$\boldsymbol{Fi_{23}}$ (mod 2)

	blocks	defect	matrix
$G:$	1	18	89×20
	2	1	2×1
	3	3	5×2
	4	0	$504627200_1 = \chi_{94}, \varphi_{24}$
	5	0	$504627200_2 = \chi_{95}, \varphi_{25}$

Block 1:	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_9	φ_{10}	φ_{11}	φ_{12}	φ_{13}	φ_{14}
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.	.	.	.	.
$782_1 = \chi_2$	.	1	.	.	.	.	.	.	.	.	.	.	.	.
$3588_1 = \chi_3$	.	.	.	1	.	.	.	.	.	.	.	.	.	.
$5083_1 = \chi_4$	1	.	1	1	.	.	.	.	.	.	.	.	.	.
$25806_1 = \chi_5$	2	1	1	1	1	.	.	.	.	.	.	.	.	.
$30888_1 = \chi_6$	2	1	2	2	1	.	.	.	.	.	.	.	.	.
$60996_1 = \chi_7$	.	.	.	1	.	1	.	.	.	.	.	.	.	.
$106743_1 = \chi_8$	3	1	2	1	1	.	1	.	.	.	.	.	.	.
$111826_1 = \chi_9$	4	1	3	2	1	.	1	.	.	.	.	.	.	.
$274482_1 = \chi_{10}$	.	1	.	2	1	1	.	1	1	.	.	.	.	.
$279565_1 = \chi_{11}$	1	1	1	3	1	1	.	1	1	.	.	.	.	.
$752675_1 = \chi_{12}$	5	1	3	2	1	1	1	.	.	1	.	.	.	.
$789360_1 = \chi_{13}$	.	.	.	2	.	1	.	.	.	.	1	.	.	.
$812889_1 = \chi_{14}$	1	.	1	2	.	.	1	.	.	.	1	.	.	.
$837200_1 = \chi_{15}$	.	.	.	2	.	1	.	1	1	1	.	.	.	.
$837200_2 = \chi_{16}$	.	.	.	2	.	1	.	1	1	1	.	.	.	.
$850850_1 = \chi_{17}$	4	1	3	3	1	1	1	.	1	1	.	.	.	.
$850850_2 = \chi_{18}$	4	1	3	3	1	1	1	1	.	1	.	.	.	.
$1677390_1 = \chi_{19}$	4	1	3	5	1	1	1	1	1	1	1	.	.	.
$1951872_1 = \chi_{20}$	.	.	.	.	.	.	.	.	.	.	.	.	1	.
$2236520_1 = \chi_{21}$	6	3	4	6	2	2	2	1	1	.	1	1	.	.
$2322540_1 = \chi_{22}$	2	2	2	6	1	2	1	2	2	.	1	1	.	.
$3913910_1 = \chi_{23}$	.	1	.	3	.	1	.	1	1	.	1	1	1	.
$5533110_1 = \chi_{24}$	4	3	3	9	2	3	1	3	3	.	1	2	1	.
$6709560_1 = \chi_{25}$	4	1	3	6	2	1	.	1	1	1	.	.	.	.
$7468032_1 = \chi_{26}$	2	.	1	6	1	2	.	1	1	1	1	.	.	.
$8783424_1 = \chi_{27}$	10	4	7	16	3	5	2	4	4	3	1	1	.	1
$9108736_1 = \chi_{28}$	10	4	7	12	3	3	2	3	3	2	.	1	1	1
$9108736_2 = \chi_{29}$	10	4	7	12	3	3	2	3	3	2	.	1	1	1
$10567557_1 = \chi_{30}$	5	4	4	10	3	3	.	3	3	.	.	2	1	.
$10674300_1 = \chi_{31}$	10	4	7	15	3	4	2	4	4	3	1	1	1	1
$12077208_1 = \chi_{32}$	14	6	10	19	4	6	3	5	5	3	1	2	1	1
$15096510_1 = \chi_{33}$	14	7	10	20	4	5	3	5	5	2	2	3	2	1
$17892160_1 = \chi_{34}$	20	8	14	28	6	8	4	7	7	5	1	2	1	2
$18812574_1 = \chi_{35}$	4	3	2	11	1	3	.	3	3	1	1	1	2	1
$20322225_1 = \chi_{36}$	19	7	13	20	6	7	3	5	5	4	.	2	1	1
$21135114_1 = \chi_{37}$	6	5	4	17	2	5	1	5	5	1	2	2	2	1
$21348600_1 = \chi_{38}$	2	4	1	11	1	3	.	4	4	.	1	2	3	1
$22644765_1 = \chi_{39}$	21	9	15	26	7	9	4	7	7	4	1	3	1	1
$26838240_1 = \chi_{40}$	10	5	7	12	4	4	1	3	3	.	.	2	1	.

(**Block 1:**)	φ_{15}	φ_{16}	φ_{17}	φ_{18}	φ_{19}	φ_{20}
$1_1 = \chi_1$	.	.	.	.	.	.
$782_1 = \chi_2$	.	.	.	.	.	.
$3588_1 = \chi_3$	.	.	.	.	.	.
$5083_1 = \chi_4$	.	.	.	.	.	.
$25806_1 = \chi_5$	.	.	.	.	.	.
$30888_1 = \chi_6$	.	.	.	.	.	.
$60996_1 = \chi_7$	.	.	.	.	.	.
$106743_1 = \chi_8$	.	.	.	.	.	.
$111826_1 = \chi_9$	.	.	.	.	.	.
$274482_1 = \chi_{10}$	.	.	.	.	.	.
$279565_1 = \chi_{11}$	.	.	.	.	.	.
$752675_1 = \chi_{12}$	.	.	.	.	.	.
$789360_1 = \chi_{13}$	.	.	.	.	.	.
$812889_1 = \chi_{14}$	.	.	.	.	.	.
$837200_1 = \chi_{15}$	.	.	.	.	.	.
$837200_2 = \chi_{16}$	.	.	.	.	.	.
$850850_1 = \chi_{17}$	.	.	.	.	.	.
$850850_2 = \chi_{18}$	.	.	.	.	.	.
$1677390_1 = \chi_{19}$	.	.	.	.	.	.
$1951872_1 = \chi_{20}$	.	.	.	.	.	.
$2236520_1 = \chi_{21}$	.	.	.	.	.	.
$2322540_1 = \chi_{22}$	.	.	.	.	.	.
$3913910_1 = \chi_{23}$	.	.	.	.	.	.
$5533110_1 = \chi_{24}$	.	.	.	.	.	.
$6709560_1 = \chi_{25}$	.	1	.	.	.	.
$7468032_1 = \chi_{26}$	.	1	.	.	.	.
$8783424_1 = \chi_{27}$	1	.	.	.	.	.
$9108736_1 = \chi_{28}$	1	.	.	.	.	.
$9108736_2 = \chi_{29}$	1	.	.	.	.	.
$10567557_1 = \chi_{30}$	.	1	.	.	.	.
$10674300_1 = \chi_{31}$	1	.	.	.	.	.
$12077208_1 = \chi_{32}$	1	.	.	.	.	.
$15096510_1 = \chi_{33}$	1	.	.	.	.	.
$17892160_1 = \chi_{34}$	2	.	.	.	.	.
$18812574_1 = \chi_{35}$	1	.	1	.	.	.
$20322225_1 = \chi_{36}$	1	.	.	1	.	.
$21135114_1 = \chi_{37}$	1	.	1	.	.	.
$21348600_1 = \chi_{38}$	1	.	1	.	.	.
$22644765_1 = \chi_{39}$	1	.	.	1	.	.
$26838240_1 = \chi_{40}$	.	1	1	1	.	.

(**Block 1:**)	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_9	φ_{10}	φ_{11}	φ_{12}	φ_{13}	φ_{14}
$28464800_1 = \chi_{41}$	10	5	7	16	4	6	1	4	4	1	1	2	1	.
$29354325_1 = \chi_{42}$	9	5	6	17	3	6	1	5	5	2	1	2	2	1
$35225190_1 = \chi_{43}$	4	3	2	13	1	5	.	4	4	1	1	1	2	1
$37573536_1 = \chi_{44}$	20	9	14	28	7	9	3	7	7	3	1	3	2	1
$40840800_1 = \chi_{45}$	28	13	20	38	9	12	5	10	10	5	1	4	3	2
$42270228_1 = \chi_{46}$	26	12	18	39	8	12	5	10	10	5	3	4	3	2
$48034350_1 = \chi_{47}$	18	9	12	34	5	11	3	9	9	4	3	3	3	2
$48308832_1 = \chi_{48}$	30	13	21	44	10	14	5	11	11	6	2	4	3	2
$55740960_1 = \chi_{49}$	8	5	6	10	3	4	1	3	3	.	.	2	1	.
$56360304_1 = \chi_{50}$	12	10	9	32	7	11	1	10	10	3	1	4	2	1
$56360304_2 = \chi_{51}$	10	8	6	30	3	10	1	9	9	2	3	3	4	2
$57254912_1 = \chi_{52}$	20	10	14	28	8	10	2	7	7	1	1	4	3	.
$58708650_1 = \chi_{53}$	16	11	11	30	7	11	1	9	9	1	1	5	4	1
$58708650_2 = \chi_{54}$	12	11	9	32	7	11	1	10	10	2	1	5	3	1
$65875680_1 = \chi_{55}$	30	14	21	48	10	17	4	13	13	6	2	5	3	2
$78278200_1 = \chi_{58}$	40	20	28	63	14	20	6	17	17	7	3	7	5	3
$93933840_1 = \chi_{59}$	38	18	26	62	13	21	5	17	17	8	3	6	5	3
$133398252_1 = \chi_{61}$	28	20	20	60	13	21	4	18	18	4	3	8	5	2
$153014400_1 = \chi_{62}$	24	18	16	62	10	23	2	19	19	3	4	7	7	3
$153014400_2 = \chi_{63}$	24	18	16	62	10	23	2	19	19	3	4	7	7	2
$176125950_1 = \chi_{66}$	34	23	24	74	16	28	3	22	22	5	3	9	6	2
$176125950_2 = \chi_{67}$	32	21	21	72	12	27	3	21	21	4	5	8	8	3
$203802885_1 = \chi_{68}$	49	30	34	101	20	36	6	29	29	9	5	11	8	4
$207793431_1 = \chi_{69}$	57	34	39	111	22	39	8	32	32	11	6	12	9	5
$211351140_1 = \chi_{70}$	32	24	21	87	13	32	3	26	26	6	6	9	9	4
$216154575_1 = \chi_{71}$	45	31	31	102	19	36	5	30	30	7	6	12	10	4
$216770400_1 = \chi_{72}$	60	36	42	116	23	39	8	33	33	11	6	13	10	5
$244563462_1 = \chi_{73}$	58	37	40	123	23	44	7	36	36	10	7	14	11	5
$263376036_1 = \chi_{74}$	62	40	42	134	24	47	7	39	39	11	8	15	13	6
$264188925_1 = \chi_{75}$	69	42	48	136	28	48	8	39	39	11	7	16	12	5
$286274560_1 = \chi_{78}$	54	34	37	122	22	46	6	36	36	11	7	12	10	5
$287721720_1 = \chi_{79}$	60	37	41	126	24	47	8	37	37	11	7	13	10	5
$289027200_1 = \chi_{80}$	42	32	29	110	20	42	4	33	33	7	6	12	9	3
$289027200_2 = \chi_{81}$	42	32	29	110	20	42	4	33	33	7	6	12	9	4
$289103904_1 = \chi_{82}$	74	43	51	150	29	55	9	43	43	14	8	15	12	6
$313112800_1 = \chi_{83}$	64	39	44	134	26	50	7	39	39	11	7	14	11	5
$313112800_2 = \chi_{84}$	58	40	41	132	27	49	6	39	39	9	6	15	10	4
$313112800_3 = \chi_{85}$	56	38	38	130	23	48	6	38	38	8	8	14	12	5
$322058880_1 = \chi_{86}$	48	36	32	126	20	48	4	38	38	7	8	14	13	5
$336061440_1 = \chi_{87}$	72	44	50	144	29	54	8	42	42	11	7	16	13	5

(**Block 1:**)	φ_{15}	φ_{16}	φ_{17}	φ_{18}	φ_{19}	φ_{20}
$28464800_1 = \chi_{41}$	.	1	1	1	.	.
$29354325_1 = \chi_{42}$	1	.	1	1	.	.
$35225190_1 = \chi_{43}$	1	.	2	1	.	.
$37573536_1 = \chi_{44}$	1	1	1	1	.	.
$40840800_1 = \chi_{45}$	2	.	1	1	.	.
$42270228_1 = \chi_{46}$	2	.	1	1	.	.
$48034350_1 = \chi_{47}$	2	.	2	1	.	.
$48308832_1 = \chi_{48}$	2	1	1	1	.	.
$55740960_1 = \chi_{49}$	.	.	1	1	.	1
$56360304_1 = \chi_{50}$	1	1	1	1	1	.
$56360304_2 = \chi_{51}$	2	.	3	1	.	.
$57254912_1 = \chi_{52}$	.	2	2	2	.	.
$58708650_1 = \chi_{53}$	1	1	2	2	.	.
$58708650_2 = \chi_{54}$	1	1	1	1	1	.
$65875680_1 = \chi_{55}$	2	1	2	2	.	.
$78278200_1 = \chi_{58}$	3	1	2	2	.	.
$93933840_1 = \chi_{59}$	3	1	3	3	.	.
$133398252_1 = \chi_{61}$	2	1	3	2	1	1
$153014400_1 = \chi_{62}$	2	1	6	3	.	1
$153014400_2 = \chi_{63}$	3	1	6	3	.	1
$176125950_1 = \chi_{66}$	2	2	5	4	1	1
$176125950_2 = \chi_{67}$	3	1	7	4	.	1
$203802885_1 = \chi_{68}$	4	2	6	4	1	1
$207793431_1 = \chi_{69}$	5	1	6	4	1	1
$211351140_1 = \chi_{70}$	4	1	8	4	1	1
$216154575_1 = \chi_{71}$	4	2	7	4	1	1
$216770400_1 = \chi_{72}$	5	2	6	4	1	1
$244563462_1 = \chi_{73}$	5	2	8	5	1	1
$263376036_1 = \chi_{74}$	6	2	9	5	1	1
$264188925_1 = \chi_{75}$	5	3	8	6	1	1
$286274560_1 = \chi_{78}$	5	1	9	6	1	2
$287721720_1 = \chi_{79}$	5	1	9	6	1	2
$289027200_1 = \chi_{80}$	4	2	9	5	2	2
$289027200_2 = \chi_{81}$	3	2	9	5	2	2
$289103904_1 = \chi_{82}$	6	2	10	7	1	1
$313112800_1 = \chi_{83}$	5	2	10	7	1	2
$313112800_2 = \chi_{84}$	4	3	9	6	2	2
$313112800_3 = \chi_{85}$	5	2	11	6	1	2
$322058880_1 = \chi_{86}$	5	2	12	6	1	2
$336061440_1 = \chi_{87}$	5	2	11	8	1	2

(**Block 1:**)	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_9	φ_{10}	φ_{11}	φ_{12}	φ_{13}	φ_{14}
$341577600_1 = \chi_{88}$	74	44	51	150	30	56	8	43	43	12	8	16	12	5
$343529472_1 = \chi_{89}$	74	44	51	150	30	56	8	43	43	12	8	16	13	5
$352251900_1 = \chi_{90}$	62	44	43	148	28	55	6	44	44	10	8	17	13	5
$362316240_1 = \chi_{91}$	58	44	40	150	27	56	5	45	45	9	9	17	14	5
$476702577_1 = \chi_{92}$	93	63	64	209	39	76	11	62	62	15	12	24	19	8
$496897335_1 = \chi_{93}$	81	58	56	199	36	74	7	59	59	12	11	22	19	7
$526752072_1 = \chi_{96}$	94	66	64	223	39	81	9	66	66	15	13	25	22	9
$528377850_1 = \chi_{97}$	90	65	62	222	40	82	9	66	66	15	13	25	20	8
$559458900_1 = \chi_{98}$	110	74	75	251	45	91	12	74	74	18	15	28	24	10

(**Block 1:**)	φ_{15}	φ_{16}	φ_{17}	φ_{18}	φ_{19}	φ_{20}
$341577600_1 = \chi_{88}$	5	3	11	8	1	2
$343529472_1 = \chi_{89}$	5	3	11	8	1	2
$352251900_1 = \chi_{90}$	5	3	11	7	2	2
$362316240_1 = \chi_{91}$	5	3	12	7	2	2
$476702577_1 = \chi_{92}$	8	3	15	9	2	3
$496897335_1 = \chi_{93}$	7	4	17	10	2	3
$526752072_1 = \chi_{96}$	9	4	18	10	2	3
$528377850_1 = \chi_{97}$	8	4	17	10	3	3
$559458900_1 = \chi_{98}$	10	4	19	11	2	3

$$
\begin{aligned}
\varphi_1 &= 1_1 \\
\varphi_2 &= 782_1 \\
\varphi_3 &= 1494_1 \\
\varphi_4 &= 3588_1 \\
\varphi_5 &= 19940_1 \\
\varphi_6 &= 57408_1 \\
\varphi_7 &= 79442_1 \\
\varphi_8 &= 94588_1 \\
\varphi_9 &= 94588_2 \\
\varphi_{10} &= 583440_1 \\
\varphi_{11} &= 724776_1 \\
\varphi_{12} &= 979132_1 \\
\varphi_{13} &= 1951872_1 \\
\varphi_{14} &= 1997872_1 \\
\varphi_{15} &= 1997872_2 \\
\varphi_{16} &= 5812860_1 \\
\varphi_{17} &= 7821240_1 \\
\varphi_{18} &= 8280208_1 \\
\varphi_{19} &= 17276520_1 \\
\varphi_{20} &= 34744192_1
\end{aligned}
$$

Block 2:	φ_{21}
$73531392_1 = \chi_{56}$	1
$73531392_2 = \chi_{57}$	1

$$\varphi_{21} = 73531392_1$$

Block 3:	φ_{22}	φ_{23}
$97976320_1 = \chi_{60}$	1	.
$166559744_1 = \chi_{64}$	.	1
$166559744_2 = \chi_{65}$	.	1
$264536064_1 = \chi_{76}$	1	1
$264536064_2 = \chi_{77}$	1	1

$\varphi_{22} = 97976320_1$
$\varphi_{23} = 166559744_1$