Constructing the self-dual codes with an automorphism of order 13 with 6 cycles

A sample of the table for the generators of the fixed subcode $\varphi(E_\sigma(C))^*$

Hermitian code No	i1	i2	i3	i4	l5	i5	l6	i6	i7	l8	i8	l9	i9
1	1	63	127	63	9	135	6	198	127	6	198	4	133
2	1	29	101	66	6	235	4	177	53	6	30	3	276
3	1	63	127	63	8	263	12	200	127	12	200	9	173
4	9	50	101	50	11	176	3	126	101	3	126	4	290
5	1	22	163	122	3	166	2	121	69	6	192	3	266
6	1	2	209	63	3	77	5	266	127	3	144	2	51
7	1	15	39	86	10	99	3	69	124	8	209	6	281
8	1	18	303	283	6	219	1	200	215	2	134	5	118
9	1	19	62	101	11	122	2	228	281	6	71	6	305
10	1	29	38	29	11	200	3	238	38	3	238	6	110

Extract the attached 7zip compressed CSV file with generators for all 322103 Hermitian codes

You can download the archive (55Mb) with the generator matrices of all 322103 Hermitian codes here

[78,39,14] self-dual codes

Generator matrices for $\pi(F_\sigma(C))$ from $3i_2$ for which there exist a [78, 39, 14] code

bin 1	110000 001100 000011	**bin 2**	110000 001010 000101	**bin 3**	110000 001001 000110	**bin 4**	101000 010100 000011	**bin 5**	101000 010010 000101
bin 6	101000 010001 000110	**bin 7**	100100 011000 000011	**bin 8**	100100 010010 001001	**bin 9**	100100 010001 001010	**bin 10**	100010 011000 000101
bin 11	100010 010100 001001	**bin 12**	100010 010001 001100	**bin 13**	100001 011000 000110	**bin 14**	100001 010100 001010	**bin 15**	100001 010010 001100

Open with Exel the attached CSV file with generators for all [78,39,14] codes

Or extract the attached CSV file with generators for all [78,39,14] codes

[80, 40, 16] doubly-even codes

Generator matrices for $\pi(F_\sigma(C))$ from h_8 for which there exist a doubly-even [80, 40, 16] code

Open the attached CSV file with generators for the even subcode DE case

Or extract the attached CSV file with generators for the even subcode DE case

195 inequivalent doubly-even self-dual [80, 40, 16] codes with an automorphism of type 13-(6, 2)

Open the attached CSV file with generators for all DE codes

Or extract the attached CSV file with generators for all DE codes

[80, 40, 14] singly-even codes

Generator matrices for $\pi(F_\sigma(C))$ from $4i_2$ for which there exist a singly-even [80, 40, 16] code

Open with Exel the attached CSV file with generators for all binary SE codes

Or extract the attached CSV file with generators for all binary SE codes

162696 inequivalent singly-even self-dual [80, 40, 16] codes with an automorphism of type 13-(6, 2)

Open the attached CSV file with generators for all DE codes

Or extract the attached CSV file with generators for all DE codes

[82, 41, 14] codes for matrix G_4

Generator matrices for $\pi(F_\sigma(C))$ from $5i_2$ for matrix G_4 for which there exist a self-dual [82, 41, 14] code

Open the attached CSV file with generators for the even subcode G_4 case

Or extract the attached CSV file with generators for the even subcode G_4 case

604992 inequivalent doubly-even self-dual [82, 41, 14] codes with an automorphism of type 13-(6, 4)

Or extract the attached CSV file with generators for all codes for G_4 case

[82, 41, 14] codes for matrix G_5

Generator matrices for $\pi(F_\sigma(C))$ from i_2+h_8 for matrix G_5 for which there exist a self-dual [82, 41, 14] code

Open the attached CSV file with generators for the even subcode G_5 case

Or extract the attached CSV file with generators for the even subcode G_5 case

164338 inequivalent singly-even self-dual [80, 40, 16] codes with an automorphism of type 13-(6, 2)

Open the attached CSV file with generators for all codes for G_5 case

Or extract the attached CSV file with generators for all codes for G_5 case

[82, 41, 14] codes for matrix G_6

Generator matrices for $\pi(F_\sigma(C))$ from i_2+h_8 for matrix G_6 for which there exist a self-dual [82, 41, 14] code

Open the attached CSV file with generators for the even subcode G_6 case

Or extract the attached CSV file with generators for the even subcode G_6 case

50989 inequivalent singly-even self-dual [80, 40, 16] codes with an automorphism of type 13-(6, 2)

Open the attached CSV file with generators for all codes for G_6 case

Or extract the attached CSV file with generators for all codes for G_6 case

[84, 42, 14] codes for matrix G_7

Generator matrices for $\pi(F_\sigma(C))$ from $2i_2+h_8$ for matrix G_7 for which there exist a self-dual [84, 42, 14] code

Open the attached CSV file with generators for the even subcode G_7 case

Or extract the attached CSV file with generators for the even subcode G_7 case

607773 inequivalent doubly-even self-dual [84, 42, 14] codes with an automorphism of type 13-(6, 6)

Open the attached CSV file with generators for all codes for G_7 case

Or extract the attached CSV file with generators for all codes for G_7 case

[84, 42, 14] codes for matrix G_8

Generator matrices for $\pi(F_\sigma(C))$ from $6i_2$ for matrix G_8 for which there exist a self-dual [84, 42, 14] code

Open the attached CSV file with generators for the even subcode G_8 case

Or extract the attached CSV file with generators for the even subcode G_8 case

113879 inequivalent singly-even self-dual [84, 42, 14] codes with an automorphism of type 13-(6, 2)

Open the attached CSV file with generators for all codes for G_8 case

Or extract the attached CSV file with generators for all codes for G_8 case

[84, 42, 14] codes for matrix G_9

Generator matrices for $\pi(F_\sigma(C))$ from d_{12} for matrix G_7
for which there exist a self-dual [84, 42, 14] code

Open the attached CSV file with generators for the even subcode G_9 case

Or extract the attached CSV file with generators for the even subcode G_9 case

604064 inequivalent doubly-even self-dual [84, 42, 14] codes with an automorphism of type 13-(6, 6)

Open the attached CSV file with generators for all codes for G_9 case

Or extract the attached CSV file with generators for all codes for G_9 case

[84, 42, 14] codes for matrix G_{10}

Generator matrices for $\pi(F_\sigma(C))$ from d_{12} for matrix G_{10}
for which there exist a self-dual [84, 42, 14] code

Open the attached CSV file with generators for the even subcode G_{10} case

Or extract the attached CSV file with generators for the even subcode G_{10} case

113439 inequivalent singly-even self-dual [84, 42, 14] codes with an automorphism of type 13-(6, 2)

Open the attached CSV file with generators for all codes for G_{10} case

Or extract the attached CSV file with generators for all codes for G_{10} case