Simulated Fidelity	 
1	$\rho_1 = Z_7$
1	$\rho_2 = Z_2 Z_4 Z_5 Z_6 Z_7$
1	$\rho_3 = Z_1 Z_2 Z_3 Z_4 Z_5 Z_6 Z_7$
0.95	$\rho_4 = Z_1 Z_2 Z_3 Z_4 Z_5 Z_6 Z_7 Z_8 Z_9 Z_{10} Z_{11} Z_{12}$
0.9511	$\rho_5 = \prod_{i=1}^{12} I_i^+ + \prod_{i=1}^{12} I_i^-$
0.8717	$\rho_6 = (A_1 A_5 A_6 I_1^+ I_2^- I_3^- I_4^- I_5^+ I_6^+ I_7^- + A'_1 A'_5 A'_6 I_1^- I_2^+ I_3^+ I_4^+ I_5^- I_6^- I_7^+)  00000\rangle$
0.8570	$\rho_7 = (A_1 A_5 A_6 A_7 I_2^+ I_5^- I_7^- + A'_1 A'_5 A'_6 A'_7 I_2^- I_5^+ I_7^+)  000000000\rangle$
0.8570	$\rho_8 = (A_1 A_5 A_6 A_7 B_5 I_7^- + A'_1 A'_5 A'_6 A'_7 B'_5 I_7^+)  00000000000\rangle$

$$I^{\pm} = I_x \pm iI_y$$

 $A_1 = \cos[2\pi(\omega_1 - O_1)/2J_{C7H5}] - i\sin[2\pi(\omega_1 - O_1)/2J_{C7H5}]$ 

$$A_5 = \cos[2\pi(\omega_5 - O_1)/2J_{C7H5}] - i\sin[2\pi(\omega_5 - O_1)/2J_{C7H5}]$$

$$A_6 = \cos[2\pi(\omega_6 - O_1)/2J_{C7H5}] - i\sin[2\pi(\omega_6 - O_1)/2J_{C7H5}]$$

$$A_7 = \{\cos[2\pi(\omega_7 - O_1)/2J_{23}] + i\sin[2\pi(\omega_7 - O_1)/2J_{23}]\}^*$$
$$\prod_{k=8}^{12} \{\cos[\pi J_{7k}/2J_{23}] + i\sin[\pi J_{7k}/2J_{23}]\}$$

$$B_{5} = \{\cos[2\pi(\omega_{5} - O_{1})/2J_{27}] + i\sin[2\pi(\omega_{5} - O_{1})/2J_{27}]\}^{*}$$
$$\prod_{k \neq 2,5,7} \{\cos[\pi J_{5k}/2J_{27}] + i\sin[\pi J_{5k}/2J_{27}]\}$$