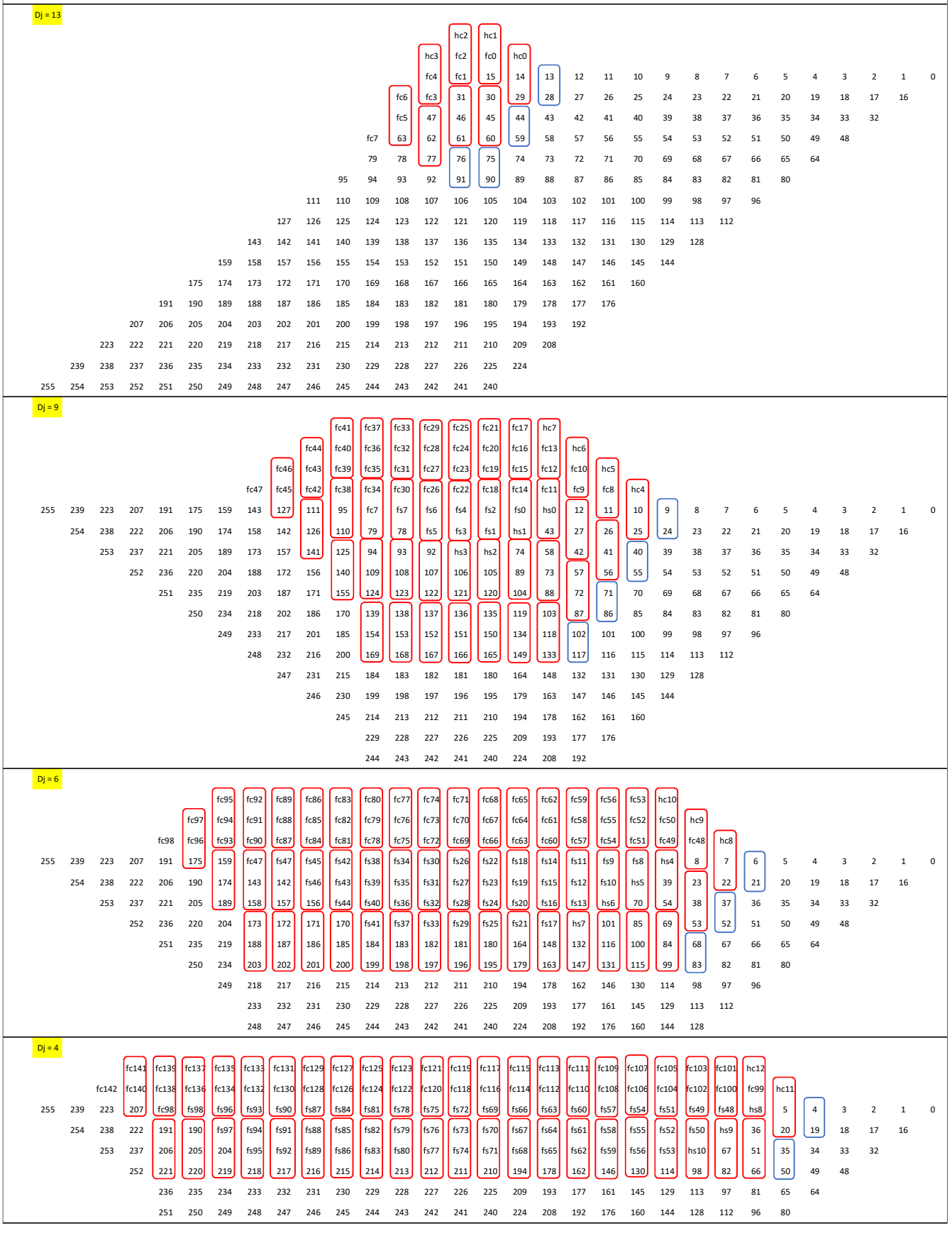
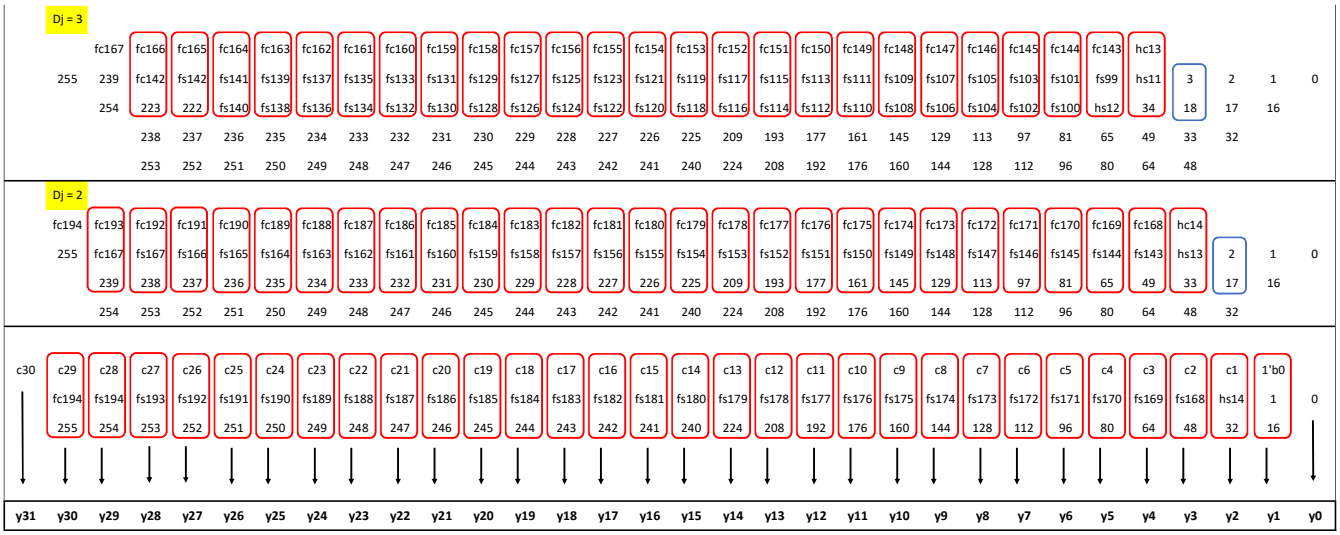
DADDA MULTIPLIER REDUCTION TREE 16 BIT

The numbers are partial products, i.e., each bit of A multiplied with each bit of B (16*16 = 256 product terms).
The red incdicates a full adder. fs - full adder sum, fc - full adder carry.
The blue indicates a half adder. hs - half adder sum, fc - half adder carry.




Dj = 3
fc167
255 239 254
fc166 fc165 fc164 fc163 fc162 fc161 fc160 fc159 fc158 fc157 fc156 fc155 fc154 fc153 fc152 fc151 fc150 fc149 fc148 fc147 fc146 fc145 fc144 fc143 hc13
fc142 fs142 fs141 fs139 fs137 fs135 fs133 fs131 fs129 fs127 fs125 fs123 fs121 fs119 fs117 fs115 fs113 fs111 fs109 fs107 fs105 fs103 fs101 fs99 hs11 3 2 1 0
223 222 fs140 fs138 fs136 fs134 fs132 fs130 fs128 fs126 fs124 fs122 fs120 fs118 fs116 fs114 fs112 fs110 fs108 fs106 fs104 fs102 fs100 hs12 34 18 17 16
238 237 236 235 234 233 232 231 230 229 228 227 226 225 209 193 177 161 145 129 113 97 81 65 49 33 32
253 252 251 250 249 248 247 246 245 244 243 242 241 240 224 208 192 176 160 144 128 112 96 80 64 48
Dj = 2
fc194 fc193 fc192 fc191 fc190 fc189 fc188 fc187 fc186 fc185 fc184 fc183 fc182 fc181 fc180 fc179 fc178 fc177 fc176 fc175 fc174 fc173 fc172 fc171 fc170 fc169 fc168 hc14
255 fc167 fs167 fs166 fs165 fs164 fs163 fs162 fs161 fs160 fs159 fs158 fs157 fs156 fs155 fs154 fs153 fs152 fs151 fs150 fs149 fs148 fs147 fs146 fs145 fs144 fs143 hs13 2 1 0
239 238 237 236 235 234 233 232 231 230 229 228 227 226 225 209 193 177 161 145 129 113 97 81 65 49 33 17 16
254 253 252 251 250 249 248 247 246 245 244 243 242 241 240 224 208 192 176 160 144 128 112 96 80 64 48 32
c30
c29 c28 c27 c26 c25 c24 c23 c22 c21 c20 c19 c18 c17 c16 c15 c14 c13 c12 c11 c10 c9 c8 c7 c6 c5 c4 c3 c2 c1 1'b0
fc194 fs194 fs193 fs192 fs191 fs190 fs189 fs188 fs187 fs186 fs185 fs184 fs183 fs182 fs181 fs180 fs179 fs178 fs177 fs176 fs175 fs174 fs173 fs172 fs171 fs170 fs169 fs168 hs14 1 0
255 254 253 252 251 250 249 248 247 246 245 244 243 242 241 240 224 208 192 176 160 144 128 112 96 80 64 48 32 16
y31 y30 y29 y28 y27 y26 y25 y24 y23 y22 y21 y20 y19 y18 y17 y16 y15 y14 y13 y12 y11 y10 y9 y8 y7 y6 y5 y4 y3 y2 y1 y0