DataPath Truth Table

| Step | Operation | In R1 | In R2 | R1mul | R1en | R2mul |
|------|--------------------|---------------|-----------|-------|------|-------|
| 0 | R1 = X^2 | X^2 | ? | 1 | 1 | x |
| 1 | R1 = AX^2 | AX^2 | ? | 1 | 1 | x |
| 2 | R2 = X | AX^2 | X | x | 0 | 0 |
| 3 | R2 = BX | AX^2 | BX | x | 0 | 1 |
| 4 | $R2 = AX^2 + BX$ | AX^2 | AX^2 + BX | x | 0 | 0 |
| 5 | R1 = AX^2 + BX + C | AX^2 + BX + C | AX^2 + BX | 0 | 1 | х |
| 6 | Hold | AX^2 + BX + C | AX^2 + BX | x | 0 | х |

| R2en | InSel | ASel | BSel | Done | NextStep |
|------|-------|------|------|------|----------|
| 0 | 0 0 | 11 | 11 | 0 | 1 |
| 0 | 0 1 | 11 | 0 1 | 0 | 2 |
| 1 | 0 0 | 11 | 0 0 | 0 | 3 |
| 1 | 10 | 11 | 1 0 | 0 | 4 |
| 1 | хх | 0 1 | 1 0 | 0 | 5 |
| 0 | 11 | 11 | 1 0 | 0 | 6 |
| | | | | | |
| 0 | хх | хх | xx | 1 | 6 |