

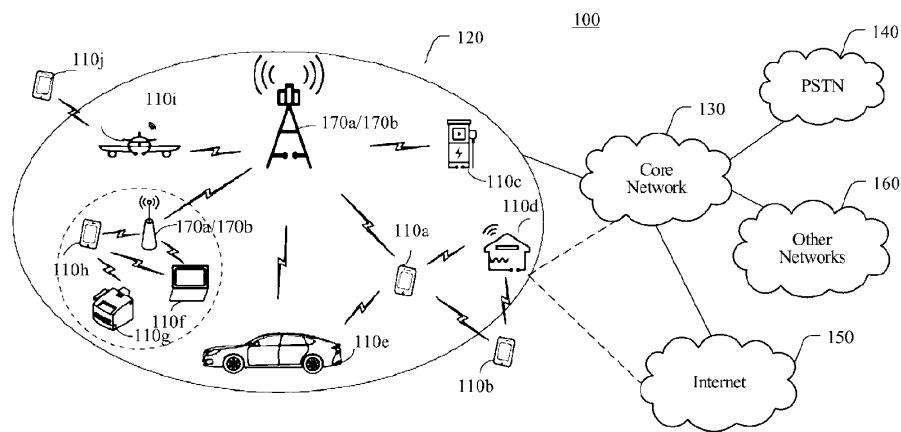


FIG. 1

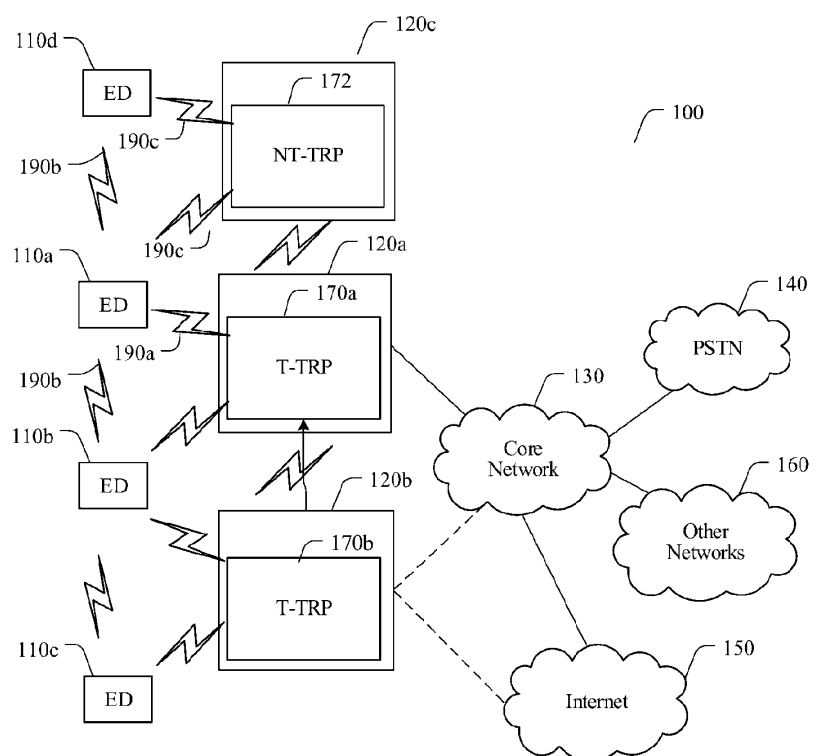


FIG. 2

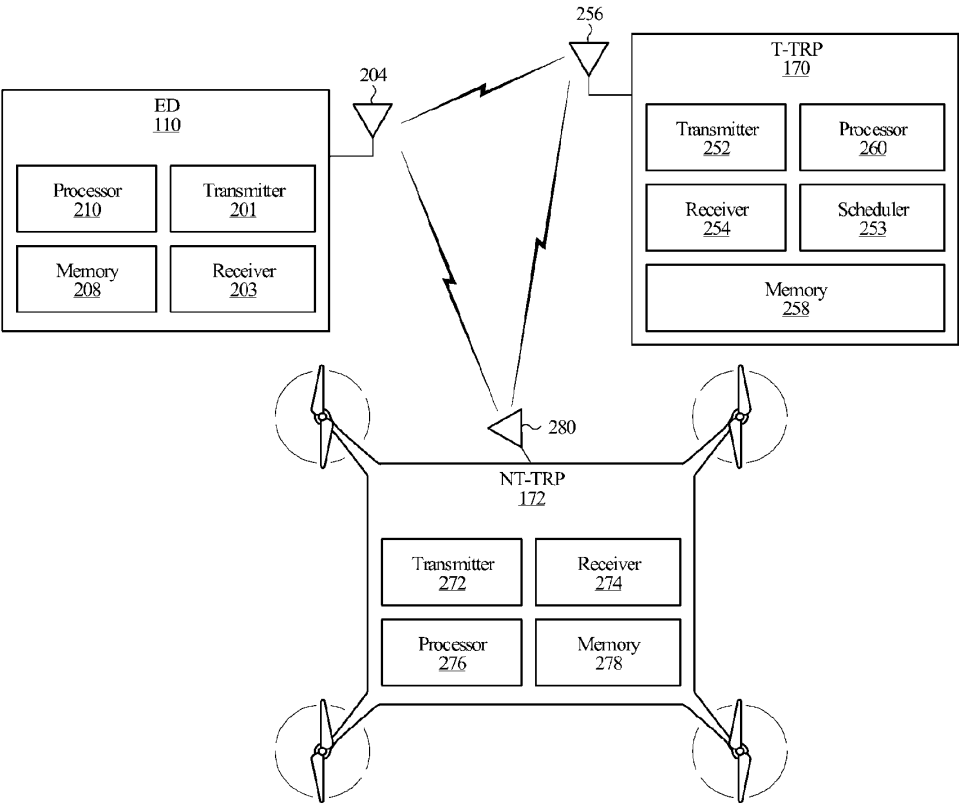


FIG. 3

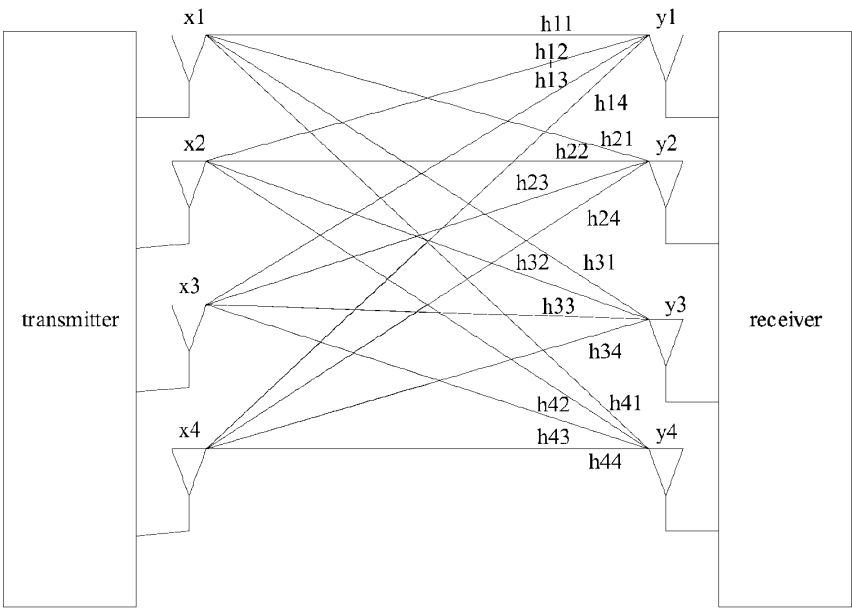


FIG. 4

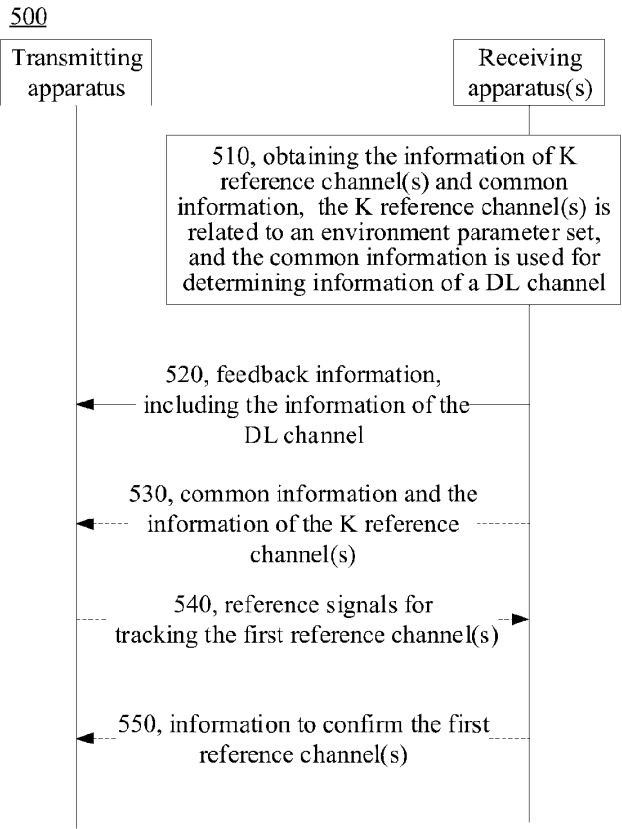


FIG. 5

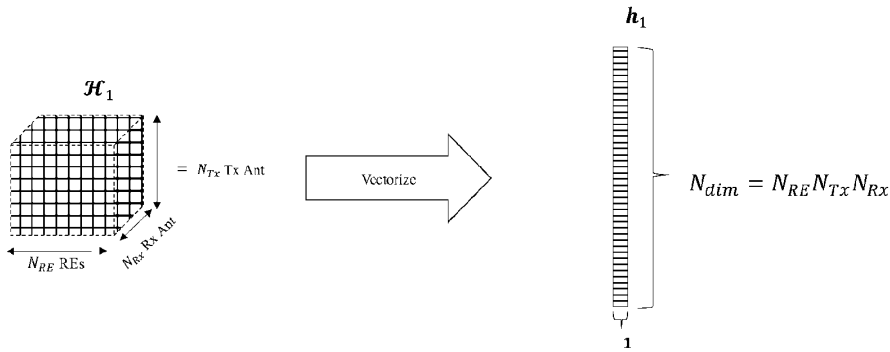


FIG. 6

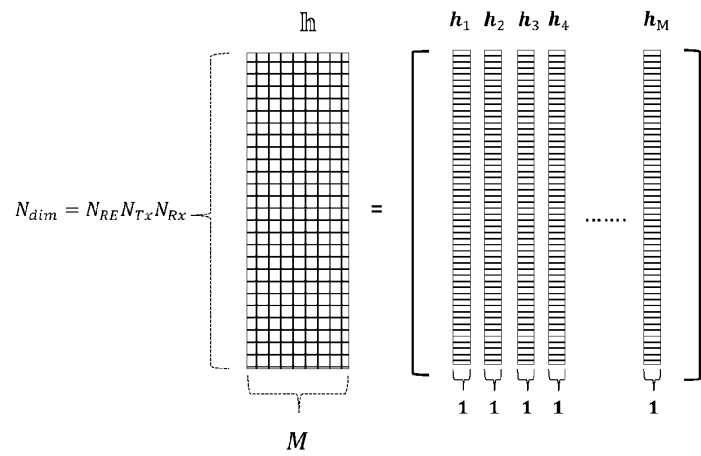


FIG. 7

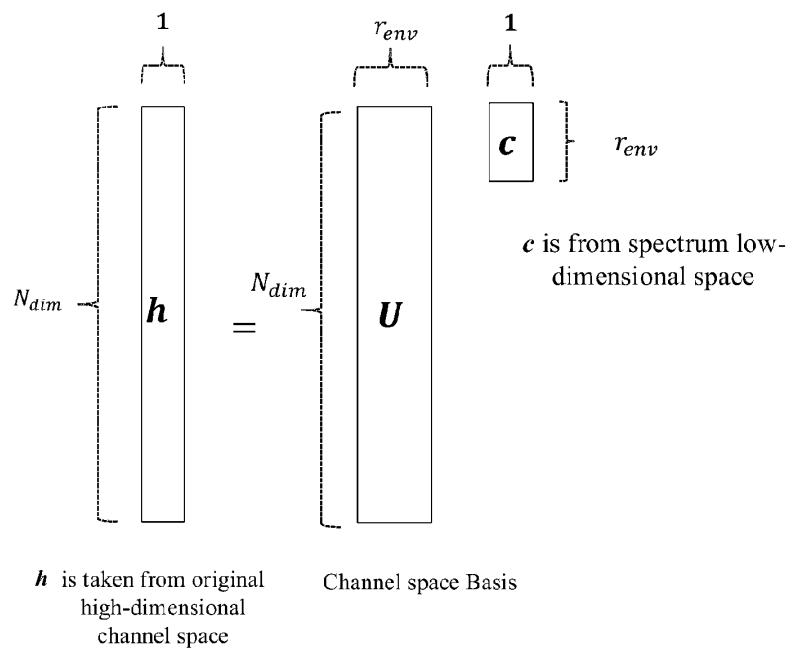


FIG. 8

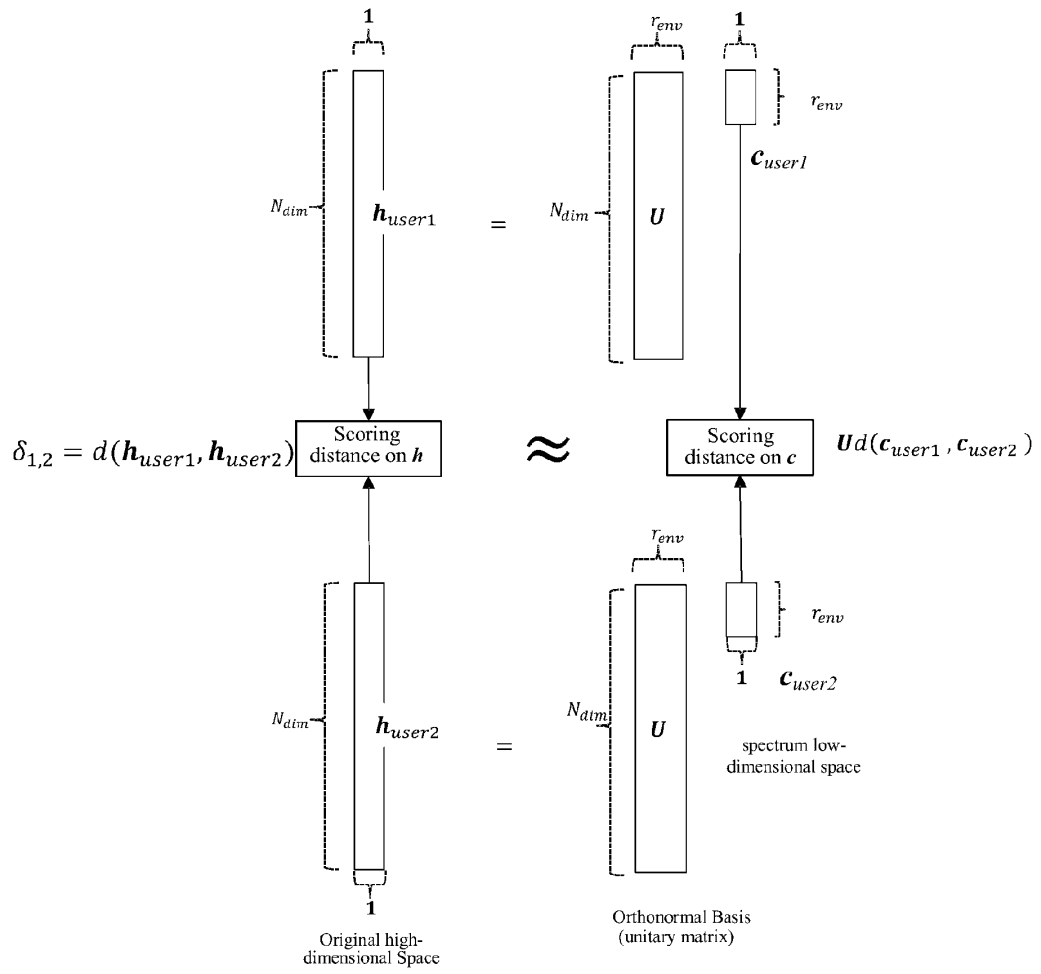


FIG. 9

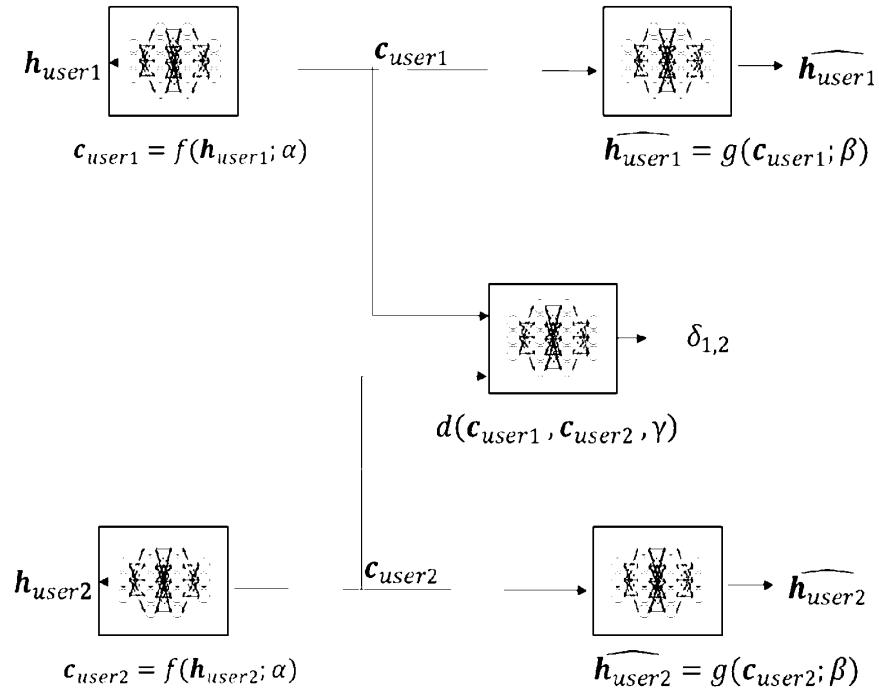


FIG. 10

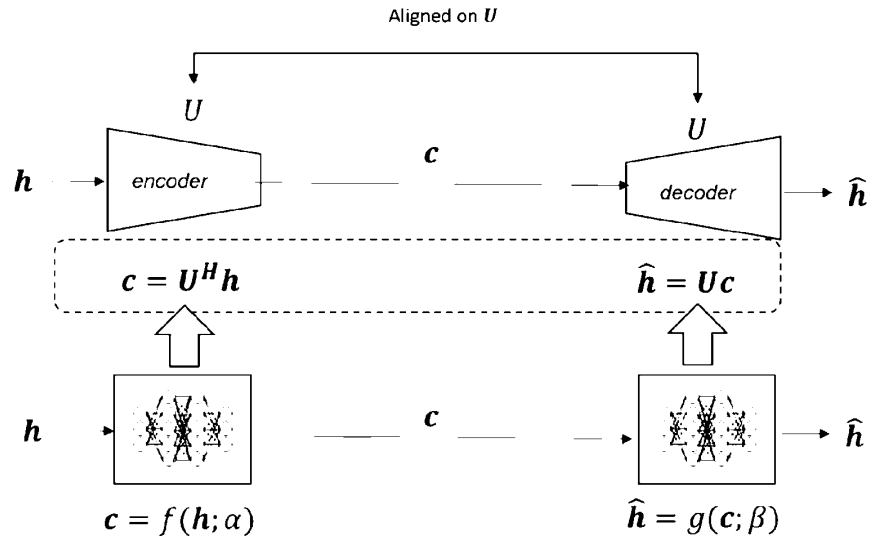


FIG. 11

$$\mathbf{P} = \begin{bmatrix} 0 & \dots & 1 & \dots & 0 & \dots & 0 & \dots & 0 \\ 0 & \dots & 0 & \dots & 1 & \dots & 0 & \dots & 0 \\ \vdots & & & & & & & & \\ 0 & \dots & 0 & \dots & 0 & \dots & 1 & \dots & 0 \end{bmatrix} \quad \left. \vphantom{\begin{bmatrix} 0 & \dots & 1 & \dots & 0 & \dots & 0 & \dots & 0 \\ 0 & \dots & 0 & \dots & 1 & \dots & 0 & \dots & 0 \\ \vdots & & & & & & & & \\ 0 & \dots & 0 & \dots & 0 & \dots & 1 & \dots & 0 \end{bmatrix}} \right\} N_{pilot}$$

$$\underbrace{\hspace{10em}}_{N_{dim} = N_{RE} N_{TX} N_{RX}}$$

FIG. 12

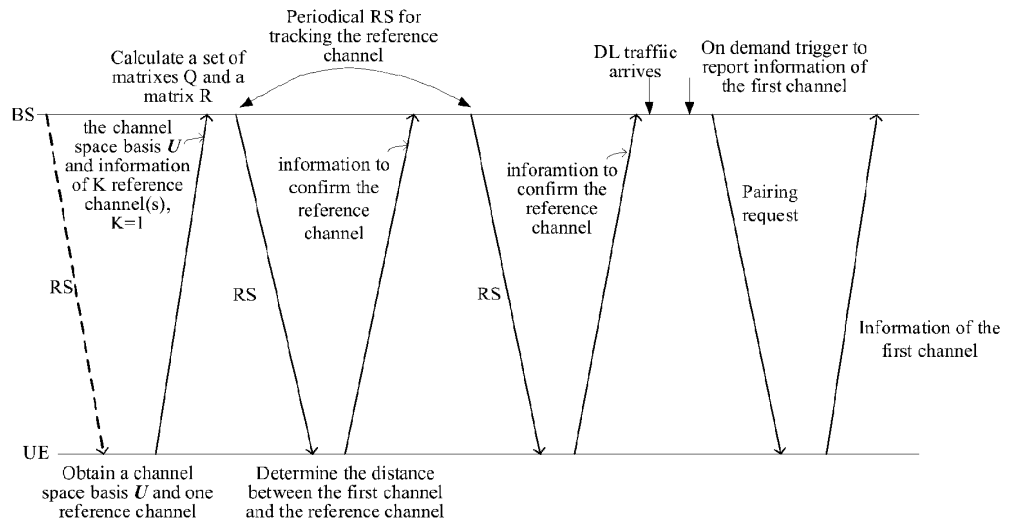


FIG. 13

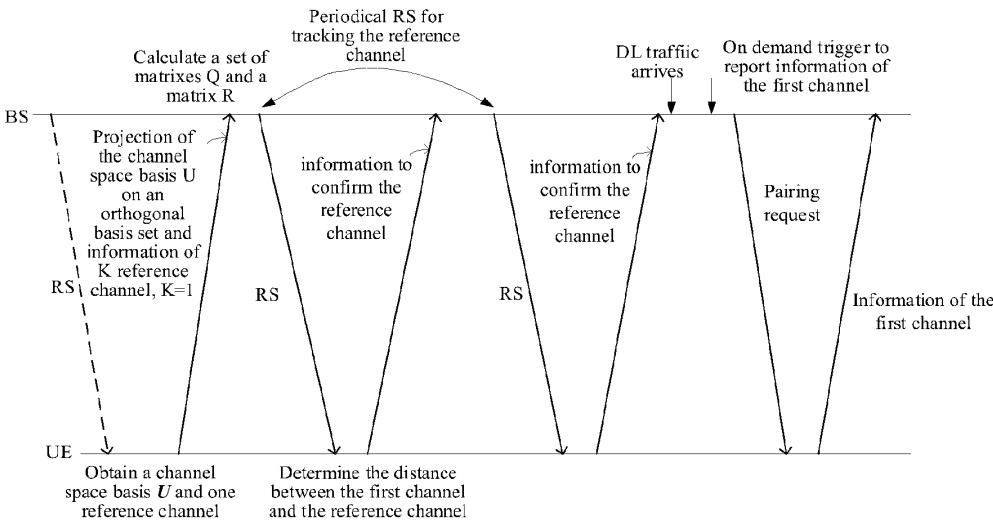


FIG. 14

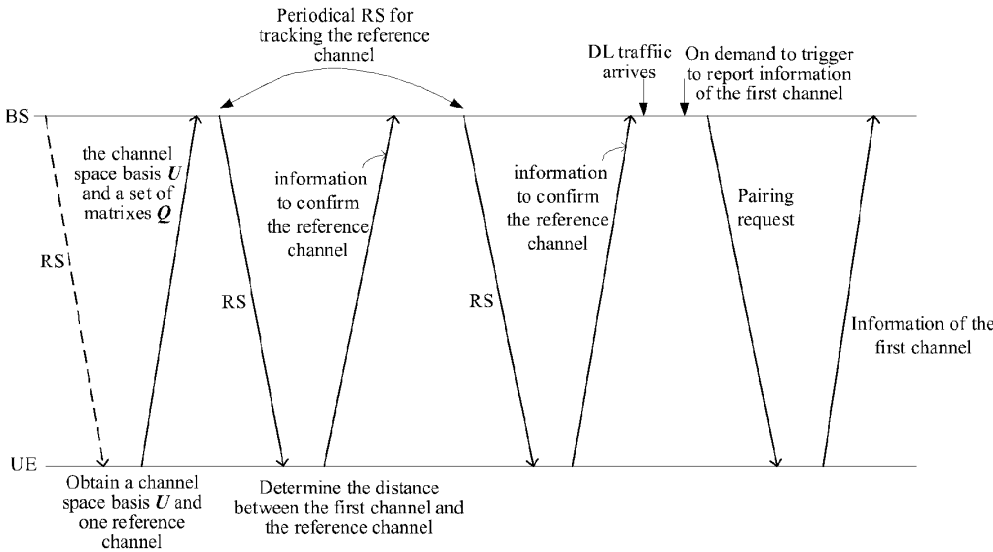


FIG. 15

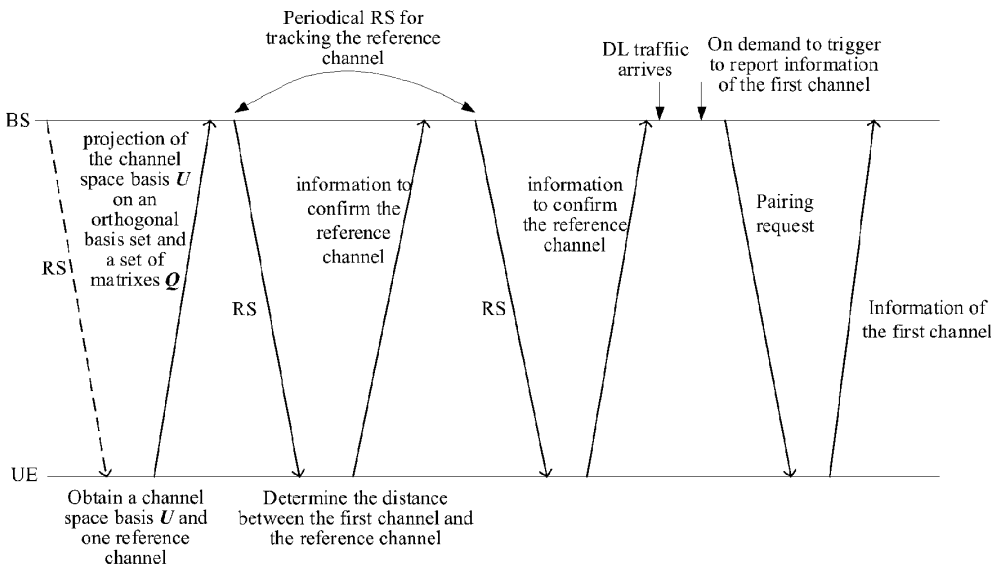


FIG. 16

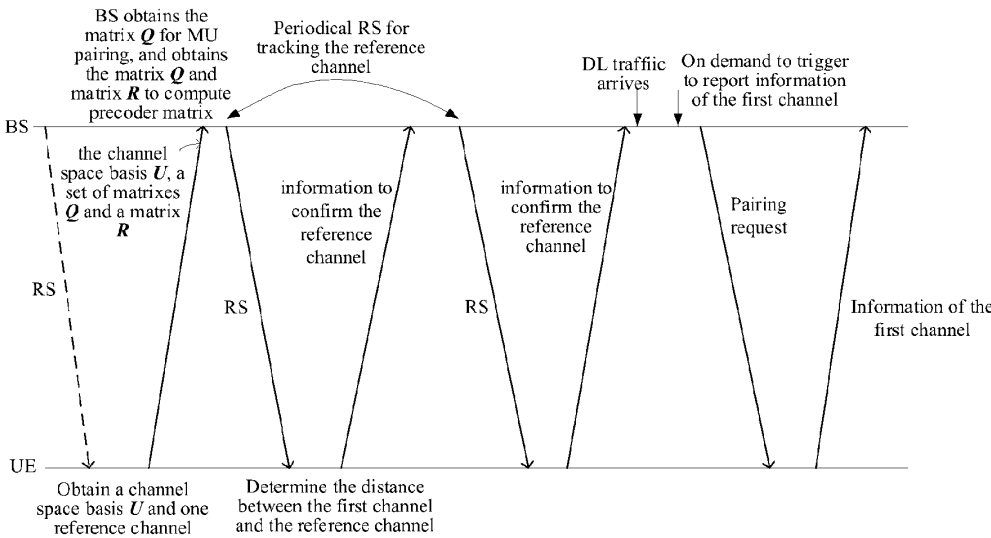


FIG. 17

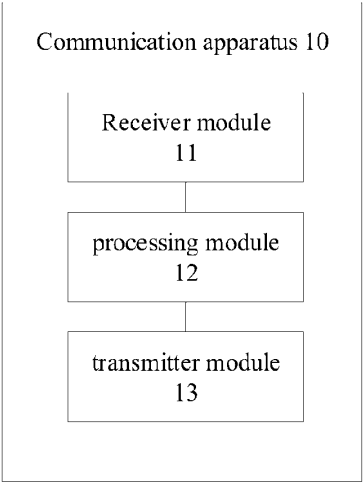


FIG. 18

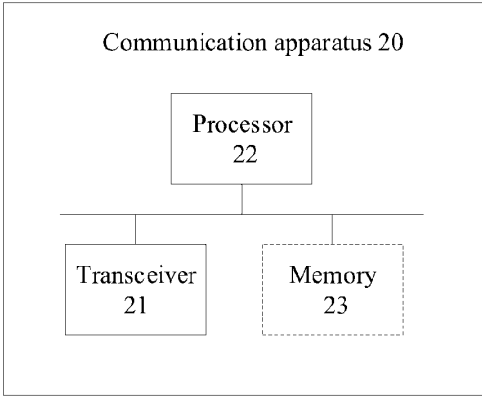


FIG. 19

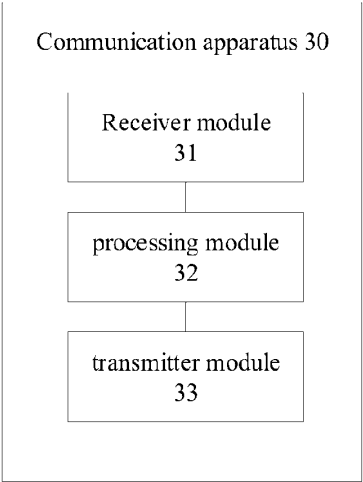


FIG. 20

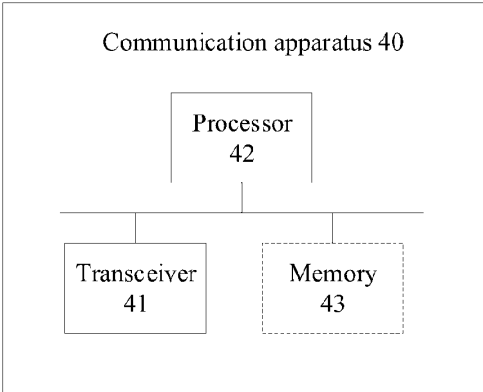


FIG. 21

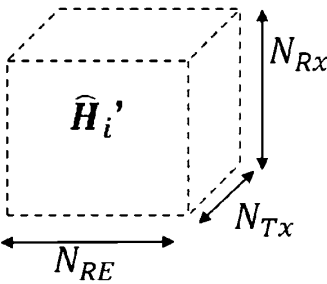


FIG. 22

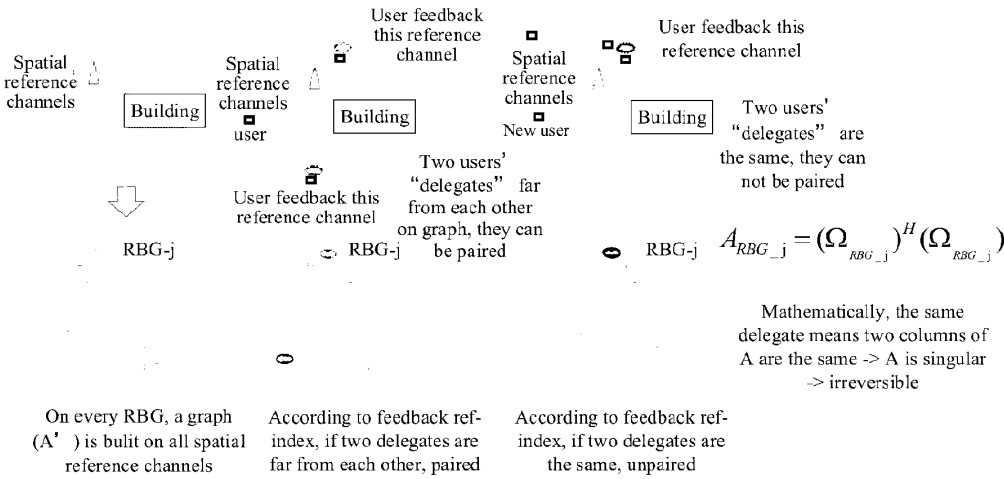


FIG. 23

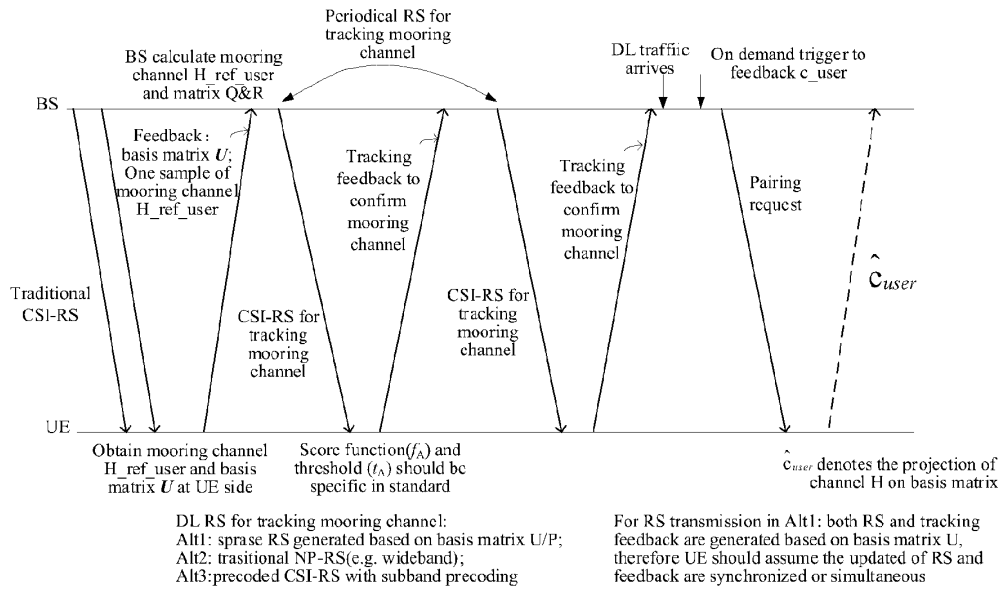


FIG. 24

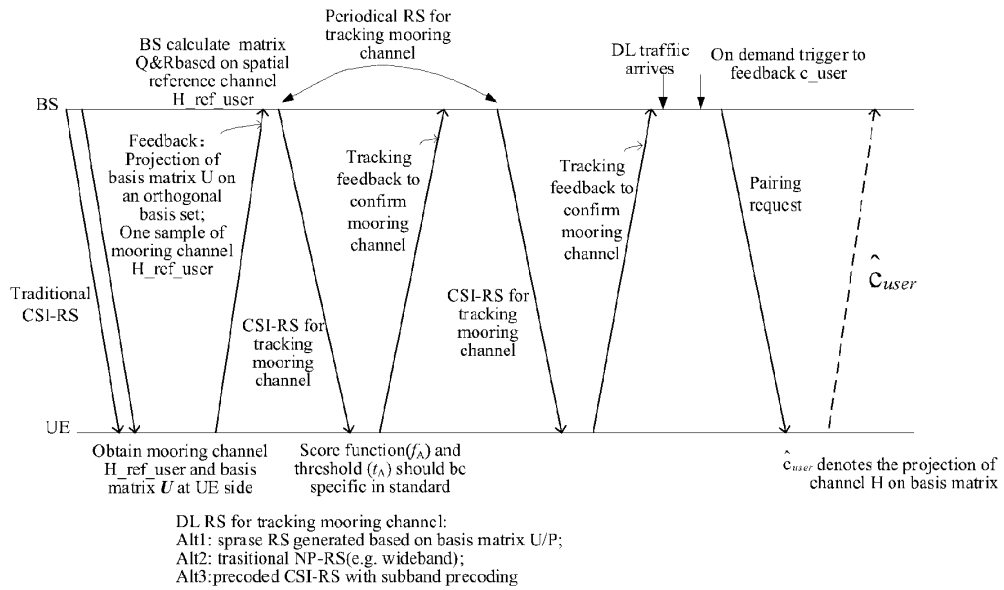


FIG. 25

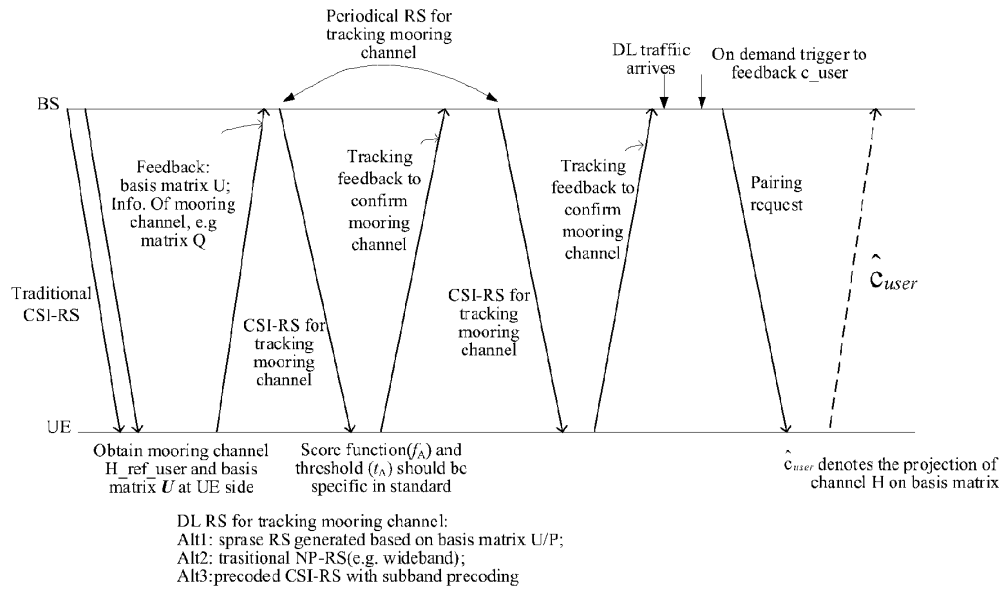


FIG. 26

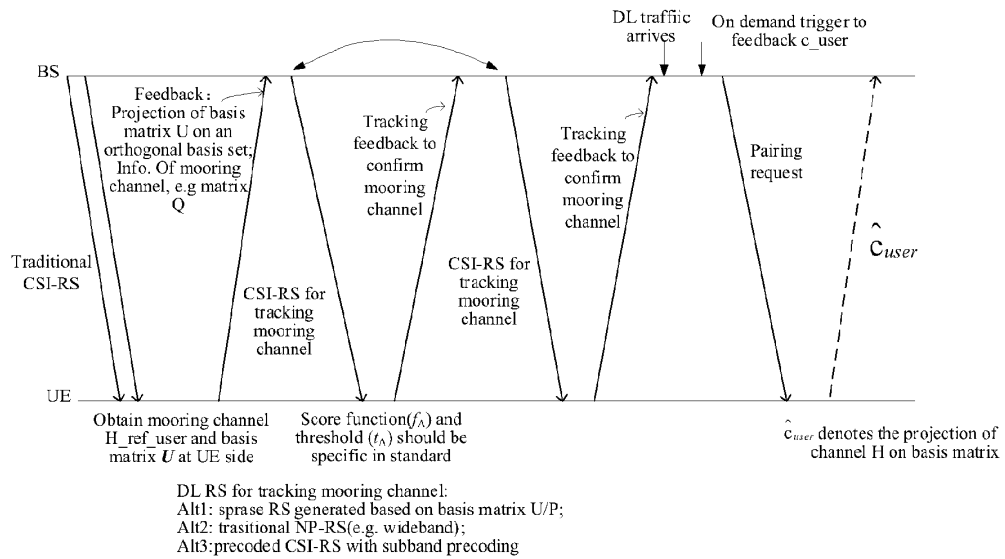


FIG. 27

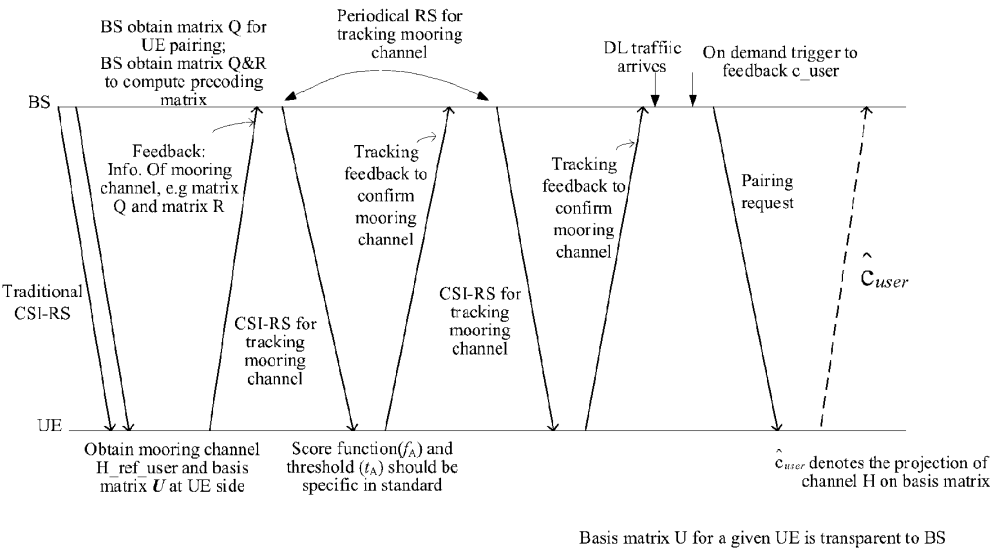


FIG. 28

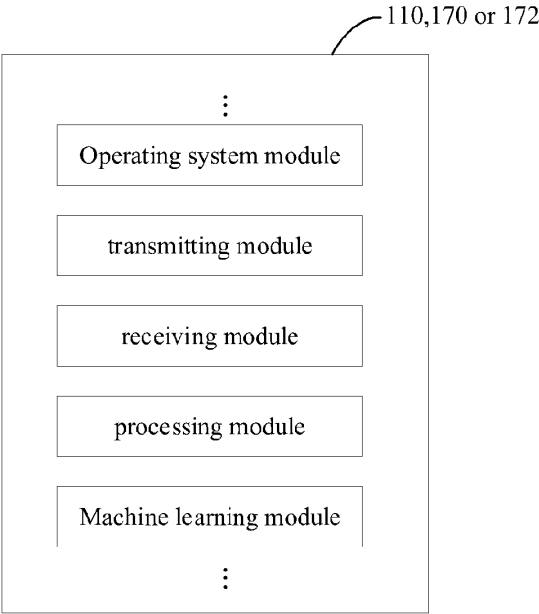


FIG. 29