| 5 ED4 -07A4 -    | Unsigned 16-bit de                            | imal numbers -> Result in !  | ha<br>=   |
|------------------|---|--|---|
|                  |   |  |   |
| 5 ED4 : C        | 0101 1110 1101 0100                           |  |   |
| 07 Aq : C        | 0000 0111 1010 0100                           |  |   |
| 10 00 00         | 01 0111 0011 0000                             |  |   |
|                  |   |  |   |
| 185 G 122 →      | Unsigned 8-bit decin                          | nal integers   |   |
|                  |   |  |   |
| \ <b>8</b> 5 →   | 1011 1001                                     | There is neither underflo  | w わbr   |
| ( <del>-)</del>  | 0111 1010                                     | overflow. Result &   | in range (0-255)  |
|                  |   |  |   |
|                  |   |  |   |
| Product of bexad | decimal 8-bit integer                         | , 62 4 12 using hardwar  | æ   |
|                  |   |  |   |
| 062>             | 0000 0110 0010                                |  |   |
| (x) 012>         | 0000 0001 001                                 | <b>)</b>   |   |
| 664              | 0110 1110 0100                                |  |   |
|                  |   |  |   |
| TERATION STE     | P Moutil                                      | PLIER MOLTIPLICAND   | PRODUCT   |
| 0 Înitial va     | alues 0001 00                                 | 010 0000 0110 0010   | 0000 0000   |
|                  |   |  | 0000 0000   |
|                  |   |  |   |
|                  |   |  |   |
|                  | 5 ED4 : 0  07Aq : 0  5730 01  185 4 122   195 | 5 ED4: 0101 1110 1101 0100  07Aq: 0000 0111 1010 0100  5730 0101 0111 0011 0000  185 q 122 \rightarrow Unsigned 8-bit decim  193 \rightarrow 1011 1010  063 0011 1111  Product of bexadeximal 8-bit integers  062 \rightarrow 0000 0110 0010  (x) 012 \rightarrow 0000 0001 0010  6E4 0110 1110 0100 | 07Aq : 0000 011 1010 0100  5730 0101 0111 0011 0000  185 q 122 → Unsigned 8-bit decimal integers  183 → 1011 1001 There is neither underfix  (-) 122 → 0111 1010 overflow. Result b  063 0011 1111  Product of becardennal 8-bit integers 62 q 12 using hardwar  062 → 0000 0110 0010  (x) 012 → 0000 0001 0010  664 0110 1110 0100 |

| ]TERATION | STEP MULTIPLIER MULTIPLI                      | CAND PRODUCT                    |
|-----------|---|---------------------------------|
|           |   |                                 |
| l         | 1:0 => No operation 0001 0010 0000 0110       | 0000 0000 0000 0000             |
|           | 2: Shift left multipliand 0001 0010 0000 1100 | 0100 0000 0000 0000             |
|           | s: Shift right product 0000 1001 0000 1100    | 0100 0000 GDD DDDD              |
|           |   |                                 |
| 2         | 1a:1=> (Prod=Prod+Mand) 0000 1001 0000 110    | 0000 0000 0110 0010 0000        |
|           | 2: Shift left multiplicand 0000 10001 0001 10 | 0000 0000 0110 0100 0000        |
|           | 3. Shift right Product 0000 0100 0001 10      | 000 1000 0011 000 0001 0000     |
|           |   |                                 |
| 3         | 1: 0 = No operation 0000 0100 0001            | 1000 1000 0000 0000             |
|           | 2: Shift left multiplicand 0000 0100 0011     | 0000 0000   1000 1100 0000 1000 |
|           | 3: Shift night Product 2000 0010 0011         | ०००। ०००। १००० ।००० ००००        |
|           |   |                                 |
| 4         | 1:0 => No operation 0000 0010 0011            | 0001 0000 0001 1000 1000        |
|           | 2: Shift left multiplicand 0000 0001 0110     | 0010 0000 0000 1000 0000        |
|           | 3: Shift night product 0000 0001 0110         | 0010 0000 0000 1100 0000        |
|           |   |                                 |
| y         | 1a + 1 => Prod = Prod + Mcand 0000 0001 011   | 0 0010 0000 0110 0110 0000      |
|           | 2: Shift left Multiplicand 0000 0001 1100     | 0100 0000 0160 1110 0100 0000   |
|           | 3'. Shift night Product 0000 0000 (10         | 0000 0100 1100 0000 0010 00     |
|           |   |                                 |
|           |   |                                 |