$$\begin{cases} {}^{n}_{2}\mathbb{R}^{\Omega}_{n} \\ {}^{n}_{2}\mathbb{C}^{\Omega}_{n} \end{cases} = \begin{cases} \lrcorner \in {}^{n}_{2}\mathbb{R}^{\complement}_{n} & \lrcorner \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array} \overset{*}{\lrcorner} = \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array} \\ \lrcorner \in {}^{n}_{2}\mathbb{C}^{\complement}_{n} & \lrcorner \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array} \overset{t}{\lrcorner} = \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array} \end{cases}$$

$${}^{n}_{2}\mathbb{R}^{\Omega}_{n} = {}^{n}_{2}\mathbb{R}^{\complement}_{n} \cap {}^{n}_{2}\mathbb{C}^{\Omega}_{n} \xrightarrow{\begin{array}{c|c} \ddagger & 0 \\ \hline 0 & \ddagger \end{array}} {}^{n}_{2}\mathbb{C}^{\Omega}_{n}$$