**IMMEDIATE ADDRESSING**

**MODE :**

**WITHOUT CARRY:**

Lacc #1234h

add #5678h

Bcnd loop,c

Sacl 00

Lacc #0000

Sacl 01

B Loop1

Sacl 02

Lacc #0001

Sacl 03

B Loop1

**IMMEDIATE ADDRESSING MODE : WITH CARRY:**

ldp #100h

Lacc #0bcdeh

add #5234h

Bcnd loop,c

Sacl 00

Lacc #0000

Sacl 01

B Loop1

Sacl 02

Lacc #0001

Sacl 03

B Loop1

**DIRECT ADDRESSING MODE:**

ldp #100h

Lacc 00h

Add 01h

bcnd Loop,c

sacl 02

Lacc #00h

sacl 03h

b loop1

Sacl 02h

Lacc #01h

Sacl 03h

B loop1

# **INDIRECT ADDRESSING MODE:**

ldp #100h

lar ar0, #8000h

mar \*, ar0

lacc \*+

add\*+

Bcnd loop,c

sacl\*+

Lacc #00h

sacl\*

B loop 1

sacl\*+

Lacc #01h

sacl\*

B loop1

**IMMEDIATE ADDRESSING MODE : WITHOUT BORROW:**

ldp #100h

Lacc #0FFFFh

Sub #0FFFEh

Bcnd loop,nc

Sacl 02

Lacc #0000

Sacl 03

B Loop1

Sacl 02

Lacc #0001

Sacl 03

B Loop1

# **IMMEDIATE ADDRESSING MODE : WITH BORROW:**

ldp #100h

Lacc #0FFFEh

Sub #0FFFFh

Bcnd loop,nc

Sacl 00

Lacc #0000

Sacl 01

B Loop1

Sacl 02

Lacc #0001

Sacl 03

B Loop1

**DIRECT ADDRESSING MODE:**

ldp #100h

Lacc 00h

sub 01h

bcnd Loop,nc

sacl 02

Lacc #00h

sacl 03h

b loop1

Sacl 02h

Lacc #01h

Sacl 03h

B loop1

# **INDIRECT ADDRESSING MODE:**

ldp #100h

lar ar0, #8000h

mar \*, ar0

lacc \*+

sub\*+

Bcnd loop,nc

sacl\*+

Lacc #00h

sacl\*

B loop1

sacl\*+

Lacc #01h

sacl\*

B loop1

MULTIPLICATION :

ldp #100h

Lt 00

Mpyu 01

pac

Sacl 02

Sach 03

b loop

LINEAR CONVOLUTION:

ldp #100h

lar ar0, #8000h

lar ar1, #8100h

lar ar2,#8200h

lar ar3, #06h

mar \*, ar0

lacc #0c100h

rpt #04h

Tblw\*+

lar ar1, #8103h

mar \*, ar1

zap

rpt #04h

mac 0c100h,\*-

mar \*, ar2

sacl\*+,ar1

adrk #06h

mar \*, ar3

banz Loop,ar1

b loop

EXCHANGE OF BLOCK OF DATA:  
ldp #100h

lar ar0, #8000h

lar ar1, #9000h

lar ar2, #05h

mar \*, ar1

lacc\*,ar0

exar

lacc\*,ar1

sacl\*+,ar0

lacb

sacl\*+,ar2

banz loop1,ar1

b loop

WAVEFORM GENERATION:

SQUARE :

ldp #100h

Lacc #0000h

Sacl 00

Rpt #0fffh

Out 00,04

cmpl

b loop

SAWTOOTH:

ldp #100h

Lacc #0000h

Sacl 00

Lacc 00

Out 00,04

Add #05

Sacl 00

Sub #0ffffh

Bcnd loop,leq

B loop1

TRIANGULAR:

ldp #100h

Lacc #0000h

Sacl 01

Lacc 01

Out 01,04

Add #05

Sacl 01

Sub #0ffffh

Bcnd loop,leq

Lacc #0ffffh

Sub #05

Sacl 00

Out 00,04

Bcnd loop1,gt

B start loop1