

VIP2K Video Display Memory Map - by Chuck Yakym 1/3/2019

Use with VIP2K Monitor Program Version 1.4 (**vip2k14.hex**) at U2, and the matching state machine file (**vip-2716.hex**) at U7 on the VIP2K CPU board.

Each scan line consists of 24 bytes that produce 192 pixels. There are 192 scan lines, to produce a 192 by 192 bit graphic screen, or 24 lines of 24 characters using 8x8 pixels per character.

The bit pattern for each byte is:

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
-------	-------	-------	-------	-------	-------	-------	-------

The screen layout is per byte location:

Top Left	Top 2 scan lines shown																Top Right				
E8																					E8
D1																					E8
E8																					E9
EB																					02
The middle 188 lines are not shown																					
FC																					FC
1D																					34
FC																					FC
37																					4E
Lower Left	Bottom 2 scan lines shown																Lower Right				

Memory locations for each scan line:

Character Line #1	E8D1-E8E8	scan line #1
	E8EB-E902	scan line #2
	E905-E91C	scan line #3
	E91F-E936	scan line #4
	E939-E950	scan line #5
	E953-E96A	scan line #6
	E96D-E984	scan line #7
	E987-E99E	scan line #8
Character Line #2	E9A1-E9B8	scan line #9
	E9BB-E9D2	scan line #10
	E9D5-E9EC	scan line #11
	E9EF-EA06	scan line #12
	EA09-EA20	scan line #13
	EA23-EAEA	scan line #14
	EA3D-EA54	scan line #15
	EA57-EA6E	scan line #16
Character Line #3	EA71-EA88	scan line #17
	EA8B-EAA2	scan line #18
	EAA5-EABC	scan line #19
	EABF-EAD6	scan line #20
	EAD9-EAF0	scan line #21
	EAF3-EB0A	scan line #22
	EB0D-EB24	scan line #23
	EB27-EB3E	scan line #24

Character Line #4	EB41-EB58	scan line #25
	EB5B-EB72	scan line #26
	EB75-EB8C	scan line #27
	EB8F-EBA6	scan line #28
	EBA9-EBC0	scan line #29
	EBC3-EBDA	scan line #30
	EBDD-EBF4	scan line #31
	EBF7-EC0E	scan line #32

Character Line #5	EC11-EC28	scan line #33
	EC2B-EC42	scan line #34
	EC45-EC5C	scan line #35
	EC5F-EC76	scan line #36
	EC79-EC90	scan line #37
	EC93-ECAA	scan line #38
	ECAD-ECC4	scan line #39
	ECC7-ECDE	scan line #40

Character Line #6	ECE1-ECF8	scan line #41
	ECFB-ED12	scan line #42
	ED15-ED2C	scan line #43
	ED2F-ED46	scan line #44
	ED49-ED60	scan line #45
	ED63-ED7A	scan line #46
	ED7D-ED94	scan line #47
	ED97-EDAE	scan line #48

Character Line #7	EDB1-EDC8	scan line #49
	EDCB-EDE2	scan line #50
	EDE5-EDFC	scan line #51
	EDFF-EE16	scan line #52
	EE19-EE30	scan line #53
	EE33-EE4A	scan line #54
	EE4D-EE64	scan line #55
	EE67-EE7E	scan line #56

Character Line #8	EE81-EE98	scan line #57
	EE9B-EEB2	scan line #58
	EEB5-EECC	scan line #59
	EECF-EEE6	scan line #60
	EEE9-EF00	scan line #61
	EF03-EF1A	scan line #62
	EF1D-EF34	scan line #63
	EF37-EF4E	scan line #64

Character Line #9	EF51-EF68	scan line #65
	EF6B-EF82	scan line #66
	EF85-EF9C	scan line #67
	EF9F-EFB6	scan line #68
	EFB9-EFD0	scan line #69
	EFD3-EFEA	scan line #70
	EFED-F004	scan line #71
	F007-F01E	scan line #72

Character Line #10	F021-F038	scan line #73
	F03B-F052	scan line #74
	F055-F06C	scan line #75
	F06F-F086	scan line #76
	F089-F0A0	scan line #77
	F0A3-F0BA	scan line #78
	F0BD-F0D4	scan line #79
	F0D7-F0EE	scan line #80
Character Line #11	F0F1-F108	scan line #81
	F10B-F122	scan line #82
	F125-F13C	scan line #83
	F13F-F156	scan line #84
	F159-F170	scan line #85
	F173-F18A	scan line #86
	F18D-F1A4	scan line #87
	F1A7-F1BE	scan line #88
Character Line #12	F1C1-F1D8	scan line #89
	F1DB-F1F2	scan line #90
	F1F5-F20C	scan line #91
	F20F-F226	scan line #92
	F229-F240	scan line #93
	F243-F25A	scan line #94
	F25D-F274	scan line #95
	F277-F28E	scan line #96
Character Line #13	F291-F2A8	scan line #97
	F2AB-F2C2	scan line #98
	F2C5-F2DC	scan line #99
	F2DF-F2F6	scan line #100
	F2F9-F310	scan line #101
	F313-F32A	scan line #102
	F32D-F344	scan line #103
	F347-F35E	scan line #104
Character Line #14	F361-F378	scan line #105
	F37B-F392	scan line #106
	F395-F3AC	scan line #107
	F3AF-F3C6	scan line #108
	F3C9-F3E0	scan line #109
	F3E3-F3FA	scan line #110
	F3FD-F414	scan line #111
	F417-F42E	scan line #112
Character Line #15	F431-F448	scan line #113
	F44B-F462	scan line #114
	F465-F47C	scan line #115
	F47F-F496	scan line #116
	F499-F4B0	scan line #117
	F4B3-F4CA	scan line #118
	F4CD-F4E4	scan line #119
	F4E7-F4FE	scan line #120

Character Line #16	F501-F518	scan line #121
	F51B-F532	scan line #122
	F535-F54C	scan line #123
	F54F-F566	scan line #124
	F569-F580	scan line #125
	F583-F59A	scan line #126
	F59D-F5B4	scan line #127
	F5B7-F5CE	scan line #128

Character Line #17	F5D1-F5E8	scan line #129
	F5EB-F602	scan line #130
	F605-F61C	scan line #131
	F61F-F636	scan line #132
	F639-F650	scan line #133
	F653-F66A	scan line #134
	F66D-F684	scan line #135
	F687-F69E	scan line #136

Character Line #18	F6A1-F6B8	scan line #137
	F6BB-F6D2	scan line #138
	F6D5-F6EC	scan line #139
	F6EF-F706	scan line #140
	F709-F720	scan line #141
	F723-F73A	scan line #142
	F73D-F754	scan line #143
	F757-F76E	scan line #144

Character Line #19	F771-F788	scan line #145
	F78B-F7A2	scan line #146
	F7A5-F7BC	scan line #147
	F7BF-F7D6	scan line #148
	F7D9-F7F0	scan line #149
	F7F3-F80A	scan line #150
	F80D-F824	scan line #151
	F827-F83E	scan line #152

Character Line #20	F841-F858	scan line #153
	F85B-F872	scan line #154
	F875-F88C	scan line #155
	F88F-F8A6	scan line #156
	F8A9-F8C0	scan line #157
	F8C3-F8DA	scan line #158
	F8DD-F8F4	scan line #159
	F8F7-F90E	scan line #160

Character Line #21	F911-F928	scan line #161
	F92B-F942	scan line #162
	F945-F95C	scan line #163
	F95F-F976	scan line #164
	F979-F990	scan line #165
	F993-F9AA	scan line #166
	F9AD-F9C4	scan line #167
	F9C7-F9DE	scan line #168

Character Line #22	F9E1-F9F8	scan line #169
	F9FB-FA12	scan line #170
	FA15-FA2C	scan line #171
	FA2F-FA46	scan line #172
	FA49-FA60	scan line #173
	FA63-FA7A	scan line #174
	FA7D-FA94	scan line #175
	FA97-FAAE	scan line #176

Character Line #23	FAB1-FAC8	scan line #177
	FACB-FAE2	scan line #178
	FAE5-FAFC	scan line #179
	FAFF-FB16	scan line #180
	FB19-FB30	scan line #181
	FB33-FB4A	scan line #182
	FB4D-FB64	scan line #183
	FB67-FB7E	scan line #184

Character Line #24	FB81-FB98	scan line #185
	FB9B-FBB2	scan line #186
	FBB5-FBCC	scan line #187
	FBCF-FBE6	scan line #188
	FBE9-FC00	scan line #189
	FC03-FC1A	scan line #190
	FC1D-FC34	scan line #191
	FC37-FC4E	scan line #192