256 Kbit Static Random Access Memory (organized as 32,768 words by 8 bits), and a 2 Mbit Mask ROM (organized as 262,144 words by 8 bits). It is fabricated using an advanced CMOS process and NanoAmp's high-speed/low-Power circuit technology.

This device contains pre-programmed information to display chinese characters in a dot matrix format. Characters are displayed by applying a character address on the most significant address lines and a consecutive serial binary sequence on the five least significant address bits to output the 16 by 16 dot matrix character. In other words, the most-significant 13 address lines select the character and the least-significant 5 address lines select one of the 32 data bytes within a character (see

Figures 1 and 2). All unused character code spaces are filled with data value 0 - representing blanks.

The EM02R222 implements the GB2312.1989 standard code between A1A1h and F7FEh (h representing "hex" format). Conversion of the 16 bit GB character code to the 13 bit character address for the EM02R222 uses a mathematical offset to reduce the required address lines (see next page). This version outputs the data vertically (each two bytes generate one vertical data line).

An additional feature of this product is the implementation of phrase display. This feature allows a character series or "phrase" to be accessed through transmission of a phrase number only.

FIGURE 1: Example Character Display

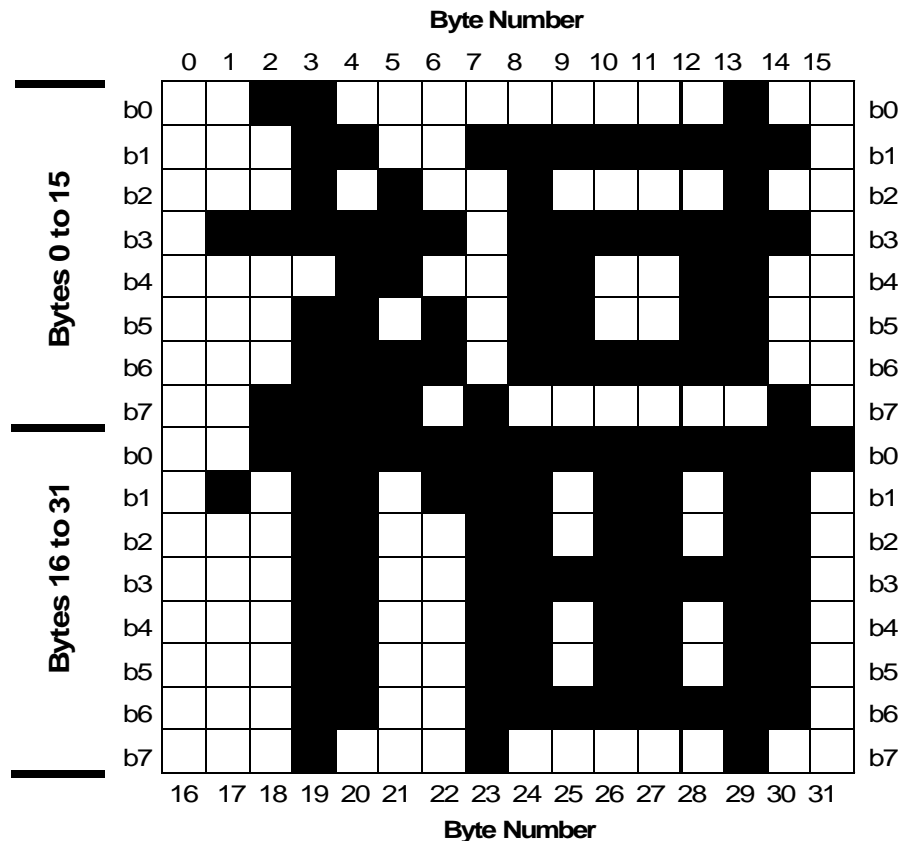
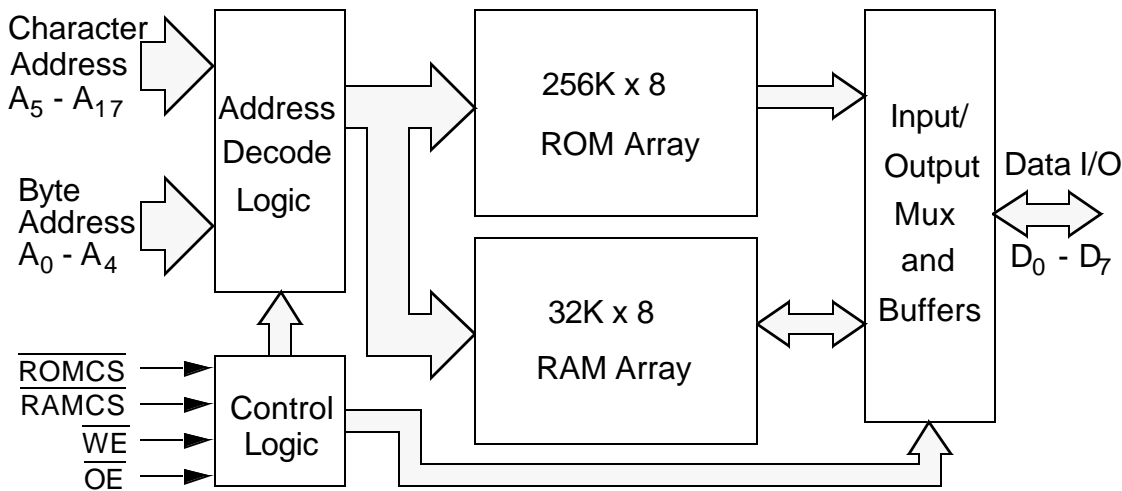


FIGURE 2: Functional Block Diagram



* Note: Addresses A0 through A14 are shared by both RAM and Character Rom

Character Code Translation

The GB 2312 standard defines a unique 16 bit binary code to identify each character. Because NanoAmp Solutions implements only the GB codes between hex A1A1 and hex F7FE, the 16 bit code can be mathematically translated to a 13 bit binary code. The address translation formula used in the EM02R222 is:

Address = (MSBh - A1h)*5Eh + (LSBh - A1h)

Where MSB is the most significant byte of the GB address and LSB is the least significant byte of the GB address.

Example:

GB character address A2A2h translates as follows:

(A2 - A1) * 5E + (A2 - A1)
= (1) * 5E + (1) = 5F (hex)
or binary 0 0000 0101 1111

Application of this binary code to the most significant bits of the device (A17 to A5) with addresses A4 to A0 set to 00000 will cause the byte 0 of GB character A2A2 to be presented. The balance of the character data is obtained by sequencing the byte addresses A0 to A4.

Accessing Phrases:

A Phrase reference address within the ROM has been set as 3F800. All multiple byte contents are stored in Big Endian format. A sequential phrase table has been constructed with each entry con-

taining a 2-byte quantity that points to the phrase storage. This pointer represents the relative offset from the reference address.

The first byte of the phrase storage is a single byte binary number indicating the number of bytes in the phrase. The GB character codes for the phrase begin with the second byte.

EXAMPLE:

Given that the reference address is 0x3F800 and the first few phrases are:

byte Count	Character Codes
8	A455 AF5A ABE1 A8A3
12	B751 ACF9 A741 A659 ADD3 B6BA

Then the information will be stored as follows

Address	Content
0x3F915	0xBA
0x3F914	0xB6
0x3F913	0xD3
0x3F912	0xAD
0x3F911	0x59
0x3F910	0xA6
0x3F90F	0x41

Address	Content
0x3F90E	0xA7
0x3F90D	0xF9
0x3F90C	0xAC
0x3F90B	0x51
0x3F90A	0xB7
0x3F909	0x12
0x3F908	0xA3
0x3F907	0xA8
0x3F906	0xE1
0x3F905	0xAB
0x3F904	0x5A
0x3F903	0xAF
0x3F902	0x55
0x3F901	0xA4
0x3F900	0x08
	•
	•
0x3F804	0x01
0x3F803	0x09
0x3F802	0x01
0x3F801	0x00
0x3F800	0x01

TABLE 1: Font Formats

Please see attached font layouts (pages 4-10)

[illegible][illegible]

A9A0 — — | | - - - - | | - - - - | |
A9B0 □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
A9C0 ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢ ⊢
A9D0 ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤ ⊤
A9E0 ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕
A9F0

BOAO	啊	阿	埃	挨	哎	唉	哀	皑	癌	蔼	矮	艾	碍	爱	隘
BOBO	鞍	氨	安	俺	按	暗	岸	案	肮	昂	盎	凹	敖	熬	翱
BOCO	袄	傲	奥	懊	澳	芭	捌	叭	吧	笆	八	疤	巴	拔	跋
BODO	靶	把	耙	坝	霸	罢	爸	柏	百	摆	佰	败	拜	稗	翅
BOEO	班	搬	扳	般	颁	板	扮	拌	伴	瓣	半	办	拌	邦	帮
BOFO	梆	棒	膀	绑	棒	蚌	蚌	傍	傍	苞	胞	包	褒	剥	

B1A0	薄	簪	堡	饱	宝	抱	报	暴	豹	鲍	爆	杯	碑	悲
B1B0	卑	北	贝	钹	倍	狃	备	惫	焙	被	奔	苯	本	笨
B1C0	崩	绷	泵	迸	逼	鼻	比	鄙	笔	彼	碧	薊	蔽	毕
B1D0	毙	恣	甬	闭	敝	弊	必	辟	壁	臂	避	陛	鞭	边
B1E0	编	贬	扁	变	辨	辩	遍	遍	标	彪	膘	表	鳖	憋
B1F0	别	揠	彬	濒	寘	揠	兵	冰	柄	丙	秉	饼	炳	

B2A0	病	并	玻	菠	播	拨	钵	波	博	勃	搏	铂	箔	伯	帛
B2B0	舶	膊	渤	泊	驳	捕	卜	哺	补	埠	不	布	步	簿	部
B2C0	怖	擦	猜	裁	才	财	睬	踩	采	彩	菜	蔡	餐	参	蚕
B2D0	残	惭	惨	灿	舱	仓	沧	藏	操	糙	槽	曹	草	厕	策
B2E0	侧	册	测	层	蹭	叉	茬	茶	查	碴	搽	察	岔	差	诧
B2F0	拆	柴	豺	搀	蝉	馋	馋	缠	铲	产	阐	颤	昌	猖	

33A0 场尝常长偿肠厂敞畅唱倡超抄钞朝
33B0 嘲潮巢巢炒炒车扯撤掣彻澈郴程惩澄诚晨
33C0 忱沉陈趁衬吃痴持匙池迟驰趾齿侈尺筹
33D0 承逞骋秤称冲虫崇抽酬畴踰除楚
33E0 赤翅斥炽充初出橱厨踰除楚
33F0 仇绸瞅丑臭初出橱厨踰除楚

34A0 础储矗矗创吹炊捶捶垂春椿醇刺窳摧崔催达
34B0 窗幢床床创吹炊捶捶垂春椿醇刺窳摧崔催达
34C0 蠢戳绌绌从从翠翠村存存戴
34D0 葱葱窗窗粹粹粹粹粹粹粹粹粹粹粹粹粹粹粹粹
34E0 脆粹粹粹粹粹粹粹粹粹粹粹粹粹粹粹粹
34F0 答答答答答答答答答答答答答答答答

35A0 怠耽担丹单郸捍胆旦氮但憚淡诞弹
35B0 蛋当挡党荡档刀捣蹈倒岛鄧导到稻悼
35C0 道盗德得的蹬灯登等蒂帝弟递缔颠
35D0 敌笛狄狄典典典典典典典典典典典典
35E0 据据据据据据据据据据据据据据据据
35F0 刁刁刁刁刁刁刁刁刁刁刁刁刁刁刁刁

36A0 丁盯叮钉顶鼎錠定订丢东冬董懂动
36B0 栋侗洞睹堵兑队对墩吨蹲敦惰而
36C0 独读堵兑队对墩吨蹲敦惰而
36D0 独读堵兑队对墩吨蹲敦惰而
36E0 独读堵兑队对墩吨蹲敦惰而
36F0 独读堵兑队对墩吨蹲敦惰而

37A0 贰发罚筏伐乏阙法祛藩帆番翻樊矾
37B0 钜繁凡烦反返范贩犯饭泛坊芳方肪
37C0 防妨仿访放菲啡飞肥匪啡份份份份
37D0 沸费芬封夫敷敷敷敷敷敷敷敷敷敷
37E0 羹丰封夫敷敷敷敷敷敷敷敷敷敷
37F0 佛否夫敷敷敷敷敷敷敷敷敷敷

38A0 浮涪福祓弗甫抚辅俯釜斧脯腑腐
38B0 赴副覆赋复傅付阜父腹富富富富富
38C0 咐咐咐咐咐咐咐咐咐咐咐咐咐咐咐咐
38D0 感感感感感感感感感感感感感感感感
38E0 膏膏膏膏膏膏膏膏膏膏膏膏膏膏膏膏
38F0 葛葛葛葛葛葛葛葛葛葛葛葛葛葛葛葛

B9A0 埂耿梗工攻功恭龚供躬公宫弓珙汞
B9B0 拱贡共钩勾沟苟狗垢构购够辜菇咕
B9C0 估沽孤姑鼓古蛊骨谷关硅归龟国果
B9D0 刚寡挂褂乖拐瑰规圭棍锅郭国果
B9E0 灌贯光广逛瑰规圭棍锅郭国果
B9F0 桂柜跪贵刽棍规圭棍锅郭国果

BAA0 骸孩海氦亥害骸酣憨邯韩含涵寒函
BAB0 喊罕翰撼好耗号赫裼烘虹壶
BAC0 豪毫郝河恒轰呼
BAD0 盒貉阂衡轰呼
BAE0 亨横候
BAF0 吼厚候

BBA0 弧虎唬护互沪户花哗华猾滑画划化
BBB0 话槐徊怀淮坏欢环桓还缓换患唤
BBC0 涣涣宦幻荒慌恢徊回昏昏昏昏昏
BBDD 恍慌灰挥辉恢恢恢恢恢恢恢恢恢
BBE0 稂荒会烩汇讳霍
BBF0 火获或惑霍

BCA0 肌饥迹激讥鸡姬绩缉吉极棘辑籍集
BCB0 及急疾汲即嫉级挤几己蒺技翼伎
BCC0 祭剂悸济寄寂计记既脊蓟技翼伎
BCDD 夹佳家加荚煎兼肩艰鉴
BCE0 监坚尖笺间煎兼肩艰鉴
BCF0 捺捺捺捺捺捺捺捺捺捺捺捺捺捺捺捺

BDA0 健舰剑饅渐碱涧建僵姜将浆江疆蒋
BDB0 桀桀桀桀桀桀桀桀桀桀桀桀桀桀桀桀
BDC0 嚼嚼嚼嚼嚼嚼嚼嚼嚼嚼嚼嚼嚼嚼嚼嚼
BDD0 叫窖揭接戒藉锦
BDE0 洁结津
BDF0 金金金金金金金金金金金金金金金金

BEA0 尽劲荆兢茎睛晶鯨京惊精梗经井警
BEB0 景颈静境敬镜径痉靖竟竟净炯窘井
BEC0 纠玖韭居驹句爵
BED0 拘狙狙狙狙狙狙狙狙狙狙狙狙狙狙狙
BEE0 距踞踞踞踞踞踞踞踞踞踞踞踞踞踞
BEF0 攫抉抉抉抉抉抉抉抉抉抉抉抉抉抉抉

CBA0 恕刷耍梓衰甩帅栓栓霜双夷谁水睡
CBB0 税吮瞬顺舜说硕朔烁斯嘶思私司丝
CBC0 死肆寺嗣四伺似伺巳松耸耸怂颂送宋讼
CBD0 诵搜艘檄嗽苏酥俗素速粟岁穗遂它塔
CBE0 肃酸蒜算虽隋随绥髓碎所塌他她崇孙
CBF0 损笋蓑梭峻缩琐索锁所塌他她崇孙

CCA0 獭批蹶蹶胎苔抬台泰酖太态汰坍推
CCB0 贪雍滩坛檀痰潭谭谈坦毯袒碳探涛滔
CCC0 汤塘塘堂棠腔唐糖倘躺趟烫掏梯剔田
CCD0 缘萄桃逃陶陶替嚏惕藤滕疼誉天添填
CCE0 锦提题蹄啼体替嚏惕藤滕疼誉天添填
CCF0 甜恬舔腆挑条迢眺眺贴铁帖厅听炆

CDA0 汀廷停亭庭挺挺通桐酖瞳同铜彤童
CDB0 桶捅统痛偷投透透凸秃突图徒途涂
CDC0 桶屠土吐兔湍团推颓腿腿蛻退屯替
CDD0 托脱陀驮驼推颓腿腿蛻退屯替
CDE0 袜歪外腕弯湾玩玩丸网往旺望忘
CDF0 宛婉万腕汪王亡枉网往旺望忘

CEA0 巍微危韦违桅围唯惟为淮维苇萎委
CEB0 伟仿尾纬未蔚味畏胃喂魏位渭谓尉
CEC0 卫瘟温文闻纹吻稳紊问翁瓮尉
CED0 渴窝我斡卧握沃巫呜乌污坞戊雾
CEE0 梧吾吴毋武五梧午舞伍伍伍锡
CEF0 勿务悟误昔熙析西晒砂晰吸锡牺

CFA0 稀息希悉膝夕惜熄熄熄溪沙犀撒袞
CFB0 习媳喜铣洗系隙戏细瞎鲜纤咸贤袞
CFC0 侠狹下厦夏吓掀掀先仙膳膳羡陷限
CFD0 闲涎弦嫌显险现献县膳膳羡陷限
CFE0 相厢镶香箱箫硝霄削哮器销消宵
CFF0 橡像象萧硝霄削哮器销消宵

D3A0 印英樱婴鹰应婴莹莹莹萤萤萤迎赢
D3B0 影颖硬映哟拥佣雍雍雍雍雍雍迎赢
D3C0 永永永永永永永永永永永永永永永
D3D0 有有有有有有有有有有有有有有有
D3E0 余余余余余余余余余余余余余余余
D3F0 羽羽羽羽羽羽羽羽羽羽羽羽羽羽羽

D1A0 选癣眩绚靴薛学穴雪血勋熏循旬询
D1B0 寻驯巡逡巡巡巡巡巡巡巡巡巡巡
D1C0 牙蚜崖衙延言颜阎焰焔仰
D1D0 研涎岩延雁暗彦焔仰
D1E0 燕厌砚雁暗彦焔仰
D1F0 佯痒痒痒痒痒痒痒痒痒痒痒痒痒痒

D2A0 摇尧遥窑瑶姚咬吕药要耀椰噎耶爷
D2B0 野冶也页掖业叶曳夜液一壹医揖铤
D2C0 依伊衣颐夷遗移仪膜疑沂宜姨彝椅
D2D0 倚已乙矣以艺抑易邑屹议谊翼引
D2E0 亦裔意毅忆义益溢诣议寅引
D2F0 茵茵茵茵茵茵茵茵茵茵茵茵茵茵

D0A0 小孝校肖啸笑效楔些歇蝎鞋协挟携
D0B0 邪斜新析写械卸蟹懈泄泻泻泻泻
D0C0 欣辛新析写械卸蟹懈泄泻泻泻
D0D0 行醒幸杏性姓兄凶凶凶凶凶凶凶
D0E0 朽嗅锈锈秀袖绣绣绣绣绣绣绣
D0F0 叙旭序畜恤絮絮絮絮絮絮絮絮絮

D4A0 浴寓裕预豫馭鸳渊冤元垣袁援
D4B0 园员圆猿猿猿猿猿猿猿猿猿猿猿猿猿
D4C0 岳粤月悦悦悦悦悦悦悦悦悦悦悦
D4D0 孕孕孕孕孕孕孕孕孕孕孕孕孕孕孕
D4E0 脏脏脏脏脏脏脏脏脏脏脏脏脏脏
D4F0 责责责责责责责责责责责责责责责

D5A0 侧侧侧侧侧侧侧侧侧侧侧侧侧侧侧
D5B0 瞻毡毡毡毡毡毡毡毡毡毡毡毡毡毡
D5C0 绽绽绽绽绽绽绽绽绽绽绽绽绽绽
D5D0 招招招招招招招招招招招招招招
D5E0 错错错错错错错错错错错错错错
D5F0 震震震震震震震震震震震震震震

D6A0 帧症郑证芝枝支歧知肢脂汁之织
D6B0 职直植殖执值侄址指趾旨旨旨旨
D6C0 掷至致置帜峙制智址指趾旨旨旨
D6D0 中盅忠钟衷衷衷衷衷衷衷衷衷衷
D6E0 粥轴肘帚咒咒咒咒咒咒咒咒咒咒
D6F0 逐竹烛煮拄瞩瞩瞩瞩瞩瞩瞩瞩瞩瞩

D7A0 住注祝驻抓爪拽专砖转撰赚篆桩庄
D7B0 装收撞壮椎锥追赘坠缀淳准捉拙卓
D7C0 桌琢茁酌啄着灼兹咨资姿滋淄纵邹走
D7D0 仔籽滓子自渍字踪踪宗综纂嘴醉最罪
D7E0 奏揍租足卒族祖沮阻组钻
D7F0 尊遵昨左佐柞做作坐座

D8A0 亅丌兀丂卩卂卅丕亘丞昂舜噩一禹人
D8B0 乚乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇
D8C0 乚乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇
D8D0 乚乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇
D8E0 乚乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇
D8F0 乚乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇乇

D9A0 佟侑佻佻佻佻佻佻佻佻佻佻佻佻佻
D9B0 侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑
D9C0 侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑
D9D0 侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑
D9E0 侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑
D9F0 侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑侑

DAA0 崧一冢冥主计江汕讴拒纳沽河抵诏
DAB0 崧一冢冥主计江汕讴拒纳沽河抵诏
DAC0 崧一冢冥主计江汕讴拒纳沽河抵诏
DAD0 崧一冢冥主计江汕讴拒纳沽河抵诏
DAE0 崧一冢冥主计江汕讴拒纳沽河抵诏
DAF0 崧一冢冥主计江汕讴拒纳沽河抵诏

DBA0 邸郢郢郢郢郢郢郢郢郢郢郢郢郢郢郢
DBB0 邸郢郢郢郢郢郢郢郢郢郢郢郢郢郢郢
DBC0 邸郢郢郢郢郢郢郢郢郢郢郢郢郢郢郢
DBD0 邸郢郢郢郢郢郢郢郢郢郢郢郢郢郢郢
DBE0 邸郢郢郢郢郢郢郢郢郢郢郢郢郢郢郢
DBF0 邸郢郢郢郢郢郢郢郢郢郢郢郢郢郢郢

DCA0 棚堉堉堉堉堉堉堉堉堉堉堉堉堉堉堉
DCB0 棚堉堉堉堉堉堉堉堉堉堉堉堉堉堉堉
DCC0 棚堉堉堉堉堉堉堉堉堉堉堉堉堉堉堉
DCD0 棚堉堉堉堉堉堉堉堉堉堉堉堉堉堉堉
DCE0 棚堉堉堉堉堉堉堉堉堉堉堉堉堉堉堉
DCF0 棚堉堉堉堉堉堉堉堉堉堉堉堉堉堉堉

DDA0 苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐
DDB0 苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐
DDC0 苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐
DDD0 苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐
DDE0 苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐
DDF0 苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐苐

DEA0 菓薏薏薏薏薏薏薏薏薏薏薏薏薏薏薏
DEB0 菓薏薏薏薏薏薏薏薏薏薏薏薏薏薏薏
DEC0 菓薏薏薏薏薏薏薏薏薏薏薏薏薏薏薏
DED0 菓薏薏薏薏薏薏薏薏薏薏薏薏薏薏薏
DEE0 菓薏薏薏薏薏薏薏薏薏薏薏薏薏薏薏
DEF0 菓薏薏薏薏薏薏薏薏薏薏薏薏薏薏薏

DFA0 摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺
DFB0 摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺
DFC0 摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺
DFD0 摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺
DFE0 摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺
DFF0 摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺摺

E0A0 嗜啖啖啖啖啖啖啖啖啖啖啖啖啖啖啖
E0B0 嗜啖啖啖啖啖啖啖啖啖啖啖啖啖啖啖
E0C0 嗜啖啖啖啖啖啖啖啖啖啖啖啖啖啖啖
E0D0 嗜啖啖啖啖啖啖啖啖啖啖啖啖啖啖啖
E0E0 嗜啖啖啖啖啖啖啖啖啖啖啖啖啖啖啖
E0F0 嗜啖啖啖啖啖啖啖啖啖啖啖啖啖啖啖

E1A0 帷幄幄幄幄幄幄幄幄幄幄幄幄幄幄幄
E1B0 帷幄幄幄幄幄幄幄幄幄幄幄幄幄幄幄
E1C0 帷幄幄幄幄幄幄幄幄幄幄幄幄幄幄幄
E1D0 帷幄幄幄幄幄幄幄幄幄幄幄幄幄幄幄
E1E0 帷幄幄幄幄幄幄幄幄幄幄幄幄幄幄幄
E1F0 帷幄幄幄幄幄幄幄幄幄幄幄幄幄幄幄

E2A0 猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱
E2B0 猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱
E2C0 猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱
E2D0 猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱
E2E0 猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱
E2F0 猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱猱

[illegible]

EFA0 铄 铈 铉 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍
 EFB0 铈 铉 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍
 EFC0 铉 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍
 EFD0 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍
 EFE0 铋 铌 铍 铈 铉 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍
 EFF0 铋 铌 铍 铈 铉 铊 铋 铌 铍 铈 铉 铊 铋 铌 铍

FOA0 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊
 FOB0 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊
 FOC0 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊
 FOD0 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊
 FOE0 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊
 FOF0 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊 稊

F1A0 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰
 F1B0 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰
 F1C0 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰
 F1D0 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰
 F1E0 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰
 F1F0 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰 瘰

F2A0 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄
 F2B0 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄
 F2C0 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄
 F2D0 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄
 F2E0 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄
 F2F0 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄 蛄

F3A0 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊
 F3B0 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊
 F3C0 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊
 F3D0 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊
 F3E0 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊
 F3F0 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊 蟊

F4A0 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞
 F4B0 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞
 F4C0 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞
 F4D0 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞
 F4E0 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞
 F4F0 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞 簞

F5A0 酢 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃
 F5B0 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃
 F5C0 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃
 F5D0 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃
 F5E0 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃
 F5F0 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃 酃

F6A0 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥
 F6B0 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥
 F6C0 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥
 F6D0 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥
 F6E0 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥
 F6F0 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥 觥

F7A0 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪
 F7B0 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪
 F7C0 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪
 F7D0 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪
 F7E0 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪
 F7F0 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪 簪

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