

$$\begin{pmatrix} \frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} \\ \frac{1}{2}\cos\left(\frac{\pi}{16}\right) & \frac{1}{2}\cos\left(\frac{3\pi}{16}\right) & \frac{1}{2}\sin\left(\frac{3\pi}{16}\right) & \frac{1}{2}\sin\left(\frac{\pi}{16}\right) & -\frac{1}{2}\sin\left(\frac{\pi}{16}\right) & -\frac{1}{2}\sin\left(\frac{3\pi}{16}\right) & -\frac{1}{2}\cos\left(\frac{3\pi}{16}\right) & -\frac{1}{2}\cos\left(\frac{\pi}{16}\right) \\ \frac{1}{2}\cos\left(\frac{\pi}{8}\right) & \frac{1}{2}\sin\left(\frac{\pi}{8}\right) & -\frac{1}{2}\sin\left(\frac{\pi}{8}\right) & -\frac{1}{2}\cos\left(\frac{\pi}{8}\right) & -\frac{1}{2}\cos\left(\frac{\pi}{8}\right) & -\frac{1}{2}\sin\left(\frac{\pi}{8}\right) & \frac{1}{2}\sin\left(\frac{\pi}{8}\right) & \frac{1}{2}\cos\left(\frac{\pi}{8}\right) \\ \frac{1}{2}\cos\left(\frac{3\pi}{16}\right) & -\frac{1}{2}\sin\left(\frac{\pi}{16}\right) & -\frac{1}{2}\cos\left(\frac{\pi}{16}\right) & -\frac{1}{2}\sin\left(\frac{3\pi}{16}\right) & \frac{1}{2}\sin\left(\frac{3\pi}{16}\right) & \frac{1}{2}\cos\left(\frac{\pi}{16}\right) & \frac{1}{2}\sin\left(\frac{\pi}{16}\right) & -\frac{1}{2}\cos\left(\frac{3\pi}{16}\right) \\ \frac{1}{2\sqrt{2}} & -\frac{1}{2\sqrt{2}} & -\frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} & -\frac{1}{2\sqrt{2}} & -\frac{1}{2\sqrt{2}} & \frac{1}{2\sqrt{2}} \\ \frac{1}{2}\sin\left(\frac{3\pi}{16}\right) & -\frac{1}{2}\cos\left(\frac{\pi}{16}\right) & \frac{1}{2}\sin\left(\frac{\pi}{16}\right) & \frac{1}{2}\cos\left(\frac{3\pi}{16}\right) & -\frac{1}{2}\cos\left(\frac{3\pi}{16}\right) & -\frac{1}{2}\sin\left(\frac{\pi}{16}\right) & \frac{1}{2}\cos\left(\frac{\pi}{16}\right) & -\frac{1}{2}\sin\left(\frac{3\pi}{16}\right) \\ \frac{1}{2}\sin\left(\frac{\pi}{8}\right) & -\frac{1}{2}\cos\left(\frac{\pi}{8}\right) & \frac{1}{2}\cos\left(\frac{\pi}{8}\right) & -\frac{1}{2}\sin\left(\frac{\pi}{8}\right) & -\frac{1}{2}\sin\left(\frac{\pi}{8}\right) & \frac{1}{2}\cos\left(\frac{\pi}{8}\right) & -\frac{1}{2}\cos\left(\frac{\pi}{8}\right) & \frac{1}{2}\sin\left(\frac{\pi}{8}\right) \\ \frac{1}{2}\sin\left(\frac{\pi}{16}\right) & -\frac{1}{2}\sin\left(\frac{3\pi}{16}\right) & \frac{1}{2}\cos\left(\frac{3\pi}{16}\right) & -\frac{1}{2}\cos\left(\frac{\pi}{16}\right) & \frac{1}{2}\cos\left(\frac{\pi}{16}\right) & -\frac{1}{2}\cos\left(\frac{3\pi}{16}\right) & \frac{1}{2}\sin\left(\frac{3\pi}{16}\right) & -\frac{1}{2}\sin\left(\frac{\pi}{16}\right) \end{pmatrix}$$