

FIG. 1

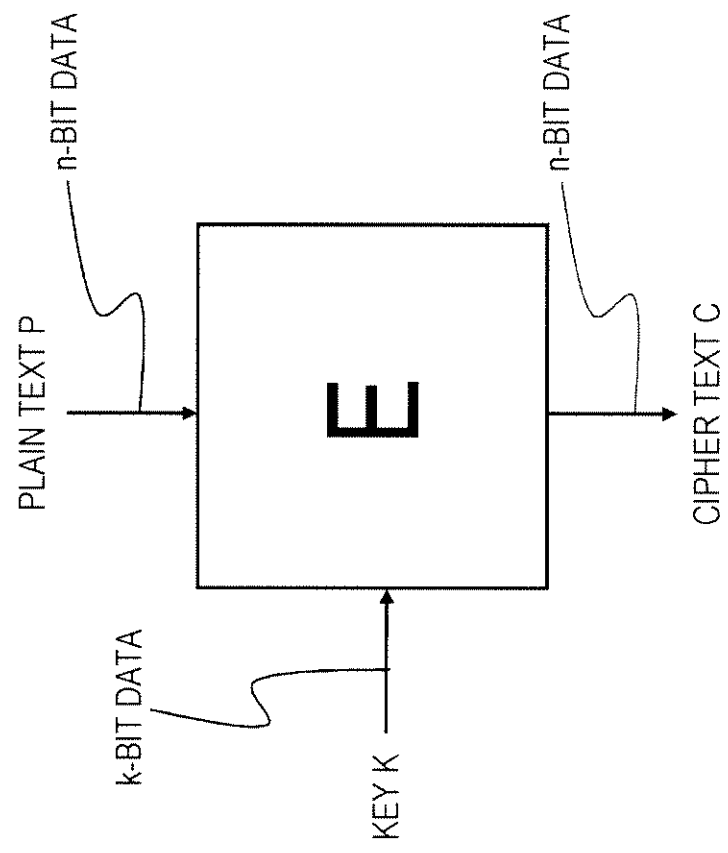


FIG. 2

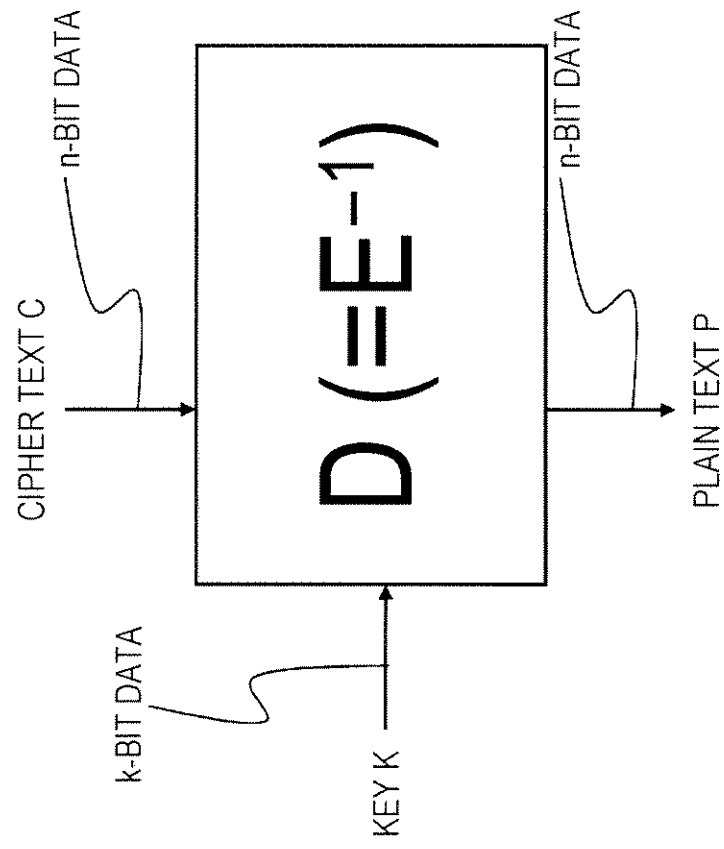


FIG. 3

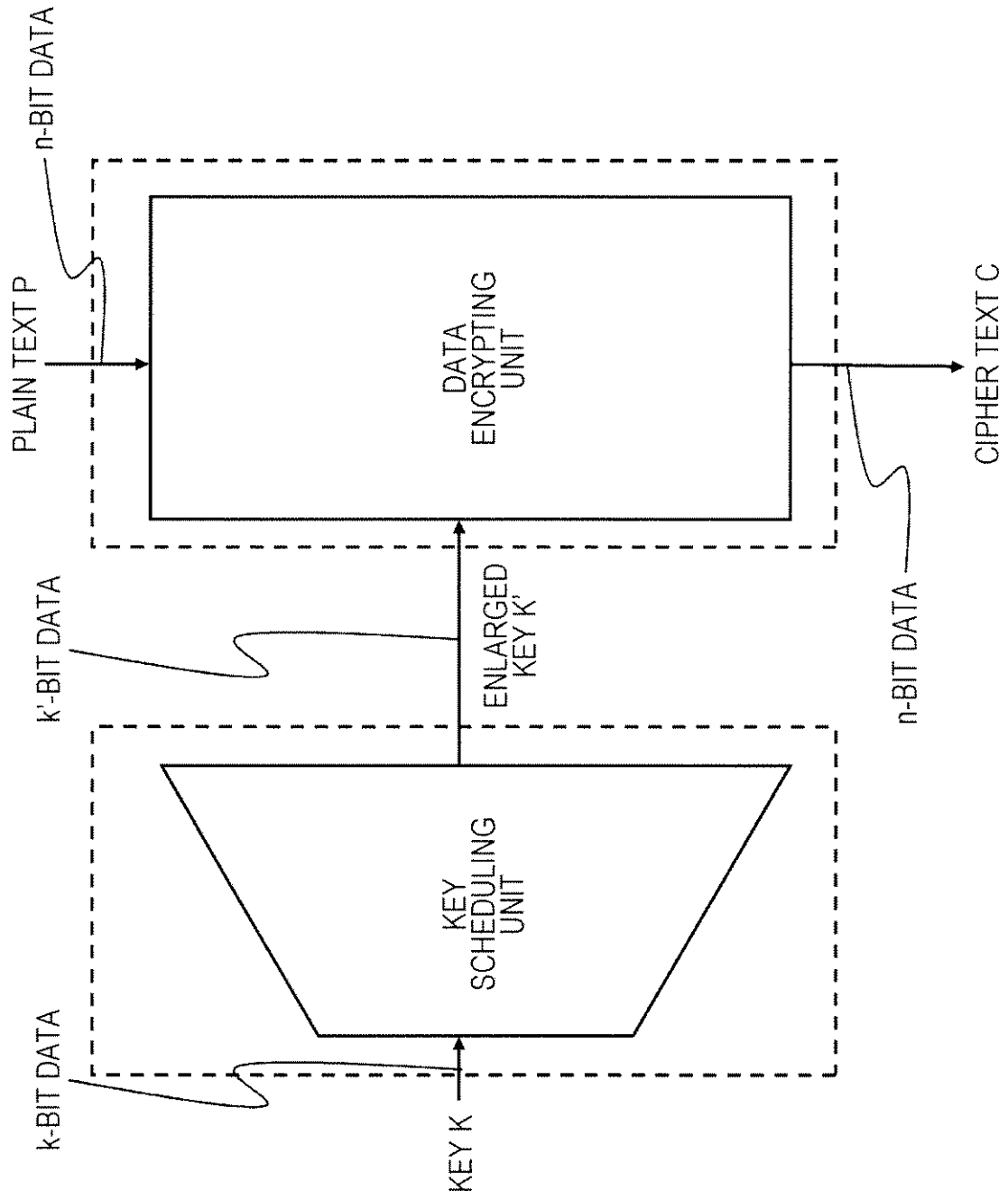


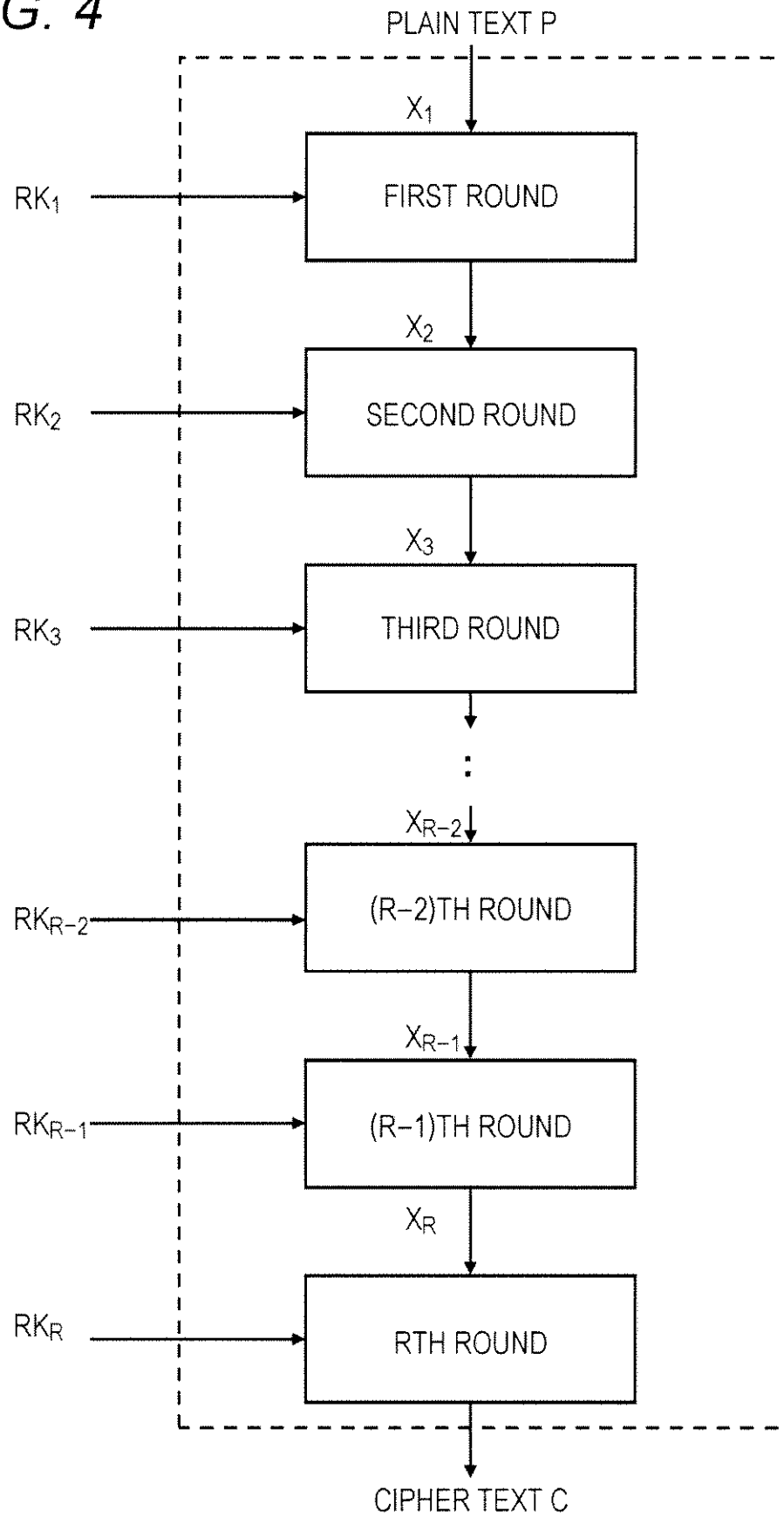
**FIG. 4**

FIG. 5

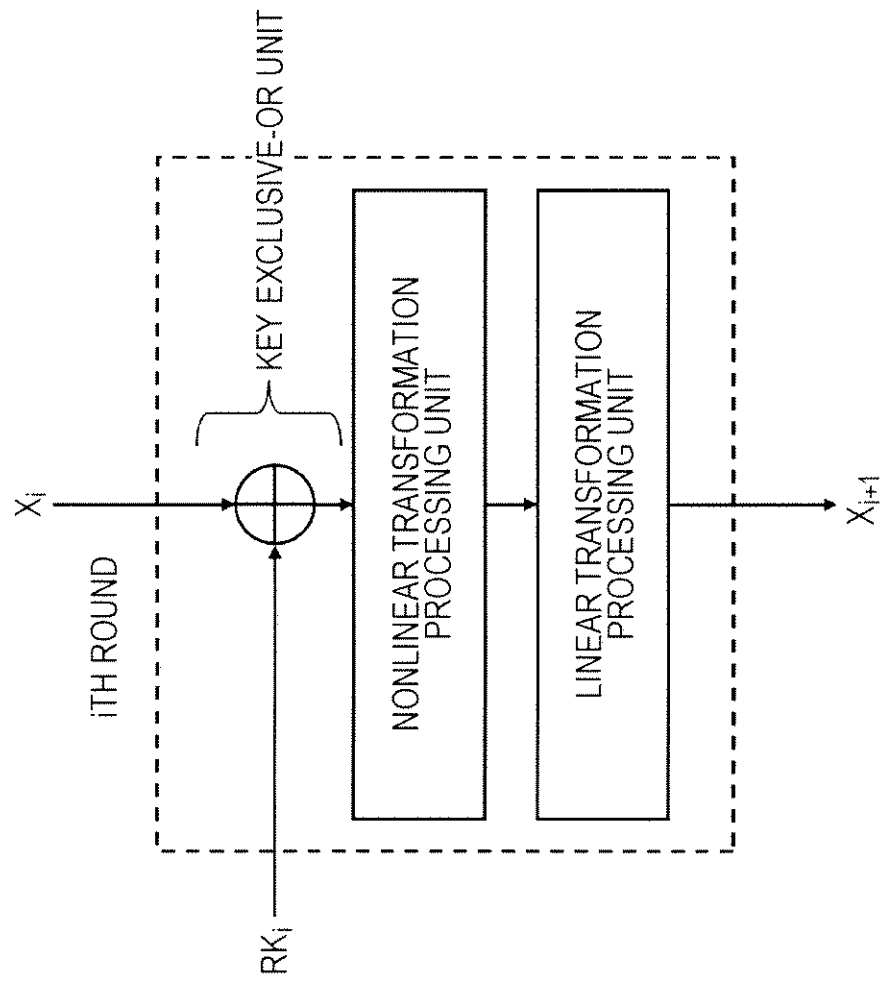


FIG. 6

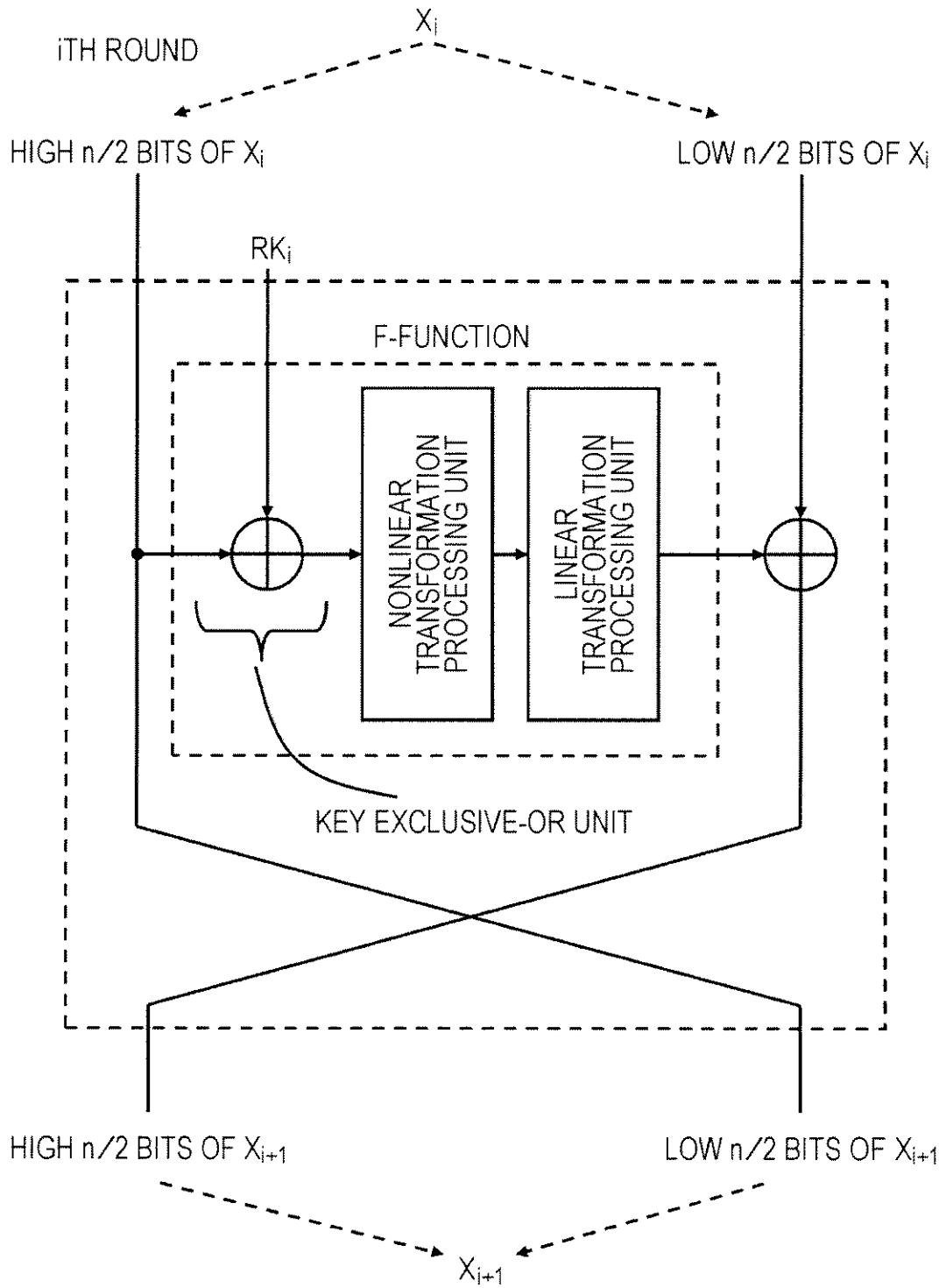


FIG. 7

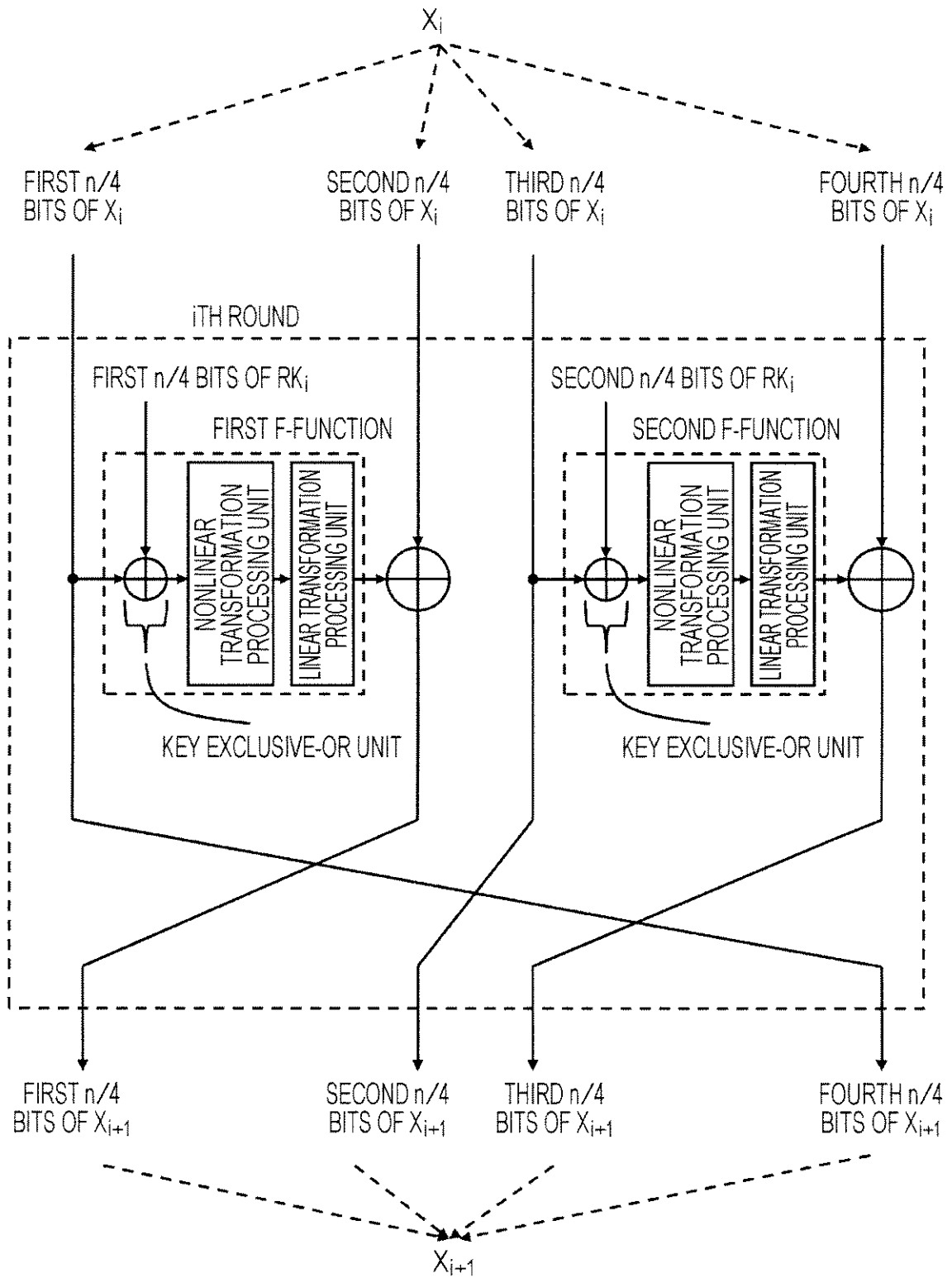


FIG. 8

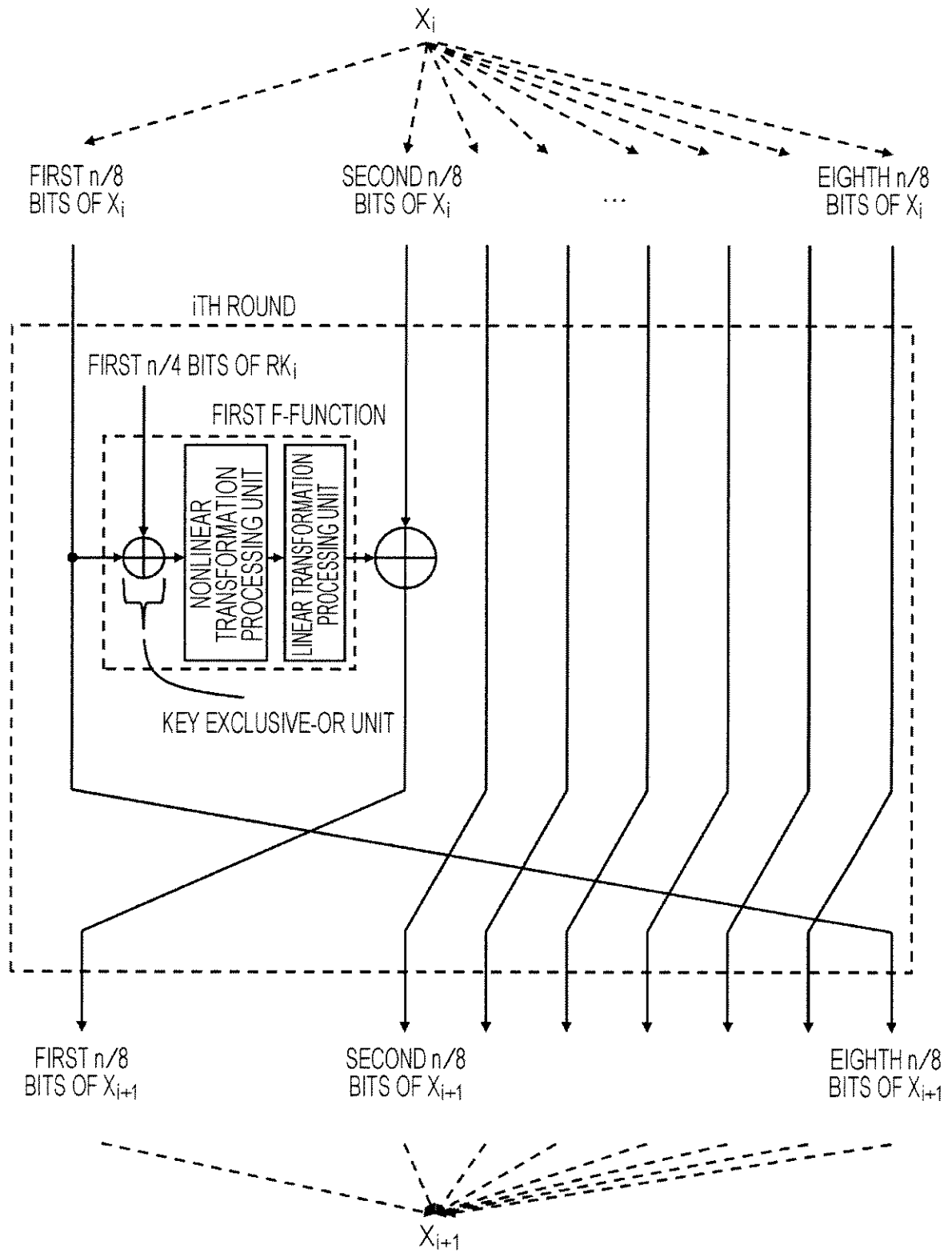


FIG. 9

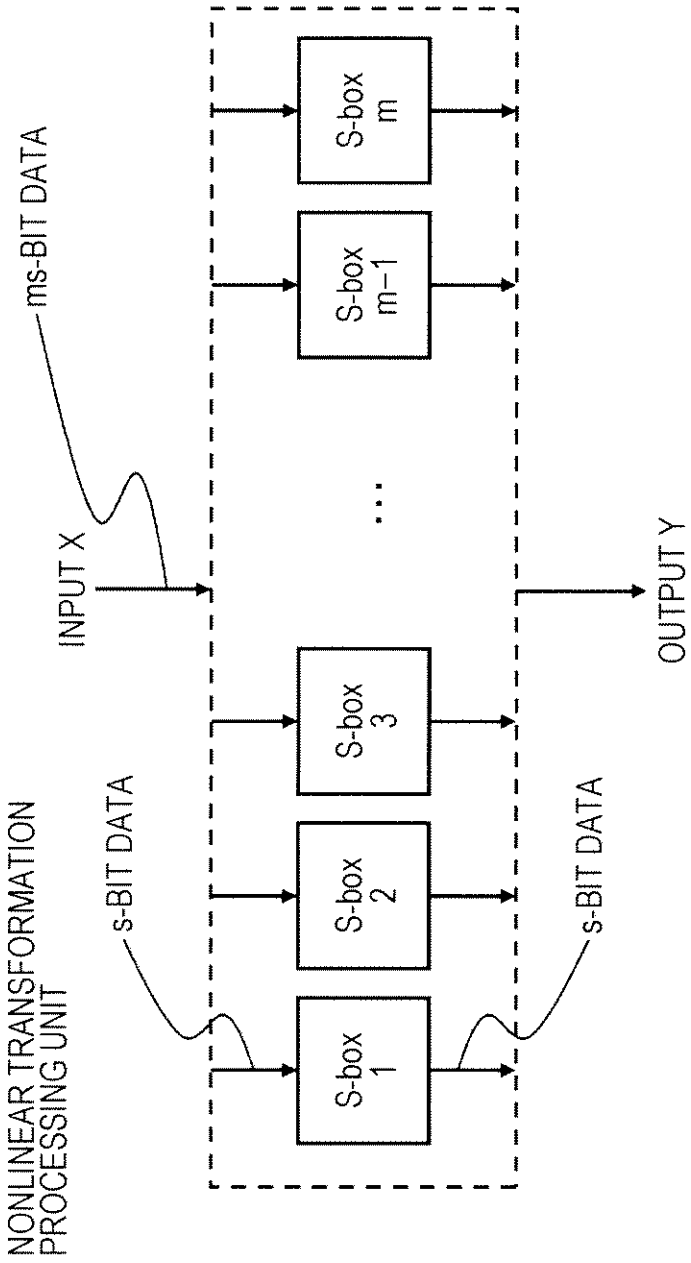


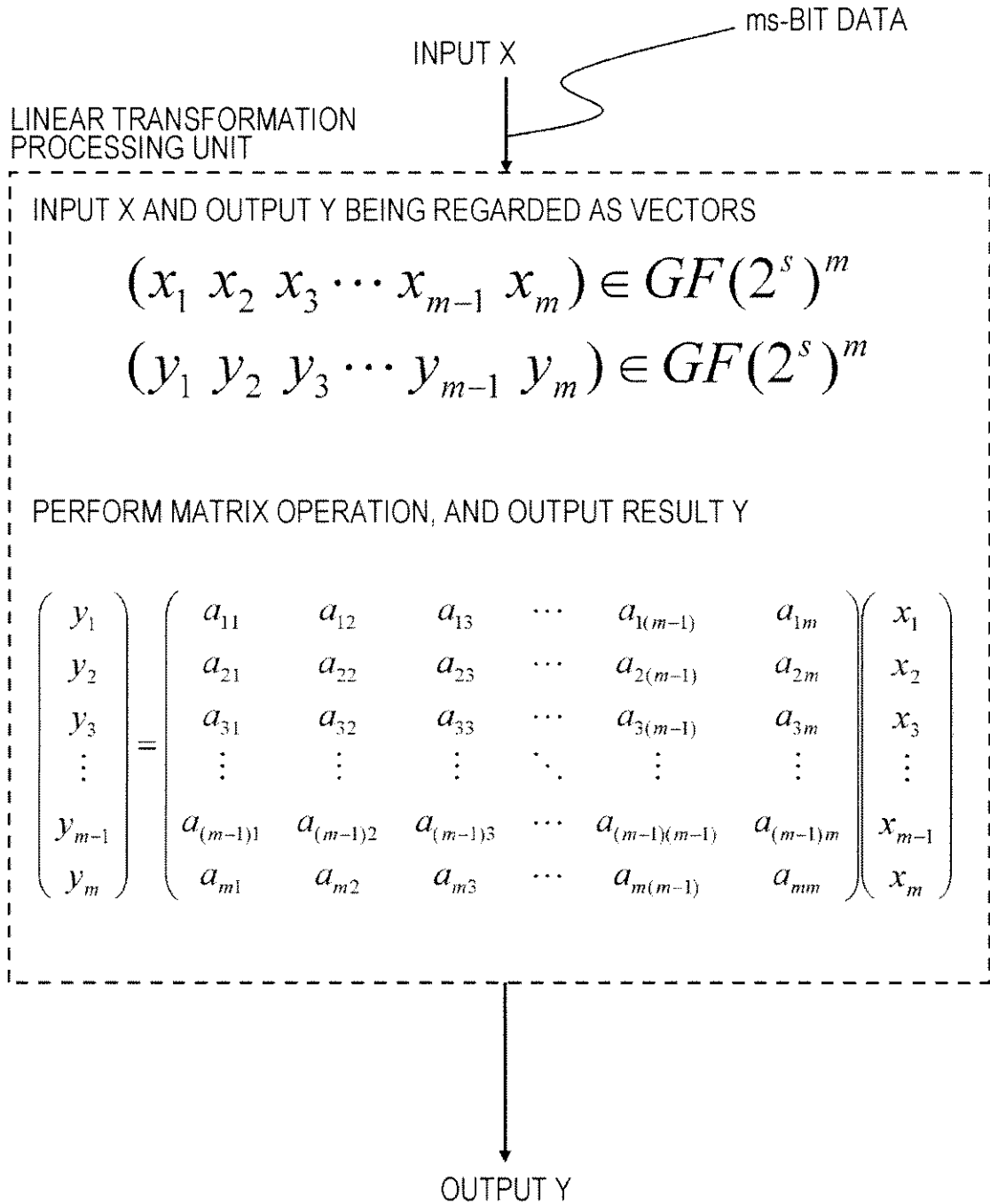
**FIG. 10**

FIG. 11

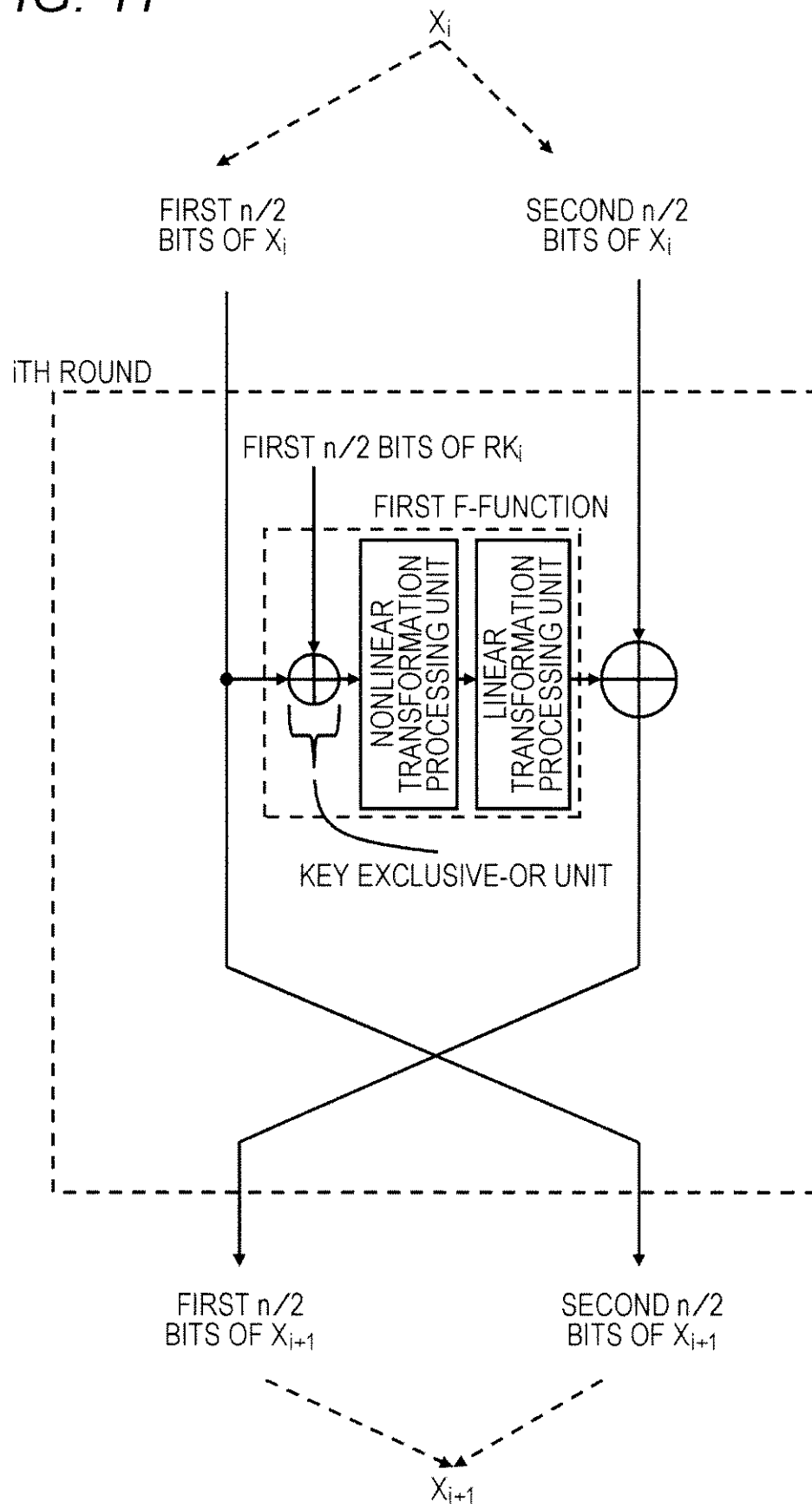


FIG. 12

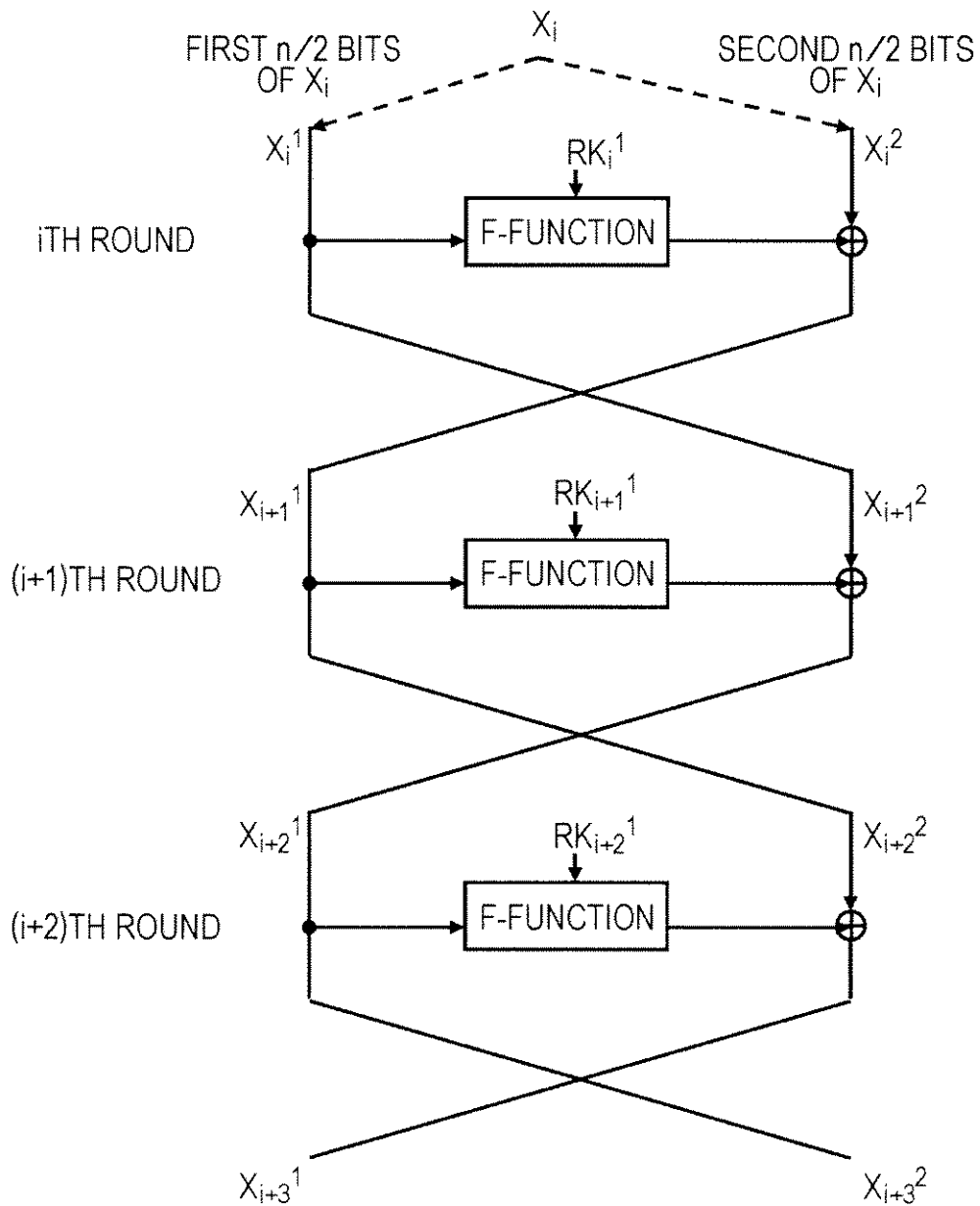


FIG. 13

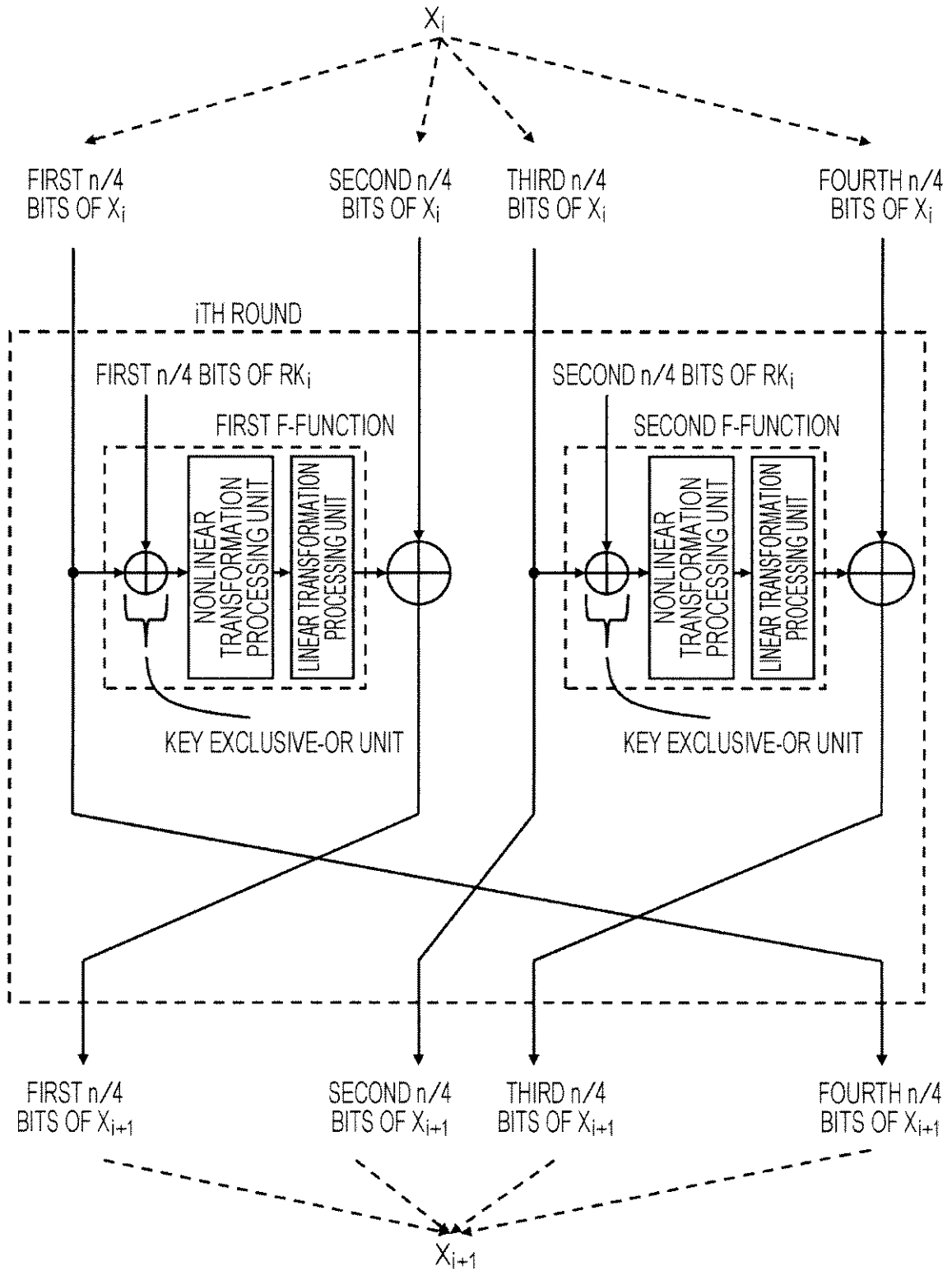


FIG. 14

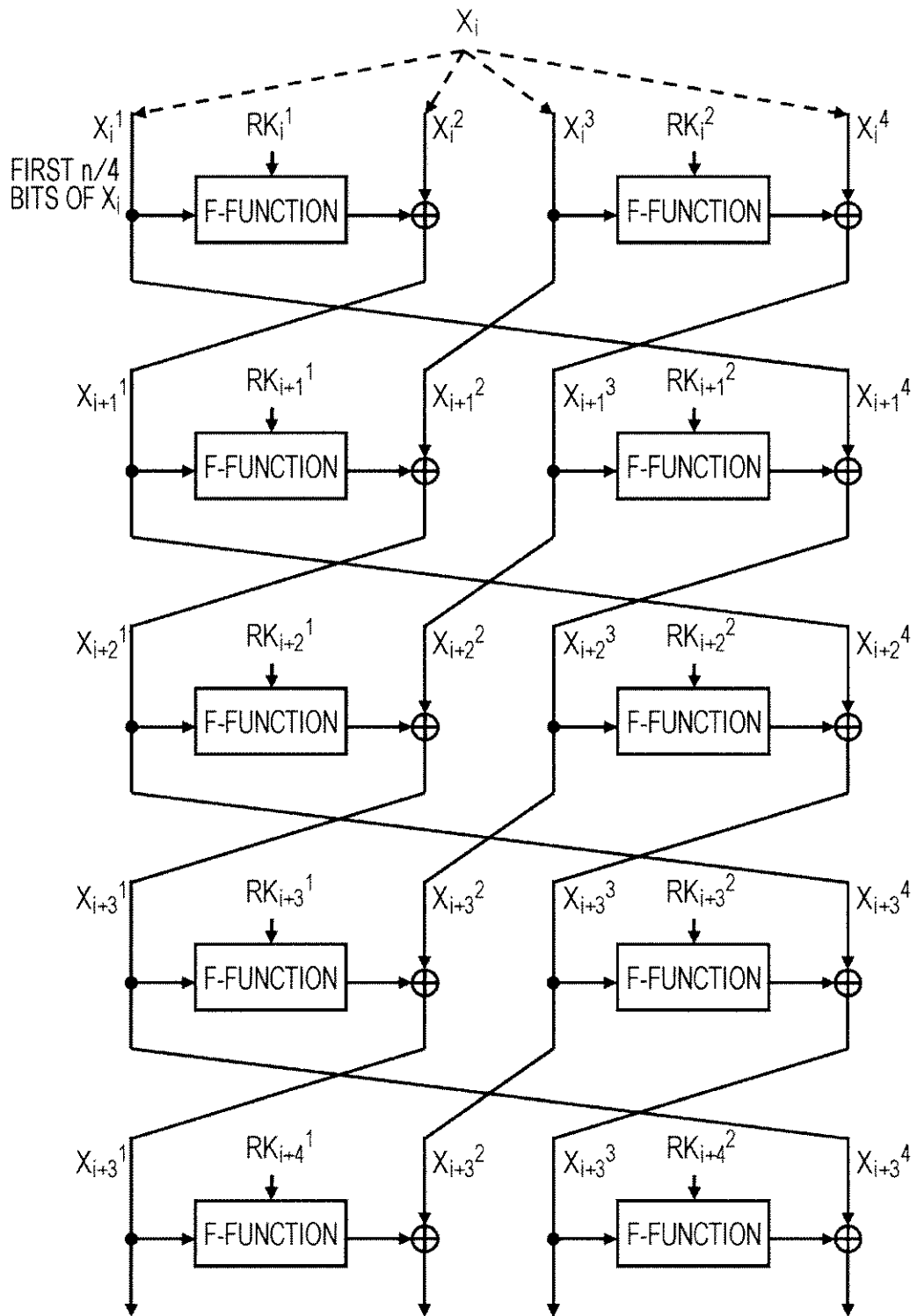
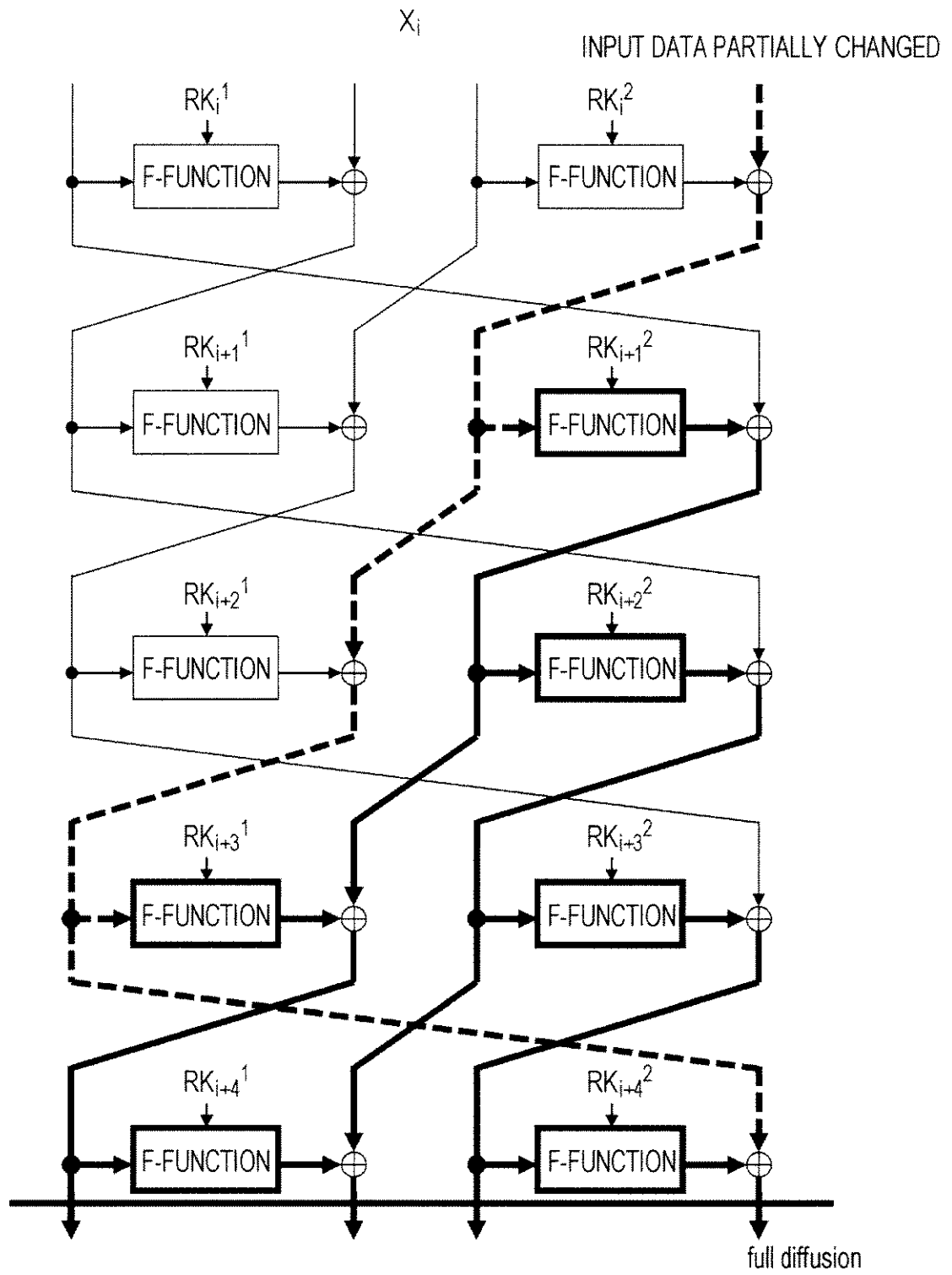
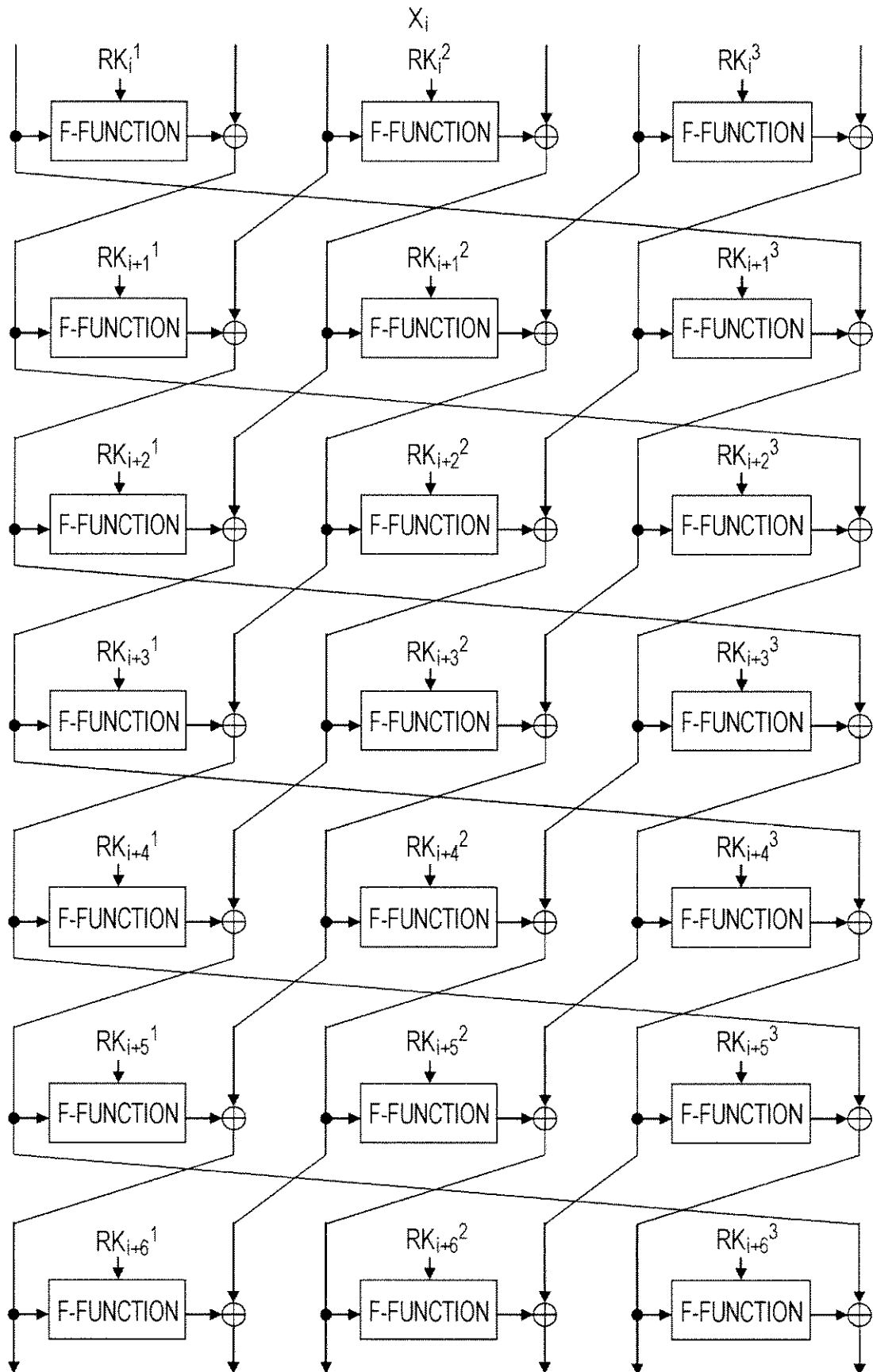
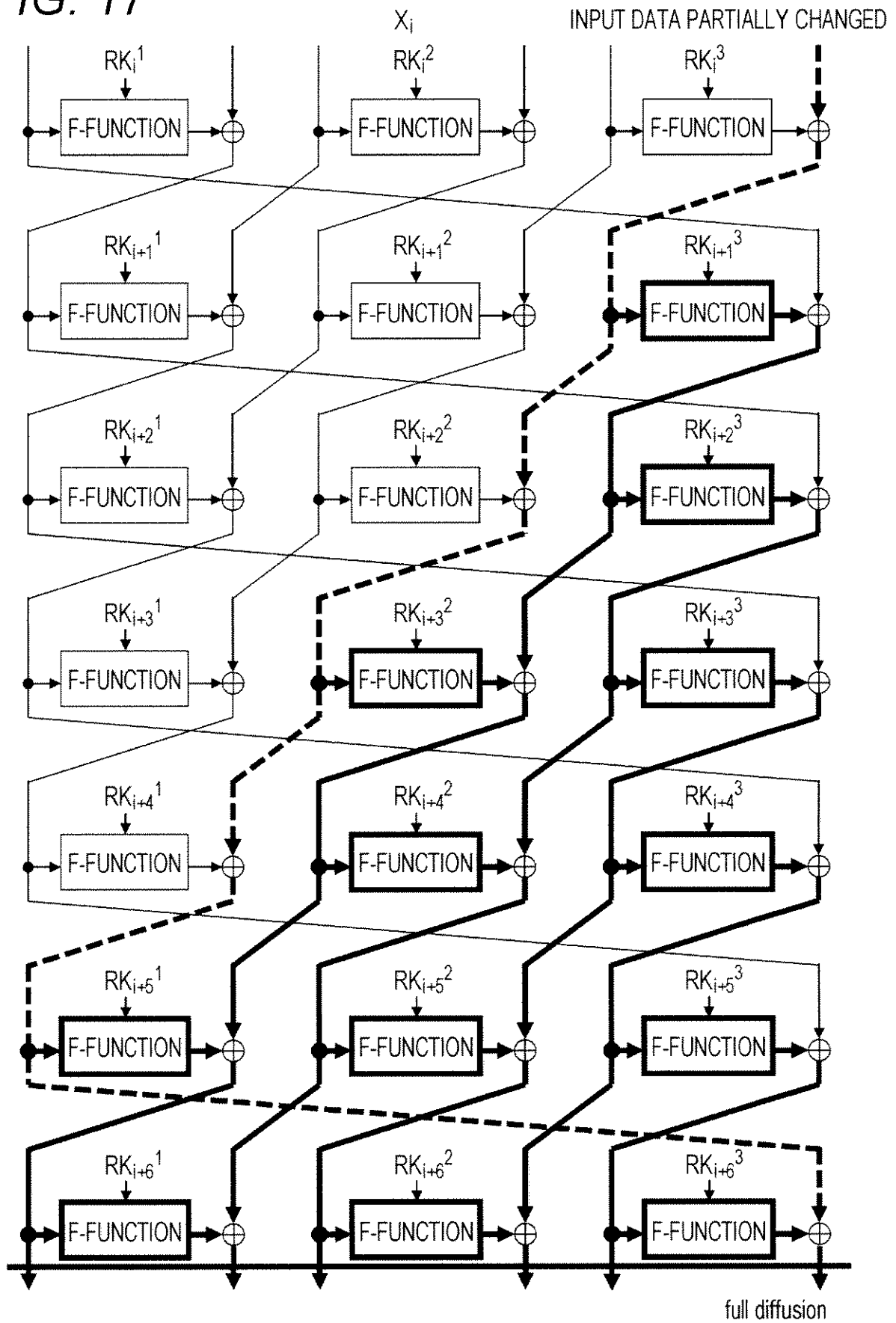


FIG. 15



16/40  
**FIG. 16**





18/40  
**FIG. 18**

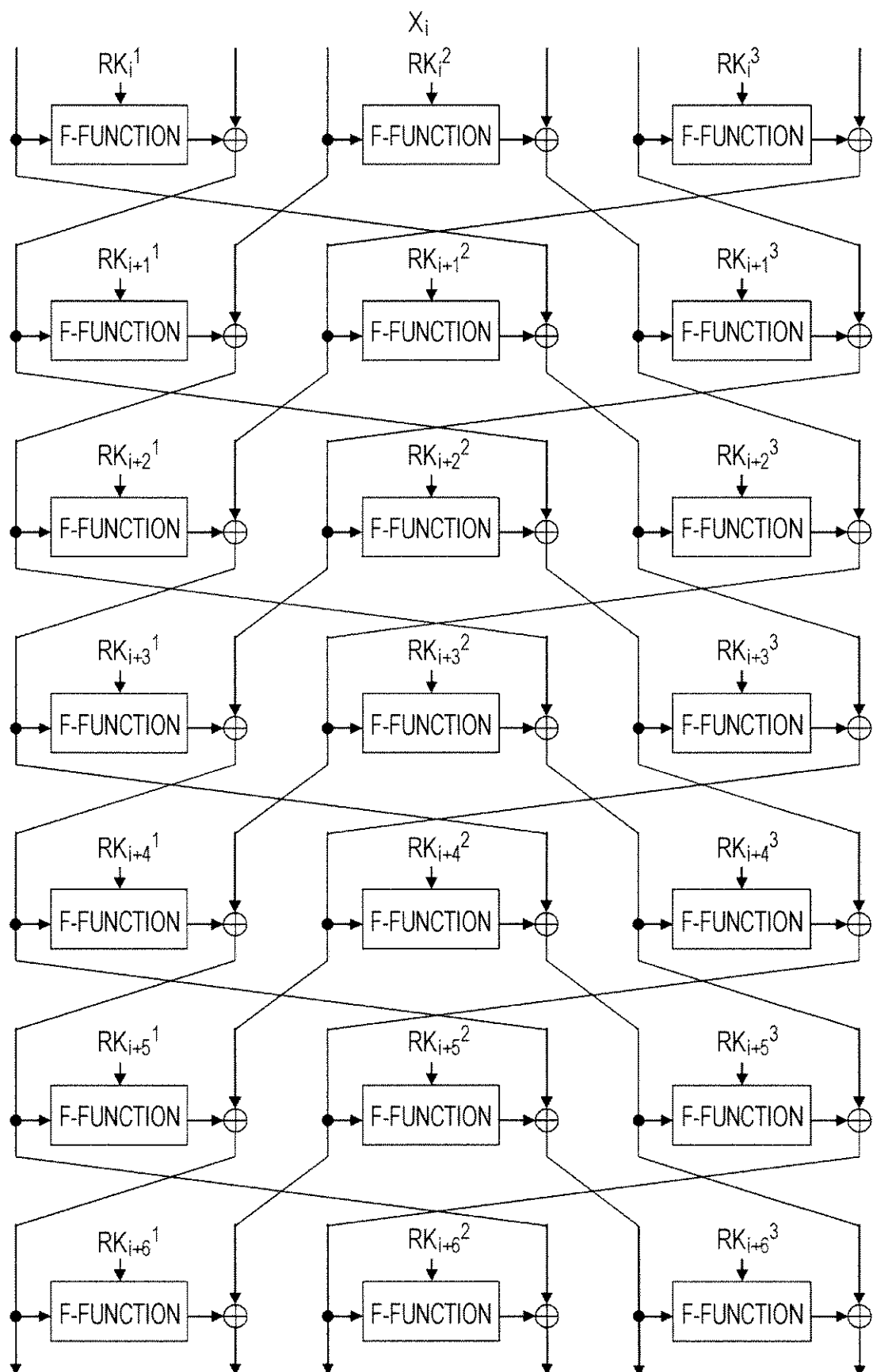


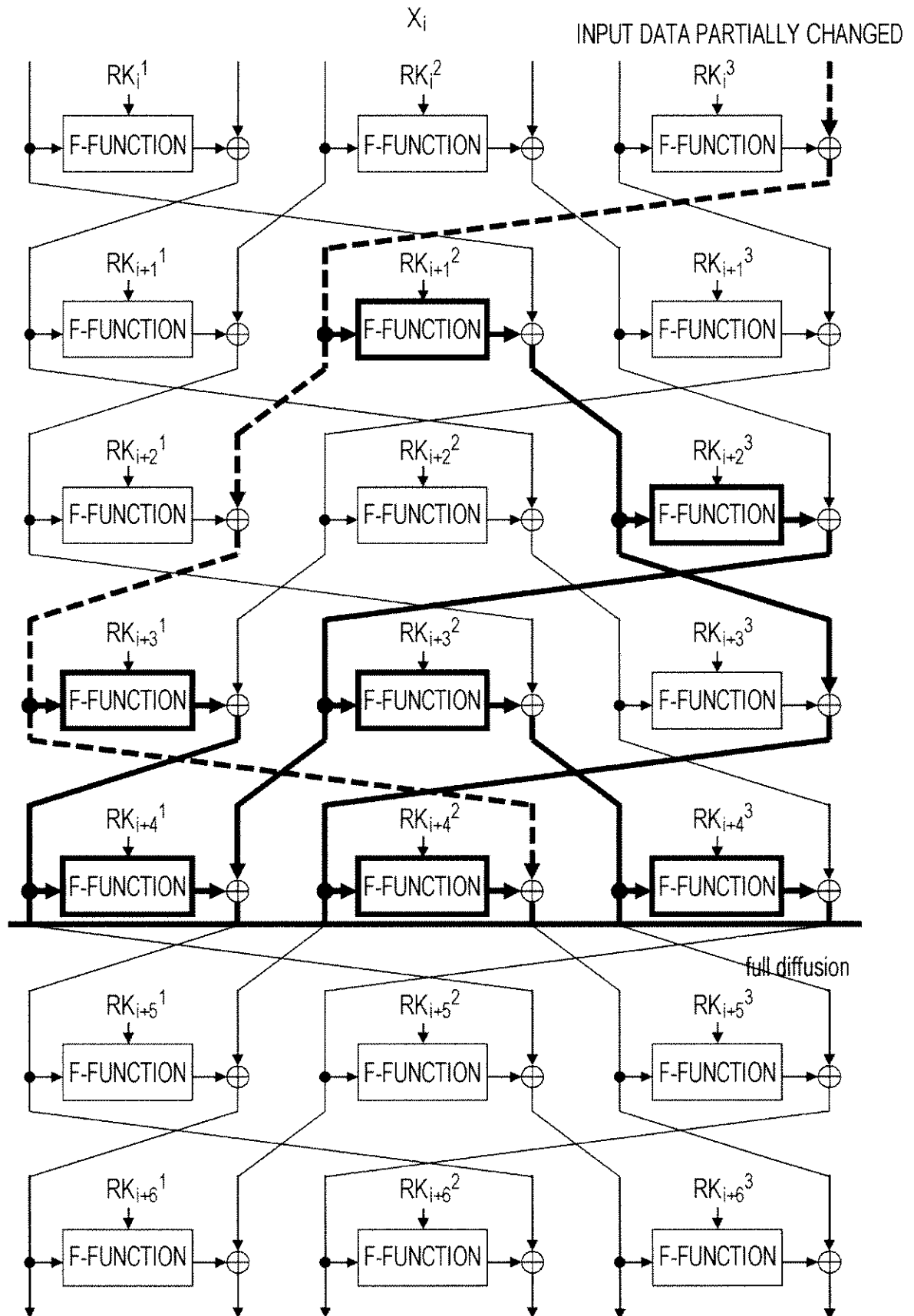
**FIG. 19**

FIG. 20

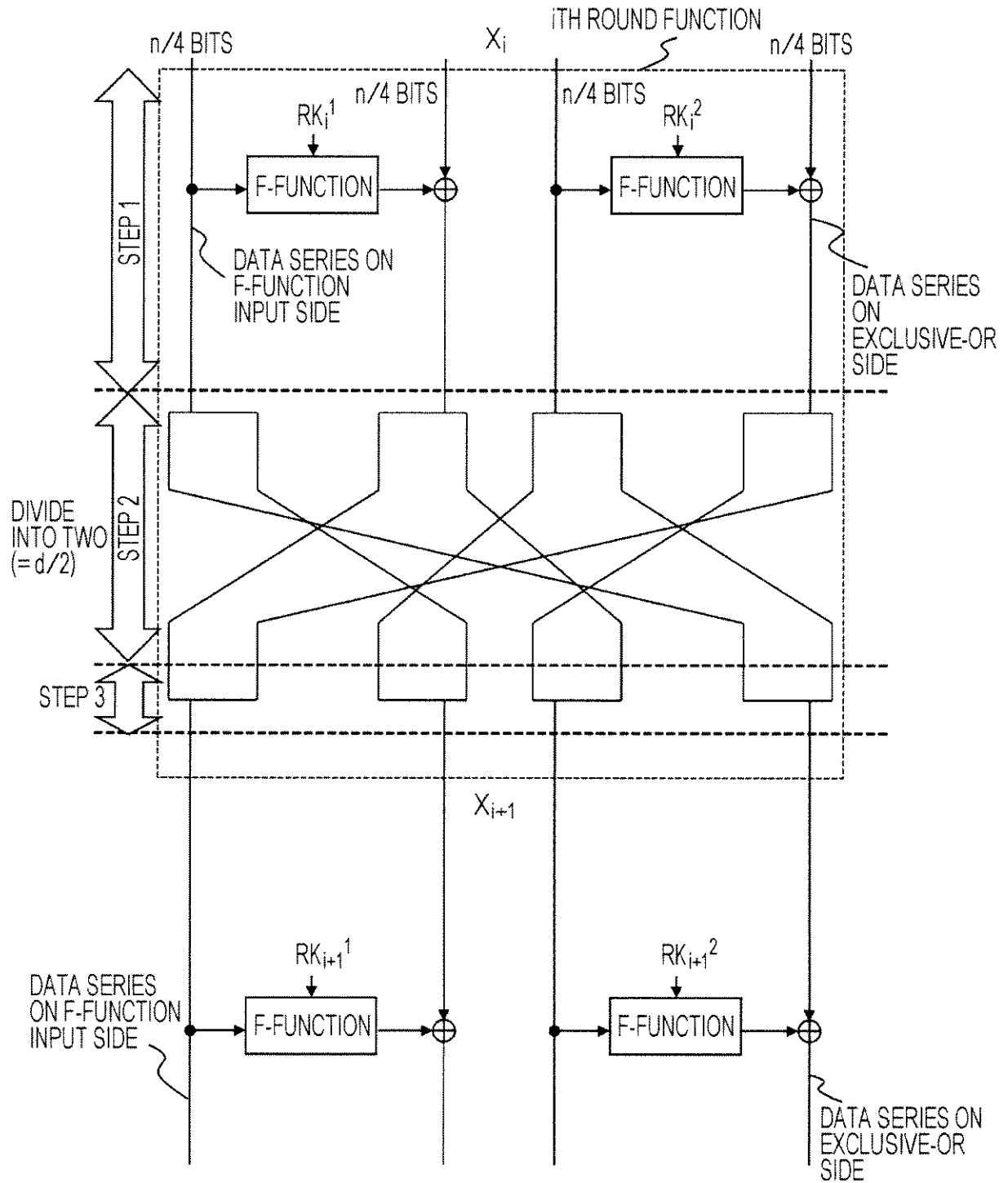


FIG. 21

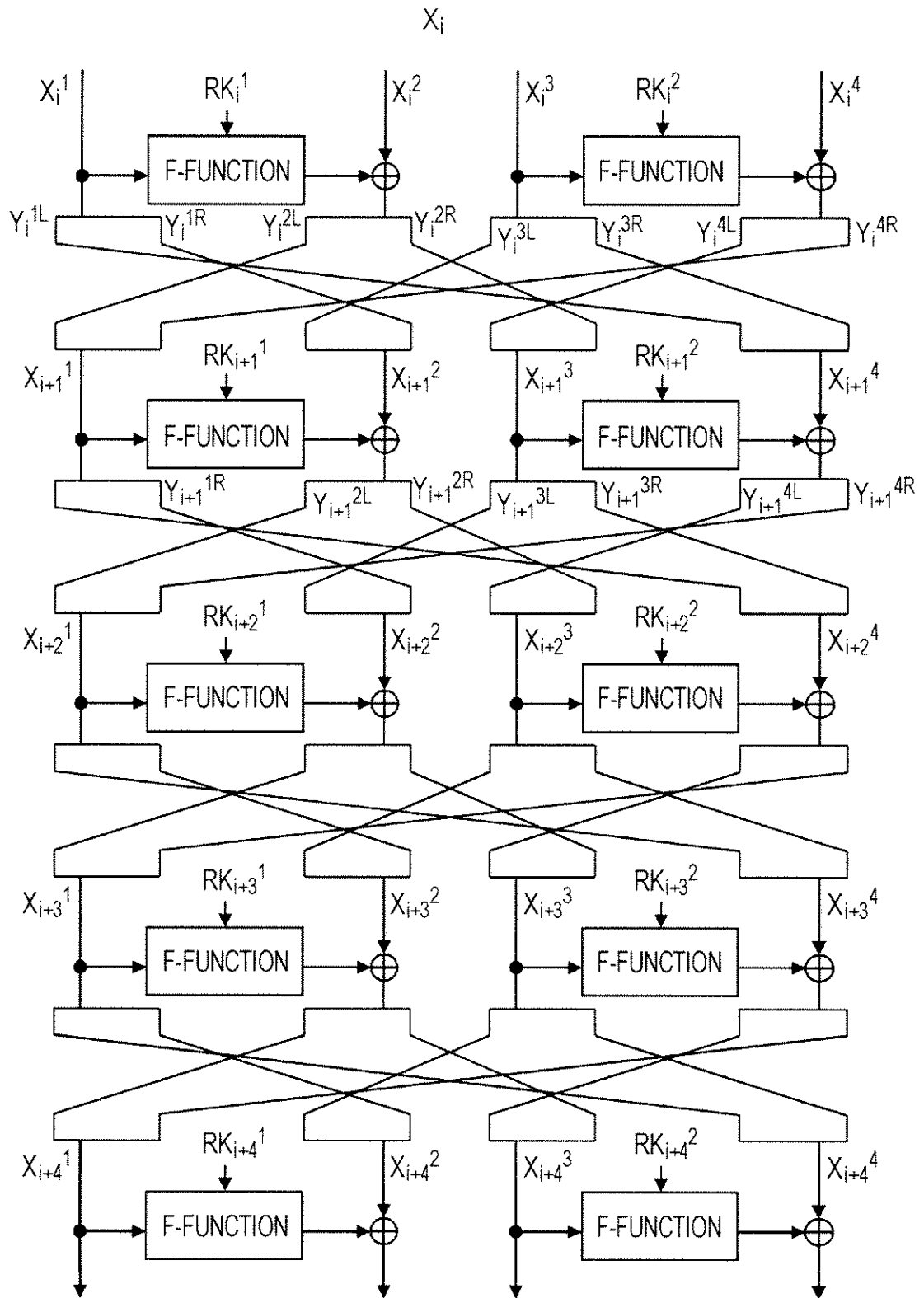


FIG. 22

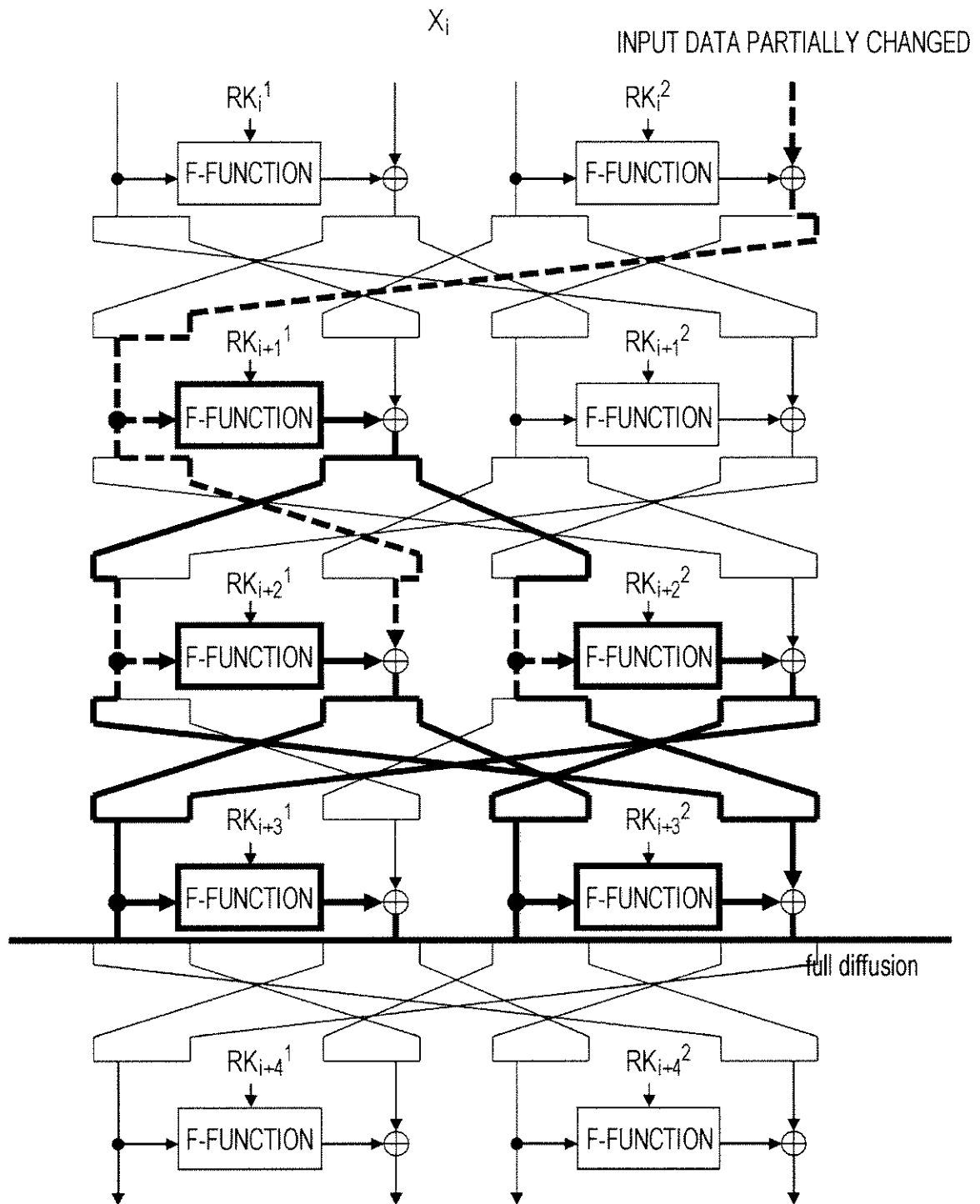


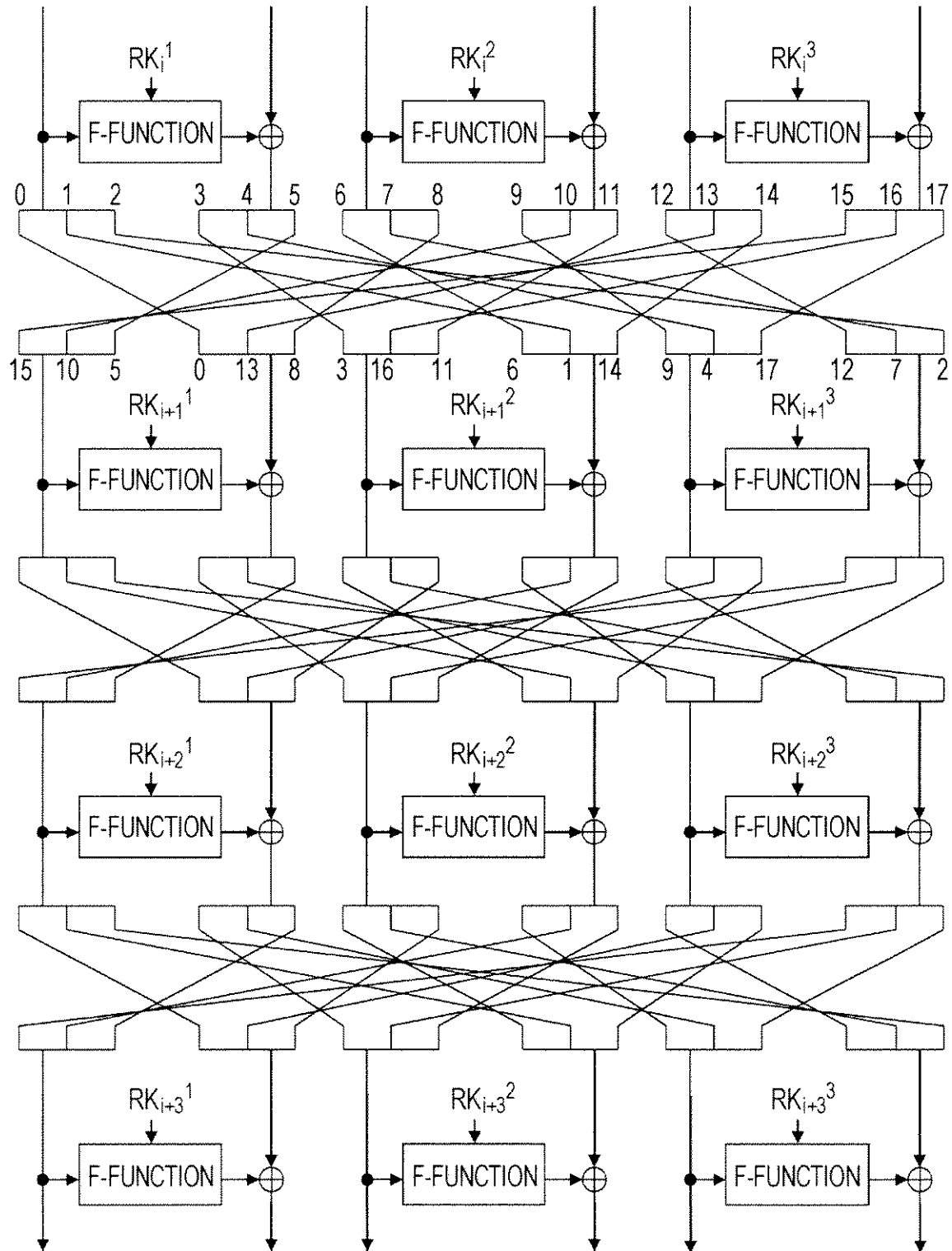
*FIG. 23* $X_i$ 

FIG. 24

 $X_i$ 

MAKE CHANGE TO MSB OF INPUT DATA

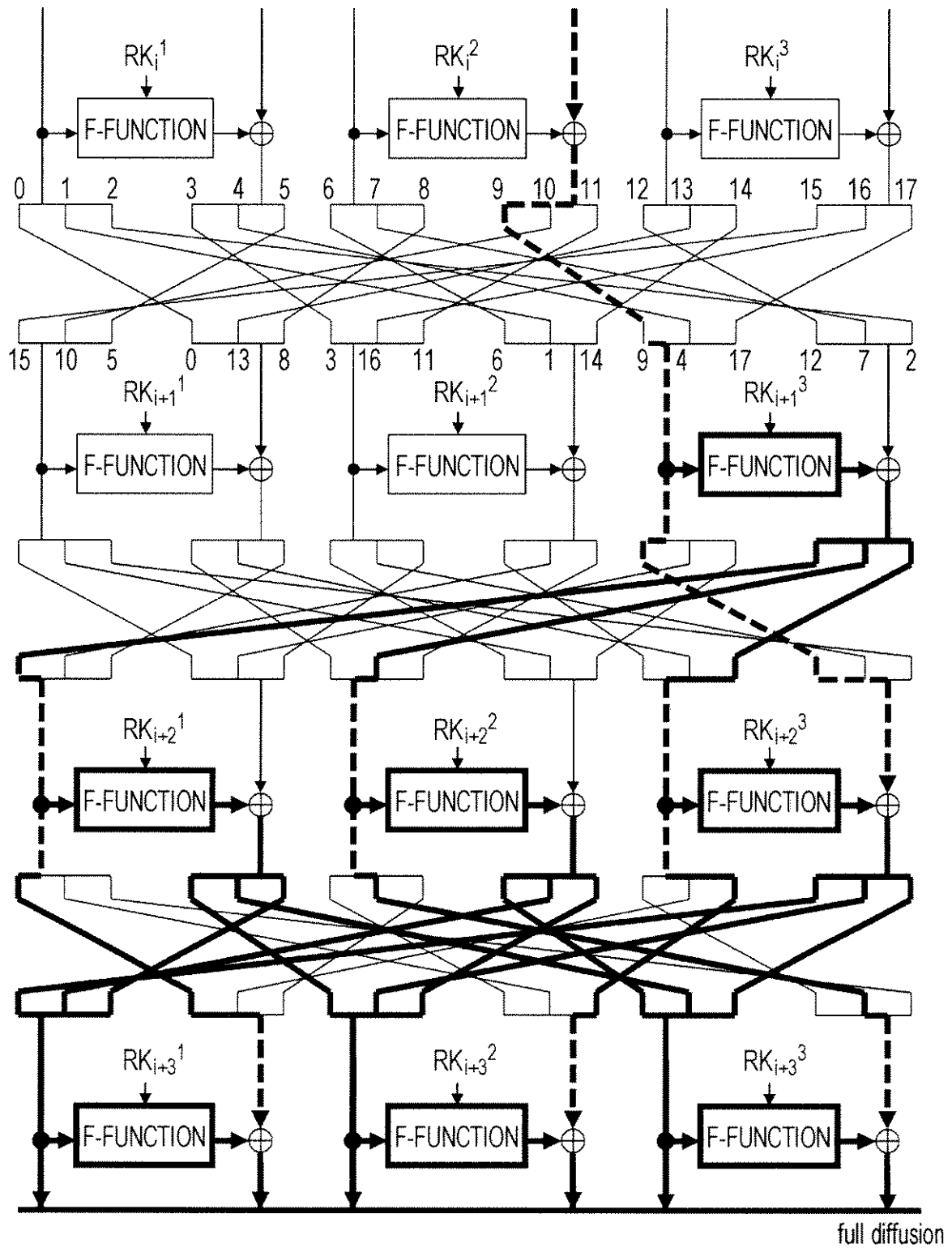


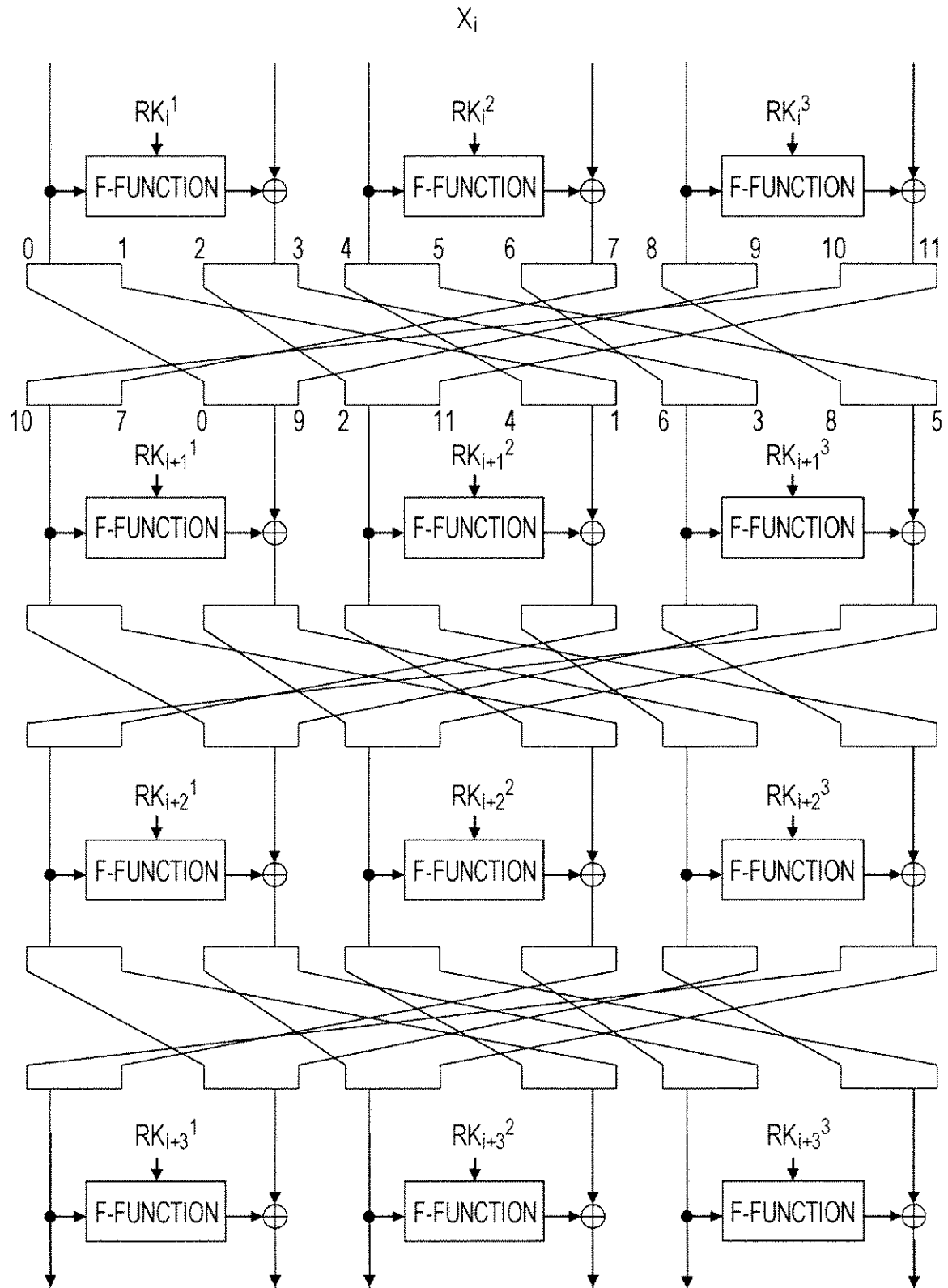
*FIG. 25*

**FIG. 26**

RELATIONS AMONG  $n$ -BIT DATA DIVISION NUMBER  $d$ ,  $d/n$ -BIT DATA DIVISION NUMBER  $p$ , AND NUMBER OF full-diffusion ROUNDS

| $d \backslash p$ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------------|---|---|---|---|---|---|---|---|----|----|----|
| 4                | 4 | — | — | — | — | — | — | — | —  | —  | —  |
| 6                | 5 | 4 | — | — | — | — | — | — | —  | —  | —  |
| 8                | 5 | 5 | 4 | — | — | — | — | — | —  | —  | —  |
| 10               | 6 | 5 | 5 | 4 | — | — | — | — | —  | —  | —  |
| 12               | 6 | 5 | 5 | 5 | 4 | — | — | — | —  | —  | —  |
| 14               | 6 | 5 | 5 | 5 | 5 | 4 | — | — | —  | —  | —  |
| 16               | 6 | 5 | 5 | 5 | 5 | 5 | 4 | — | —  | —  | —  |
| 18               | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | —  | —  | —  |
| 20               | 7 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 4  | —  | —  |
| 22               | 7 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5  | 4  | —  |
| 24               | 7 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5  | 5  | 4  |

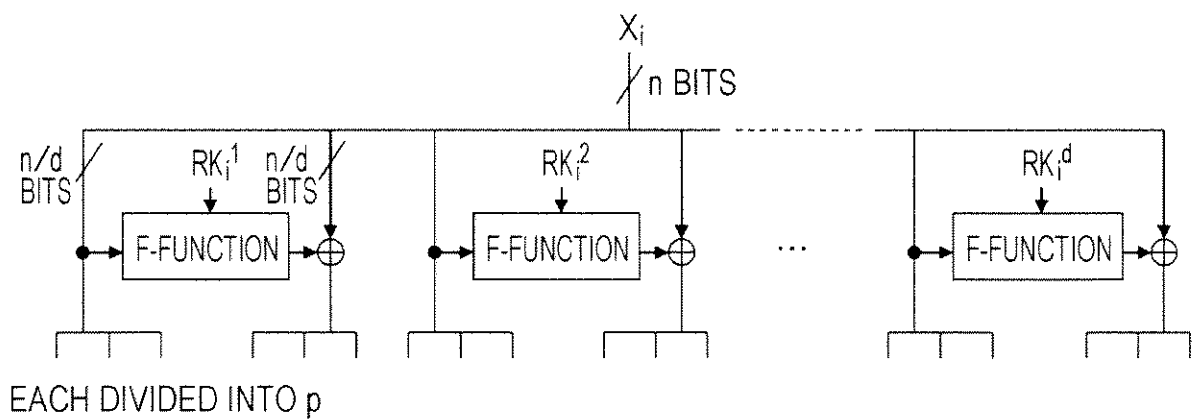


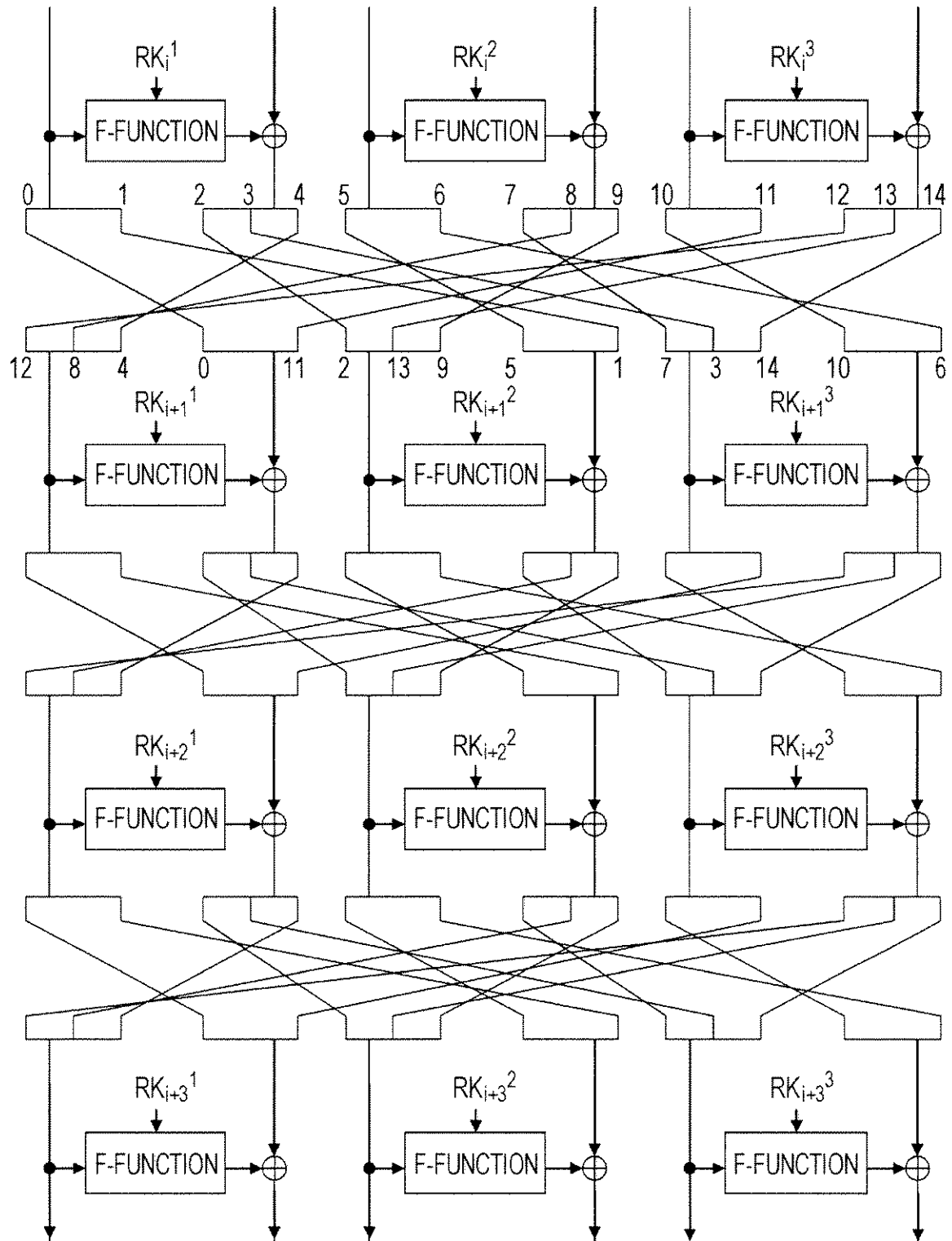
*FIG. 27* $X_i$ 

FIG. 28

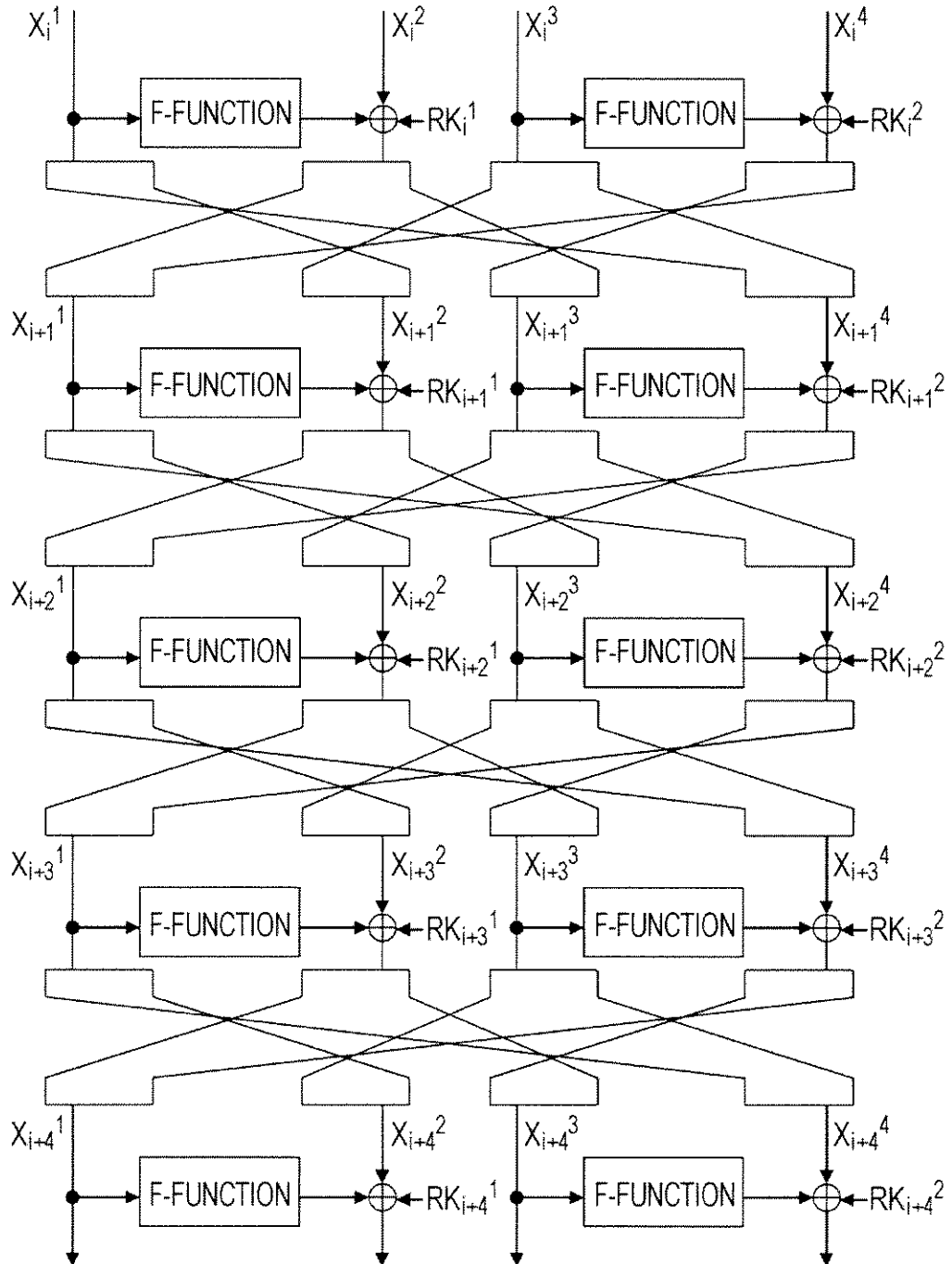
 $X_i$ 

FIG. 29

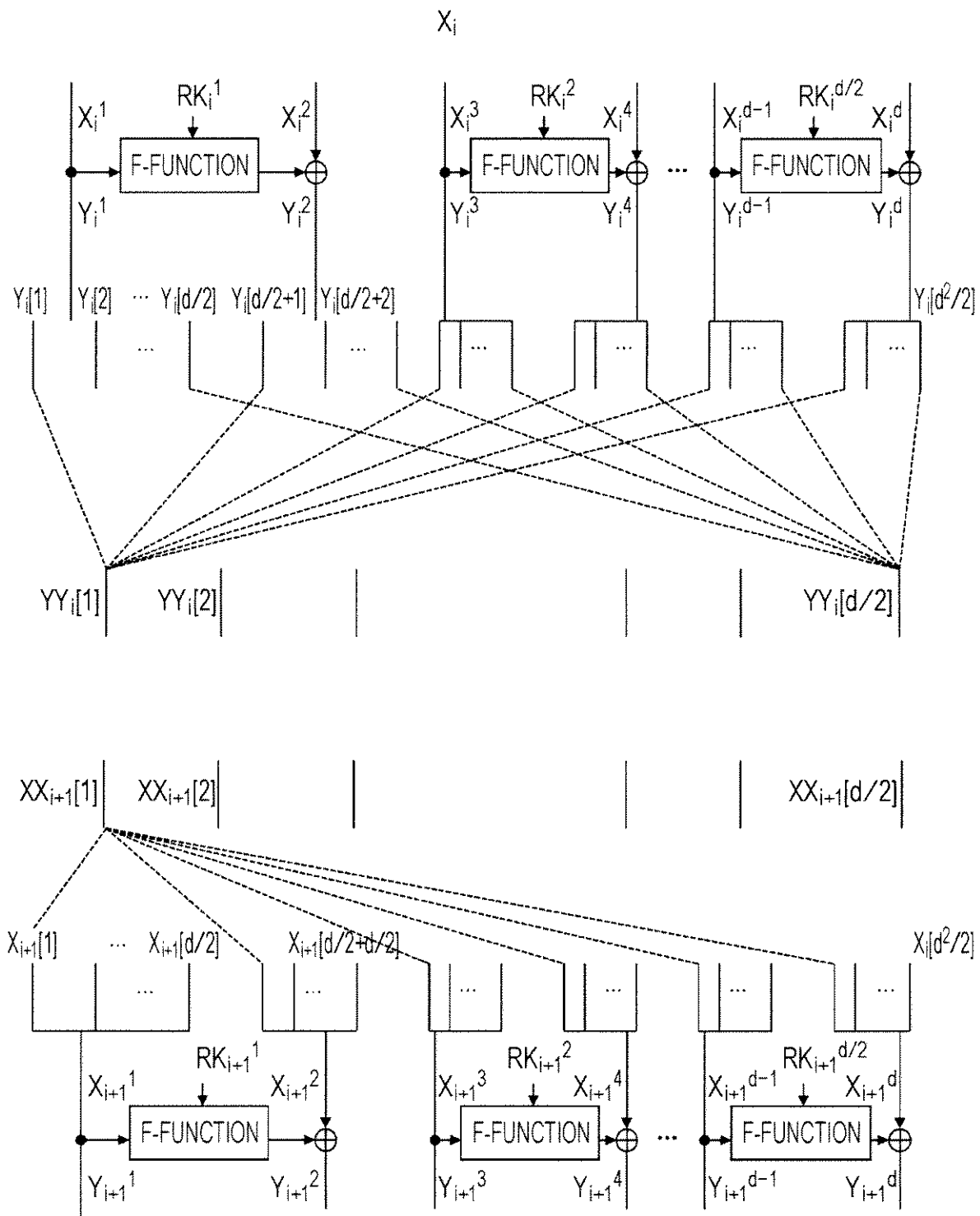


FIG. 30

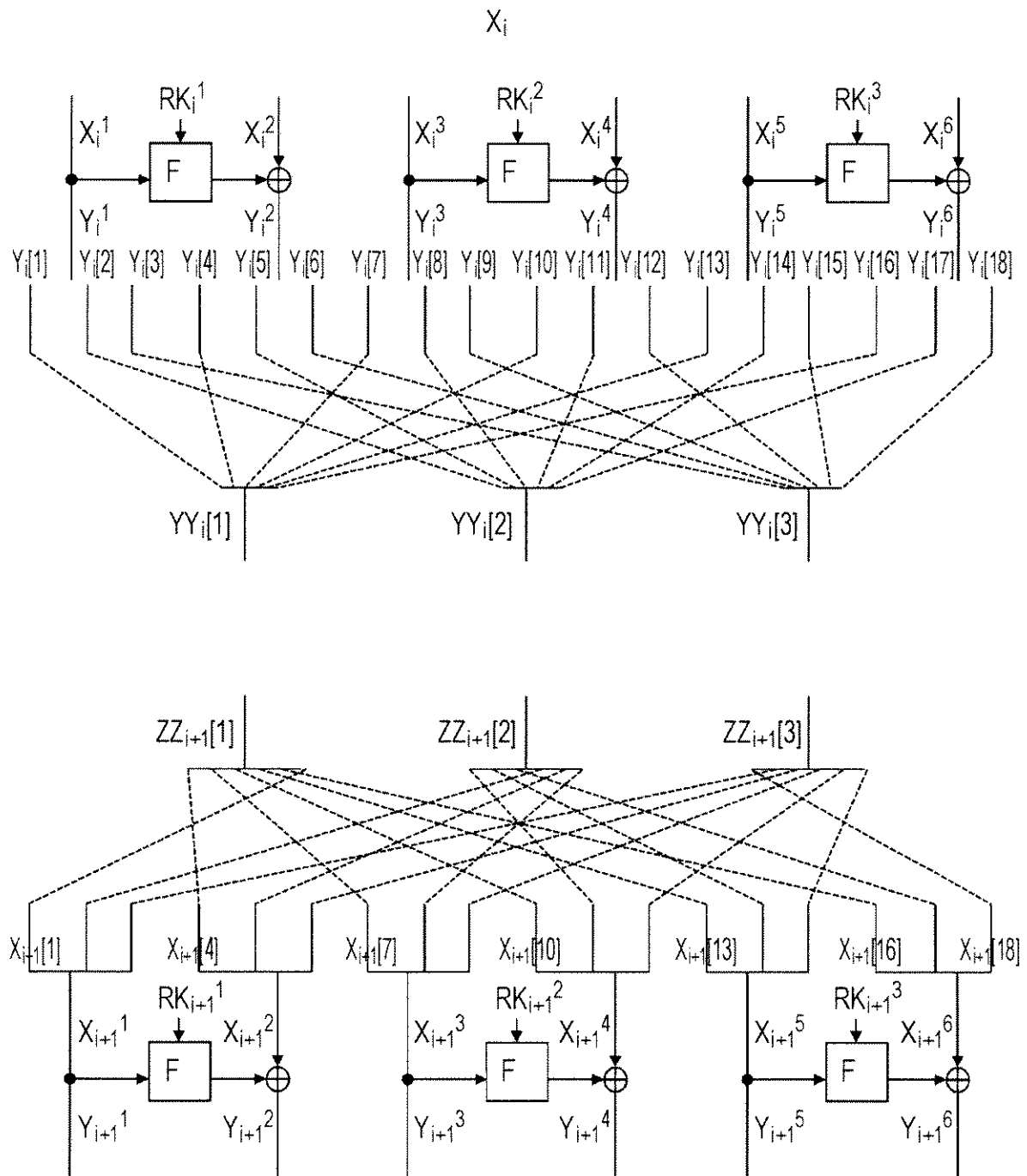


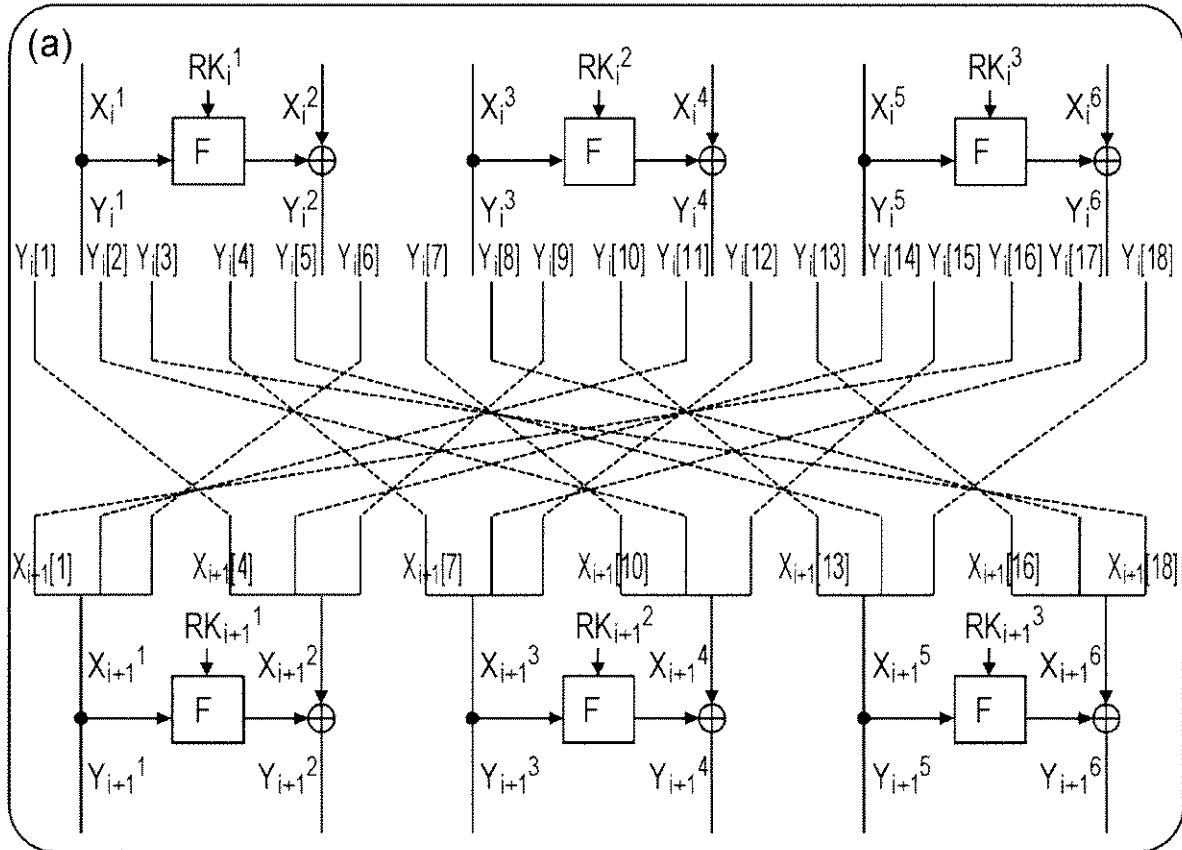
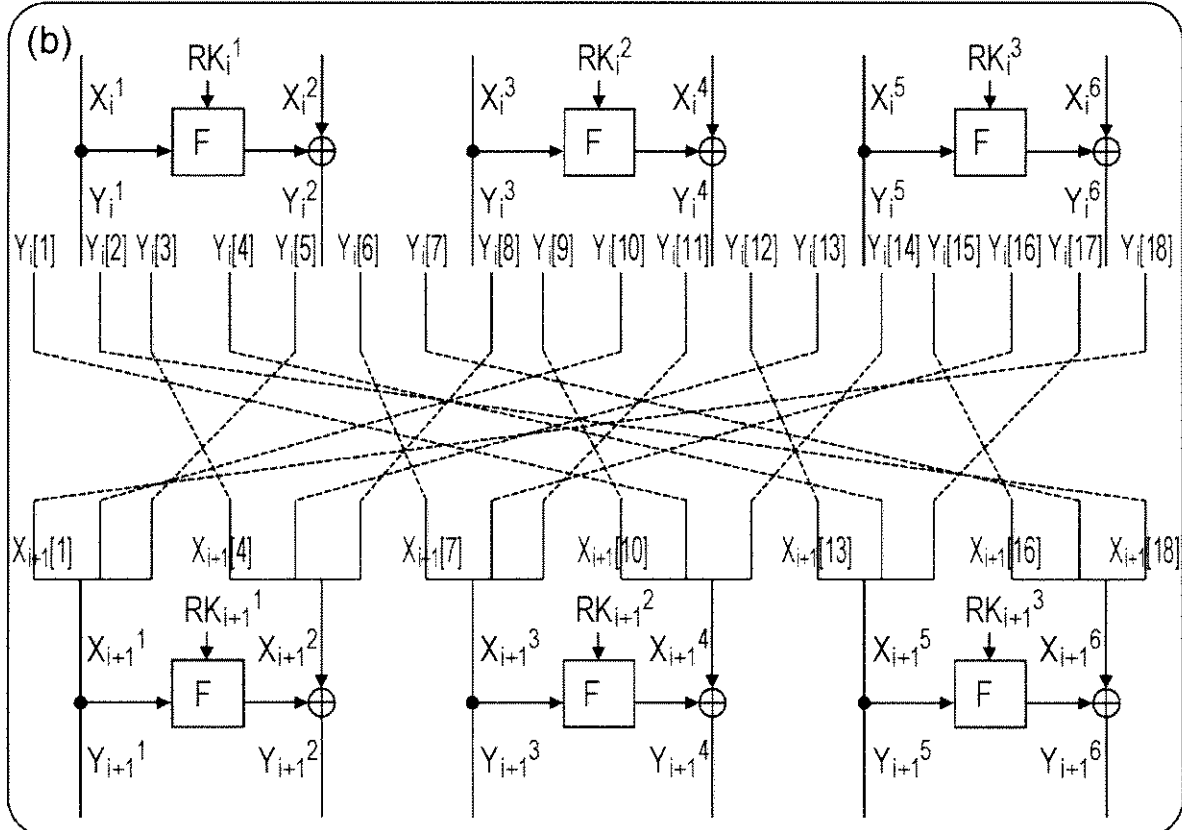
**FIG. 31**

FIG. 32

## Feistel STRUCTURE (ENCRYPTION FUNCTION)

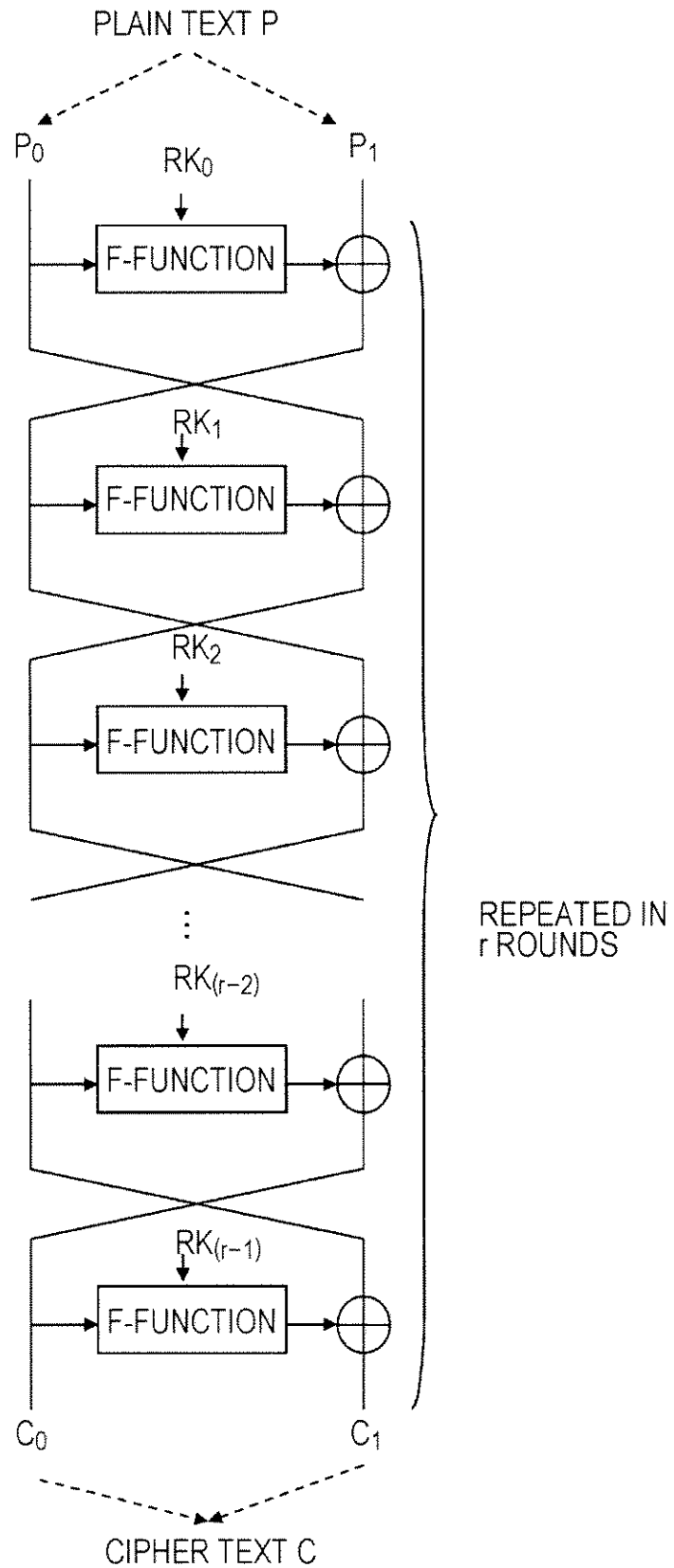


FIG. 33

## Feistel STRUCTURE (DECRYPTION FUNCTION)

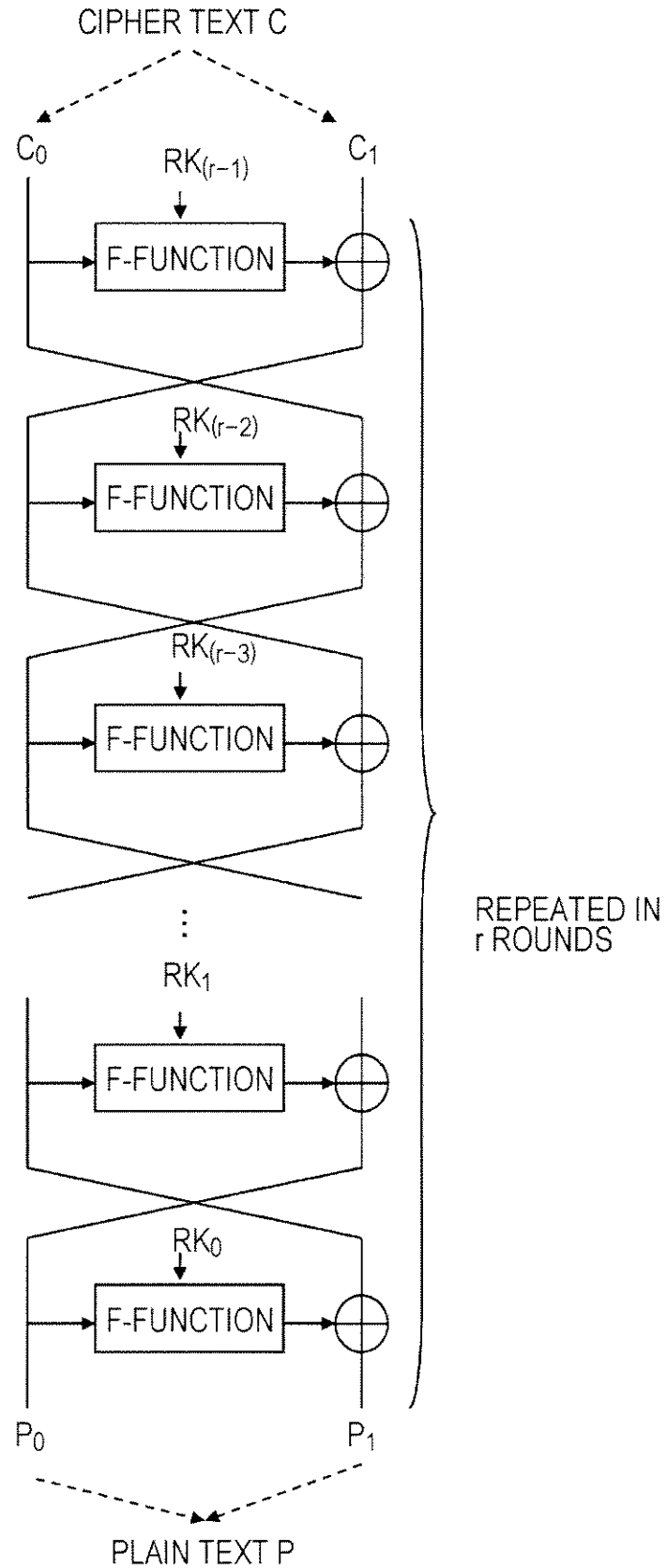


FIG. 34

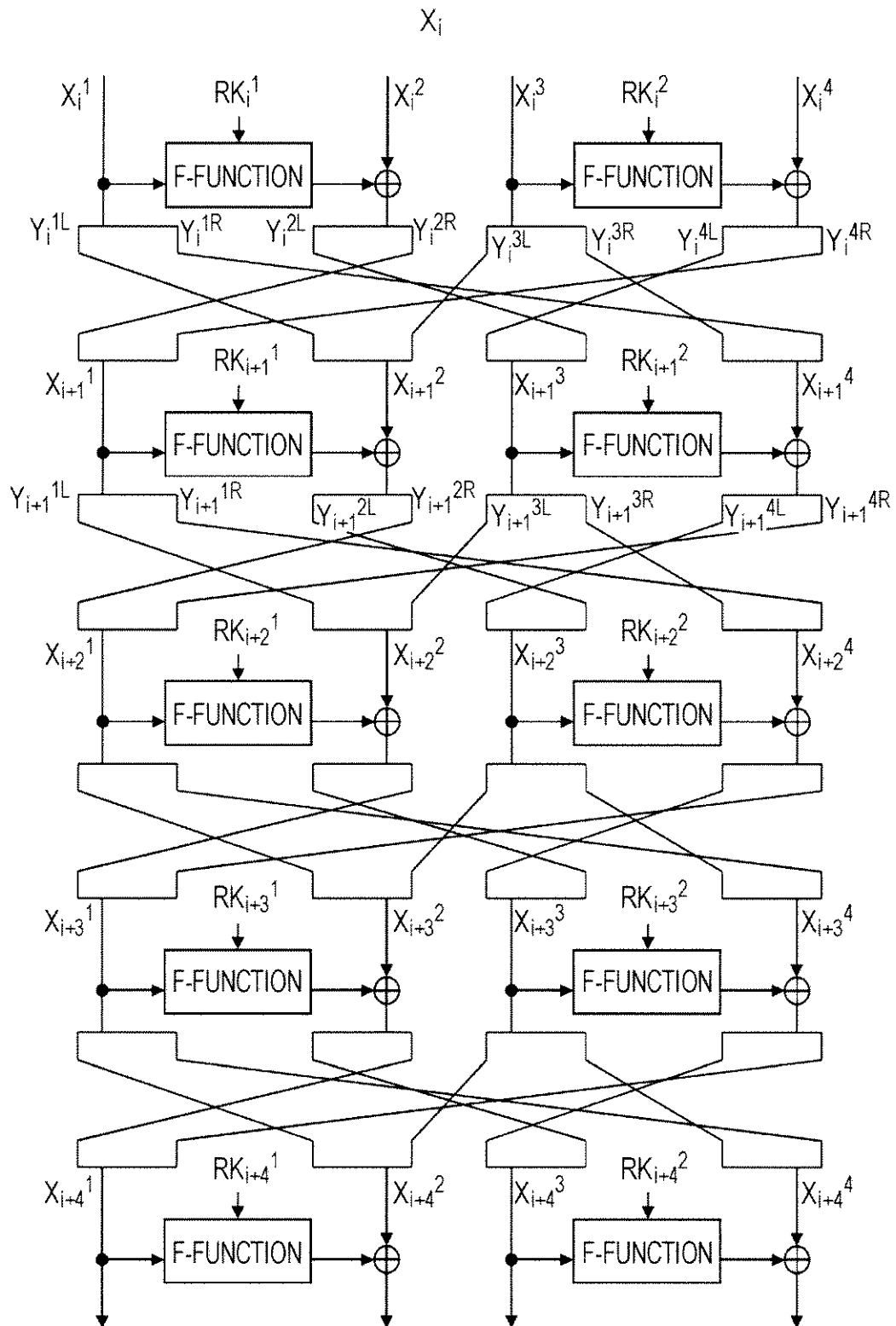


FIG. 35

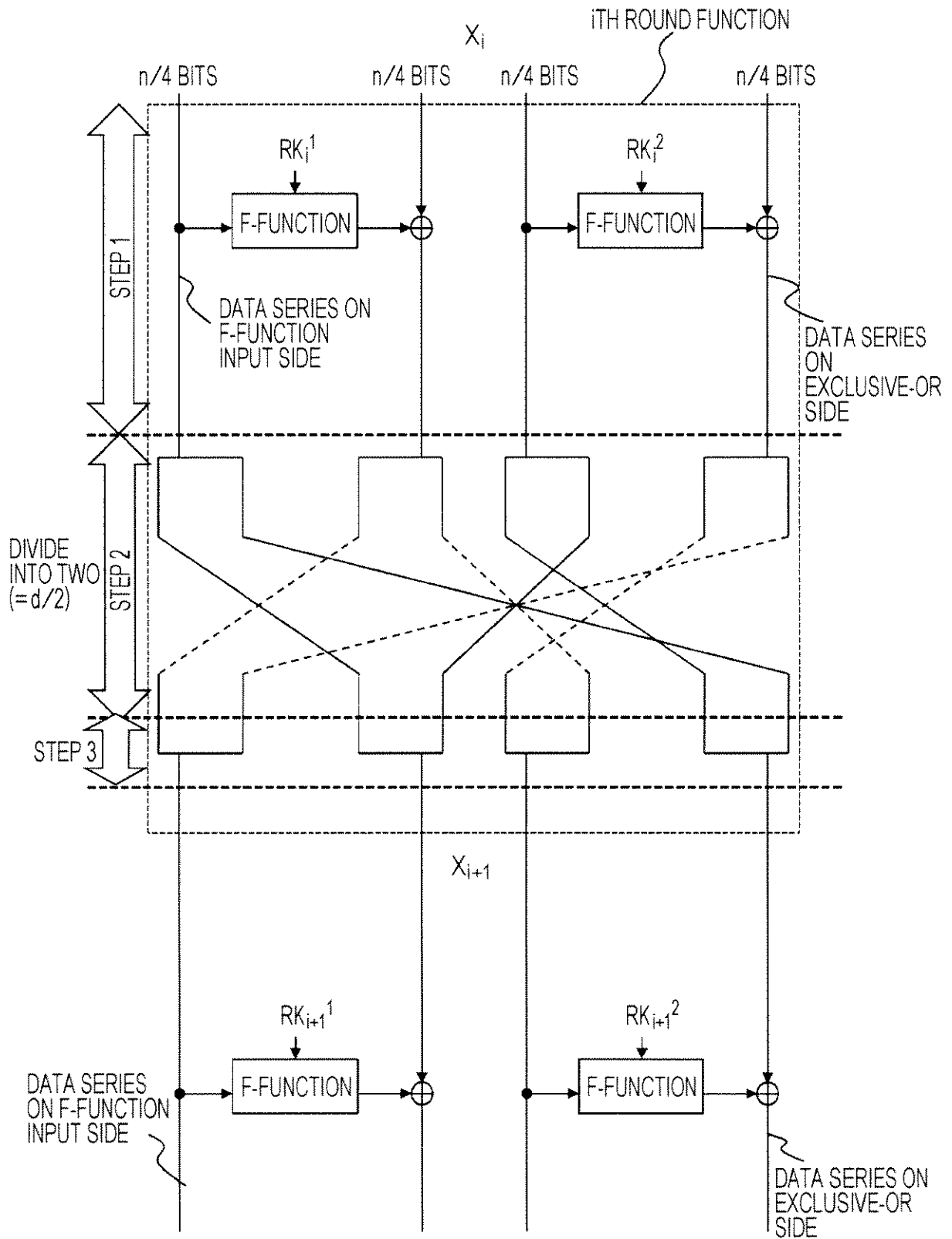


FIG. 36

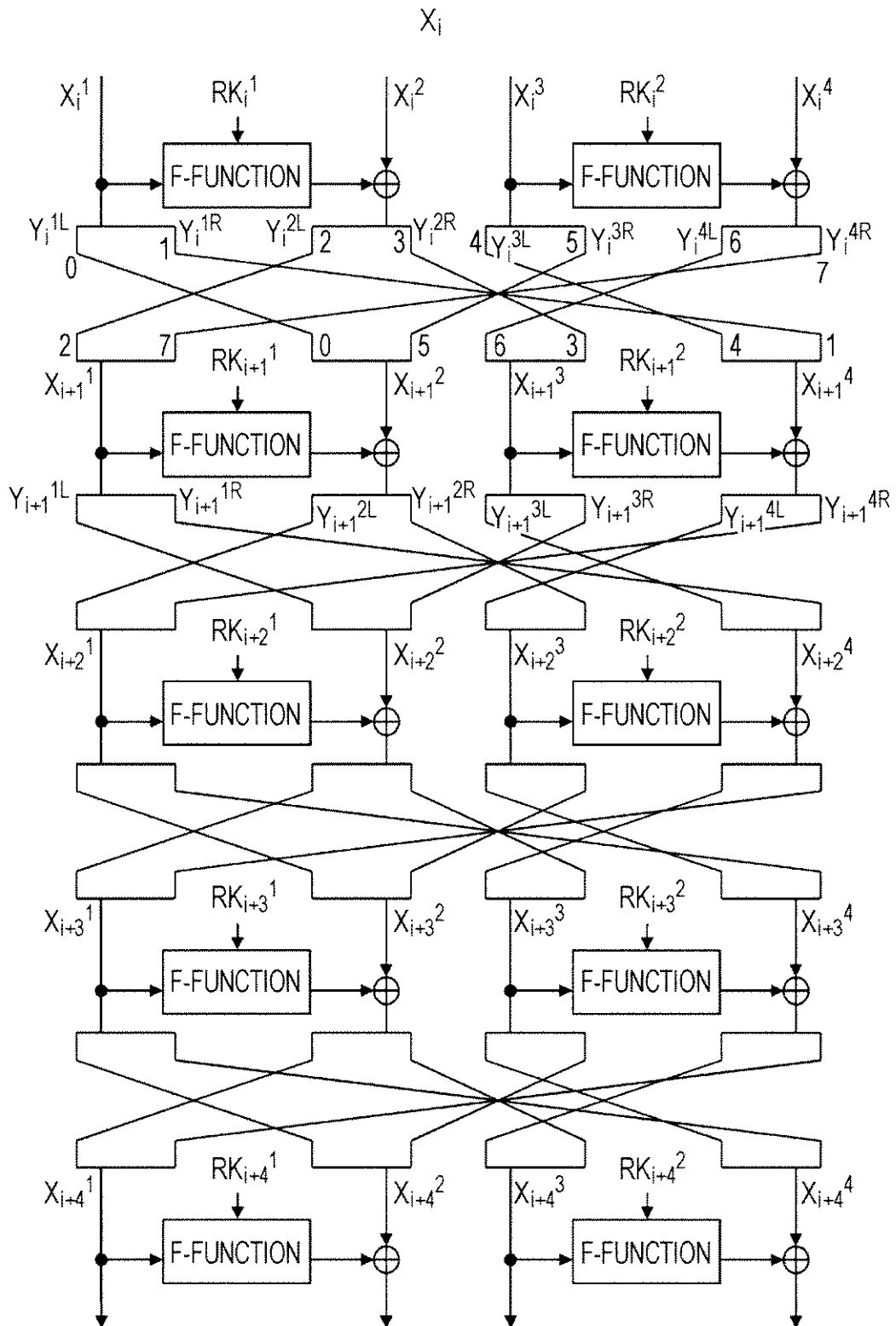


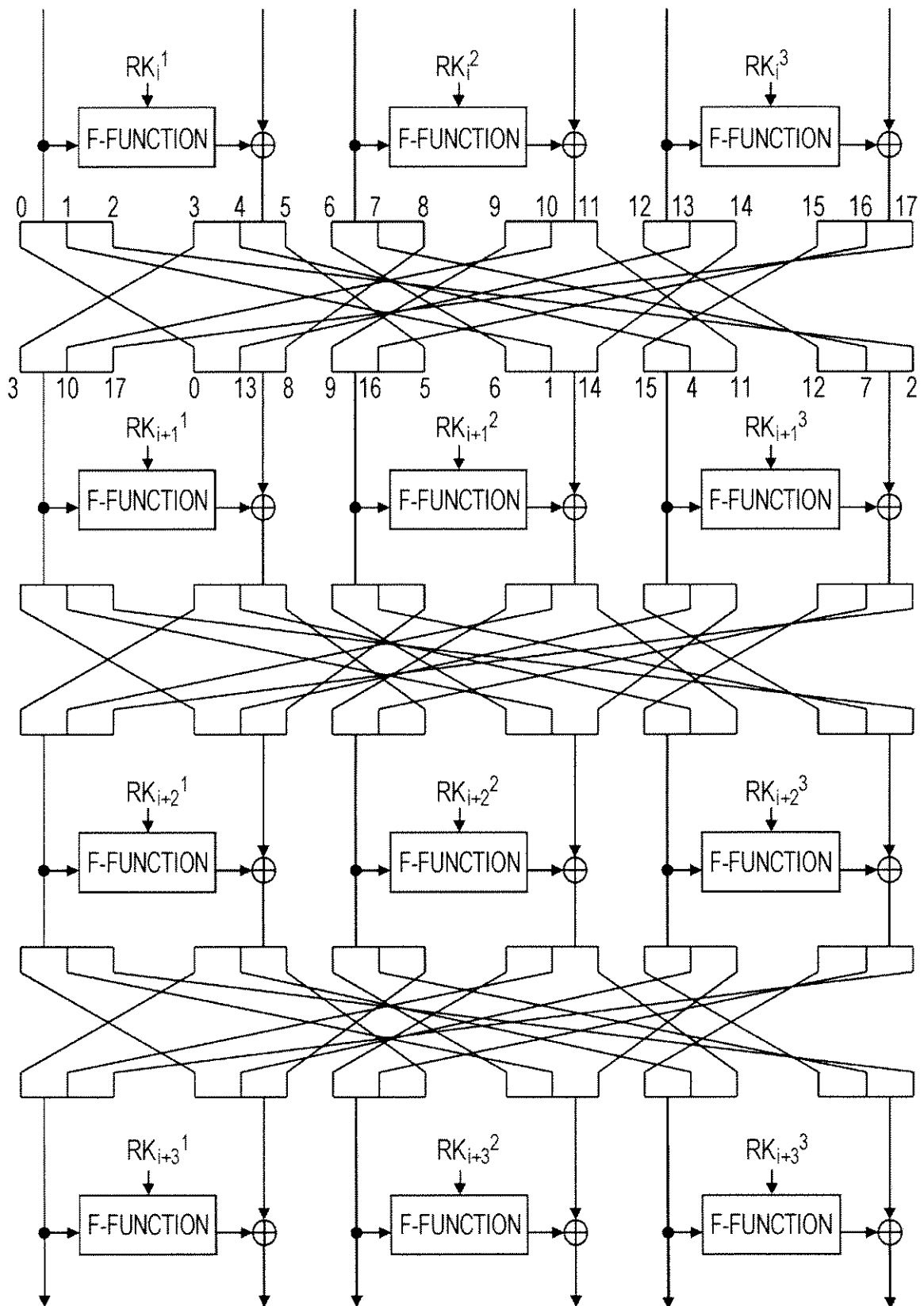
**FIG. 37** $X_i$ 

FIG. 38

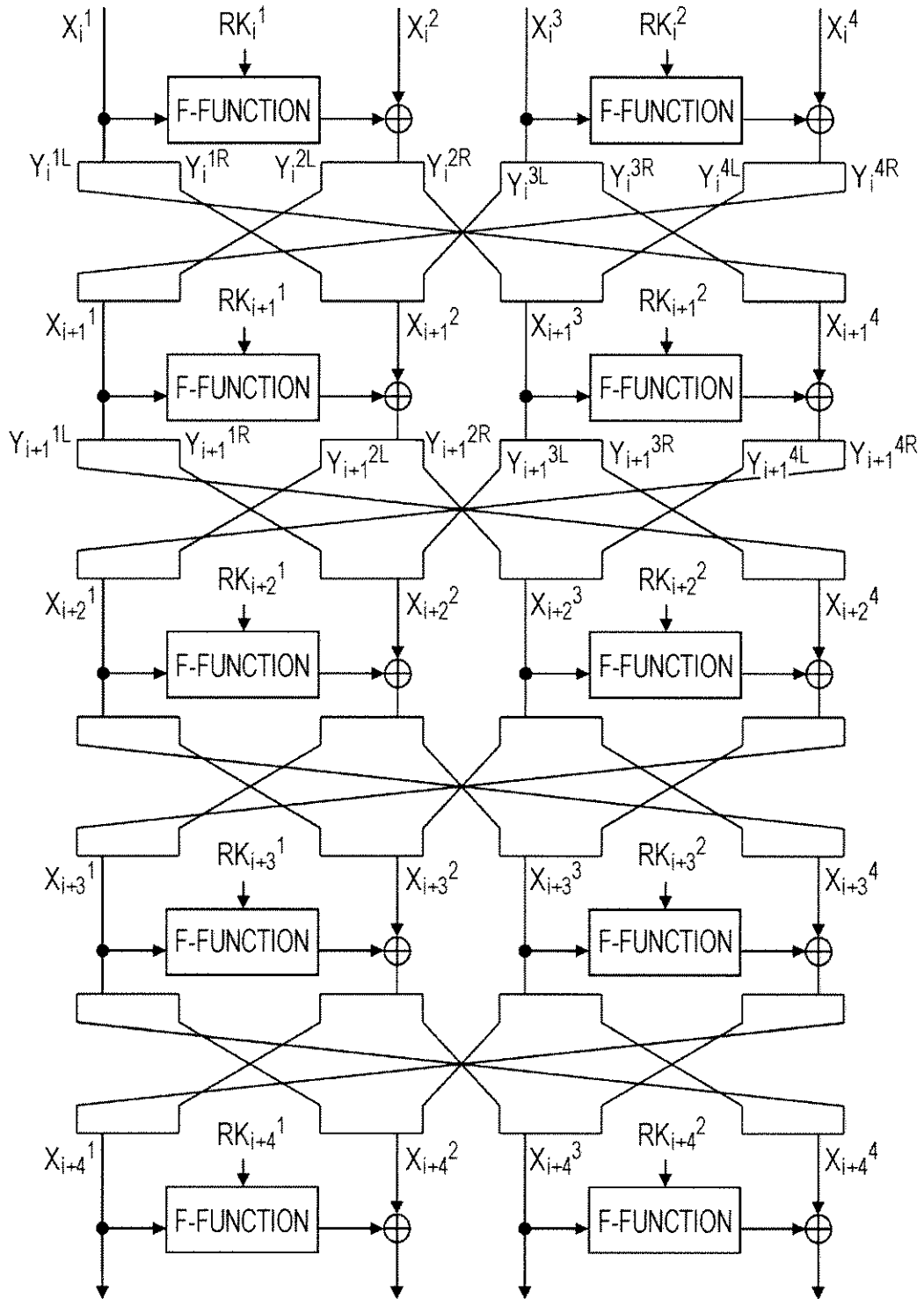
 $X_i$ 

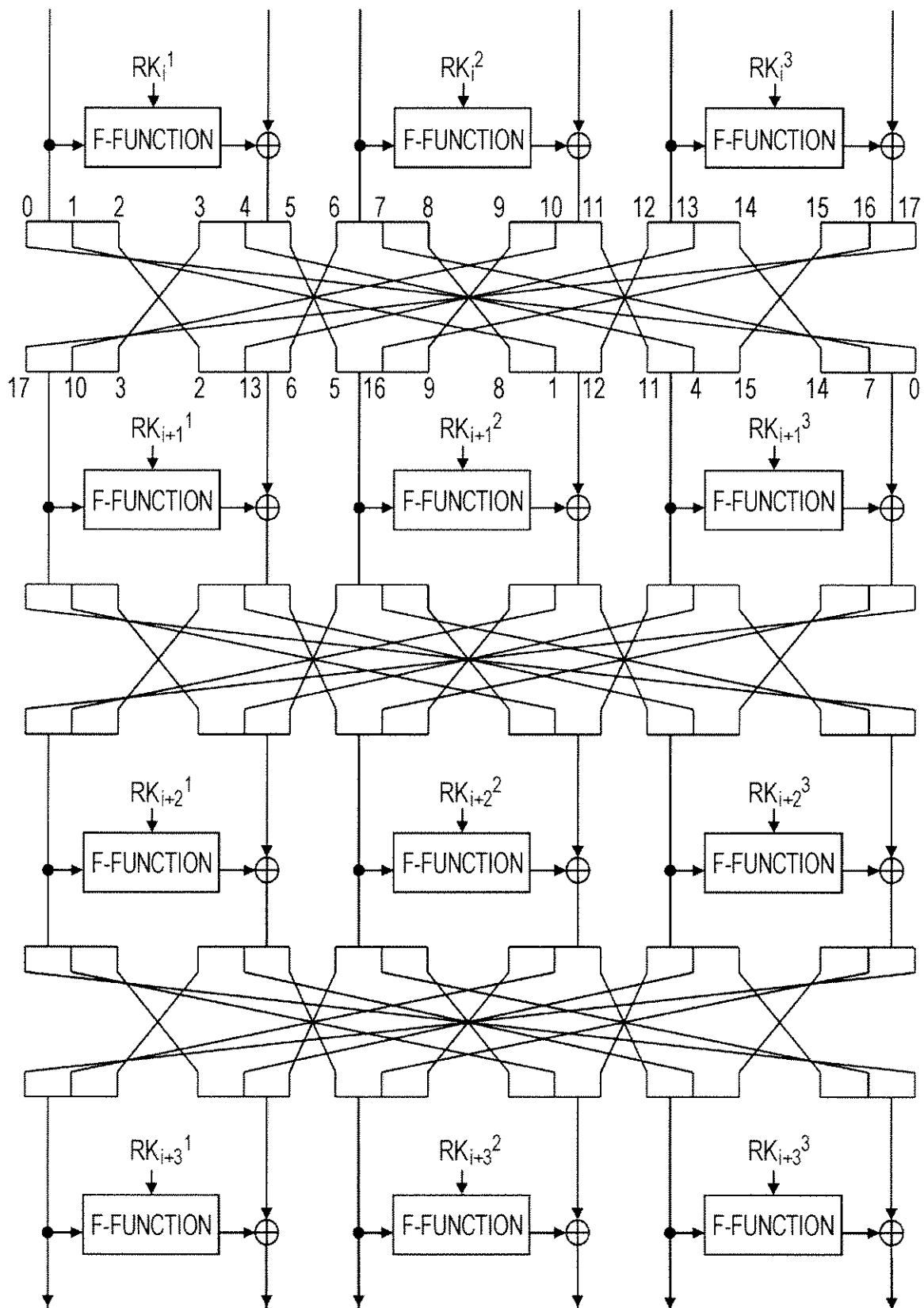
**FIG. 39** $X_i$ 

FIG. 40

