

APPENDIX C: CHARACTERS, KEYSTROKES, AND COLOR

| Value | | As Characters | | | Color/Graphics Text Attributes | |
|-------|-----|---------------|------------------------------------|-------|--------------------------------|---------------|
| Hex | Dec | Symbol | Keystrokes | Modes | Background | Foreground |
| 00 | 0 | Blank (Null) | Ctrl 2 | | Black | Black |
| 01 | 1 | ☺ | Ctrl A | | Black | Blue |
| 02 | 2 | ☹ | Ctrl B | | Black | Green |
| 03 | 3 | ♥ | Ctrl C | | Black | Cyan |
| 04 | 4 | ♦ | Ctrl D | | Black | Red |
| 05 | 5 | ♣ | Ctrl E | | Black | Magenta |
| 06 | 6 | ♠ | Ctrl F | | Black | Brown |
| 07 | 7 | • | Ctrl G | | Black | Light Grey |
| 08 | 8 | • | Ctrl H, Backspace, Shift Backspace | | Black | Dark Grey |
| 09 | 9 | ○ | Ctrl I | | Black | Light Blue |
| 0A | 10 | ○ | Ctrl J, Ctrl ↵ | | Black | Light Green |
| 0B | 11 | ♂ | Ctrl K | | Black | Light Green |
| 0C | 12 | ♀ | Ctrl L | | Black | Light Red |
| 0D | 13 | ♪ | Ctrl M, Shift ↵ | | Black | Light Magenta |
| 0E | 14 | ♪ | Ctrl N | | Black | Yellow |
| 0F | 15 | ☀ | Ctrl O | | Black | White |
| 10 | 16 | ▶ | Ctrl P | | Blue | Black |
| 11 | 17 | ◀ | Ctrl Q | | Blue | Blue |
| 12 | 18 | ↑ | Ctrl R | | Blue | Green |
| 13 | 19 | !! | Ctrl S | | Blue | Cyan |
| 14 | 20 | ¶ | Ctrl T | | Blue | Red |
| 15 | 21 | § | Ctrl U | | | Magenta |
| 16 | 22 | ■ | Ctrl V | | Blue | Brown |
| 17 | 23 | ↓ | Ctrl W | | Blue | Light Grey |

| Value | | As Characters | | | Color/Graphics Text Attributes | |
|-------|-----|----------------|--|--------|--------------------------------|---------------|
| Hex | Dec | Symbol | Keystrokes | Modes | Background | Foreground |
| 18 | 24 | ↑ | Ctrl X | | Blue | Dark Grey |
| 19 | 25 | ↓ | Ctrl Y | | Blue | Light Blue |
| 1A | 26 | → | Ctrl Z | | Blue | Light Green |
| 1B | 27 | ← | Ctrl [, Esc, Shift Esc, Ctrl Esc | | Blue | Light Cyan |
| 1C | 28 | ↖ | Ctrl \ | | Blue | Light Red |
| 1D | 29 | ↔ | Ctrl] | | Blue | Light Magenta |
| 1E | 30 | ▲ | Ctrl 6 | | Blue | Yellow |
| 1F | 31 | ▼ | Ctrl — | | Blue | White |
| 20 | 32 | Blank Space | Space Bar, Shift; Space, Ctrl Space, Alt Space | | Green | Black |
| 21 | 33 | ! | ! | Shift | Green | Blue |
| 22 | 34 | “ | ” | Shift | Green | Green |
| 23 | 35 | # | # | Shift | Green | Cyan |
| 24 | 36 | \$ | \$ | Shift | Green | Red |
| 25 | 37 | % | % | Shift | Green | Magenta |
| 26 | 38 | & | & | Shift | Green | Brown |
| 27 | 39 | . | . | | Green | Light Grey |
| 28 | 40 | (| (| Shift | Green | Dark Grey |
| 29 | 41 |) |) | Shift | Green | Light Blue |
| 2A | 42 | * | * | Note 1 | Green | Light Green |
| 28 | 43 | + | + | Shift | Green | Light Cyan |
| 2C | 44 | , | , | | Green | Light Red |
| 2D | 45 | — | — | | Green | Light Magenta |
| 2E | 46 | . | . | Note 2 | Green | Yellow |
| 2F | 47 | / | / | | Green | White |
| 30 | 48 | 0 | 0 | Note 3 | Cyan | Black |
| 31 | 49 | 1 | 1 | Note 3 | Cyan | Blue |
| 32 | 50 | 2 | 2 | Note 3 | Cyan | Green |
| 33 | 51 | 3 | 3 | Note 3 | Cyan | Cyan |

C-2 Characters, Keystrokes, and Color

| Value | | As Characters | | | Color/Graphics Text Attributes | |
|-------|-----|---------------|------------|--------|--------------------------------|---------------|
| Hex | Dec | Symbol | Keystrokes | Modes | Background | Foreground |
| 34 | 52 | 4 | 4 | Note 3 | Cyan | Red |
| 35 | 53 | 5 | 5 | Note 3 | Cyan | Magenta |
| 36 | 54 | 6 | 6 | Note 3 | Cyan | Brown |
| 37 | 55 | 7 | 7 | Note 3 | Cyan | Light Grey |
| 38 | 56 | 8 | 8 | Note 3 | Cyan | Dark Grey |
| 39 | 57 | 9 | 9 | Note 3 | Cyan | Light Blue |
| 3A | 58 | : | : | Shift | Cyan | Light Green |
| 3B | 59 | ; | ; | | Cyan | Light Cyan |
| 3C | 60 | < | < | Shift | Cyan | Light Red |
| 3D | 61 | = | = | | Cyan | Light Magenta |
| 3E | 62 | > | > | Shift | Cyan | Yellow |
| 3F | 63 | ? | ? | Shift | Cyan | White |
| 40 | 64 | @ | @ | Shift | Red | Black |
| 41 | 65 | A | A | Note 4 | Red | Blue |
| 42 | 66 | B | B | Note 4 | Red | Green |
| 43 | 67 | C | C | Note 4 | Red | Cyan |
| 44 | 68 | D | D | Note 4 | Red | Red |
| 45 | 69 | E | E | Note 4 | Red | Magenta |
| 46 | 70 | F | F | Note 4 | Red | Brown |
| 47 | 71 | G | G | Note 4 | Red | Light Grey |
| 48 | 72 | H | H | Note 4 | Red | Dark Grey |
| 49 | 73 | I | I | Note 4 | Red | Light Blue |
| 4A | 74 | J | J | Note 4 | Red | Light Green |
| 4B | 75 | K | K | Note 4 | Red | Light Cyan |
| 4C | 76 | L | L | Note 4 | Red | Light Red |
| 4D | 77 | M | M | Note 4 | Red | Light Magenta |
| 4E | 78 | N | N | Note 4 | Red | Yellow |
| 4F | 79 | O | O | Note 4 | Red | White |
| 50 | 80 | P | P | Note 4 | Magenta | Black |
| 51 | 81 | Q | Q | Note 4 | Magenta | Blue |
| 52 | 82 | R | R | Note 4 | Magenta | Green |
| 53 | 83 | S | S | Note 4 | Magenta | Cyan |
| 54 | 84 | T | T | Note 4 | Magenta | Red |

| Value | | As Characters | | | Color/Graphics Text Attributes | |
|-------|-----|---------------|------------|--------|--------------------------------|---------------|
| Hex | Dec | Symbol | Keystrokes | Modes | Background | Foreground |
| 55 | 85 | U | U | Note 4 | Magenta | Magenta |
| 56 | 86 | V | V | Note 4 | Magenta | Brown |
| 57 | 87 | W | W | Note 4 | Magenta | Light Grey |
| 58 | 88 | X | X | Note 4 | Magenta | Dark Grey |
| 59 | 89 | Y | Y | Note 4 | Magenta | Light Blue |
| 5A | 90 | Z | Z | Note 4 | Magenta | Light Green |
| 5B | 91 | [| [| | Magenta | Light Cyan |
| 5C | 92 | \ | \ | | Magenta | Light Red |
| 5D | 93 |] |] | | Magenta | Light Magenta |
| 5E | 94 | ^ | ^ | Shift | Magenta | Yellow |
| 5F | 95 | — | — | Shift | Magenta | White |
| 60 | 96 | · | · | | Yellow | Black |
| 61 | 97 | a | a | Note 5 | Yellow | Blue |
| 62 | 98 | b | b | Note 5 | Yellow | Green |
| 63 | 99 | c | c | Note 5 | Yellow | Cyan |
| 64 | 100 | d | d | Note 5 | Yellow | Red |
| 65 | 101 | e | e | Note 5 | Yellow | Magenta |
| 66 | 102 | f | f | Note 5 | Yellow | Brown |
| 67 | 103 | g | g | Note 5 | Yellow | Light Grey |
| 68 | 104 | h | h | Note 5 | Yellow | Dark Grey |
| 69 | 105 | i | i | Note 5 | Yellow | Light Blue |
| 6A | 106 | j | j | Note 5 | Yellow | Light Green |
| 6B | 107 | k | k | Note 5 | Yellow | Light Cyan |
| 6C | 108 | l | l | Note 5 | Yellow | Light Red |
| 6D | 109 | m | m | Note 5 | Yellow | Light Magenta |
| 6E | 110 | n | n | Note 5 | Yellow | Yellow |
| 6F | 111 | o | o | Note 5 | Yellow | White |
| 70 | 112 | p | p | Note 5 | White | Black |
| 71 | 113 | q | q | Note 5 | White | Blue |
| 72 | 114 | r | r | Note 5 | White | Green |
| 73 | 115 | s | s | Note 5 | White | Cyan |
| 74 | 116 | f | f | Note 5 | White | Red |
| 75 | 117 | u | u | Note 5 | White | Magenta |
| 76 | 118 | v | v | Note 5 | White | Brown |

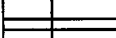
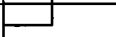
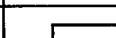





C-4 Characters, Keystrokes, and Color

| Value | | As Characters | | | Color/Graphics Text Attributes | |
|---|-----|---------------|------------|--------|--------------------------------|---------------|
| Hex | Dec | Symbol | Keystrokes | Modes | Background | Foreground |
| 77 | 119 | w | w | Note 5 | White | Light Grey |
| 78 | 120 | x | x | Note 5 | White | Dark Grey |
| 79 | 121 | y | y | Note 5 | White | Light Blue |
| 7A | 122 | z | z | Note 5 | White | Light Green |
| 7B | 123 | { | { | Shift | White | Light Cyan |
| 7C | 124 | | | Shift | White | Light Red |
| 7D | 125 | } | } | Shift | White | Light Magenta |
| 7E | 126 | ~ | ~ | Shift | White | Yellow |
| 7F | 127 | Δ | Ctrl ← | | White | White |
| * * * * 80 to FF Hex are Flashing if Blink is Enabled * * * * | | | | | | |
| 80 | 128 | Ç | Alt 128 | Note 6 | Black | Black |
| 81 | 129 | ü | Alt 129 | Note 6 | Black | Blue |
| 82 | 130 | é | Alt 130 | Note 6 | Black | Green |
| 83 | 131 | â | Alt 131 | Note 6 | Black | Cyan |
| 84 | 132 | ä | Alt 132 | Note 6 | Black | Red |
| 85 | 133 | à | Alt 133 | Note 6 | Black | Magenta |
| 86 | 134 | á | Alt 134 | Note 6 | Black | Brown |
| 87 | 135 | ç | Alt 135 | Note 6 | Black | Light Grey |
| 88 | 136 | ê | Alt 136 | Note 6 | Black | Dark Grey |
| 89 | 137 | ë | Alt 137 | Note 6 | Black | Light Blue |
| 8A | 138 | è | Alt 138 | Note 6 | Black | Light Green |
| 8B | 139 | ï | Alt 139 | Note 6 | Black | Light Cyan |
| 8C | 140 | î | Alt 140 | Note 6 | Black | Light Red |
| 8D | 141 | ì | Alt 141 | Note 6 | Black | Light Magenta |
| 8E | 142 | Ä | Alt 142 | Note 6 | Black | Yellow |
| 8F | 143 | Å | Alt 143 | Note 6 | Black | White |
| 90 | 144 | É | Alt 144 | Note 6 | Blue | Black |
| 91 | 145 | æ | Alt 145 | Note 6 | Blue | Blue |
| 92 | 146 | Æ | Alt 146 | Note 6 | Blue | Green |
| 93 | 147 | ô | Alt 147 | Note 6 | Blue | Cyan |
| 94 | 148 | ö | Alt 148 | Note 6 | Blue | Red |
| 95 | 149 | ò | Alt 149 | Note 6 | Blue | Magenta |

| Value | | As Characters | | | Color/Graphics Text Attributes | |
|-------|-----|---------------|------------|--------|--------------------------------|---------------|
| Hex | Dec | Symbol | Keystrokes | Modes | Background | Foreground |
| 96 | 150 | û | Alt 150 | Note 6 | Blue | Brown |
| 97 | 151 | ù | Alt 151 | Note 6 | Blue | Light Grey |
| 98 | 152 | ÿ | Alt 152 | Note 6 | Blue | Dark Grey |
| 99 | 153 | ó | Alt 153 | Note 6 | Blue | Light Blue |
| 9A | 154 | ü | Alt 154 | Note 6 | Blue | Light Green |
| 9B | 155 | ø | Alt 155 | Note 6 | Blue | Light Cyan |
| 9C | 156 | £ | Alt 156 | Note 6 | Blue | Light Red |
| 9D | 157 | ¥ | Alt 157 | Note 6 | Blue | Light Magenta |
| 9E | 158 | Pt | Alt 158 | Note 6 | Blue | Yellow |
| 9F | 159 | ∫ | Alt 159 | Note 6 | Blue | White |
| A0 | 160 | á | Alt 160 | Note 6 | Green | Black |
| A1 | 161 | í | Alt 161 | Note 6 | Green | Blue |
| A2 | 162 | ó | Alt 162 | Note 6 | Green | Green |
| A3 | 163 | ú | Alt 163 | Note 6 | Green | Cyan |
| A4 | 164 | ñ | Alt 164 | Note 6 | Green | Red |
| A5 | 165 | Ñ | Alt 165 | Note 6 | Green | Magenta |
| A6 | 166 | ä | Alt 166 | Note 6 | Green | Brown |
| A7 | 167 | ö | Alt 167 | Note 6 | Green | Light Grey |
| A8 | 168 | ¿ | Alt 168 | Note 6 | Green | Dark Grey |
| A9 | 169 | — | Alt 169 | Note 6 | Green | Light Blue |
| AA | 170 | ¬ | Alt 170 | Note 6 | Green | Light Green |
| AB | 171 | ½ | Alt 171 | Note 6 | Green | Light Cyan |
| AC | 172 | ¼ | Alt 172 | Note 6 | Green | Light Red |
| AD | 173 | ı | Alt 173 | Note 6 | Green | Light Magenta |
| AE | 174 | << | Alt 174 | Note 6 | Green | Yellow |
| AF | 175 | >> | Alt 175 | Note 6 | Green | White |
| B0 | 176 | ⋮ | Alt 176 | Note 6 | Cyan | Black |
| B1 | 177 | ⋮ | Alt 177 | Note 6 | Cyan | Blue |
| B2 | 178 | ⋮ | Alt 178 | Note 6 | Cyan | Green |
| B3 | 179 | | Alt 179 | Note 6 | Cyan | Cyan |
| B4 | 180 | ≡ | Alt 180 | Note 6 | Cyan | Red |
| B5 | 181 | ≡ | Alt 181 | Note 6 | Cyan | Magenta |
| B6 | 182 | ≡ | Alt 182 | Note 6 | Cyan | Brown |

C-6 Characters, Keystrokes, and Color

| Value | | As Characters | | | Color/Graphics Text Attributes | |
|-------|-----|---------------|------------|--------|--------------------------------|---------------|
| Hex | Dec | Symbol | Keystrokes | Modes | Background | Foreground |
| B7 | 183 | | Alt 183 | Note 6 | Cyan | Light Grey |
| B8 | 184 | | Alt 184 | Note 6 | Cyan | Dark Grey |
| B9 | 185 | | Alt 185 | Note 6 | Cyan | Light Blue |
| BA | 186 | | Alt 186 | Note 6 | Cyan | Light Green |
| BB | 187 | | Alt 187 | Note 6 | Cyan | Light Cyan |
| BC | 188 | | Alt 188 | Note 6 | Cyan | Light Red |
| BD | 189 | | Alt 189 | Note 6 | Cyan | Light Magenta |
| BE | 190 | | Alt 190 | Note 6 | Cyan | Yellow |
| BF | 191 | | Alt 191 | Note 6 | Cyan | White |
| C0 | 192 | | Alt 192 | Note 6 | Red | Black |
| C1 | 193 | | Alt 193 | Note 6 | Red | Blue |
| C2 | 194 | | Alt 194 | Note 6 | Red | Green |
| C3 | 195 | | Alt 195 | Note 6 | Red | Cyan |
| C4 | 196 | | Alt 196 | Note 6 | Red | Red |
| C5 | 197 | | Alt 197 | Note 6 | Red | Magenta |
| C6 | 198 | | Alt 198 | Note 6 | Red | Brown |
| C7 | 199 | | Alt 199 | Note 6 | Red | Light Grey |
| C8 | 200 | | Alt 200 | Note 6 | Red | Dark Grey |
| C9 | 201 | | Alt 201 | Note 6 | Red | Light Blue |
| CA | 202 | | Alt 202 | Note 6 | Red | Light Green |
| CB | 203 | | Alt 203 | Note 6 | Red | Light Cyan |
| CC | 204 | | Alt 204 | Note 6 | Red | Light Red |
| CD | 205 | | Alt 205 | Note 6 | Red | Light Magenta |
| CE | 206 | | Alt 206 | Note 6 | Red | Yellow |
| CF | 207 | | Alt 207 | Note 6 | Red | White |
| D0 | 208 | | Alt 208 | Note 6 | Magenta | Black |
| D1 | 209 | | Alt 209 | Note 6 | Magenta | Blue |
| D2 | 210 | | Alt 210 | Note 6 | Magenta | Green |
| D3 | 211 | | Alt 211 | Note 6 | Magenta | Cyan |
| D4 | 212 | | Alt 212 | Note 6 | Magenta | Red |
| D5 | 213 | | Alt 213 | Note 6 | Magenta | Magenta |
| D6 | 214 | | Alt 214 | Note 6 | Magenta | Brown |
| D7 | 215 | | Alt 215 | Note 6 | Magenta | Light Grey |

| Value | | As Characters | | | Color/Graphics Text Attributes | |
|-------|-----|---|------------|--------|--------------------------------|---------------|
| Hex | Dec | Symbol | Keystrokes | Modes | Background | Foreground |
| D8 | 216 |  | Alt 216 | Note 6 | Magenta | Dark Grey |
| D9 | 217 |  | Alt 217 | Note 6 | Magenta | Light Blue |
| DA | 218 |  | Alt 218 | Note 6 | Magenta | Light Green |
| DB | 219 |  | Alt 219 | Note 6 | Magenta | Light Cyan |
| DC | 220 |  | Alt 220 | Note 6 | Magenta | Light Red |
| DD | 221 |  | Alt 221 | Note 6 | Magenta | Light Magenta |
| DE | 222 |  | Alt 222 | Note 6 | Magenta | Yellow |
| DF | 223 |  | Alt 223 | Note 6 | Magenta | White |
| E0 | 224 | α | Alt 224 | Note 6 | Yellow | Black |
| E1 | 225 | β | Alt 225 | Note 6 | Yellow | Blue |
| E2 | 226 | Γ | Alt 226 | Note 6 | Yellow | Green |
| E3 | 227 | π | Alt 227 | Note 6 | Yellow | Cyan |
| E4 | 228 | Σ | Alt 228 | Note 6 | Yellow | Red |
| E5 | 229 | σ | Alt 229 | Note 6 | Yellow | Magenta |
| E6 | 230 | μ | Alt 230 | Note 6 | Yellow | Brown |
| E7 | 231 | τ | Alt 231 | Note 6 | Yellow | Light Grey |
| E8 | 232 | Φ | Alt 232 | Note 6 | Yellow | Dark Grey |
| E9 | 233 | θ | Alt 233 | Note 6 | Yellow | Light Blue |
| EA | 234 | Ω | Alt 234 | Note 6 | Yellow | Light Green |
| EB | 235 | δ | Alt 235 | Note 6 | Yellow | Light Cyan |
| EC | 236 | ∞ | Alt 236 | Note 6 | Yellow | Light Red |
| ED | 237 | ϕ | Alt 237 | Note 6 | Yellow | Light Magenta |
| EE | 238 | ϵ | Alt 238 | Note 6 | Yellow | Yellow |
| EF | 239 | \cap | Alt 239 | Note 6 | Yellow | White |
| F0 | 240 | \equiv | Alt 240 | Note 6 | White | Black |
| F1 | 241 | \pm | Alt 241 | Note 6 | White | Blue |
| F2 | 242 | \geq | Alt 242 | Note 6 | White | Green |
| F3 | 243 | \leq | Alt 243 | Note 6 | White | Cyan |
| F4 | 244 | \int | Alt 244 | Note 6 | White | Red |
| F5 | 245 | \int | Alt 245 | Note 6 | White | Magenta |
| F6 | 246 | \div | Alt 246 | Note 6 | White | Brown |
| F7 | 247 | \approx | Alt 247 | Note 6 | White | Light Grey |
| F8 | 248 | \circ | Alt 248 | Note 6 | White | Dark Grey |

C-8 Characters, Keystrokes, and Color



| Value | | As Characters | | | Color/Graphics Text Attributes | |
|-------|-----|---------------|------------|--------|--------------------------------|---------------|
| Hex | Dec | Symbol | Keystrokes | Modes | Background | Foreground |
| F9 | 249 | ● | Alt 249 | Note 6 | White | Light Blue |
| FA | 250 | • | Alt 250 | Note 6 | White | Light Green |
| FB | 251 | √ | Alt 251 | Note 6 | White | Light Cyan |
| FC | 252 | η | Alt 252 | Note 6 | White | Light Red |
| FD | 253 | 2 | Alt 253 | Note 6 | White | Light Magenta |
| FE | 254 | ■ | Alt 254 | Note 6 | White | Yellow |
| FF | 255 | BLANK | Alt 255 | Note 6 | White | White |



NOTE 1 On the 62-key keyboard the Asterisk (*) can be keyed using two methods:

1) in the shift mode hit the  key or 2) hold Alt key and press the

 key.

On the 83-key keyboard the Asterisk (*) can be keyed using two methods:

1) hit the  key or 2) in the shift mode hit the  key.

NOTE 2 Period (.) can easily be keyed using two methods: 1) hit the  key or 2) in shift or Num Lock mode hit the  key.

NOTE 3 Numeric characters (0—9) can easily be keyed using two methods: 1) hit the numeric keys on the top row of the typewriter portion of the keyboard or 2) on the 83-key keyboard in shift or Num Lock mode hit the numeric keys in the 10—key pad portion of the keyboard.

NOTE 4 Upper case alphabetic characters (A—Z) can easily be keyed in two modes: 1) in shift mode the appropriate alphabetic key or 2) In Caps Lock mode hit the appropriate alphabetic key.

NOTE 5 Lower case alphabetic characters (a—z) can easily be keyed in two modes: 1) in “normal” mode hit the appropriate key or 2) In Caps Lock combined with shift mode hit the appropriate alphabetic key.

NOTE 6 On the 62-key keyboard set Num Lock state using Alt/Fn/N then 3 digits after the Alt key must be typed from the numeric keys on the top row of the typematic portion of the keyboard. Character codes 000 through 255 can be entered in this fashion. (With Caps Lock activated, character codes 97 through 122 will display upper case rather than lower case alphabetic characters.)

On the 83-key keyboard the 3 digits after the Alt key must be typed from the numeric key pad (keys 71—73, 75—77, 79—82).

Character Set (00-7F) Quick Reference

| DECIMAL VALUE | | 0 | 16 | 32 | 48 | 64 | 80 | 96 | 112 |
|---------------|--------------------|--------------|----|---------------|----|----|----|----|-----|
| | HEXA-DECIMAL VALUE | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 0 | BLANK (NULL) | | BLANK (SPACE) | 0 | @ | P | ' | p |
| 1 | 1 | | | ! | 1 | A | Q | a | q |
| 2 | 2 | | | " | 2 | B | R | b | r |
| 3 | 3 | | !! | # | 3 | C | S | c | s |
| 4 | 4 | | | \$ | 4 | D | T | d | t |
| 5 | 5 | | § | % | 5 | E | U | e | u |
| 6 | 6 | | | & | 6 | F | V | f | v |
| 7 | 7 | | | ' | 7 | G | W | g | w |
| 8 | 8 | | | (| 8 | H | X | h | x |
| 9 | 9 | | |) | 9 | I | Y | i | y |
| 10 | A | | | * | : | J | Z | j | z |
| 11 | B | | | + | ; | K | [| k | { |
| 12 | C | | | , | < | L | \ | l | |
| 13 | D | | | — | = | M |] | m | } |
| 14 | E | | | . | > | N | ^ | n | ~ |
| 15 | F | | | / | ? | O | _ | o | Δ |

Appendix C

Character Set (80-FF) Quick Reference

| DECIMAL VALUE | ➡ | 128 | 144 | 160 | 176 | 192 | 208 | 224 | 240 |
|---------------|--------------------|-----|-----|-----|-----|-----|-----|-----|------------|
| ↙ | HEXA-DECIMAL VALUE | 8 | 9 | A | B | C | D | E | F |
| 0 | 0 | Ç | É | á | | | | ∞ | ≡ |
| 1 | 1 | ü | æ | í | | | | β | ± |
| 2 | 2 | é | Æ | ó | | | | Γ | ≥ |
| 3 | 3 | â | ô | ú | | | | π | ≤ |
| 4 | 4 | ä | ö | ñ | | | | Σ | ∫ |
| 5 | 5 | à | ò | Ñ | | | | σ | ∫ |
| 6 | 6 | å | û | á | | | | μ | ÷ |
| 7 | 7 | ç | ù | ó | | | | τ | ≈ |
| 8 | 8 | ê | ÿ | ¿ | | | | Φ | ° |
| 9 | 9 | ë | Ö | ┐ | | | | Θ | ● |
| 10 | A | è | Ü | ┐ | | | | Ω | • |
| 11 | B | ï | ç | ½ | | | | δ | √ |
| 12 | C | î | £ | ¼ | | | | ∞ | n |
| 13 | D | ì | ¥ | í | | | | φ | 2 |
| 14 | E | Ä | ŕ | « | | | | € | █ |
| 15 | F | Å | ƒ | » | | | | ∩ | BLANK 'FF' |

Appendix D. UNIT SPECIFICATIONS

System Unit

Size:

| | |
|---------------|-------------------|
| Length | 354 mm (13.9 in.) |
| Depth | 290 mm (11.4 in.) |
| Height | 97 mm (3.8 in.) |

Weight:

| | |
|--------------------------|------------------------|
| 3.71 Kg (8lb 4oz) | With Diskette Drive |
| 2.61 Kg (5lb 8oz) | Without Diskette Drive |

Transformer:

Electrical:

| | |
|-------------------------|---|
| Input | 110 Vac 60 Hz |
| Output to System | Pin 1 - 17 Vac, Pin 2 - GND, Pin 3 - 17 Vac |

Power Cords:

| | |
|----------------------|-------------------------|
| Input Length | 1.86 meters (6.14 feet) |
| Type | 18 AWG |
| Output Length | 1.22 meters (4.02 feet) |
| Type | 18 AWG |

Environment:

Air Temperature

System ON 15.6 to 32.2 degrees C (60 to 90 degrees F)

System Off 10 to 43 degrees C (50 to 110 degrees F)

Humidity

System On 8% to 80%

System Off 8% to 80%

Noise Level 45 dB

Cordless Keyboard

Size:

Length 341.5 mm (13.45 in.)

Depth 168 mm (6.61 in.)

Height 26 mm (1.02 in.)

Weight:

With Batteries 616 grams (22 ounces)

Without Batteries 700 grams (25 ounces)

Optional Cable:

6 feet, flat

Diskette Drive

Size:

| | |
|---------------|-------------------|
| Height | 41.6 mm (1.6 in.) |
| Depth | 146 mm (5.8 in.) |
| Width | 208 mm (8.3 in.) |

Weight:

1.1 kilograms (2.2 pounds)

Diskette Drive

Power:

Supply

| | | |
|----------------|---------------------|----------------------|
| Voltage | +5 Vdc Input | +12 Vdc Input |
| Nominal | +5 Vdc | +12 Vdc |

Ripple

| | | |
|-------------|---------------------|----------------------|
| | +5 Vdc Input | +12 Vdc Input |
| 0 to 50 kHz | 100 mV | 100 mV |

Tolerance

| | | |
|------------------|---------------------|----------------------|
| | +5 Vdc Input | +12 Vdc Input |
| Including Ripple | +/- 5% | +/- 5% |

Standby Current

| | +5 Vdc Input | +12 Vdc Input |
|------------|---------------------|----------------------|
| Nominal | 600 mA | 400 mA |
| Worst Case | 700 mA | 500 mA |

Operating Current

| | +5 Vdc Input | +12 Vdc Input |
|------------|---------------------|----------------------|
| Nominal | 600 mA | 900 mA |
| Worst Case | 700 mA | 2400 mA |

Mechanical and Electrical

| | |
|-------------------------------|---|
| Media | Industry-compatible 5 1/4 inch diskette |
| Media Life (Head Loaded) | 3,000,000 revolutions/track |
| Media Life (Insertions) | 30,000 |
| Tracks Density | 48 tracks/inch |
| Number of Tracks | 40 |
| Motor Start Time | 500 ms |
| Instantaneous Speed Variation | +/- 3.0% |
| Rotational Speed | 300 rpm +/- 1.5% (long term) |
| Nominal Transfer Rate (MFM) | 250,000 pulses/second |
| MTBF (25% Operating) | 8,000 POH |
| Read Bit Shift | +/- 800 ns maximum |
| Seek Time | 6 ms track-to-track maximum |
| Head Life | 20,000 hours (normal use) |
| Head Load Time | Not Applicable |
| Head Settling Time | 21 ms maximum (from last step pulse) |
| Error Rate | |

| | |
|--------------|---|
| Soft Error | 1 per 1,000,000,000 bits maximum (recoverable within 10 retries) |
| Hard Error | 1 per 1,000,000,000,000 bits maximum (nonrecoverable within 10 retries) |
| Access Error | 1 per 3,000,000 seeks maximum |

Temperature (Exclusive of media)

| | |
|---------------|--|
| Operating | 50 to 122 degrees F (10 to 44 degrees C) |
| Non-operating | -40 to 140 degrees F (-40 to 60 degrees C) |

Relative Humidity (Exclusive of media)

| | |
|---------------|---------------------------|
| Operating | 20 to 80% (noncondensing) |
| Non-operating | 5 to 95% (noncondensing) |

| | |
|---------------------|----------------------------|
| Operating Altitude | 7,000 feet above sea level |
| Operating Vibration | 5 to 500 Hz 11G |

Color Display

Size:

| | |
|---------------|-------------------|
| Height | 297 mm (11.7 in.) |
| Depth | 407 mm (15.6 in.) |
| Width | 392 mm (15.4 in.) |

Weight:

11.8 kilograms (26 pounds)

Heat Output:

240 BTU/hour

Power Cables:

Length 1.83 meters (6 feet)

Size 22 AWG

Graphics Printer**Size:**

Height 110 mm (4.3 in.)

Depth 370 mm (14.5 in.)

Width 400 mm (15.7 in.)

Weight:

5.9 kilograms (12.9 pounds)

Heat Output:

341 BTU/hour

Power Cable:

Length 1.83 meters (6 feet)
Size 18 AWG

Signal Cable:

Length 1.83 meters (6 feet)
Size 22 AWG

Electrical:

Minimum 104 Vac
Nominal 120 Vac
Maximum 127 Vac

Internal Modem

Power:

| Parameter | + 5 Vdc Voltage | + 12 Vdc Voltage |
|-----------------|-----------------|------------------|
| Tolerance | +/- 5% | +/- 10% |
| Ripple | 50 mV, P-P | 50 mV, P-P |
| Maximum Current | 300 mA | 50 mA |
| Current Nominal | 150 mA | 25 mA |

Interface

RS232C

Compact Printer

Size:

Height 88.9 mm (3.5 in)
Depth 221 mm (8.7 in)
Width 312.4 mm (12.3 in)

Weight:

2.99 kg (6.6 lb)

Heat Output:

54.6 Btu/hr

Power Cable:

Length 1.89 m (6 ft)
Size 28 AWG

Signal Cable:

Length 1.89 m (6 ft)
Size 3 by 18 AWG

Electrical:

Voltage 110 Vac 60 Hz

Glossary

μs Microsecond.

adapter. An auxiliary system or unit used to extend the operation of another system.

address bus. One or more conductors used to carry the binary-coded address from the microprocessor throughout the rest of the system.

all points addressable (APA). A mode in which all points on a displayable image can be controlled by the user.

alphanumeric (A/N). Pertaining to a character set that contains letters, digits, and usually other characters, such as punctuation marks. Synonymous with alphameric.

American Standard Code for Information

Interchange. (ASCII) The standard code, using a coded character set consisting of 7-bit coded characters (8 bits

including parity check), used for information interchange among data processing systems, data communication systems and associated equipment. The ASCII set consists of control characters and graphic characters.

A/N. Alphanumeric.

analog. (1) pertaining to data in the form of continuously variable physical quantities. (2) Contrast with digital.

AND. A logic operator having the property that if P is a statement, Q is a statement, R is a statement,..., then the AND of P, Q, R,...is true if all statements are true, false if any statement is false.

APA. All points addressable.

ASCII. American Standard Code for Information Interchange.

assembler. A computer program used to assemble. Synonymous with assembly program.

asynchronous communications. A communication mode in which each single byte of data is synchronized, usually by the addition of start/stop bits.

BASIC. Beginner's all-purpose symbolic instruction code.

basic input/output system (BIOS). Provides the device level control of the major I/O devices in a computer system, which provides an operational interface to the system and relieves the programmer from concern over hardware device characteristics.

baud. (1) A unit of signaling speed equal to the number of discrete conditions or signal events per second. For example, one baud equals one-half dot cycle per second in Morse code, one bit per second in a train of binary signals, and one 3-bit value per second in a train of signals each of which can assume one of eight different states. (2) In

asynchronous transmission, the unit of modulation rate corresponding to one unit of interval per second; that is, if the duration of the unit interval is 20 milliseconds, the modulation rate is 50 baud.

BCC. Block-check character.

beginner's all-purpose symbolic instruction code (BASIC) A programming language with a small repertoire of commands and a simple syntax, primarily designed for numerical application.

binary. (1) Pertaining to a selection, choice, or condition that has two possible values or states. (2) Pertaining to a fixed radix numeration system having a radix of two.

binary digit. (1) In binary notation, either of the characters 0 or 1. (2) Synonymous with bit. binary notation: Any notation that uses two different characters, usually the binary digits 0 and 1.

BIOS. Basic input/output system.

bit. In binary notation, either of the characters 0 or 1.

bits per second (bps). A unit of measurement representing the number of discrete binary digits which can be transmitted by a device in one second.

block-check character (BCC). In cyclic redundancy checking, a character that is transmitted by the sender after each message block and is compared with a block-check character computed by the receiver to determine if the transmission was successful.

Boolean operation. (1) Any operation in which each of the operands and the result take one of two values. (2) An operation that follows the rules of Boolean algebra.

bootstrap. A technique or device designed to bring itself into a desired state by means of its own action; that is, a machine routine whose first few instructions are sufficient to bring the rest of itself into the computer from an input device.

bps. Bits per second.

buffer. (1) An area of storage that is temporarily reserved for use in performing an input/output operation, into which data is read or from which data is written. Synonymous with I/O area. (2) A portion of storage for temporarily holding input or output data.

bus. One or more conductors used for transmitting signals or power.

byte. (1) A binary character operated upon as a unit and usually shorter than a computer word. (2) The representation of a character.

CAS. Column address strobe.

cathode ray tube (CRT). A vacuum tube display in which a beam of electrons can be controlled to form alphanumeric characters or symbols on a luminescent screen, for example by use of a dot matrix.

cathode ray tube display (CRT display). (1) A device that presents data in visual form by means of controlled electron

beams. (2) The data display produced by the device as in (1).

CCITT. Comite Consultatif International Telegrafique et Telephonique.

central processing unit (CPU). A functional unit that consists of one or more processors and all or part of internal storage.

channel. A path along which signals can be sent; for example, data channel or I/O channel.

characters per second (cps). A standard unit of measurement for printer output.

code. (1) A set of unambiguous rules specifying the manner in which data may be represented in a discrete form.

Synonymous with coding scheme. (2) A set of items, such as abbreviations, representing the members of another set. (3) Loosely, one or more computer programs, or part of a computer program. (4) To represent data or a

computer program in a symbolic form that can be accepted by a data processor.

column address strobe(CAS). A signal that latches the column addresses in a memory chip.

Comite Consultatif International. Telegrafique et Telephonique (CCITT) Consultative Committee on International Telegraphy and Telephone.

computer. A functional unit that can perform substantial computation, including numerous arithmetic operations, or logic operations, without intervention by a human operator during the run.

configuration. (1) The arrangement of a computer system or network as defined by the nature, number, and the chief characteristics of its functional units. More specifically, the term configuration may refer to a hardware configuration or a software configuration. (2) The devices and programs that make up a system, subsystem, or network.

conjunction. (1) The Boolean operation whose result has the Boolean value 1 if, and only if, each operand has the Boolean value 1. (2) Synonymous with AND operation.

contiguous. (1) Touching or joining at the edge or boundary. (2) Adjacent.

CPS. Characters per second.

CPU. Central processing unit.

CRC. Cyclic redundancy check.

CRT display. Cathode ray tube display.

CTS. Clear to send.
Associated with modem control.

cyclic redundancy check (CRC). (1) A redundancy check in which the check key is generated by a cyclic algorithm. (2) A system of error checking performed at both the sending and receiving station after a block-check character has been accumulated.

cylinder. (1) The set of all tracks with the same nominal

distance from the axis about which the disk rotates. (2) The tracks of a disk storage device that can be accessed without repositioning the access mechanism.

daisy-chained cable. A type of cable that has two or more connectors attached in series.

data. (1) A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or automatic means. (2) Any representations, such as characters or analog quantities, to which meaning is, or might be assigned.

decibel (dB). (1) A unit that expresses the ratio of two power levels on a logarithmic scale. (2) A unit for measuring relative power. The number of decibels is ten times the logarithm (base 10) of the ratio of the measured power levels; if the measured levels are voltages (across the same or equal resistance), the number of decibels is 20 times the log of the ratio.

decoupling capacitor. A capacitor that provides a

low-impedance path to ground to prevent common coupling between states of a circuit.

Deutsche Industrie Norm (DIN). (1) German Industrial Norm. (2) The committee that sets German dimension standards.

digit. (1) A graphic character that represents an integer, for example, one of the characters 0 to 9. (2) A symbol that represents one of the non-negative integers smaller than the radix. For example, in decimal notation, a digit is one of the characters from 0 to 9.

digital. (1) Pertaining to data in the form of digits. (2) Contrast with analog.

DIN. Deutsche Industrie Norm.

DIN Connector. One of the connectors specified by the DIN standardization committee.

DIP. Dual in-line package.

direct memory access (DMA). A method of transferring data between main storage and I/O devices that does not require processor intervention.

disk. Loosely, a magnetic disk unit.

diskette. A thin, flexible magnetic disk and a semi-rigid protective jacket, in which the disk is permanently enclosed. Synonymous with flexible disk.

DMA. Direct memory access.

DSR. Data set ready. Associated with modem control.

DTR. Data terminal ready. Associated with modem control.

dual in-line package (DIP). A widely used container for an integrated circuit. DIPs are pins usually in two parallel rows. These pins are spaced 1/10 inch apart and come in different configurations ranging from 14-pin to 40-pin configurations.

EBCDIC. Extended binary-coded decimal interchange code.

ECC. Error checking and correction.

edge connector. A terminal block with a number of contacts attached to the edge of a printed circuit board to facilitate plugging into a foundation circuit.

EIA. Electronic Industries Association.

EIA/CCITT. Electronic Industries Association/Consultative Committee on International Telegraphy and Telephone.

end-of-text character (ETX). A transmission control character used to terminate text.

end-of-transmission character (EOT). A transmission control character used to indicate the conclusion of a transmission, which may have included one or more texts and any associated message headings.

EOT. end-of-transmission character.

EPROM. Erasable programmable read-only memory

erasable programmable read-only memory (EPROM)
A storage device whose contents can be erased by ultraviolet means and new contents stored by electrical means. EPROM information is not destroyed when power is removed.

error checking and correction (ECC). The detection and correction of all single-bit, double-bit, and some multiple-bit errors.

ETX. End-of-text character.

extended binary-coded decimal interchange code. (EBCDIC)
A set of 256 characters, each represented by eight bits.

flexible disk. Synonym for diskette.

firmware. Memory chips with integrated programs already incorporated on the chip.

gate. (1) A device or circuit that has no output until it is triggered into operation by one or more enable signals, or until an input signal exceeds a predetermined threshold amplitude. (2) A signal that triggers the passage of other signals through a circuit.

graphic. A symbol produced by a process such as handwriting, drawing, or printing.

hertz (Hz). A unit of frequency equal to one cycle per second.

hex. Abbreviation for hexadecimal.

hexadecimal (Hex). Pertaining to a selection, choice, or condition that has 16 possible values or states. These values or states usually contain 10 digits and 6 letters, A through F/ Hexadecimal digits are equivalent to a power of 16.

high-order position. The leftmost position in a string of characters.

Hz. Hertz.

interface. A device that alters or converts actual electrical signals between distinct devices, programs, or systems.

k. An abbreviation for the prefix kilo; that is, 1,000 decimal notation.

K. When referring to storage capacity, 2 to the tenth power; 1,024 in decimal notation.

KB (Kilobyte). 1,024 bytes.

k byte. 1,024 bytes.

kHz. A unit of frequency equal to 1,000 hertz.

kilo(k). One thousand.

latch. (1) A feedback loop in symmetrical digital circuits used to maintain a state. (2) A simple logic-circuit storage element comprising two gates as a unit.

LED. Light-emitting diode.

light-emitting diode (LED). A semi-conductor chip that gives off visible or infrared light when activated.

low-order position. The rightmost position in a string of characters.

m. (1) Milli; one thousand or thousandth part. (2) Meter.

M (Mega). 1,000,000 in decimal notation. When referring to storage capacity, 2 to the twentieth power; 1,048,576 in decimal notation.

mA. Milliampere.

machine language. (1) A language that is used directly by a machine. (2) Another term for computer instruction code.

main storage. A storage device in which the access time is effectively independent of the location of the data.

MB. Megabyte, 1,048,576 bytes.

mega (M). 10 to the sixth power, 1,000,000 in decimal notation. When referring to storage capacity, 2 to the twentieth power. 1,048,576 in decimal notation.

megabyte (MB). 1,048,576 bytes.

megahertz (MHz). A unit of measure of frequency. One megahertz equals 1,000,000 hertz.

MFM. Modified frequency modulation.

MHz. Megahertz.

microprocessor. An integrated circuit that accepts coded instructions for execution; the instructions may be entered, integrated, or stored internally.

microsecond. (μ s) One-millionth of a second.

milli(m). One thousand or one thousandth.

milliampere(mA). One thousandth of an ampere.

millisecond(ms). One thousandth of a second.

mnemonic. A symbol chosen to assist the human memory; for example, an abbreviation such as “mpy” for “multiply.”

mode. (1) A method of operation; for example, the binary mode, the interpretive mode, the alphanumeric mode. (2) The most frequent value in the statistical sense.

modem

(Modulator-Demodulator). A device that converts serial (bit by bit) digital signals from a business machine (or data terminal equipment) to analog signals which are suitable for transmission in a telephone network. The inverse function is also performed by the modem on reception of analog signals.

modified frequency modulation (MFM). The process of varying the amplitude and frequency of the “write” signal. MFM pertains to the number of bytes of storage that can be stored on the recording media. The number of bytes is twice the number contained in the same unit area of recording media at single density.

modulo check. A calculation performed on values entered into a system. This calculation is designed to detect errors.

monitor. (1) A device that observes and verifies the operation of a data processing system and indicates any specific departure from the norm. (2) A television type display, such as the IBM Monochrome Display. (3) Software or hardware that observes, supervises, controls, or verifies the operations of a system.

ms. Millisecond; one thousandth of a second.

multiplexer. A device capable of distributing the events of an interleaved sequence to the respective activities.

NAND. A logic operator having the property that if P is a statement, Q is a statement, R is a statement, ... , then the NAND of P,Q,R,...is true if at least one statement is false, false if all statements are true.

nanosecond. (ns) One-billionth of a second.

nonconjunction. (1) The dyadic Boolean operation the result of which has the Boolean value 0 if, and only if, each operand has the Boolean value 1.

non-return-to-zero inverted (NRZI). A transmission encoding method in which the data terminal equipment changes the signal to the opposite state to send a binary 0 and leaves it in the same state to send a binary 1.

NOR. A logic operator having the property that if P is a statement, Q is a statement, R is a statement, ..., then the NOR of P, Q, R, ... is true if all statements are false, false if at least one statement is true.

NOT. A logical operator having the property that if P is a statement, then the NOT of P is true if P is false, false if P is true.

NRZI. Non-return-to-zero inverted.

ns. Nanosecond; one-billionth of a second.

operating system. Software that controls the execution of programs; an operating system may provide services such as resource allocation, scheduling, input/output control, and data management.

OR. (1) A logic operator having the property that if P is a statement, Q is a statement, R is a statement, ..., then the OR of P, Q, R, ... is true if at least one statement is true, false if all statements are false.

output. Pertaining to a device, process, or channel involved in an output process, or to the data or states involved in an output process.

output process. (1) The process that consists of the delivery of data from a data processing system, or from any part of it. (2) The return of information from a data processing system to an end user, including the translation of data from a machine language to a language that the end user can understand.

overcurrent. A current of higher than specified strength.

overvoltage. A voltage of higher than specified value.

parallel. (1) Pertaining to the concurrent or simultaneous operation of two or more devices, or to the concurrent performance of two or more activities. (2) Pertaining to the concurrent or simultaneous occurrence of two or more related activities in multiple devices or channels. (3) Pertaining to the simultaneity of two or more processes. (4) Pertaining to the simultaneous processing of the individual parts of a whole, such as the bits of a character and the characters of a word, using separate facilities for the various parts. (5) Contrast with serial.

PEL. Picture element.

personal computer. A small home or business computer that has a processor and keyboard and that can be connected to a television or some other monitor. An optional printer is usually available.

picture element (PEL). (1) The smallest displayable unit on a display. (2) Synonymous with pixel, PEL.

pinout. A diagram of functioning pins on a pinboard.

pixel. Picture element.

polling. (1) Interrogation of devices for purposes such as to avoid contention, to determine operational status, or to determine readiness to send or receive data. (2) The process whereby stations are invited, one at a time, to transmit.

port. An access point for data entry or exit.

printed circuit board. A piece of material, usually fiberglass, that contains a layer of conductive material, usually metal. Miniature electronic components on the fiberglass transmit electronic signals through the board by way of the metal layers.

program. (1) A series of actions designed to achieve a certain result. (2) A series of instructions telling the computer how to handle a

problem or task. (3) To design, write, and test computer programs.

programmable read-only memory (PROM). Non-erasable programmable memory. PROM information is not destroyed when power is removed.

programming language. (1) An artificial language established for expressing computer programs. (2) A set of characters and rules, with meanings assigned prior to their use, for writing computer programs.

PROM. Programmable read-only memory.

propagation delay. The time necessary for a signal to travel from one point on a circuit to another.

radix. (1) In a radix numeration system, the positive integer by which the weight of the digit place is multiplied to obtain the weight of the digit place with the next higher weight; for example, in the decimal

numeration system, the radix of each digit place is 10.

(2) Another term for base.

radix numeration system. A positional representation system in which the ratio of the weight of any one digit place to the weight of the digit place with the next lower weight is a positive integer. The permissible values of the character in any digit place range from zero to one less than the radix of the digit place.

RAS. Row address strobe.

RGBI. Red-green-blue-intensity.

read-only memory (ROM). A storage device whose contents cannot be modified, except by a particular user, or when operating under particular conditions; for example, a storage device in which writing is prevented by a lockout.

read/write memory. A storage device whose contents can be modified.

red-green-blue-intensity (RGBI). The description of a direct-drive

color monitor which accepts red, green, blue, and intensity signal inputs.

register. (1) A storage device, having a specified storage capacity such as a bit, a byte, or a computer word, and usually intended for a special purpose. (2) On a calculator, a storage device in which specific data is stored.

RF modulator. The device used to convert the composite video signal to the antenna level input of a home TV.

ROM. Read-only memory.

ROM/BIOS. The basic input/output system resident in ROM, which provides the device level control of the major I/O devices in the computer system.

row address strobe (RAS). A signal that latches the row addresses in a memory chip.

RS-232C. The standards set by the EIA for communications between computers and external equipment.

RTS. Request to send. Associated with modem control.

run. A single continuous performance of a computer program or routine.

scan line. The use of a cathode beam to test the cathode ray tube of a display used with a personal computer.

schematic. The description, usually in diagram form, of the logical and physical structure of an entire data base according to a conceptual model.

sector. That part of a track or band on a magnetic drum, a magnetic disk, or a disk pack that can be accessed by the magnetic heads in the course of a predetermined rotational displacement of the particular device.

serdes. Serializer/deserializer.

serial. (1) Pertaining to the sequential performance of two or more activities in a single device. In English, the modifiers serial and parallel usually refer to devices, as opposed to sequential and

consecutive, which refer to processes. (2) Pertaining to the sequential or consecutive occurrence of two or more related activities in a single device or channel.

(3) Pertaining to the sequential processing of the individual parts of a whole, such as the bits of a character or the characters of a word, using the same facilities for successive parts. (4) Contrast with parallel.

sink. A device or circuit into which current drains.

software. (1) Computer programs, procedures, rules, and possible associated documentation concerned with the operation of a data processing system. (2) Contrast with hardware.

source. The origin of a signal or electrical energy.

source circuit. (1) Generator circuit. (2) Control with sink.

SS. Start-stop transmission.

start bit. Synonym for start signal.

start-of-text character (STX). A transmission control character that precedes a text and may be used to terminate the message heading.

start signal. (1) A signal to a receiving mechanism to get ready to receive data or perform a function. (2) In a start-stop system, a signal preceding a character or block that prepares the receiving device for the reception of the code elements. Synonymous with start bit.

start-stop (SS) transmission. (1) A synchronous transmission such that a group of signals representing a character is preceded by a start signal and followed by a stop signal. (2) Asynchronous transmission in which a group of bits is preceded by a start bit that prepares the receiving mechanism for the reception and registration of a character and is followed by at least one stop bit that enables the receiving mechanism for the reception and registration of a character and is followed by at least one stop bit that enables the receiving mechanism to come to an idle condition pending the reception of the next character.

stop bit. Synonym for stop signal.

stop signal. (1) A signal to a receiving mechanism to wait for the next signal. (2) In a start-stop system, a signal following a character or block that prepares the receiving device for the reception of a subsequent character or block. Synonymous with stop bit.

strobe. (1) An instrument used to determine the exact speed of circular or cyclic movement. (2) A flashing signal displaying an exact event.

STX. Start-of-text character.

synchronous transmission. Data transmission in which the sending and receiving devices are operating continuously at the same frequency and are maintained, by means of correction, in a desired phase relationship.

text. In ASCII and data communication, a sequence of characters treated as an entity if preceded and terminated by

one STX and one ETX transmission control, respectively.

track. The path or one of the set of paths, parallel to the reference edge on a data medium, associated with a single reading or writing component as the data medium moves past the component. (2) The portion of a moving data medium such as a drum, tape, or disk, that is accessible to a given reading head position.

transistor-transistor logic (TTL). A circuit in which the multiple-diode cluster of the diode-transistor logic circuit has been replaced by a multiple-emitter transistor.

TTL. Transistor-transistor logic.

TX Data. Transmit data. Associated with modem control. External connections of the RS-232C asynchronous communications adapter interface.

video. Computer data or displayed on a cathode ray tube monitor or display.

write precompensation. The varying of the timing of the head current from the outer

tracks to the inner tracks of the diskette to keep a constant write signal.

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C



C

C

C



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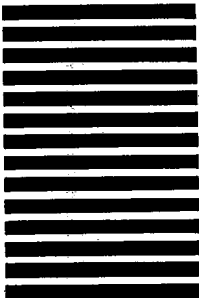
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