

$G_2(4) \pmod{2}$

	blocks	defect	matrix
$2.G :$	1	13	53×15
	2	1	2×1

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}	φ_{15}
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
$65_1 = \chi_2$	1	.	.	1	1	1	.	.	.	.	.	.	.	.	.
$78_1 = \chi_3$	2	1	1	1	1	1	.	.	.	.	.	.	.	.	.
$300_1 = \chi_4$	4	3	3	2	2	1	.	.	1	1	.	.	.	.	.
$300_2 = \chi_5$	4	3	3	2	2	1	.	.	1	1	.	.	.	.	.
$350_1 = \chi_6$	6	4	4	1	1	2	.	.	.	.	1	.	.	.	.
$364_1 = \chi_7$	4	3	3	2	2	2	.	.	.	.	1	.	.	.	.
$364_2 = \chi_8$	8	5	5	2	2	2	.	.	1	1	.	.	.	.	.
$378_1 = \chi_9$	6	4	4	3	3	2	.	.	1	1	.	.	.	.	.
$650_1 = \chi_{10}$	10	7	7	3	3	3	.	.	1	1	1	.	.	.	.
$819_1 = \chi_{11}$	5	4	3	1	3	2	1	.	.	.	1	1	.	.	.
$819_2 = \chi_{12}$	5	3	4	3	1	2	.	1	.	.	1	.	1	.	.
$819_3 = \chi_{13}$	11	8	7	3	4	3	.	1	1	2	1	.	.	.	.
$819_4 = \chi_{14}$	11	7	8	4	3	3	1	.	2	1	1	.	.	.	.
$1300_1 = \chi_{15}$	4	4	4	3	3	2	1	1	.	.	1	1	1	.	.
$1365_1 = \chi_{16}$	17	12	12	7	7	5	1	1	3	3	1	.	.	.	.
$2925_1 = \chi_{17}$	21	15	15	8	10	6	2	1	4	3	1	1	.	1	.
$2925_2 = \chi_{18}$	21	15	15	10	8	6	1	2	3	4	1	.	1	.	1
$2925_3 = \chi_{19}$	25	18	18	10	10	8	2	2	3	3	3	1	1	.	.
$3276_1 = \chi_{20}$	30	21	21	11	12	9	2	3	4	4	3	1	1	.	.
$3276_2 = \chi_{21}$	30	21	21	12	11	9	3	2	4	4	3	1	1	.	.
$3276_3 = \chi_{22}$	26	18	18	9	12	8	2	1	4	3	2	1	.	1	.
$3276_4 = \chi_{23}$	26	18	18	12	9	8	1	2	3	4	2	.	1	.	1
$4095_1 = \chi_{24}$	35	25	24	16	13	10	2	3	5	7	2	.	1	.	1
$4095_2 = \chi_{25}$	35	24	25	13	16	10	3	2	7	5	2	1	.	1	.
$4095_3 = \chi_{26}$	29	21	20	13	13	9	2	3	4	5	2	1	1	.	1
$4095_4 = \chi_{27}$	29	20	21	13	13	9	3	2	5	4	2	1	1	1	.
$4160_1 = \chi_{29}$	36	25	25	14	14	10	4	4	6	6	4	1	1	.	.
$4725_1 = \chi_{30}$	37	26	26	14	16	11	3	3	6	5	3	1	1	1	.
$4725_2 = \chi_{31}$	37	26	26	16	14	11	3	3	5	6	3	1	1	.	1
$5460_1 = \chi_{32}$	36	25	25	15	15	10	3	3	6	6	2	1	1	1	1
$12_1 = \chi_{33}$	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.
$104_1 = \chi_{34}$	2	1	2	.	.	.	.	.	1	.	.	.	.	.	.
$104_2 = \chi_{35}$	2	2	1	.	.	.	.	.	.	1	.	.	.	.	.
$364_3 = \chi_{36}$	8	5	5	2	2	2	.	.	1	1	.	.	.	.	.
$560_1 = \chi_{37}$	4	3	3	2	2	.	1	1	2	2	.	.	.	.	.
$1260_1 = \chi_{38}$	16	11	11	4	4	4	1	1	2	2	2	.	.	.	.
$1800_1 = \chi_{39}$	12	8	8	4	6	3	1	1	3	2	.	.	.	1	.
$1800_2 = \chi_{40}$	12	8	8	6	4	3	1	1	2	3	.	.	.	.	1
$1820_1 = \chi_{41}$	14	10	9	6	6	4	.	1	2	3	.	.	.	.	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}	φ_{15}
$1820_2 = \chi_{42}$	14	9	10	6	6	4	1	.	3	2	.	.	.	1	.
$2016_1 = \chi_{43}$	28	19	19	10	10	8	1	1	4	4	2	.	.	.	.
$2184_1 = \chi_{44}$	22	16	15	8	10	7	2	1	3	3	2	1	.	.	.
$2184_2 = \chi_{45}$	22	15	16	10	8	7	1	2	3	3	2	.	1	.	.
$3276_5 = \chi_{46}$	28	20	20	12	12	8	3	3	5	5	2	1	1	.	.
$3600_1 = \chi_{47}$	32	22	22	12	12	10	3	3	4	4	4	1	1	.	.
$3744_1 = \chi_{48}$	30	22	21	14	12	9	1	3	4	6	2	.	1	.	1
$3744_2 = \chi_{49}$	30	21	22	12	14	9	3	1	6	4	2	1	.	1	.
$3900_1 = \chi_{50}$	32	22	22	14	12	9	2	3	5	6	2	.	1	.	1
$3900_2 = \chi_{51}$	32	22	22	12	14	9	3	2	6	5	2	1	.	1	.
$5824_1 = \chi_{53}$	44	31	31	16	20	13	4	4	7	6	4	2	1	1	.
$5824_2 = \chi_{54}$	44	31	31	20	16	13	4	4	6	7	4	1	2	.	1
$7488_1 = \chi_{55}$	52	37	37	22	22	16	4	4	7	7	4	2	2	1	1

$$\begin{array}{ll}
\varphi_1 = 1_1 & \varphi_9 = 84_1 \\
\varphi_2 = 6_1 & \varphi_{10} = 84_2 \\
\varphi_3 = 6_2 & \varphi_{11} = 196_1 \\
\varphi_4 = 14_1 & \varphi_{12} = 384_1 \\
\varphi_5 = 14_2 & \varphi_{13} = 384_2 \\
\varphi_6 = 36_1 & \varphi_{14} = 896_1 \\
\varphi_7 = 64_1 & \varphi_{15} = 896_2 \\
\varphi_8 = 64_2 &
\end{array}$$

Block 2:	φ_{16}
$4096_1 = \chi_{28}$	1
$4096_2 = \chi_{52}$	1

$$\varphi_{16} = 4096_1$$