$$\begin{array}{c|c} v_1^{(2)} & v_2^{(2)} \\ u_{1\uparrow}^{(2)} \mid \uparrow \rangle & u_{2\downarrow}^{(2)} \mid \downarrow \rangle + u_{2\uparrow}^{(2)} \mid \uparrow \rangle & u_{3\downarrow}^{(2)} \mid \downarrow \rangle \\ \\ \mathcal{C}_2 & & & & & & & \\ u_{1\uparrow}^{(0)} \mid \uparrow \rangle + u_{1\downarrow}^{(0)} \mid \downarrow \rangle & & & & & \\ \end{array}$$