

$A_{10} \pmod{2}$

|         | blocks | defect | matrix        |
|---------|--------|--------|---------------|
| $2.G :$ | 1      | 8      | $28 \times 7$ |
|         | 2      | 3      | $7 \times 3$  |
|         | 3      | 1      | $2 \times 1$  |
|         | 4      | 1      | $2 \times 1$  |

| Block 1:            | $\varphi_1$ | $\varphi_2$ | $\varphi_3$ | $\varphi_4$ | $\varphi_5$ | $\varphi_9$ | $\varphi_{10}$ |                        |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|------------------------|
| $1_1 = \chi_1$      | 1           | .           | .           | .           | .           | .           | .              |                        |
| $9_1 = \chi_2$      | 1           | 1           | .           | .           | .           | .           | .              |                        |
| $35_1 = \chi_3$     | 1           | 1           | .           | 1           | .           | .           | .              |                        |
| $36_1 = \chi_4$     | 2           | 1           | .           | 1           | .           | .           | .              |                        |
| $42_1 = \chi_5$     | .           | .           | 1           | 1           | .           | .           | .              |                        |
| $75_1 = \chi_6$     | 1           | .           | .           | 1           | 1           | .           | .              |                        |
| $84_1 = \chi_7$     | 2           | 1           | .           | 1           | 1           | .           | .              |                        |
| $90_1 = \chi_8$     | .           | .           | 1           | 1           | 1           | .           | .              |                        |
| $126_1 = \chi_9$    | 2           | 1           | 1           | 2           | 1           | .           | .              |                        |
| $210_1 = \chi_{11}$ | 2           | 1           | .           | .           | .           | .           | 1              |                        |
| $225_1 = \chi_{14}$ | 1           | .           | .           | 1           | .           | 1           | .              | $\varphi_1 = 1_1$      |
| $252_1 = \chi_{15}$ | 2           | 1           | 1           | 1           | .           | .           | 1              | $\varphi_2 = 8_1$      |
| $300_1 = \chi_{17}$ | 2           | 1           | 1           | 1           | 1           | .           | 1              | $\varphi_3 = 16_1$     |
| $315_1 = \chi_{18}$ | 1           | .           | 1           | 2           | 1           | 1           | .              | $\varphi_4 = 26_1$     |
| $350_1 = \chi_{19}$ | 2           | 1           | 1           | 3           | 1           | 1           | .              | $\varphi_5 = 48_1$     |
| $450_1 = \chi_{22}$ | 2           | 1           | 1           | 1           | .           | 1           | 1              | $\varphi_9 = 198_1$    |
| $525_1 = \chi_{23}$ | 3           | 1           | 1           | 2           | 1           | 1           | 1              | $\varphi_{10} = 200_1$ |
| $567_1 = \chi_{24}$ | 3           | 1           | 2           | 3           | 1           | 1           | 1              |                        |
| $16_1 = \chi_{25}$  | .           | .           | 1           | .           | .           | .           | .              |                        |
| $48_1 = \chi_{26}$  | .           | .           | .           | .           | 1           | .           | .              |                        |
| $48_2 = \chi_{27}$  | .           | .           | .           | .           | 1           | .           | .              |                        |
| $216_1 = \chi_{30}$ | .           | .           | 1           | .           | .           | .           | 1              |                        |
| $216_2 = \chi_{31}$ | .           | .           | 1           | .           | .           | .           | 1              |                        |
| $336_1 = \chi_{32}$ | 4           | 2           | 1           | 2           | 1           | .           | 1              |                        |
| $336_2 = \chi_{33}$ | 4           | 2           | 1           | 2           | 1           | .           | 1              |                        |
| $400_1 = \chi_{36}$ | 2           | .           | .           | .           | .           | 1           | 1              |                        |
| $432_1 = \chi_{37}$ | 2           | .           | 2           | 4           | 2           | 1           | .              |                        |
| $800_1 = \chi_{39}$ | 4           | 2           | 2           | 4           | 1           | 2           | 1              |                        |

| Block 2:            | $\varphi_6$ | $\varphi_7$ | $\varphi_8$ |                     |
|---------------------|-------------|-------------|-------------|---------------------|
| $160_1 = \chi_{10}$ | .           | .           | 1           |                     |
| $224_1 = \chi_{12}$ | 1           | .           | 1           |                     |
| $224_2 = \chi_{13}$ | .           | 1           | 1           | $\varphi_6 = 64_1$  |
| $288_1 = \chi_{16}$ | 1           | 1           | 1           | $\varphi_7 = 64_2$  |
|                     |             |             |             | $\varphi_8 = 160_1$ |
| $64_1 = \chi_{28}$  | .           | 1           | .           |                     |
| $64_2 = \chi_{29}$  | 1           | .           | .           |                     |
| $448_1 = \chi_{38}$ | 1           | 1           | 2           |                     |

| Block 3:            | $\varphi_{11}$ |                        |
|---------------------|----------------|------------------------|
| $384_1 = \chi_{20}$ | 1              | $\varphi_{11} = 384_1$ |
| $384_3 = \chi_{34}$ | 1              |                        |

| Block 4:            | $\varphi_{12}$ |                        |
|---------------------|----------------|------------------------|
| $384_2 = \chi_{21}$ | 1              | $\varphi_{12} = 384_2$ |
| $384_4 = \chi_{35}$ | 1              |                        |