

VIP2K Video Display Memory Map as of 11/6/2018

NOTE: You must use the updated State Code; VIP-2716.HEX dated 11/6/2018, in U7 on the VIP2K CPU board.

Each scan line consists of 24 bytes that produces 192 pixels. This means that you can produce a 192 by 192 bit graphic screen.

The bit pattern for each byte is:

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
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The screen lay out is per byte location:

Top Left	Top 2 scan lines shown																						Top Right
E8D1																							E8E8
E8EB																							E902
This is the middle 188 lines (not shown)																							
FC1D																							FC34
FC37																							FC4E
Lower Left	Bottom 2 scan lines shown																						Lower Right

Below is a listing of all the exact memory location per scan line:

Character Line #1  
 E8D1 thru E8E8 scan line #1  
 E8EB thru E902 scan line #2  
 E905 thru E91C scan line #3  
 E91F thru E936 scan line #4  
 E939 thru E950 scan line #5  
 E953 thru E96A scan line #6  
 E96D thru E984 scan line #7  
 E987 thru E99E scan line #8

Character Line #2  
 E9A1 thru E9B8 scan line #9  
 E9BB thru E9D2 scan line #10  
 E9D5 thru E9EC scan line #11  
 E9EF thru EA06 scan line #12  
 EA09 thru EA20 scan line #13  
 EA23 thru EAEA scan line #14  
 EA3D thru EA54 scan line #15  
 EA57 thru EA6E scan line #16

Character Line #3  
 EA71 thru EA88 scan line #17  
 EA8B thru EAA2 scan line #18  
 EAA5 thru EABC scan line #19  
 EABF thru EAD6 scan line #20  
 EAD9 thru EAF0 scan line #21  
 EAF3 thru EB0A scan line #22  
 EB0D thru EB24 scan line #23  
 EB27 thru EB3E scan line #24

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

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

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

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

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

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

Character Line #10  
F021 thru F038 scan line #73  
F03B thru F052 scan line #74  
F055 thru F06C scan line #75  
F06F thru F086 scan line #76  
F089 thru F0A0 scan line #77  
F0A3 thru F0BA scan line #78  
F0BD thru F0D4 scan line #79  
F0D7 thru F0EE scan line #80

Character Line #11  
F0F1 thru F108 scan line #81  
F10B thru F122 scan line #82  
F125 thru F13C scan line #83  
F13F thru F156 scan line #84  
F159 thru F170 scan line #85  
F173 thru F18A scan line #86  
F18D thru F1A4 scan line #87  
F1A7 thru F1BE scan line #88

Character Line #12  
F1C1 thru F1D8 scan line #89  
F1DB thru F1F2 scan line #90  
F1F5 thru F20C scan line #91  
F20F thru F226 scan line #92  
F229 thru F240 scan line #93  
F243 thru F25A scan line #94  
F25D thru F274 scan line #95  
F277 thru F28E scan line #96

Character Line #13  
F291 thru F2A8 scan line #97  
F2AB thru F2C2 scan line #98  
F2C5 thru F2DC scan line #99  
F2DF thru F2F6 scan line #100  
F2F9 thru F310 scan line #101  
F313 thru F32A scan line #102  
F32D thru F344 scan line #103  
F347 thru F35E scan line #104

Character Line #14  
F361 thru F378 scan line #105  
F37B thru F392 scan line #106  
F395 thru F3AC scan line #107  
F3AF thru F3C6 scan line #108  
F3C9 thru F3E0 scan line #109  
F3E3 thru F3FA scan line #110  
F3FD thru F414 scan line #111  
F417 thru F42E scan line #112

Character Line #15  
F431 thru F448 scan line #113  
F44B thru F462 scan line #114  
F465 thru F47C scan line #115  
F47F thru F496 scan line #116  
F499 thru F4B0 scan line #117  
F4B3 thru F4CA scan line #118  
F4CD thru F4E4 scan line #119  
F4E7 thru F4FE scan line #120

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

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

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

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

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

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

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

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

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