Rank-74106 over GF(16)

January 15, 2021

The equation

The equation of the surface is :

$$X_0^3 + X_1^3 + X_2^3 + X_0^2X_1 + X_0^2X_2 + X_0^2X_3 + X_1^2X_2 + X_0X_3^2 + X_0X_1X_2 = 0$$

(1, 1, 1, 0, 1, 1, 1, 0, 1, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 0)
The point rank of the equation over GF(16) is 304222758

General information

Number of lines	0
Number of points	225
Number of singular points	0
Number of Eckardt points	0
Number of double points	0
Number of single points	0
Number of points off lines	225
Number of Hesse planes	0
Number of axes	0
Type of points on lines	
Type of lines on points	0^{225}

Singular Points

The surface has 0 singular points:

The 0 Lines

The lines and their Pluecker coordinates are:
Rank of lines: ( )
Rank of points on Klein quadric: ( )

Eckardt Points

The surface has 0 Eckardt points:

Double Points

The surface has 0 Double points:
The double points on the surface are:

Single Points

The surface has 0 single points:
The single points on the surface are:

The single points on the surface are:

Points on surface but on no line

The surface has 225 points not on any line:
The points on the surface but not on lines are:

$0: P_3 = (0,0,0,1)$
$1: P_{284} = (10,0,0,1)$
$2: P_{285} = (11,0,0,1)$
$3: P_{327} = (5,3,0,1)$
$4: P_{331} = (9,3,0,1)$
$5: P_{336} = (14,3,0,1)$
$6: P_{356} = (2,5,0,1)$
$7: P_{362} = (8,5,0,1)$
$8: P_{368} = (14,5,0,1)$
$9: P_{384} = (14,6,0,1)$
$10: P_{390} = (4,7,0,1)$
$11: P_{404} = (2,8,0,1)$
$12: P_{406} = (4,8,0,1)$
$13: P_{417} = (15,8,0,1)$
$14: P_{440} = (6,10,0,1)$
$15: P_{441} = (7,10,0,1)$
$16: P_{444} = (10,10,0,1)$
$17: P_{461} = (11,11,0,1)$
$18: P_{462} = (12,11,0,1)$
$19: P_{463} = (13,11,0,1)$
$20: P_{475} = (9,12,0,1)$
$21: P_{484} = (2,13,0,1)$
$22: P_{517} = (3,15,0,1)$
$23: P_{518} = (4,15,0,1)$
$24: P_{523} = (9,15,0,1)$
$25: P_{858} = (9,4,2,1)$
$26: P_{873} = (8,5,2,1)$
$27: P_{893} = (12,6,2,1)$
$28: P_{899} = (2,7,2,1)$
$29: P_{936} = (7,9,2,1)$
$30: P_{947} = (2,10,2,1)$
$31: P_{1020} = (11,14,2,1)$
$32: P_{1027} = (2,15,2,1)$
$33: P_{1029} = (4,15,2,1)$
$34: P_{1035} = (10,15,2,1)$
$35: P_{1046} = (5,0,3,1)$
$36: P_{1050} = (9,0,3,1)$
$37: P_{1055} = (14,0,3,1)$
$38: P_{1093} = (4,3,3,1)$
$39: P_{1126} = (5,5,3,1)$
$40: P_{1134} = (13,5,3,1)$
$41: P_{1136} = (15,5,3,1)$
$42: P_{1142} = (5,6,3,1)$
$43: P_{1194} = (9,9,3,1)$
$44: P_{1210} = (9,10,3,1)$
$45: P_{1229} = (12,11,3,1)$
$46: P_{1236} = (3,12,3,1)$
$47: P_{1259} = (10,13,3,1)$
$48: P_{1260} = (11,13,3,1)$
$49: P_{1263} = (14,13,3,1)$
$50: P_{1279} = (14,14,3,1)$
$51: P_{1339} = (10,2,4,1)$
$52: P_{1349} = (4,3,4,1)$
$53: P_{1354} = (9,3,4,1)$

$54: P_{1356} = (11, 3, 4, 1)$
$55: P_{1440} = (15, 8, 4, 1)$
$56: P_{1455} = (14, 9, 4, 1)$
$57: P_{1477} = (4, 11, 4, 1)$
$58: P_{1493} = (4, 12, 4, 1)$
$59: P_{1511} = (6, 13, 4, 1)$
$60: P_{1533} = (12, 14, 4, 1)$
$61: P_{1555} = (2, 0, 5, 1)$
$62: P_{1561} = (8, 0, 5, 1)$
$63: P_{1567} = (14, 0, 5, 1)$
$64: P_{1587} = (2, 2, 5, 1)$
$65: P_{1642} = (9, 5, 5, 1)$
$66: P_{1654} = (5, 6, 5, 1)$
$67: P_{1667} = (2, 7, 5, 1)$
$68: P_{1675} = (10, 7, 5, 1)$
$69: P_{1676} = (11, 7, 5, 1)$
$70: P_{1684} = (3, 8, 5, 1)$
$71: P_{1688} = (7, 8, 5, 1)$
$72: P_{1689} = (8, 8, 5, 1)$
$73: P_{1719} = (6, 10, 5, 1)$
$74: P_{1743} = (14, 11, 5, 1)$
$75: P_{1769} = (8, 13, 5, 1)$
$76: P_{1791} = (14, 14, 5, 1)$
$77: P_{1823} = (14, 0, 6, 1)$
$78: P_{1900} = (11, 5, 6, 1)$
$79: P_{1910} = (5, 6, 6, 1)$
$80: P_{1914} = (9, 6, 6, 1)$
$81: P_{1918} = (13, 6, 6, 1)$
$82: P_{1941} = (4, 8, 6, 1)$
$83: P_{1942} = (5, 8, 6, 1)$
$84: P_{1951} = (14, 8, 6, 1)$
$85: P_{1972} = (3, 10, 6, 1)$
$86: P_{1994} = (9, 11, 6, 1)$
$87: P_{2003} = (2, 12, 6, 1)$
$88: P_{2007} = (6, 12, 6, 1)$
$89: P_{2016} = (15, 12, 6, 1)$
$90: P_{2043} = (10, 14, 6, 1)$
$91: P_{2046} = (13, 14, 6, 1)$
$92: P_{2047} = (14, 14, 6, 1)$
$93: P_{2069} = (4, 0, 7, 1)$
$94: P_{2117} = (4, 3, 7, 1)$
$95: P_{2127} = (14, 3, 7, 1)$
$96: P_{2128} = (15, 3, 7, 1)$
$97: P_{2133} = (4, 4, 7, 1)$
$98: P_{2139} = (10, 4, 7, 1)$
$99: P_{2141} = (12, 4, 7, 1)$
$100: P_{2179} = (2, 7, 7, 1)$
$101: P_{2189} = (12, 7, 7, 1)$
$102: P_{2192} = (15, 7, 7, 1)$
$103: P_{2233} = (8, 10, 7, 1)$
$104: P_{2243} = (2, 11, 7, 1)$
$105: P_{2278} = (5, 13, 7, 1)$
$106: P_{2280} = (7, 13, 7, 1)$
$107: P_{2282} = (9, 13, 7, 1)$
$108: P_{2316} = (11, 15, 7, 1)$
$109: P_{2323} = (2, 0, 8, 1)$
$110: P_{2325} = (4, 0, 8, 1)$
$111: P_{2336} = (15, 0, 8, 1)$
$112: P_{2355} = (2, 2, 8, 1)$
$113: P_{2389} = (4, 4, 8, 1)$
$114: P_{2448} = (15, 7, 8, 1)$
$115: P_{2463} = (14, 8, 8, 1)$
$116: P_{2483} = (2, 10, 8, 1)$
$117: P_{2510} = (13, 11, 8, 1)$
$118: P_{2517} = (4, 12, 8, 1)$
$119: P_{2523} = (10, 12, 8, 1)$
$120: P_{2524} = (11, 12, 8, 1)$
$121: P_{2537} = (8, 13, 8, 1)$
$122: P_{2566} = (5, 15, 8, 1)$
$123: P_{2573} = (12, 15, 8, 1)$
$124: P_{2576} = (15, 15, 8, 1)$
$125: P_{2615} = (6, 2, 9, 1)$
$126: P_{2652} = (11, 4, 9, 1)$
$127: P_{2666} = (9, 5, 9, 1)$
$128: P_{2667} = (10, 5, 9, 1)$
$129: P_{2671} = (14, 5, 9, 1)$
$130: P_{2682} = (9, 6, 9, 1)$
$131: P_{2702} = (13, 7, 9, 1)$
$132: P_{2746} = (9, 10, 9, 1)$
$133: P_{2803} = (2, 14, 9, 1)$
$134: P_{2820} = (3, 15, 9, 1)$
$135: P_{2839} = (6, 0, 10, 1)$
$136: P_{2840} = (7, 0, 10, 1)$
$137: P_{2843} = (10, 0, 10, 1)$
$138: P_{2870} = (5, 2, 10, 1)$
$139: P_{2894} = (13, 3, 10, 1)$
$140: P_{2899} = (2, 4, 10, 1)$
$141: P_{2935} = (6, 6, 10, 1)$
$142: P_{2952} = (7, 7, 10, 1)$
$143: P_{2973} = (12, 8, 10, 1)$
$144: P_{2992} = (15, 9, 10, 1)$
$145: P_{2995} = (2, 10, 10, 1)$
$146: P_{3002} = (9, 10, 10, 1)$
$147: P_{3003} = (10, 10, 10, 1)$
$148: P_{3031} = (6, 12, 10, 1)$
$149: P_{3048} = (7, 13, 10, 1)$
$150: P_{3066} = (9, 14, 10, 1)$
$151: P_{3100} = (11, 0, 11, 1)$
$152: P_{3101} = (12, 0, 11, 1)$
$153: P_{3102} = (13, 0, 11, 1)$
$154: P_{3135} = (14, 2, 11, 1)$
$155: P_{3161} = (8, 4, 11, 1)$
$156: P_{3176} = (7, 5, 11, 1)$
$157: P_{3198} = (13, 6, 11, 1)$
$158: P_{3213} = (12, 7, 11, 1)$
$159: P_{3237} = (4, 9, 11, 1)$
$160: P_{3269} = (4, 11, 11, 1)$
$161: P_{3276} = (11, 11, 11, 1)$

162 : $P_{3279} = (14, 11, 11, 1)$
163 : $P_{3293} = (12, 12, 11, 1)$
164 : $P_{3310} = (13, 13, 11, 1)$
165 : $P_{3316} = (3, 14, 11, 1)$
166 : $P_{3335} = (6, 15, 11, 1)$
167 : $P_{3354} = (9, 0, 12, 1)$
168 : $P_{3403} = (10, 3, 12, 1)$
169 : $P_{3427} = (2, 5, 12, 1)$
170 : $P_{3428} = (3, 5, 12, 1)$
171 : $P_{3434} = (9, 5, 12, 1)$
172 : $P_{3465} = (8, 7, 12, 1)$
173 : $P_{3469} = (12, 7, 12, 1)$
174 : $P_{3471} = (14, 7, 12, 1)$
175 : $P_{3495} = (6, 9, 12, 1)$
176 : $P_{3498} = (9, 9, 12, 1)$
177 : $P_{3500} = (11, 9, 12, 1)$
178 : $P_{3509} = (4, 10, 12, 1)$
179 : $P_{3536} = (15, 11, 12, 1)$
180 : $P_{3540} = (3, 12, 12, 1)$
181 : $P_{3541} = (4, 12, 12, 1)$
182 : $P_{3543} = (6, 12, 12, 1)$
183 : $P_{3603} = (2, 0, 13, 1)$
184 : $P_{3635} = (2, 2, 13, 1)$
185 : $P_{3640} = (7, 2, 13, 1)$
186 : $P_{3644} = (11, 2, 13, 1)$
187 : $P_{3700} = (3, 6, 13, 1)$
188 : $P_{3701} = (4, 6, 13, 1)$
189 : $P_{3710} = (13, 6, 13, 1)$
190 : $P_{3739} = (10, 8, 13, 1)$
191 : $P_{3775} = (14, 10, 13, 1)$
192 : $P_{3782} = (5, 11, 13, 1)$
193 : $P_{3816} = (7, 13, 13, 1)$
194 : $P_{3817} = (8, 13, 13, 1)$
195 : $P_{3823} = (14, 13, 13, 1)$
196 : $P_{3843} = (2, 15, 13, 1)$
197 : $P_{3849} = (8, 15, 13, 1)$
198 : $P_{3850} = (9, 15, 13, 1)$
199 : $P_{3893} = (4, 2, 14, 1)$
200 : $P_{3910} = (5, 3, 14, 1)$
201 : $P_{3934} = (13, 4, 14, 1)$
202 : $P_{3987} = (2, 8, 14, 1)$
203 : $P_{3996} = (11, 8, 14, 1)$
204 : $P_{3999} = (14, 8, 14, 1)$
205 : $P_{4011} = (10, 9, 14, 1)$
206 : $P_{4047} = (14, 11, 14, 1)$
207 : $P_{4056} = (7, 12, 14, 1)$
208 : $P_{4079} = (14, 13, 14, 1)$
209 : $P_{4116} = (3, 0, 15, 1)$
210 : $P_{4117} = (4, 0, 15, 1)$
211 : $P_{4122} = (9, 0, 15, 1)$
212 : $P_{4164} = (3, 3, 15, 1)$
213 : $P_{4167} = (6, 3, 15, 1)$
214 : $P_{4169} = (8, 3, 15, 1)$
215 : $P_{4181} = (4, 4, 15, 1)$
216 : $P_{4218} = (9, 6, 15, 1)$
217 : $P_{4219} = (10, 6, 15, 1)$
218 : $P_{4220} = (11, 6, 15, 1)$
219 : $P_{4240} = (15, 7, 15, 1)$
220 : $P_{4266} = (9, 9, 15, 1)$
221 : $P_{4280} = (7, 10, 15, 1)$
222 : $P_{4293} = (4, 11, 15, 1)$
223 : $P_{4308} = (3, 12, 15, 1)$
224 : $P_{4355} = (2, 15, 15, 1)$

Line Intersection Graph

Neighbor sets in the line intersection graph:
The surface has 225 points:
The points on the surface are:

0 : $P_3 = (0, 0, 0, 1)$
1 : $P_{284} = (10, 0, 0, 1)$
2 : $P_{285} = (11, 0, 0, 1)$
3 : $P_{327} = (5, 3, 0, 1)$
4 : $P_{331} = (9, 3, 0, 1)$
5 : $P_{336} = (14, 3, 0, 1)$
6 : $P_{356} = (2, 5, 0, 1)$
7 : $P_{362} = (8, 5, 0, 1)$
8 : $P_{368} = (14, 5, 0, 1)$
9 : $P_{384} = (14, 6, 0, 1)$
10 : $P_{390} = (4, 7, 0, 1)$
11 : $P_{404} = (2, 8, 0, 1)$
12 : $P_{406} = (4, 8, 0, 1)$
13 : $P_{417} = (15, 8, 0, 1)$
14 : $P_{440} = (6, 10, 0, 1)$
15 : $P_{441} = (7, 10, 0, 1)$
16 : $P_{444} = (10, 10, 0, 1)$
17 : $P_{461} = (11, 11, 0, 1)$
18 : $P_{462} = (12, 11, 0, 1)$
19 : $P_{463} = (13, 11, 0, 1)$
20 : $P_{475} = (9, 12, 0, 1)$
21 : $P_{484} = (2, 13, 0, 1)$
22 : $P_{517} = (3, 15, 0, 1)$
23 : $P_{518} = (4, 15, 0, 1)$
24 : $P_{523} = (9, 15, 0, 1)$
25 : $P_{858} = (9, 4, 2, 1)$
26 : $P_{873} = (8, 5, 2, 1)$
27 : $P_{893} = (12, 6, 2, 1)$
28 : $P_{899} = (2, 7, 2, 1)$
29 : $P_{936} = (7, 9, 2, 1)$
30 : $P_{947} = (2, 10, 2, 1)$
31 : $P_{1020} = (11, 14, 2, 1)$
32 : $P_{1027} = (2, 15, 2, 1)$
33 : $P_{1029} = (4, 15, 2, 1)$
34 : $P_{1035} = (10, 15, 2, 1)$
35 : $P_{1046} = (5, 0, 3, 1)$

36 : $P_{1050} = (9, 0, 3, 1)$
37 : $P_{1055} = (14, 0, 3, 1)$
38 : $P_{1093} = (4, 3, 3, 1)$
39 : $P_{1126} = (5, 5, 3, 1)$
40 : $P_{1134} = (13, 5, 3, 1)$
41 : $P_{1136} = (15, 5, 3, 1)$
42 : $P_{1142} = (5, 6, 3, 1)$
43 : $P_{1194} = (9, 9, 3, 1)$
44 : $P_{1210} = (9, 10, 3, 1)$
45 : $P_{1229} = (12, 11, 3, 1)$
46 : $P_{1236} = (3, 12, 3, 1)$
47 : $P_{1259} = (10, 13, 3, 1)$
48 : $P_{1260} = (11, 13, 3, 1)$
49 : $P_{1263} = (14, 13, 3, 1)$
50 : $P_{1279} = (14, 14, 3, 1)$
51 : $P_{1339} = (10, 2, 4, 1)$
52 : $P_{1349} = (4, 3, 4, 1)$
53 : $P_{1354} = (9, 3, 4, 1)$
54 : $P_{1356} = (11, 3, 4, 1)$
55 : $P_{1440} = (15, 8, 4, 1)$
56 : $P_{1455} = (14, 9, 4, 1)$
57 : $P_{1477} = (4, 11, 4, 1)$
58 : $P_{1493} = (4, 12, 4, 1)$
59 : $P_{1511} = (6, 13, 4, 1)$
60 : $P_{1533} = (12, 14, 4, 1)$
61 : $P_{1555} = (2, 0, 5, 1)$
62 : $P_{1561} = (8, 0, 5, 1)$
63 : $P_{1567} = (14, 0, 5, 1)$
64 : $P_{1587} = (2, 2, 5, 1)$
65 : $P_{1642} = (9, 5, 5, 1)$
66 : $P_{1654} = (5, 6, 5, 1)$
67 : $P_{1667} = (2, 7, 5, 1)$
68 : $P_{1675} = (10, 7, 5, 1)$
69 : $P_{1676} = (11, 7, 5, 1)$
70 : $P_{1684} = (3, 8, 5, 1)$
71 : $P_{1688} = (7, 8, 5, 1)$
72 : $P_{1689} = (8, 8, 5, 1)$
73 : $P_{1719} = (6, 10, 5, 1)$
74 : $P_{1743} = (14, 11, 5, 1)$
75 : $P_{1769} = (8, 13, 5, 1)$
76 : $P_{1791} = (14, 14, 5, 1)$
77 : $P_{1823} = (14, 0, 6, 1)$
78 : $P_{1900} = (11, 5, 6, 1)$
79 : $P_{1910} = (5, 6, 6, 1)$
80 : $P_{1914} = (9, 6, 6, 1)$
81 : $P_{1918} = (13, 6, 6, 1)$
82 : $P_{1941} = (4, 8, 6, 1)$
83 : $P_{1942} = (5, 8, 6, 1)$
84 : $P_{1951} = (14, 8, 6, 1)$
85 : $P_{1972} = (3, 10, 6, 1)$
86 : $P_{1994} = (9, 11, 6, 1)$
87 : $P_{2003} = (2, 12, 6, 1)$
88 : $P_{2007} = (6, 12, 6, 1)$
89 : $P_{2016} = (15, 12, 6, 1)$
90 : $P_{2043} = (10, 14, 6, 1)$
91 : $P_{2046} = (13, 14, 6, 1)$
92 : $P_{2047} = (14, 14, 6, 1)$
93 : $P_{2069} = (4, 0, 7, 1)$
94 : $P_{2117} = (4, 3, 7, 1)$
95 : $P_{2127} = (14, 3, 7, 1)$
96 : $P_{2128} = (15, 3, 7, 1)$
97 : $P_{2133} = (4, 4, 7, 1)$
98 : $P_{2139} = (10, 4, 7, 1)$
99 : $P_{2141} = (12, 4, 7, 1)$
100 : $P_{2179} = (2, 7, 7, 1)$
101 : $P_{2189} = (12, 7, 7, 1)$
102 : $P_{2192} = (15, 7, 7, 1)$
103 : $P_{2233} = (8, 10, 7, 1)$
104 : $P_{2243} = (2, 11, 7, 1)$
105 : $P_{2278} = (5, 13, 7, 1)$
106 : $P_{2280} = (7, 13, 7, 1)$
107 : $P_{2282} = (9, 13, 7, 1)$
108 : $P_{2316} = (11, 15, 7, 1)$
109 : $P_{2323} = (2, 0, 8, 1)$
110 : $P_{2325} = (4, 0, 8, 1)$
111 : $P_{2336} = (15, 0, 8, 1)$
112 : $P_{2355} = (2, 2, 8, 1)$
113 : $P_{2389} = (4, 4, 8, 1)$
114 : $P_{2448} = (15, 7, 8, 1)$
115 : $P_{2463} = (14, 8, 8, 1)$
116 : $P_{2483} = (2, 10, 8, 1)$
117 : $P_{2510} = (13, 11, 8, 1)$
118 : $P_{2517} = (4, 12, 8, 1)$
119 : $P_{2523} = (10, 12, 8, 1)$
120 : $P_{2524} = (11, 12, 8, 1)$
121 : $P_{2537} = (8, 13, 8, 1)$
122 : $P_{2566} = (5, 15, 8, 1)$
123 : $P_{2573} = (12, 15, 8, 1)$
124 : $P_{2576} = (15, 15, 8, 1)$
125 : $P_{2615} = (6, 2, 9, 1)$
126 : $P_{2652} = (11, 4, 9, 1)$
127 : $P_{2666} = (9, 5, 9, 1)$
128 : $P_{2667} = (10, 5, 9, 1)$
129 : $P_{2671} = (14, 5, 9, 1)$
130 : $P_{2682} = (9, 6, 9, 1)$
131 : $P_{2702} = (13, 7, 9, 1)$
132 : $P_{2746} = (9, 10, 9, 1)$
133 : $P_{2803} = (2, 14, 9, 1)$
134 : $P_{2820} = (3, 15, 9, 1)$
135 : $P_{2839} = (6, 0, 10, 1)$
136 : $P_{2840} = (7, 0, 10, 1)$
137 : $P_{2843} = (10, 0, 10, 1)$
138 : $P_{2870} = (5, 2, 10, 1)$
139 : $P_{2894} = (13, 3, 10, 1)$
140 : $P_{2899} = (2, 4, 10, 1)$
141 : $P_{2935} = (6, 6, 10, 1)$
142 : $P_{2952} = (7, 7, 10, 1)$
143 : $P_{2973} = (12, 8, 10, 1)$
144 : $P_{2992} = (15, 9, 10, 1)$
145 : $P_{2995} = (2, 10, 10, 1)$
146 : $P_{3002} = (9, 10, 10, 1)$
147 : $P_{3003} = (10, 10, 10, 1)$
148 : $P_{3031} = (6, 12, 10, 1)$
149 : $P_{3048} = (7, 13, 10, 1)$
150 : $P_{3066} = (9, 14, 10, 1)$
151 : $P_{3100} = (11, 0, 11, 1)$
152 : $P_{3101} = (12, 0, 11, 1)$
153 : $P_{3102} = (13, 0, 11, 1)$
154 : $P_{3135} = (14, 2, 11, 1)$
155 : $P_{3161} = (8, 4, 11, 1)$
156 : $P_{3176} = (7, 5, 11, 1)$
157 : $P_{3198} = (13, 6, 11, 1)$
158 : $P_{3213} = (12, 7, 11, 1)$
159 : $P_{3237} = (4, 9, 11, 1)$
160 : $P_{3269} = (4, 11, 11, 1)$
161 : $P_{3276} = (11, 11, 11, 1)$
162 : $P_{3279} = (14, 11, 11, 1)$
163 : $P_{3293} = (12, 12, 11, 1)$
164 : $P_{3310} = (13, 13, 11, 1)$
165 : $P_{3316} = (3, 14, 11, 1)$
166 : $P_{3335} = (6, 15, 11, 1)$
167 : $P_{3354} = (9, 0, 12, 1)$
168 : $P_{3403} = (10, 3, 12, 1)$
169 : $P_{3427} = (2, 5, 12, 1)$
170 : $P_{3428} = (3, 5, 12, 1)$
171 : $P_{3434} = (9, 5, 12, 1)$
172 : $P_{3465} = (8, 7, 12, 1)$
173 : $P_{3469} = (12, 7, 12, 1)$
174 : $P_{3471} = (14, 7, 12, 1)$
175 : $P_{3495} = (6, 9, 12, 1)$
176 : $P_{3498} = (9, 9, 12, 1)$
177 : $P_{3500} = (11, 9, 12, 1)$
178 : $P_{3509} = (4, 10, 12, 1)$
179 : $P_{3536} = (15, 11, 12, 1)$
180 : $P_{3540} = (3, 12, 12, 1)$
181 : $P_{3541} = (4, 12, 12, 1)$
182 : $P_{3543} = (6, 12, 12, 1)$
183 : $P_{3603} = (2, 0, 13, 1)$
184 : $P_{3635} = (2, 2, 13, 1)$
185 : $P_{3640} = (7, 2, 13, 1)$
186 : $P_{3644} = (11, 2, 13, 1)$
187 : $P_{3700} = (3, 6, 13, 1)$
188 : $P_{3701} = (4, 6, 13, 1)$
189 : $P_{3710} = (13, 6, 13, 1)$
190 : $P_{3739} = (10, 8, 13, 1)$
191 : $P_{3775} = (14, 10, 13, 1)$
192 : $P_{3782} = (5, 11, 13, 1)$
193 : $P_{3816} = (7, 13, 13, 1)$
194 : $P_{3817} = (8, 13, 13, 1)$
195 : $P_{3823} = (14, 13, 13, 1)$
196 : $P_{3843} = (2, 15, 13, 1)$
197 : $P_{3849} = (8, 15, 13, 1)$

198 : $P_{3850} = (9, 15, 13, 1)$
199 : $P_{3893} = (4, 2, 14, 1)$
200 : $P_{3910} = (5, 3, 14, 1)$
201 : $P_{3934} = (13, 4, 14, 1)$
202 : $P_{3987} = (2, 8, 14, 1)$
203 : $P_{3996} = (11, 8, 14, 1)$
204 : $P_{3999} = (14, 8, 14, 1)$
205 : $P_{4011} = (10, 9, 14, 1)$
206 : $P_{4047} = (14, 11, 14, 1)$
207 : $P_{4056} = (7, 12, 14, 1)$
208 : $P_{4079} = (14, 13, 14, 1)$
209 : $P_{4116} = (3, 0, 15, 1)$
210 : $P_{4117} = (4, 0, 15, 1)$
211 : $P_{4122} = (9, 0, 15, 1)$
212 : $P_{4164} = (3, 3, 15, 1)$
213 : $P_{4167} = (6, 3, 15, 1)$
214 : $P_{4169} = (8, 3, 15, 1)$
215 : $P_{4181} = (4, 4, 15, 1)$
216 : $P_{4218} = (9, 6, 15, 1)$
217 : $P_{4219} = (10, 6, 15, 1)$
218 : $P_{4220} = (11, 6, 15, 1)$
219 : $P_{4240} = (15, 7, 15, 1)$
220 : $P_{4266} = (9, 9, 15, 1)$
221 : $P_{4280} = (7, 10, 15, 1)$
222 : $P_{4293} = (4, 11, 15, 1)$
223 : $P_{4308} = (3, 12, 15, 1)$
224 : $P_{4355} = (2, 15, 15, 1)$