№2

Умножение операндов в Ф2, с использованием метода ускоренного умножение мантисс на 4 разряда множителя.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

A = (110,1)2= (0,1101)2 \* 23  Ф2

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |

B= (0,0000 1010 0011 1101)2= (0,1010 0011 1101)2 \* 2-4  Ф2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **N шага** | **Операнды** | **СЧП (старшие разряды)** | **В/ СЧП (младшие разряды)** | **Признак**  **коррекции** |  |  |  |
| **0** | СЧП  -4А  СЧП  А | **0 0000 0000 0000 0000**  **1 1100 1010 0000 0000**  **1 1100 1010 0000 0000**  **0 0000 1101 1000 0000** | **|1010 0011 1101** | **0** |  |  |  |
| **1** | СЧП  СЧП →4  4А  СЧП  -А  СЧП  А | **1 1101 0111 1000 0000**  **1 1111 1101 0111 1000**  **0 0011 0110 0000 0000**  **0 0011 0011 0111 1000**  **1 1111 0010 1000 0000**  **0 0010 0101 1111 1000**  **0 0000 1101 1000 0000** | **0000 |1010 0011** | **1** |  |  |  |
|  |  |  |
| **2** | СЧП  СЧП →4  8A  СЧП  2А  СЧП  СЧП →4 | **0 0011 0011 0111 1000**  **0 0000 0011 0011 0111**  **0 0110 1100 0000 0000**  **0 0110 1111 0011 0111**  **0 0001 1011 0000 0000**  **0 1000 1010 0011 0111**  **0 0000 1000 1010 0011** | **1000 0000 |1010**  **0111 1000 0000** | **0**  **0** |  |  |  |
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|  |  |  |

С\* = (0,1000 1010 0011)2 · 2-1 = (0, 0100 0101 00011)2 = 0,2698

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |

*СT* =6,5 \* 0,04 = 0,26

Δ*С* = *С*Т - *С*\* = 0,26 – 0,2698 = -0,0098

Относительная погрешность δ*С* = · 100% =. 100% = 3,75%

Вы вод