



中华人民共和国国家标准

GB/T 16960.1—1997

信息技术 藏文编码字符集(基本集) 24×48 点阵字型 第1部分:白体

Information technology—Tibetan coded character
set (basic set)—24×48 dots matrix font—Part 1: Bai Ti

1997-09-02 发布

1998-01-01 实施

国家技术监督局 发布

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前 言

本标准依据 GB 16959—1997 所提供的藏文字符,以我国藏文规范字形为基础并按照整理藏文字形的原则,具体地设计和规定了藏文信息系统用 24×48 点阵字型。

本标准的附录 A 是标准的附录。

本标准的附录 B 是提示的附录。

本标准由中华人民共和国电子工业部提出。

本标准由电子工业部标准化研究所归口。

本标准起草单位:西藏自治区藏语文工作指导委员会办公室、西北民族学院、西藏自治区技术监督局、西藏大学、青海师范大学。

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1 范围

本标准规定了信息处理和信息交换用藏文 24×48 点阵(横行点数×纵列点数)字型——白体。
本标准适用于藏文信息系统,也适用于其他有关设备。

2 引用标准

下列标准所包含的条文,通过在本标准中引用而构成本标准的条文。本标准出版时,所示版本均为有效。所有标准都会被修订,使用本标准的各方应探讨使用下列标准最新版本的可能性。

GB 16959—1997 信息技术 信息交换用藏文编码字符集 基本集

3 定义

本标准采用下列定义。

3.1 字形 glyph

一个可辨认的抽象的图形符号,它不依赖于任何特定的设计。

3.2 字型 font

具有同一基本设计的字形图像的集合,如白体。

3.3 点阵字型 dot matrix font

以点的集合来表示图形字符的形状。

3.4 字序 character order

藏文在一定的集合中按一定规则排列的次序。

4 藏文图形字符

本标准依据 GB 16959 提供的图形字符 168 个。包括:

- a) 藏文字母:30 个;
- b) 梵音藏文字母:11 个;
- c) 藏文组合用字符:58 个;
- d) 藏文数字符:20 个;
- e) 其他图形符号:49 个。

5 点阵字型的表示方法

5.1 栅格

国家技术监督局 1997-09-02 批准

1998-01-01 实施

栅格由若干条等距离的垂直与水平线相交叉而形成。

本标准规定的是 24×48 点阵字型,其栅格是横向 24 格,纵向 48 格。每个方格的中心定为点的中心位置。

栅格仅对构成点阵字型各点进行字位, 24×48 点阵栅格图如图 1 所示:

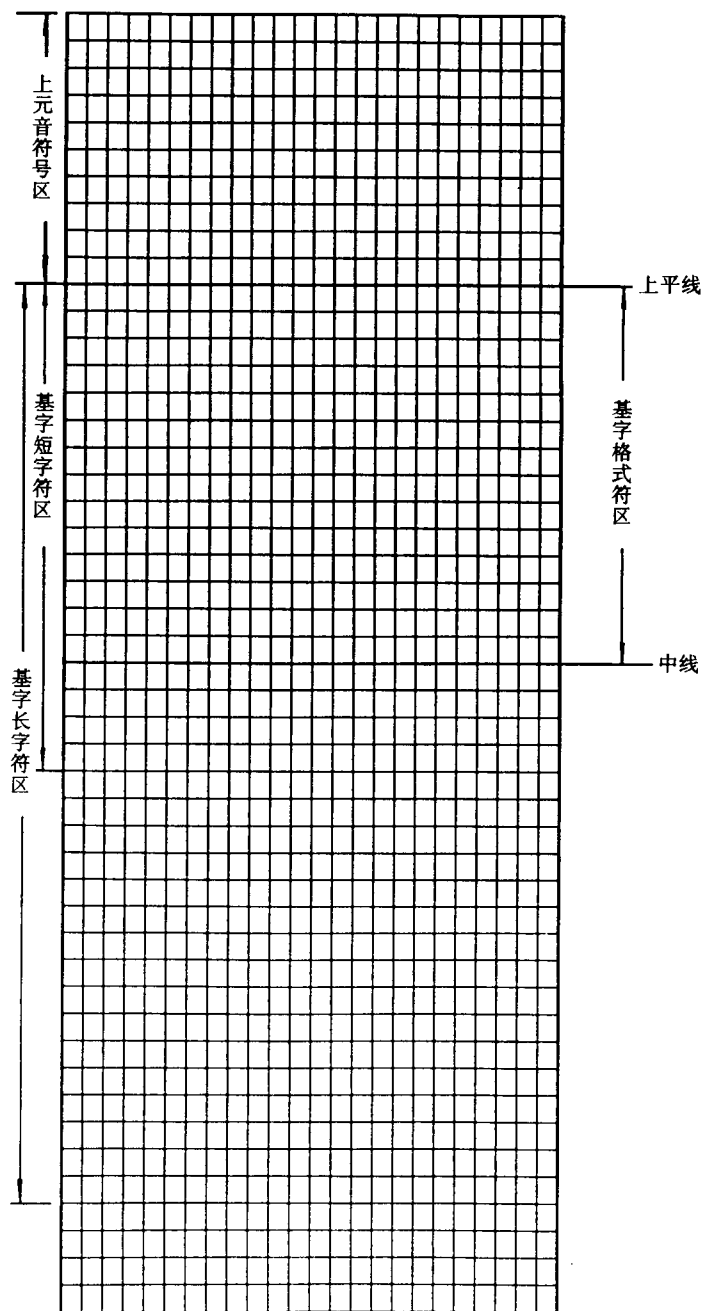


图 1 栅格图

5.2 点

点是构成点阵字型的最小单位,位于方格内的黑色区域。

5.3 字样

藏文点阵字型的字样,由置于栅格内的若干个点的集合来表示。藏文点阵字样示例如图 2 所示:

0F55 ీ

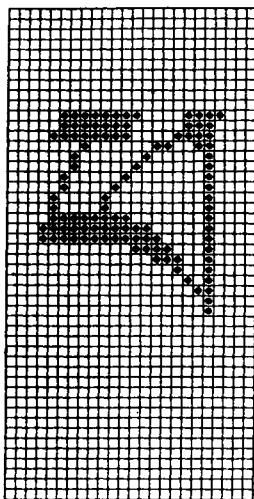


图 2 藏文字母 PHA 式样

6 藏文点阵字型

6.1 字数

本标准包含了 168 个藏文图形字符的点阵字型。

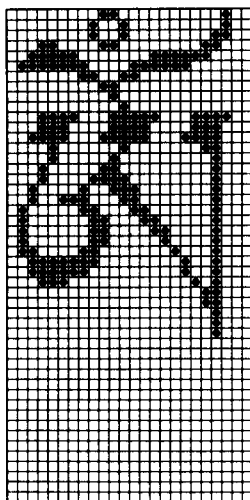
6.2 藏文字型数据

藏文 24×48 点阵字型数据的表示,见附录 A。

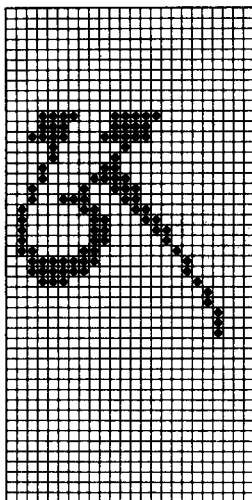
6.3 点阵字型式样

本标准给出藏文 24×48 点阵字型的式样如下:

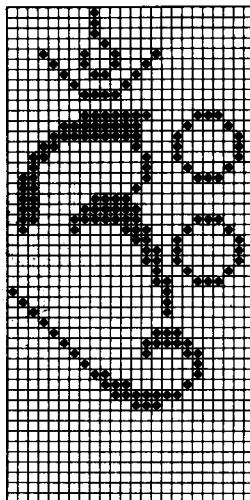
0F00 𑀓



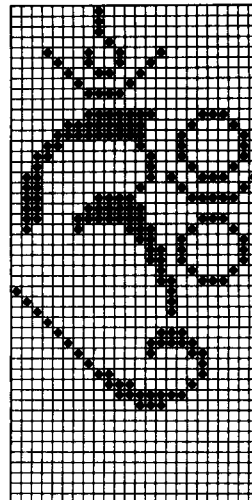
0F01 𑀔



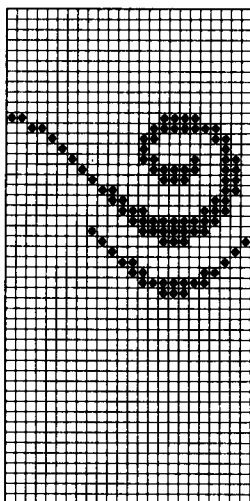
0F02 𑀕



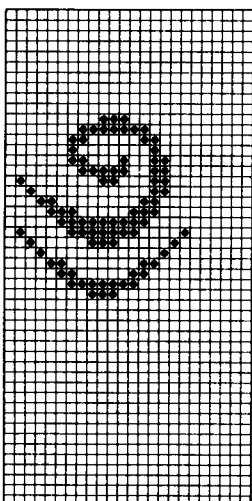
0F03 𑀖



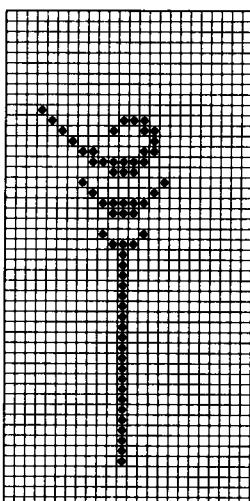
0F04 𑀗



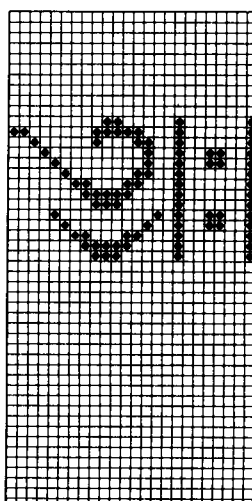
0F05 𑀘



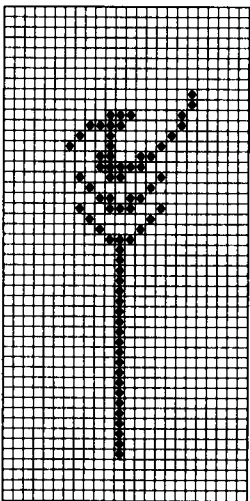
0F06 𑀙



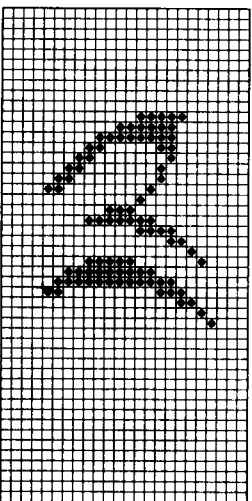
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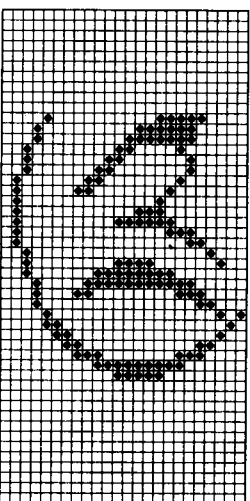
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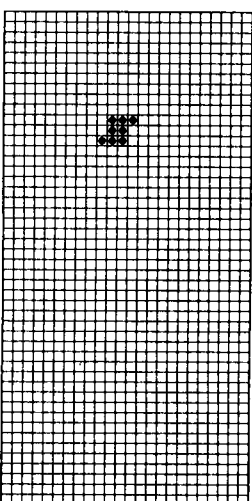
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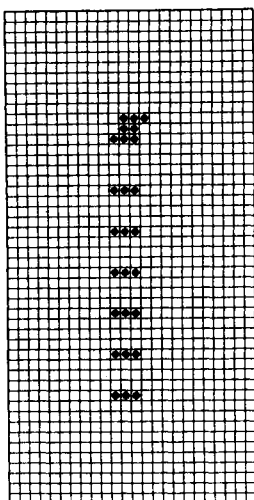
0F0A 𑀝



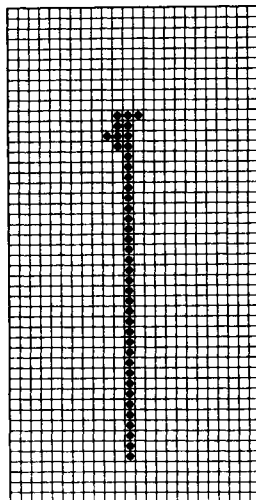
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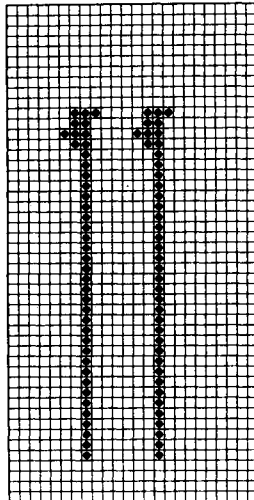
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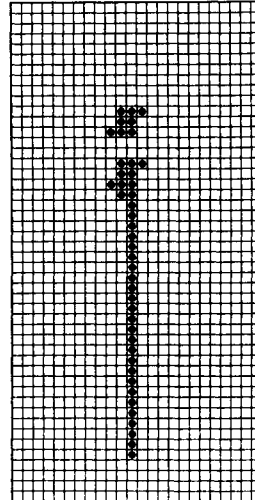
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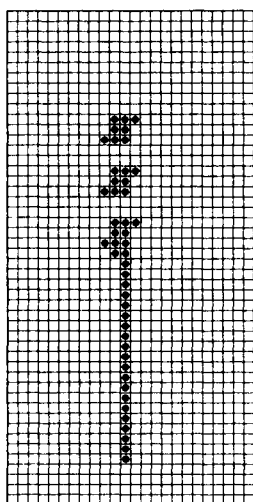
0F0E



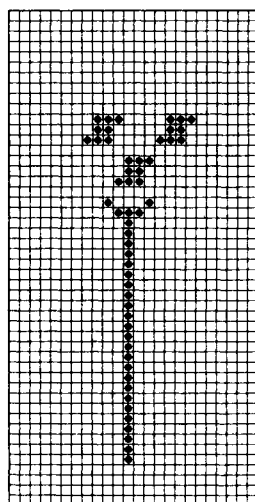
0F0F



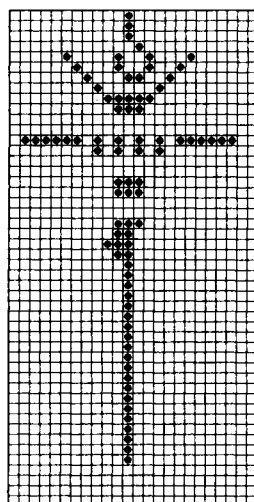
0F10



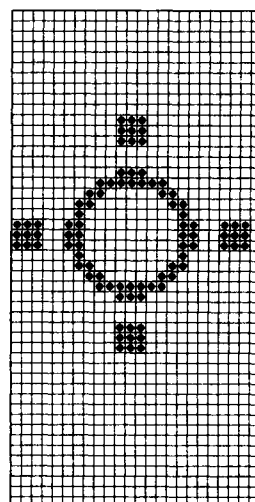
0F11



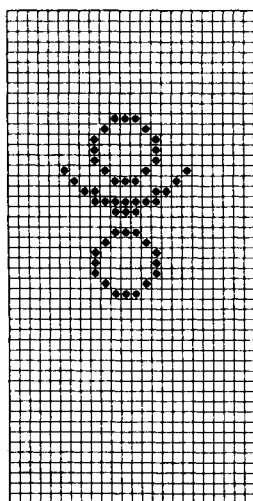
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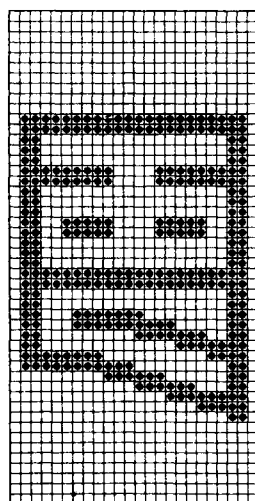
0F13



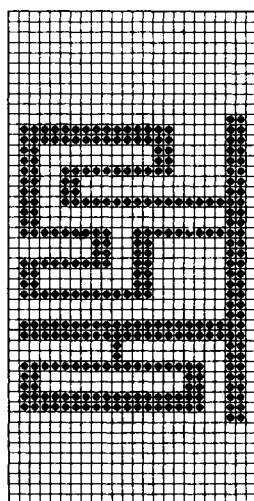
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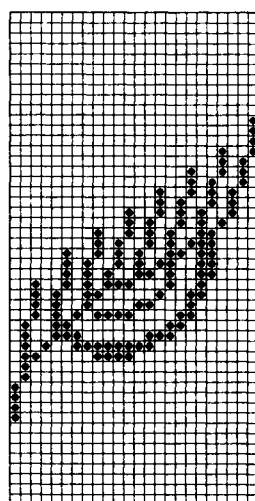
0F15



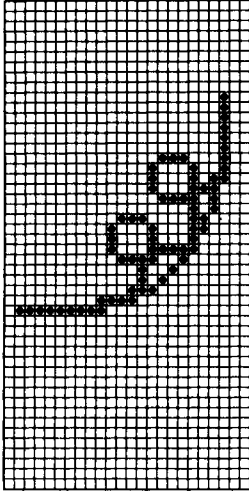
0F16



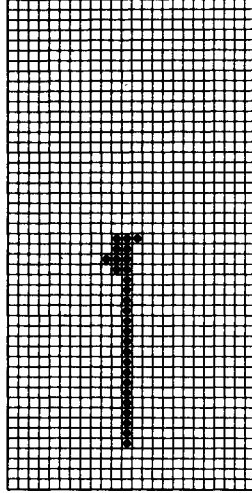
0F17



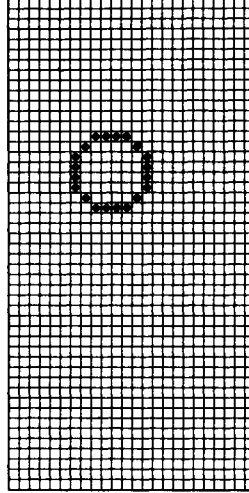
0F18 ㄥ



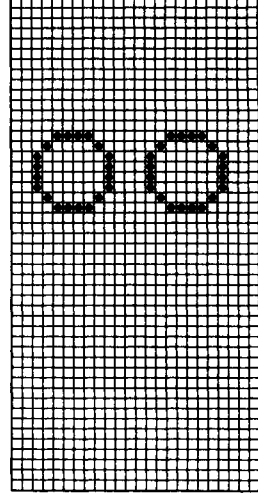
0F19 1



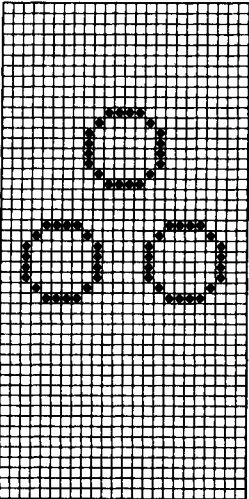
0F1A °



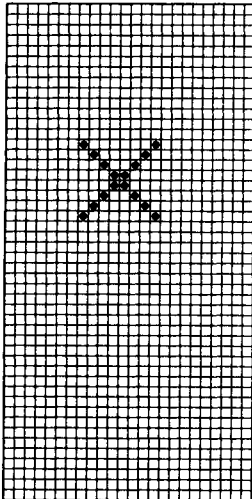
0F1B °°



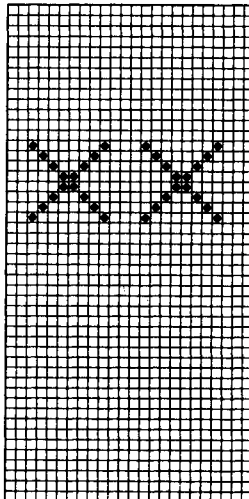
0F1C °°



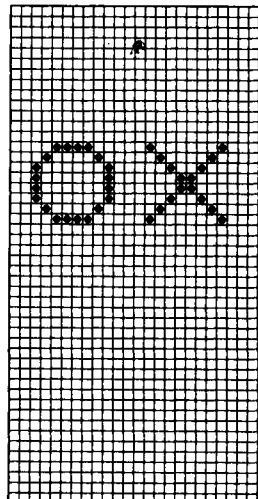
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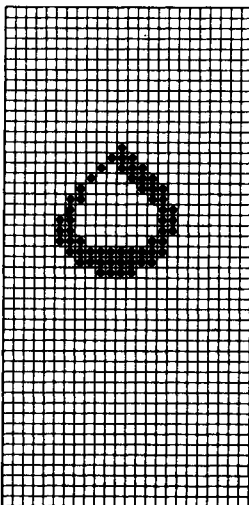
0F1E ××



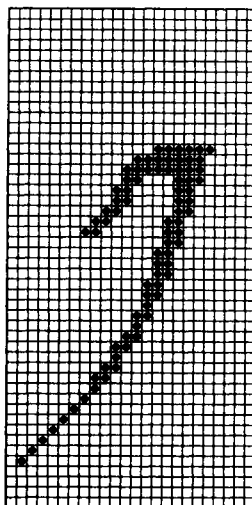
0F1F °×



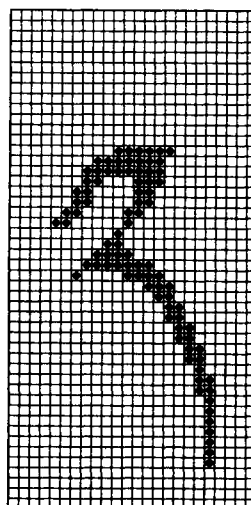
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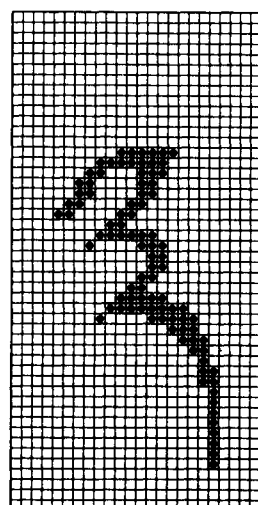
0F21 7



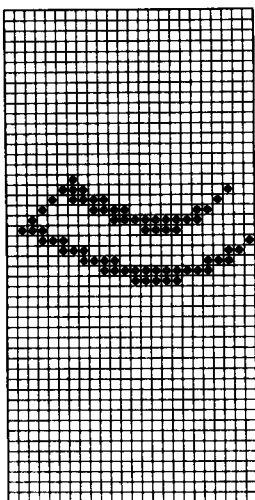
0F22 3



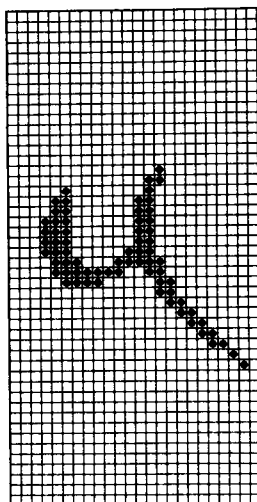
0F23 3



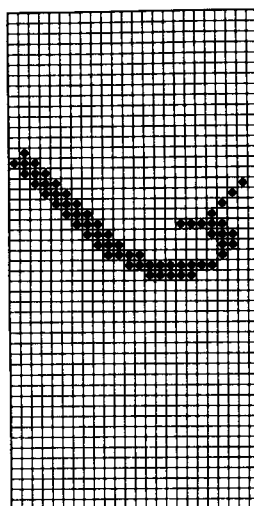
0F24 ≈



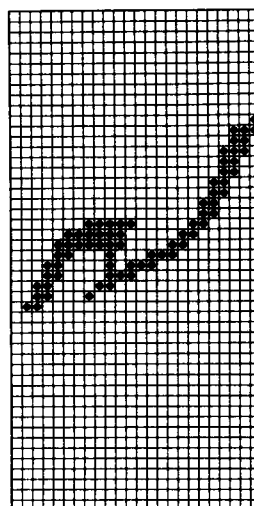
0F25 ㄣ



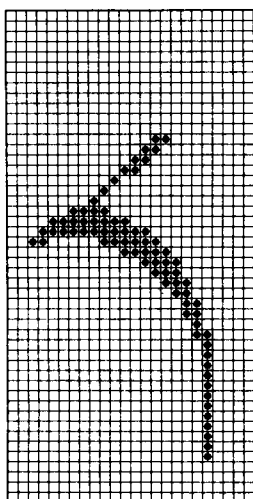
0F26 ㄣ



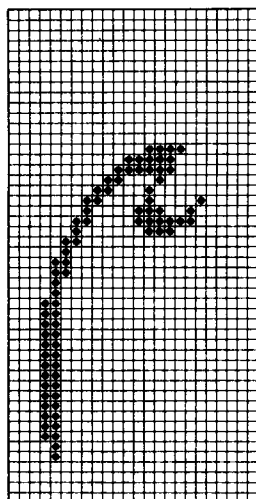
0F27 ㄣ



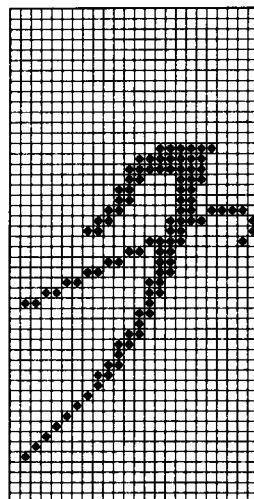
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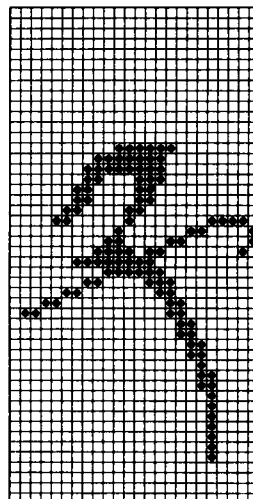
0F29 ㄣ



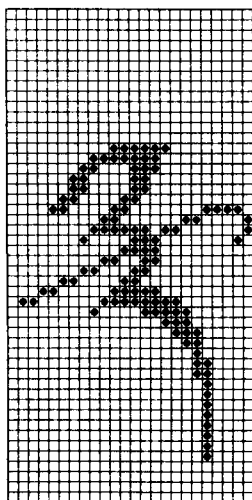
0F2A ㄣ



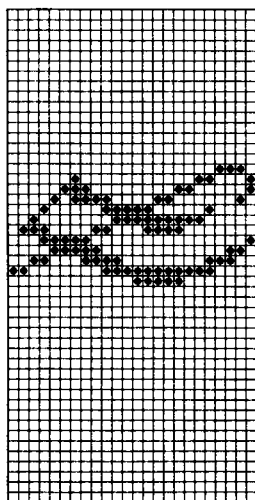
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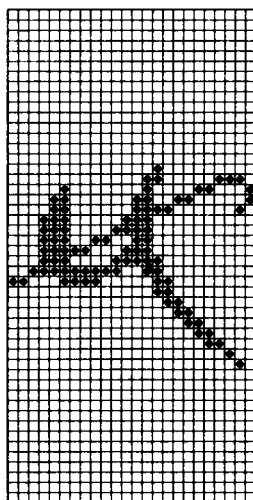
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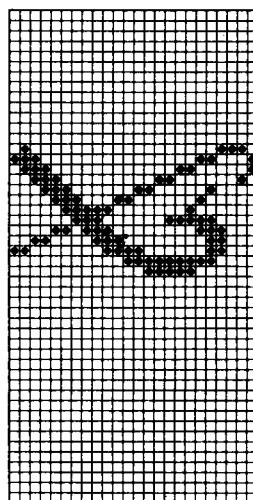
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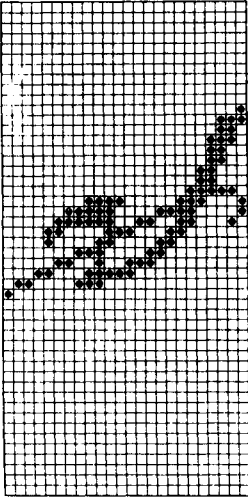
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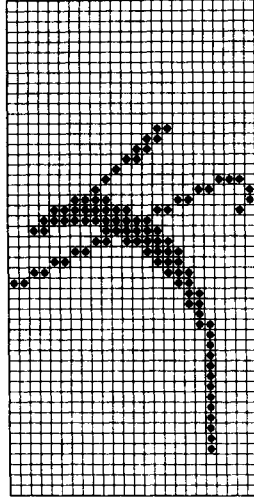
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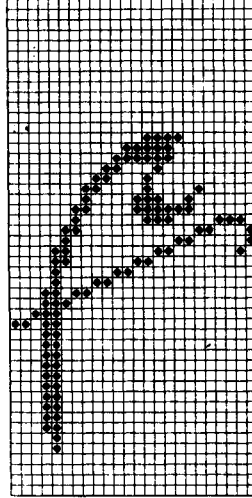
0F30 ㄣ



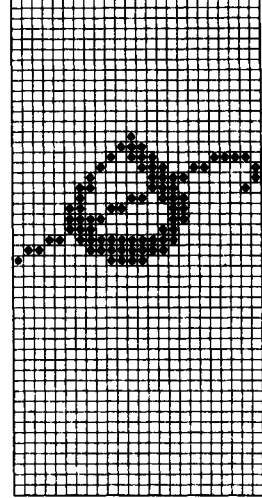
0F31 ㄥ



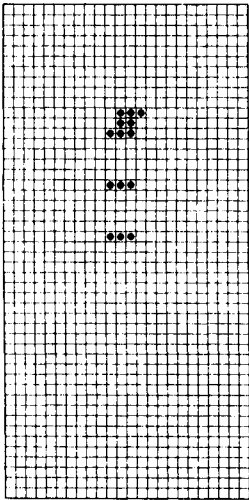
0F32 ㄟ



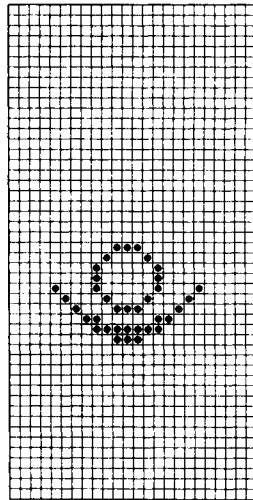
0F33 ㄠ



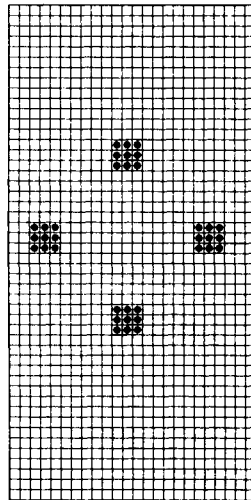
0F34 ㄡ



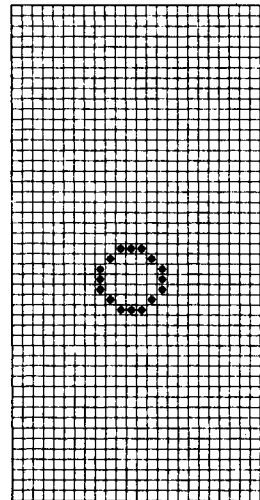
0F35 ㄣ



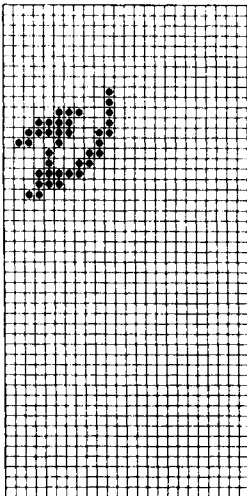
0F36 ㄤ



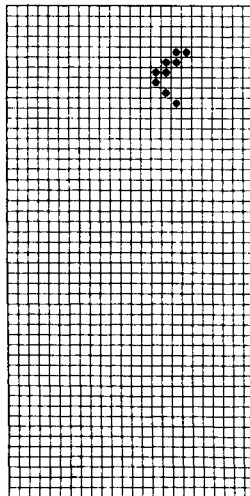
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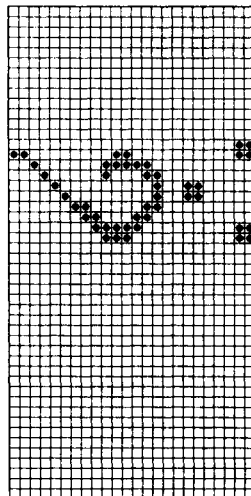
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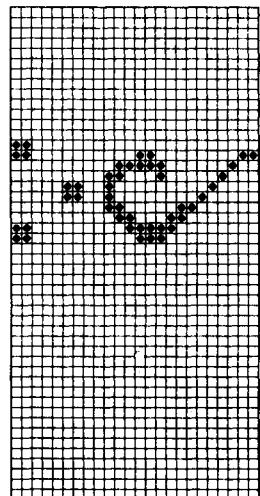
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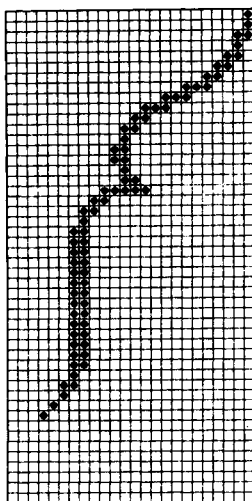
0F3A ㄟ



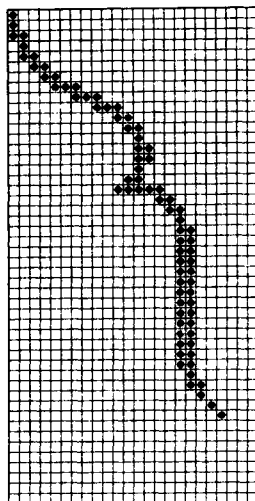
0F3B ㄠ



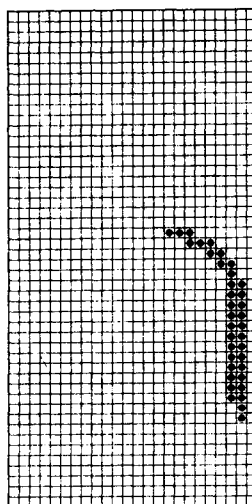
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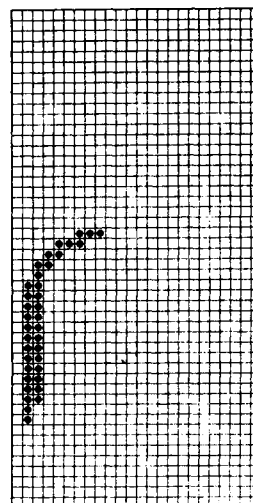
0F3D



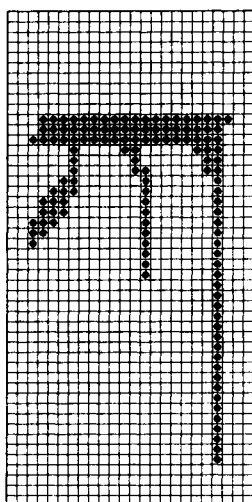
0F3E



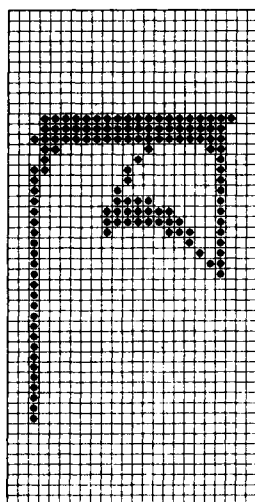
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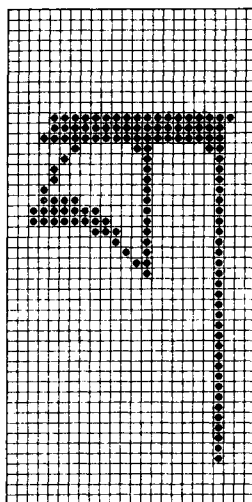
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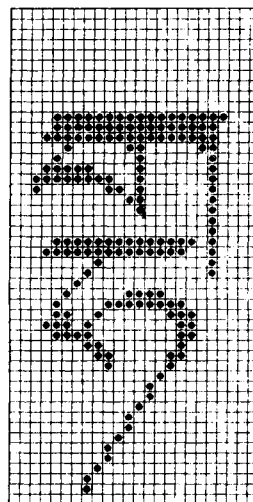
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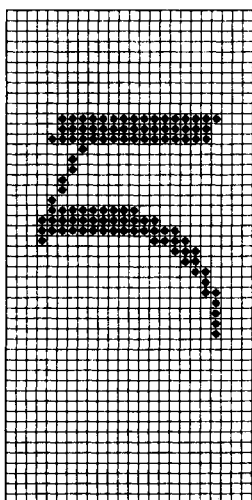
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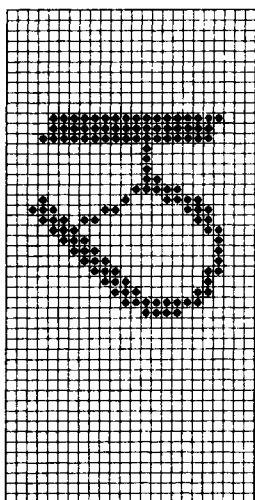
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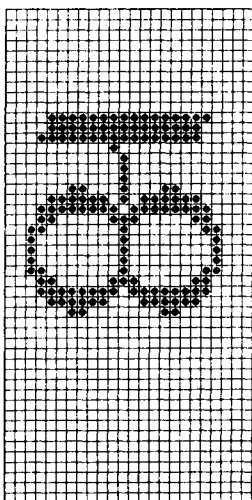
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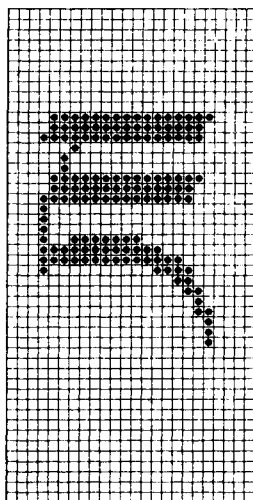
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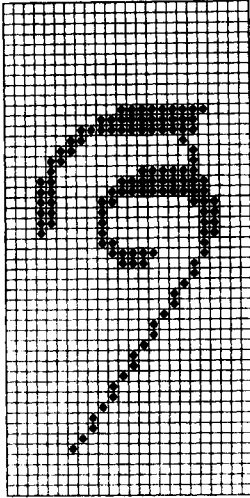
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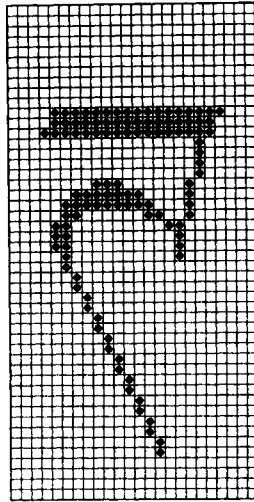
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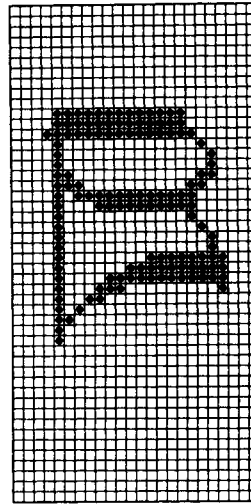
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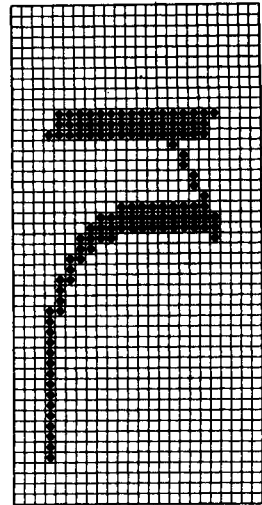
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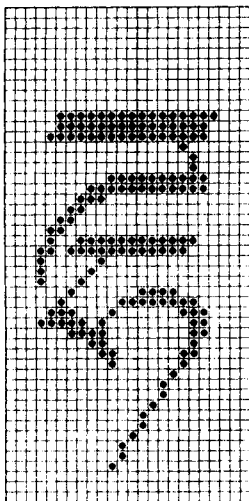
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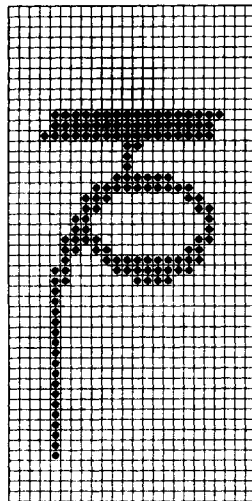
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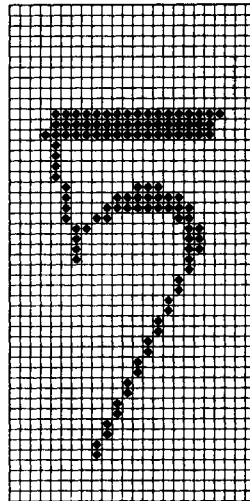
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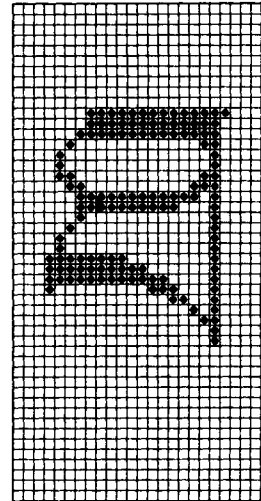
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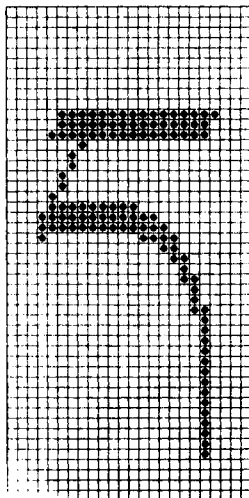
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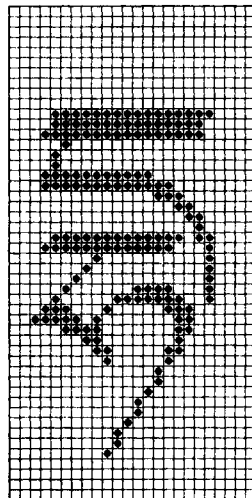
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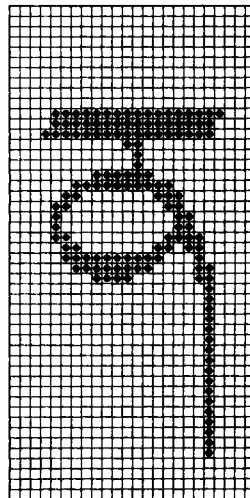
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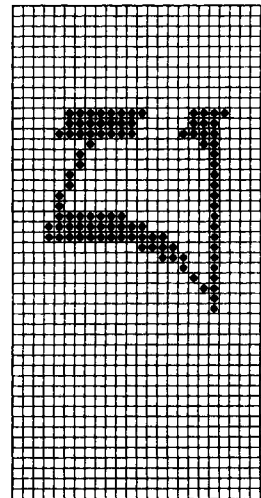
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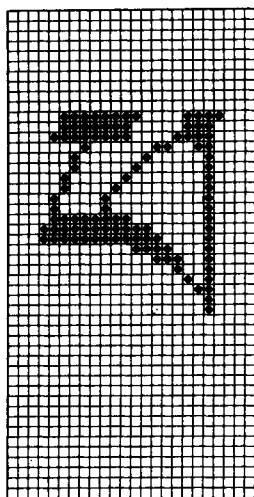
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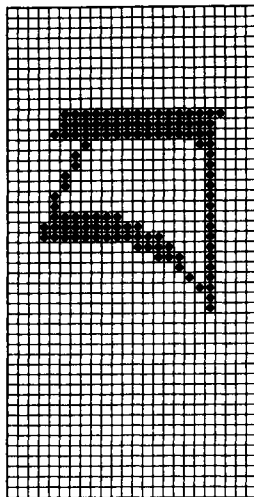
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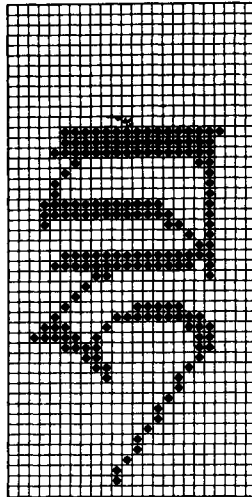
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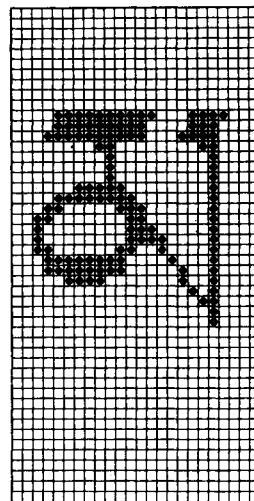
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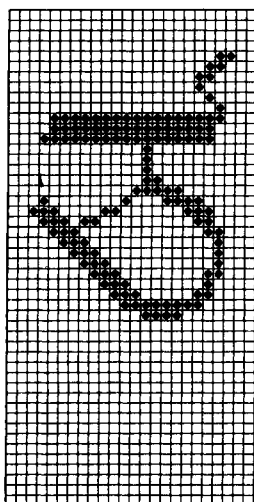
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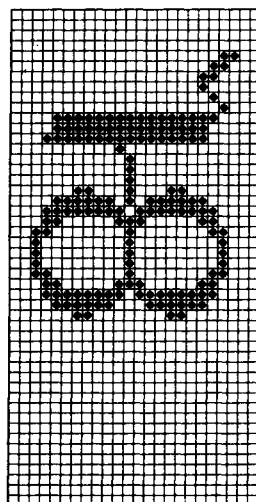
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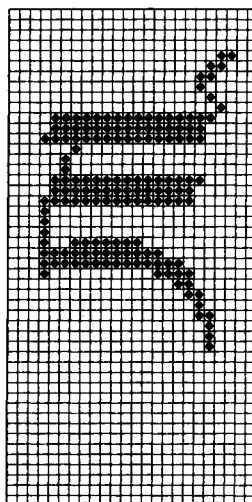
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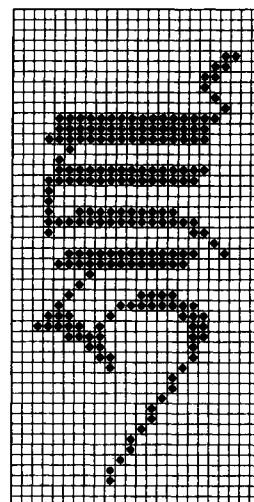
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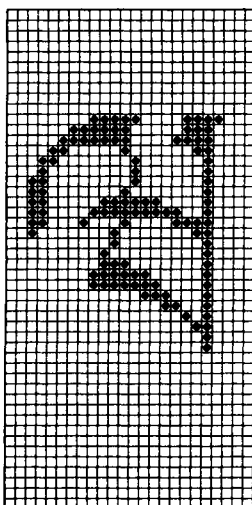
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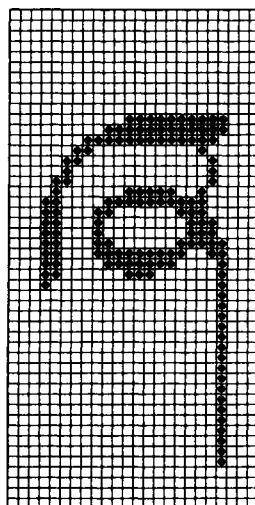
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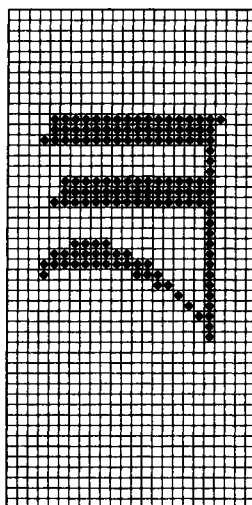
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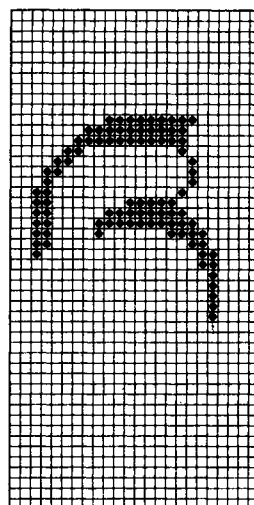
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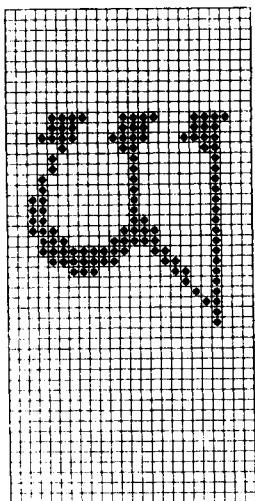
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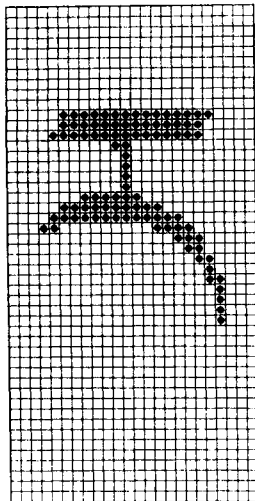
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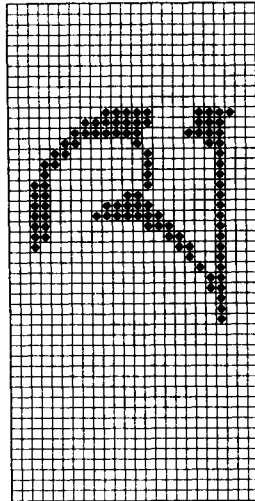
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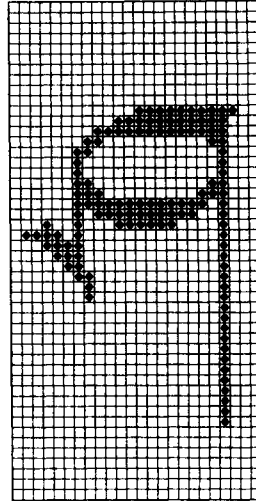
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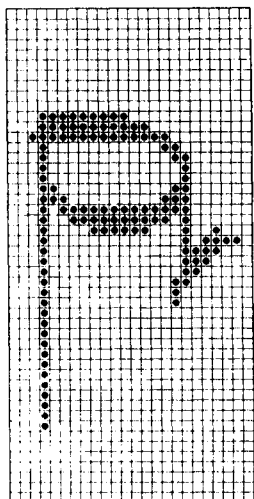
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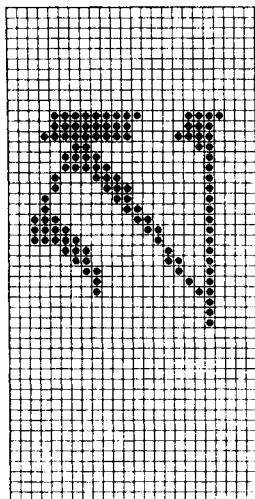
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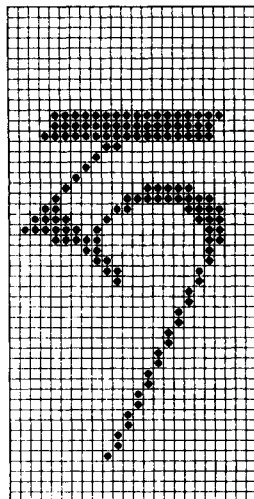
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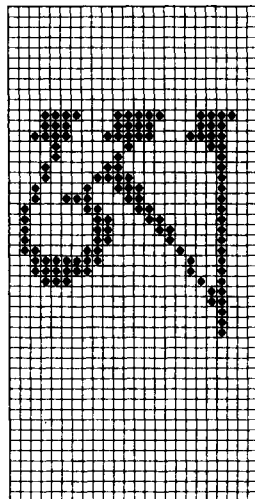
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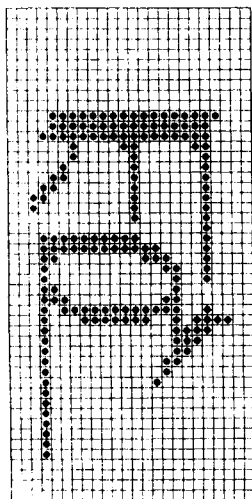
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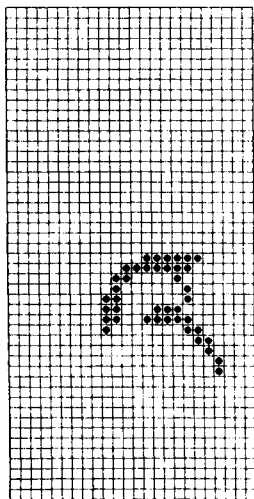
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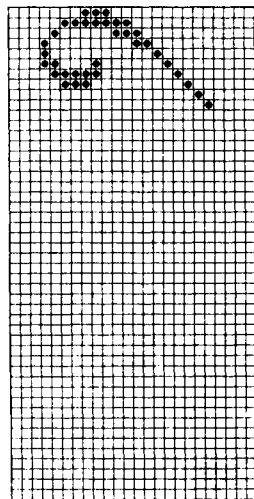
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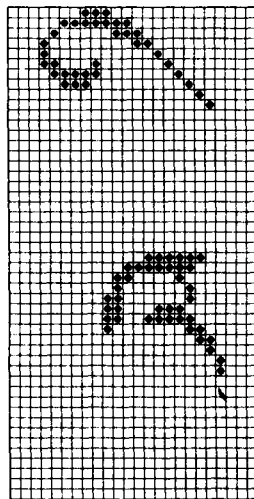
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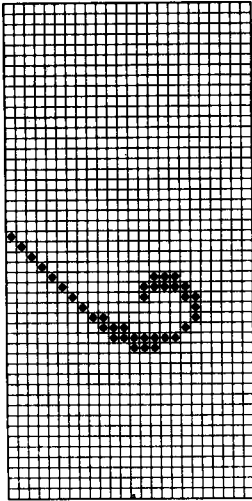
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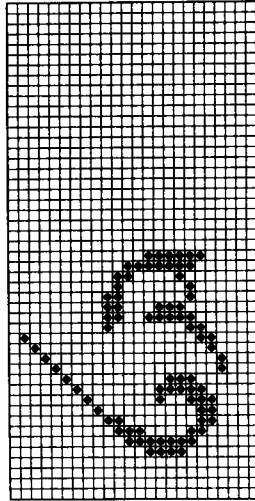
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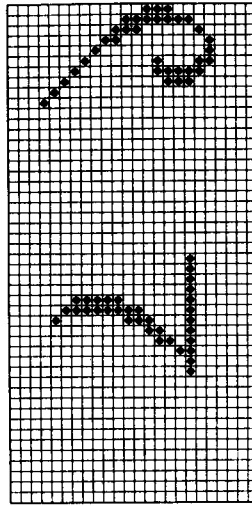
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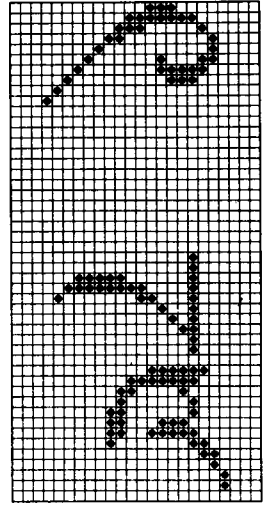
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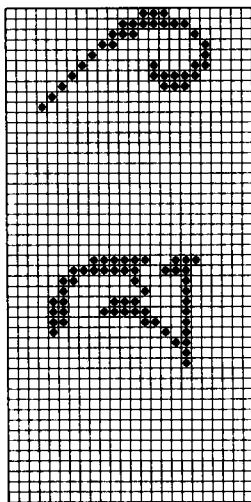
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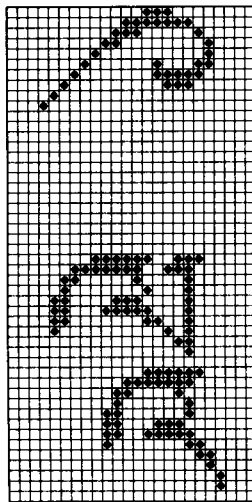
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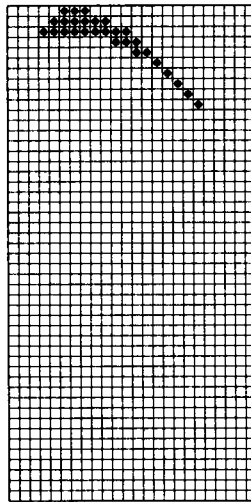
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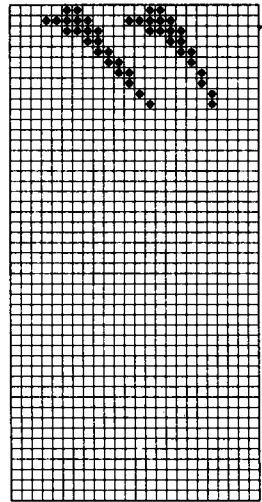
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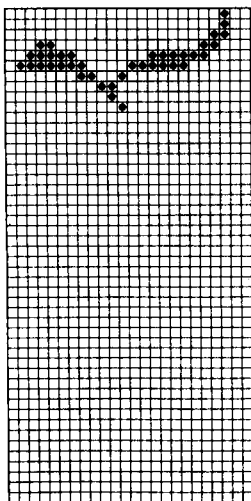
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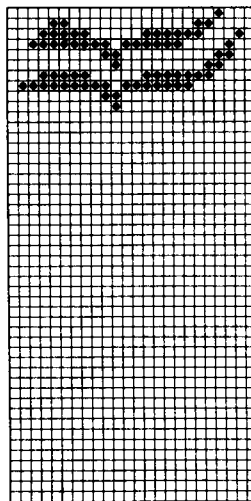
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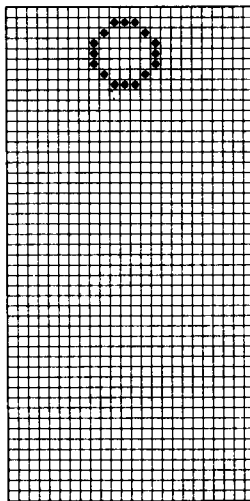
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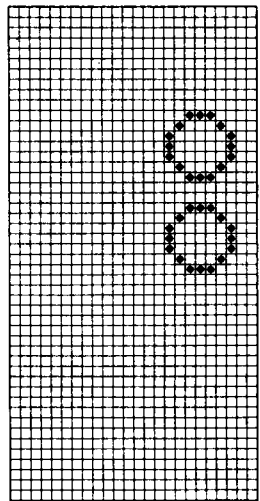
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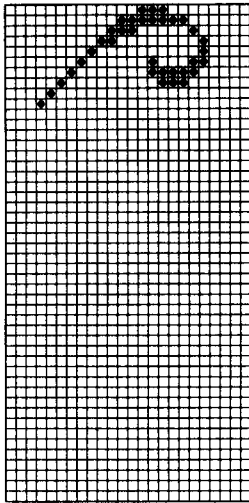
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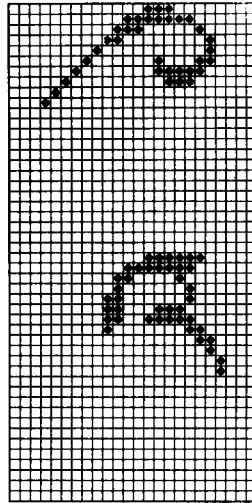
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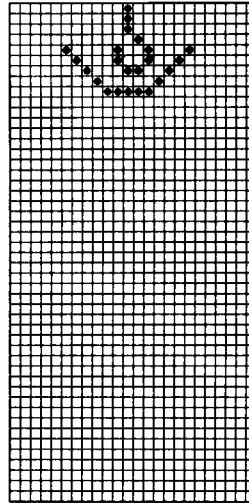
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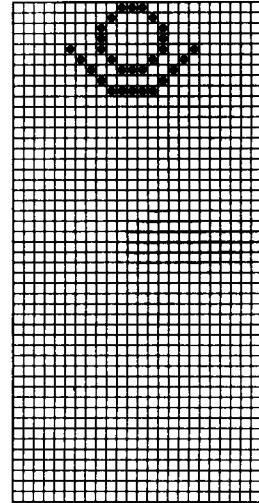
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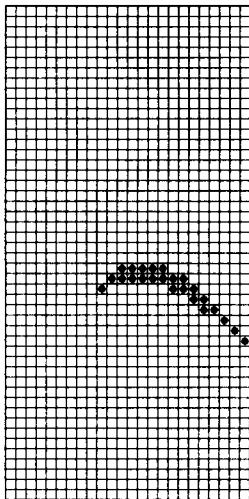
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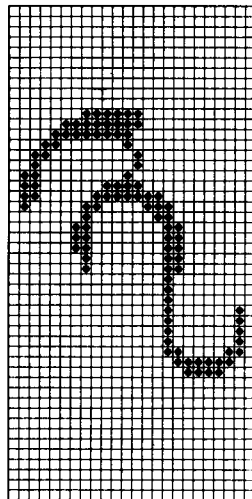
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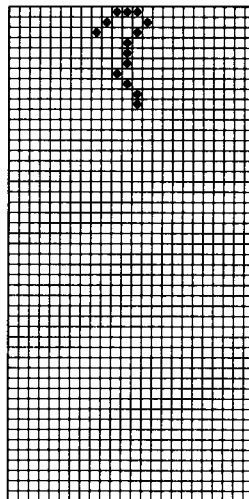
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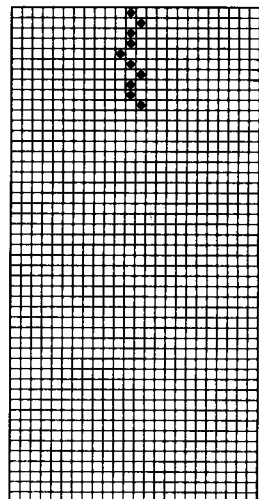
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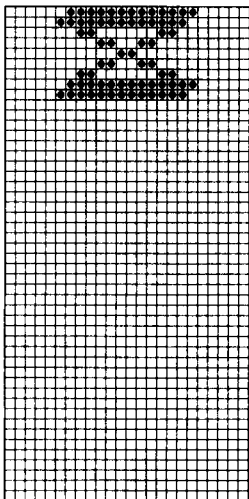
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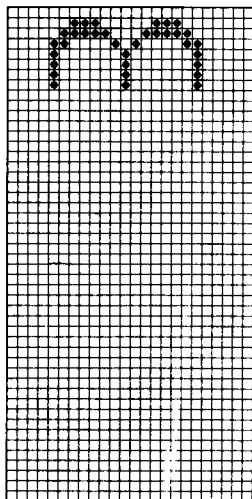
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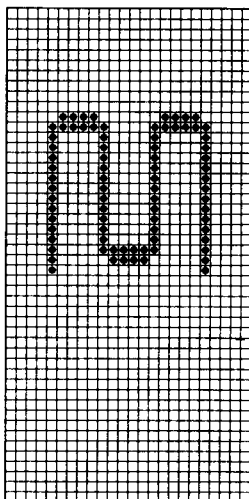
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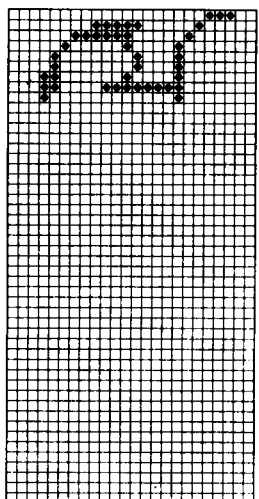
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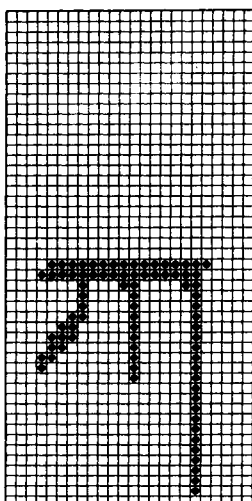
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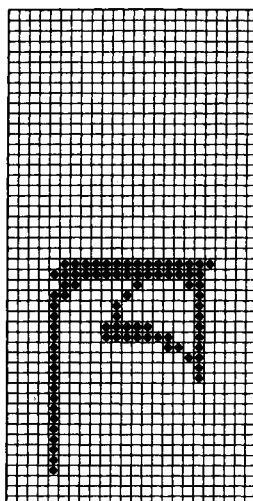
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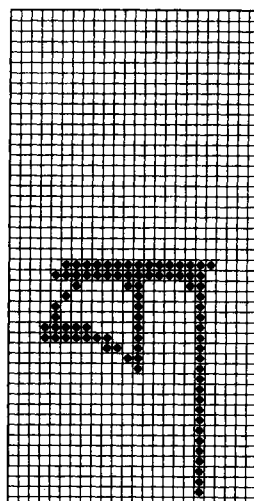
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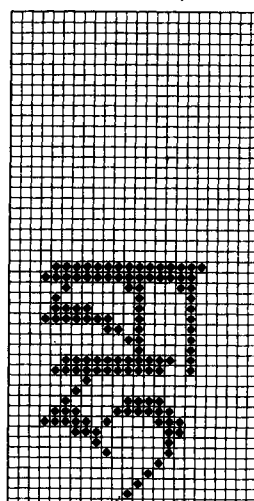
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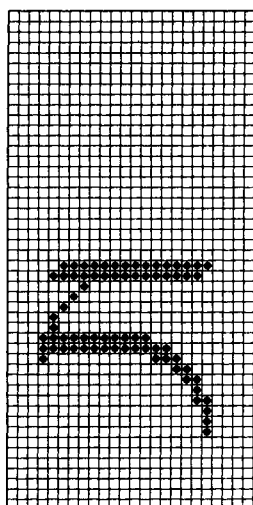
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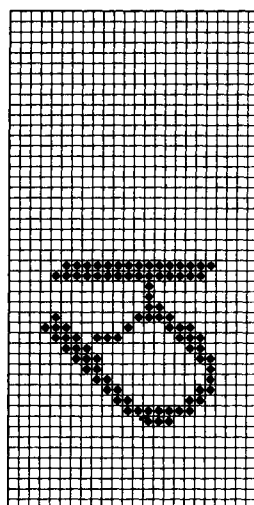
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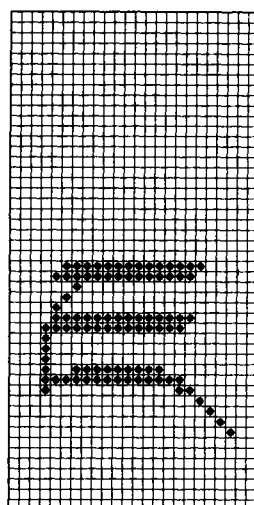
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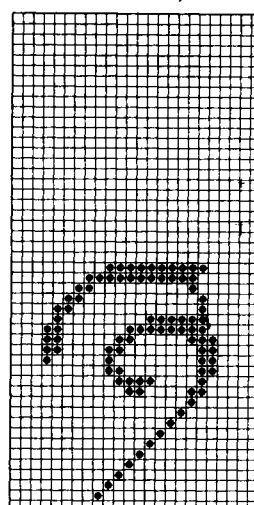
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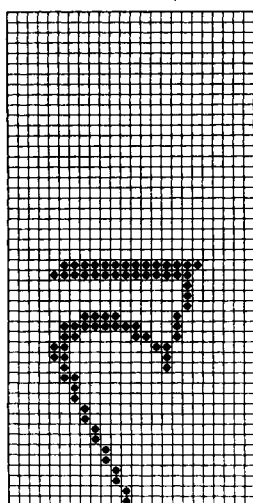
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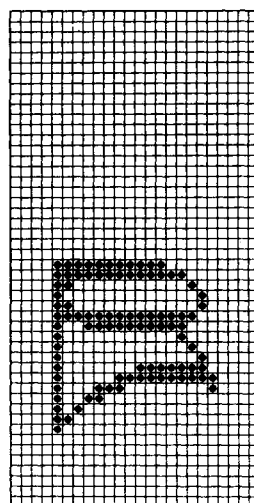
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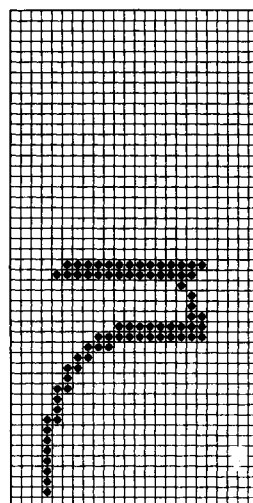
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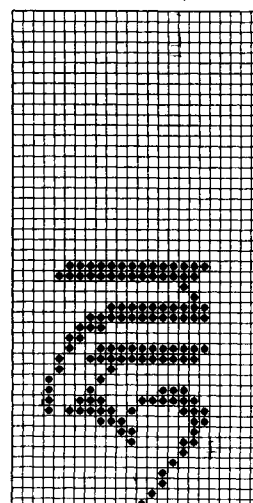
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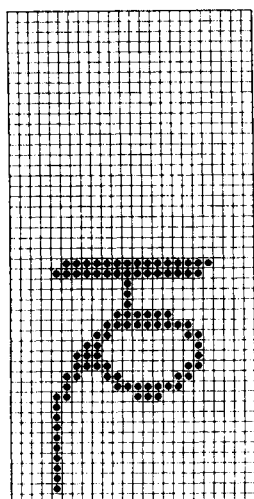
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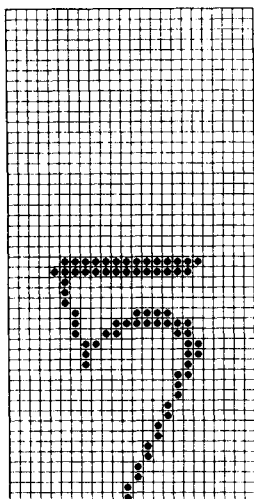
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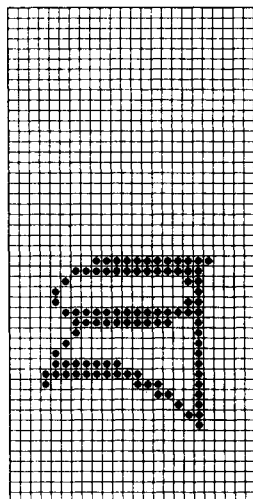
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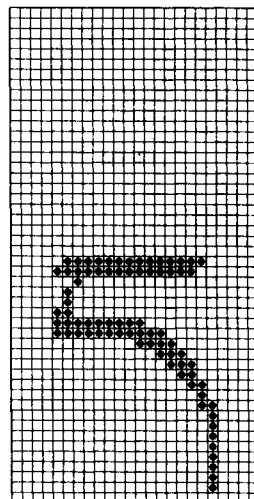
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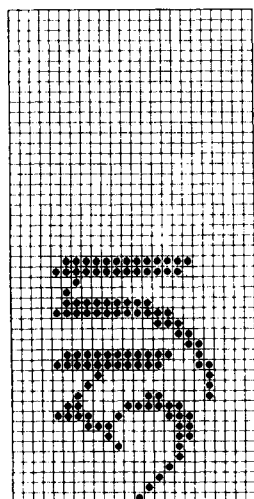
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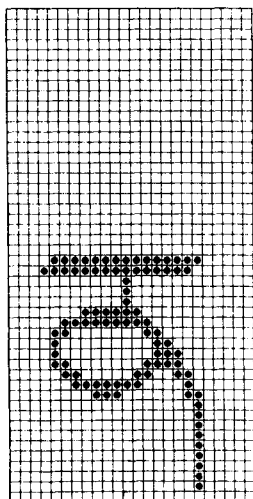
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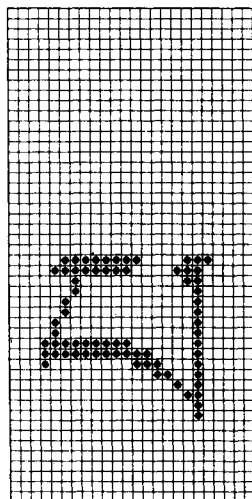
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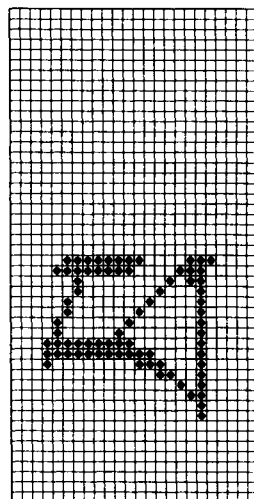
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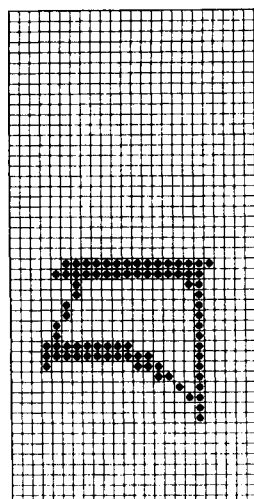
0FA4 𐑫



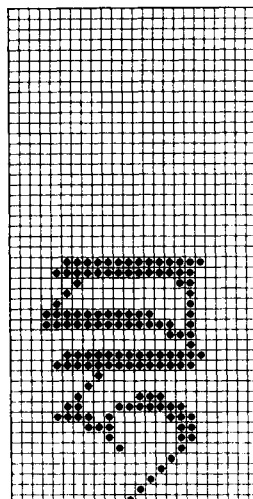
0FA5 𐑬



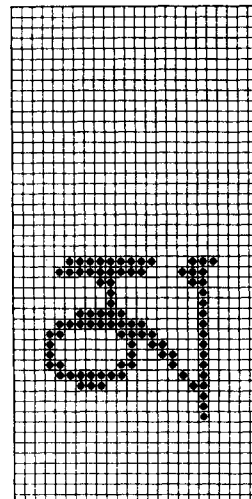
0FA6 𐑭



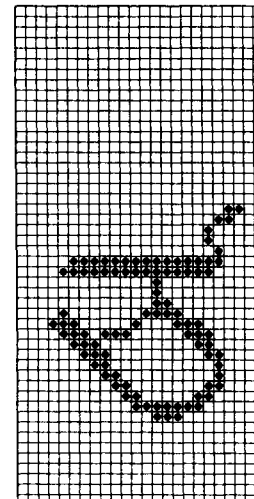
0FA7 𐑮



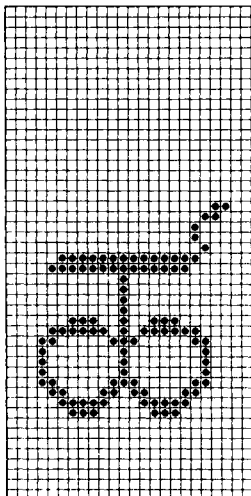
0FA8 𐑯



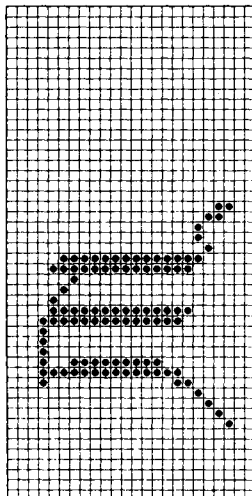
0FA9 𐑰



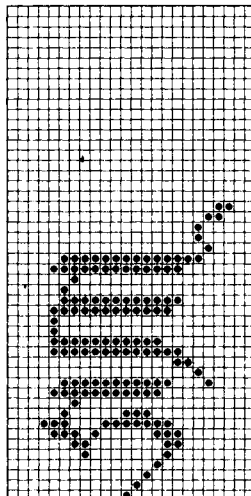
0FAA 𑍀



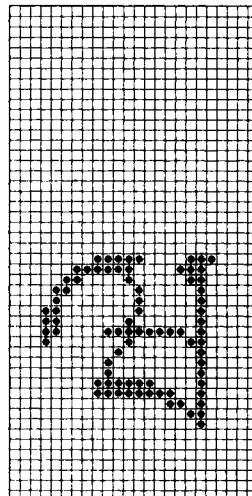
0FAB 𑍁



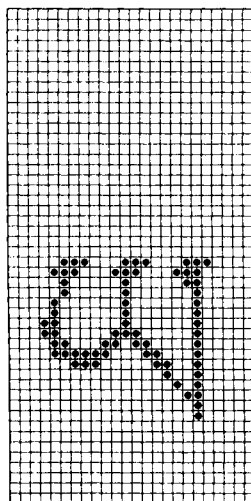
0FAC 𑍂



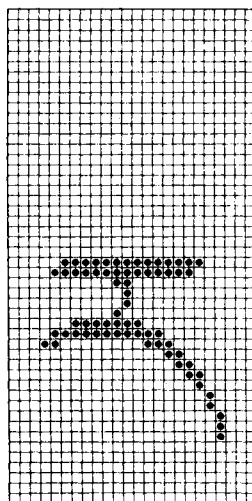
0FAD 𑍃



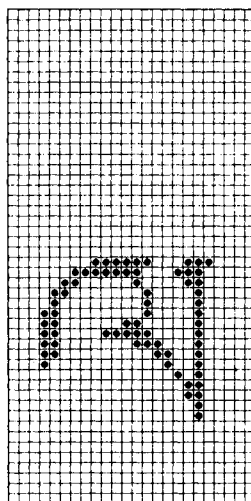
0FB1 𑍄



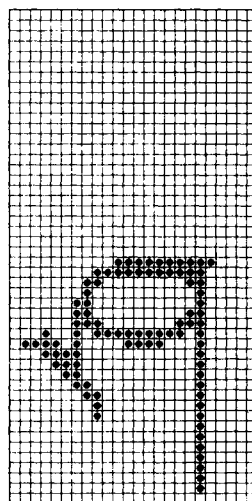
0FB2 𑍅



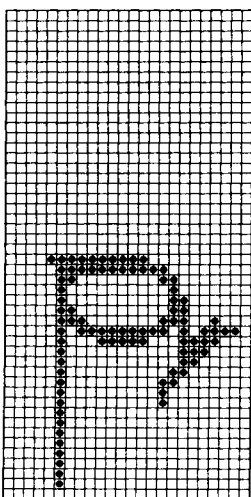
0FB3 𑍆



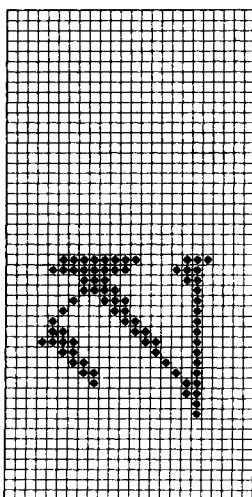
0FB4 𑍇



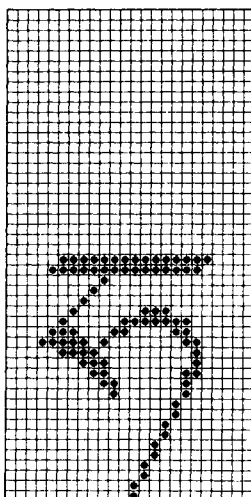
0FB5 𑍈



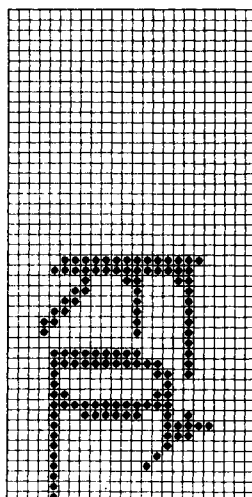
0FB6 𑍉



0FB7 𑍊



0FB9 𑍋



附录 A
(标准的附录)
藏文 24×48 点阵字型数据

A1 藏文点阵字型数据的表示

本标准中,藏文的字符的字型可由其点阵数据来表示。每个字型的点阵数据为 24×48(横行点数×纵列点数),共 1 152 个二进制位、144 个字节。

A2 藏文点阵字型数据的记录格式

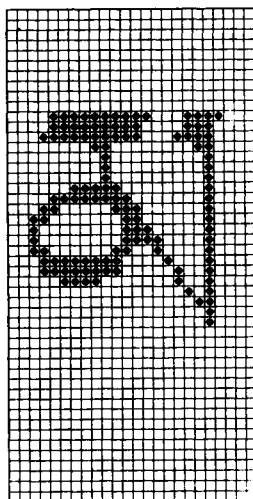
藏文 24×48 点阵字型数据的 144 个字节,排列次序是从 0 字节开始至 143 字节结束,均用十六进制表示,其记录格式如下:

列数 行数	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
0	0 字节								1 字节								2 字节							
1	:								:								:							
2	:								:								:							
3	:								:								:							
:	:								:								:							
:	:								:								:							
:	:								:								:							
47	141 字节								142 字节								143 字节							

A3 藏文 24×48 点阵字型数据

藏文 24×48 点阵字型数据举例如下：

0F58 ཨ



```
00 00 00    1f e1 10
00 00 00    1f e0 90
00 00 00    07 80 90
00 00 00    00 00 50
```

```
00 00 00    00 00 00
00 00 00    00 00 10
00 00 00    00 00 10
00 00 00    00 00 00
```

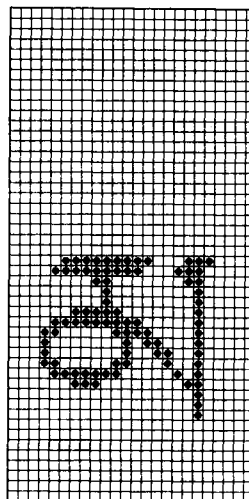
```
00 00 00    00 00 00
00 00 00    00 00 00
0f fc 78    00 00 00
0f f8 70    00 00 00
```

```
1f f8 f0    00 00 00
00 c0 30    00 00 00
00 40 10    00 00 00
00 40 10    00 00 00
```

```
00 40 10    00 00 00
03 10 10    00 00 00
0f f0 10    00 00 00
18 38 10    00 00 00
```

```
30 18 10    00 00 00
20 1c 10    00 00 00
20 1e 10    00 00 00
30 32 10    00 00 00
```

0FA8 ཨ



```
00 00 00    07 fc 70
00 00 00    0f f8 e0
00 00 00    00 c0 60
00 00 00    00 40 20
```

```
00 00 00    00 40 20
00 00 00    03 e0 20
00 00 00    0f f8 20
00 00 00    18 3c 20
```

```
00 00 00    10 16 20
00 00 00    10 13 20
00 00 00    18 31 20
00 00 00    0f e0 a0
```

```
00 00 00    03 80 60
00 00 00    00 00 20
00 00 00    00 00 20
00 00 00    00 00 20
```

```
00 00 00    00 00 00
00 00 00    00 00 00
00 00 00    00 00 00
00 00 00    00 00 00
```

```
00 00 00    00 00 00
00 00 00    00 00 00
00 00 00    00 00 00
00 00 00    00 00 00
```

附 录 B
(提示的附录)
藏文变形字符

为了在实际应用系统中实现藏文字母变形输出显现,因此规定了四个藏文变形字符的点阵字型。

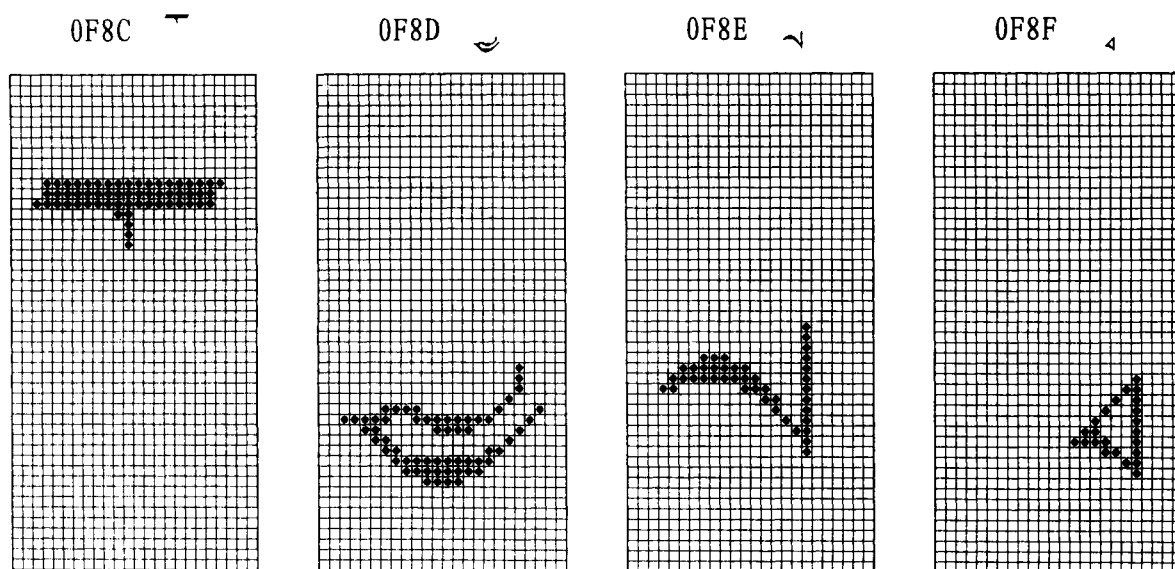
B1 藏文变形字符

藏文字母 ཨ་ 作为上加字变形为 ཨ̣, 藏文字母 ཨ̣, ཨ̣, ཨ̣ 作为下加字时变形为 ཨ̣, ཨ̣, ཨ̣。

B2 藏文变形字符推荐编码

藏文变形字符推荐编码为 0F8C~0F8F

B3 藏文变形字符 24×48 点阵字型建议如下



中 华 人 民 共 和 国
国 家 标 准
信息技术 藏文编码字符集(基本集)
24×48 点阵字型 第1部分:白体
GB/T 16960.1—1997

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