

The following opcodes are used for **multiplicaction**:

- MULI — Multiply Signed Integer
- MULU — Multiply Unsigned Integer
- MULF — Multiply Floating Point

MULI — *Multiply Signed Integer* {#MULI}

```
L2 = L2 * <signed_imm>
L2 = L2 * <reg_val>
L2 = L2 * <const>
```

=== "MULI Example"

```
```linenums="1" hl_lines="1 3 5 7"
; imm +ve
 MULI 1
; imm -ve
 MULI -123
; reg val
 MULI val(QT)
; const
 MULI SOME_CONST_VAL

```
```

=== "MULI Properties"

| Opcode | Operand Type | Destination |
|--------|-----------------------|---------------|
| ----- | ----- | ----- |
| 15 | Signed 64-bit integer | L2 (implicit) |

Identified as mnemonic #MULI, MULI is used to multiply the L2 register with a 64-bit integer.

MULU — *Multiply Unsigned Integer* {#MULU}

```
L3 = L3 * <unsigned_imm>
L3 = L3 * <reg_val>
L3 = L3 * <const>
```

=== "MULU Example"

```
```linenums="1" hl_lines="1 3 5"
; imm +ve
 MULU 1
; reg val
 MULU val(QT)
; const
 MULU SOME_CONST_VAL
...
```
```

=== "MULU Properties"

| Opcode | Operand Type | Destination |
|--------|-----------------------|---------------|
| ----- | ----- | ----- |
| 20 | Unsigned 64-bit value | L3 (implicit) |

Identified as mnemonic #MULU, MULU is used to multiply the L3 register with a 64-bit unsigned value

MULF — *Multiply Float value* {#MULF}

```
L1 = L1 * <float>
L1 = L1 * <reg_val>
L1 = L1 * <const>
```

=== "MULF Example"

```
```linenums="1" hl_lines="1 3 5"
; imm float
 MULF 3.14
; reg val
 MULF val(QT)
; const
 MULF SOME_CONST_VAL
...
```
```

=== "MULF Properties"

| Opcode | Operand Type | Destination |
|--------|--------------------|---------------|
| ----- | ----- | ----- |
| 25 | 64-bit Float Value | L1 (implicit) |

Identified as mnemonic #MULF, MULF is used to multiply the L1 register with a 64-bit float value
