

# FIR Synthesis report

## 1. Detailed RTL Component Information:

根據作業要求，此次 FIR 運算過程，只使用 1 個 32bis 乘法器和 1 個 32bits 加法器。

### Detailed RTL Component Info :

#### +---Adders :

2 Input	32 Bit	Adders := 2
2 Input	12 Bit	Adders := 2
2 Input	4 Bit	Adders := 2

FIR 運算加法器只使用 1 個

#### +---Registers :

12 Bit	Registers := 1
4 Bit	Registers := 1

#### +---Multipliers :

32x32	Multipliers := 1
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#### +---Muxes :

2 Input	32 Bit	Muxes := 3
12 Input	32 Bit	Muxes := 4
2 Input	12 Bit	Muxes := 3
2 Input	4 Bit	Muxes := 2
12 Input	4 Bit	Muxes := 2
2 Input	3 Bit	Muxes := 3
12 Input	3 Bit	Muxes := 2
2 Input	2 Bit	Muxes := 2
2 Input	1 Bit	Muxes := 4
12 Input	1 Bit	Muxes := 24
3 Input	1 Bit	Muxes := 1

## 2. Cell Usage:

### Report Cell Usage:

	Cell	Count
1	BUFG	9
2	CARRY4	29
3	DSP48E1	3
4	LUT1	5
5	LUT2	44
6	LUT3	74
7	LUT4	47
8	LUT5	63
9	LUT6	76
10	FDCE	15
11	LD	240
12	LDC	64
13	LDP	1
14	IBUF	161
15	OBUF	169