

# **Aculab DSP65 Firmware Module**

## **16 Channel A-law / mu-law channel converter**



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### Revision Record

Rev	Detail	Date
1	First issue of simultaneous A to u law and u to A law conversion on a single DSP device.	19-Sept-1996
1.1	Update to new format	28/03/01

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# 1 Introduction

The DSP firmware module enables the user to convert channel information from A-law to mu-law and vice-versa on a single DSP device. Its intention is to provide a compact solution for bi-directional data conversion, at unity gain, for 16 duplex channels.

## 2 Functionality

The DSP firmware module converts channel information from A-law to mu-law and vice-versa. It provides a maximum of 16 channels of bi-directional data conversion on a single DSP device. Timeslots 0-15 are used for A-law to u-law conversion, while timeslot 16-31 are used for u-law to A-law conversion.

input timeslots: 0-15 =====> output timeslots: 0-15  
A-law mu-law

input timeslots: 16-31 =====> output timeslots: 16-31  
mu-law A-law

## 3 External interfaces

### 3.1 User Interface

The procedure for download utilises the program, `fwdspldr.exe`. It's used in the following manner:

```
Fwdspldr -t65 <dsp_pos> <dsp_firmware.b65> <port_no> <pm4_filename>
```

*dsp\_pos* = dsps or dspb

*dsp\_firmware* = any firmware title with the extension .b65.

For 16-channel bi-directional A-law / mu-law conversion: `swap16.b65`

*port\_no* = 0, 1, 2.....n. As many ports as supported with DSP65s

*pm4\_filename* = any pm4 filename with ZAP loader

**Note** Refer to the DSP firmware guide for information on Card types, DSP's and their associated streams

### 3.2 Program types Available

There is one type of program available:

`swap16.b65`

for 16-channel bi-directional A-law / mu-law conversion

## 4 Configuration

Timeslot	Input	Output
0	A-law	mu-law
1	A-law	mu-law
2	A-law	mu-law
3	A-law	mu-law
4	A-law	mu-law
5	A-law	mu-law
6	A-law	mu-law
7	A-law	mu-law
8	A-law	mu-law
9	A-law	mu-law
10	A-law	mu-law
11	A-law	mu-law
12	A-law	mu-law
13	A-law	mu-law
14	A-law	mu-law
15	A-law	mu-law
16	mu-law	A-law
17	mu-law	A-law
18	mu-law	A-law
19	mu-law	A-law
20	mu-law	A-law
21	mu-law	A-law
22	mu-law	A-law
23	mu-law	A-law
24	mu-law	A-law
25	mu-law	A-law
26	mu-law	A-law
27	mu-law	A-law
28	mu-law	A-law
29	mu-law	A-law
30	mu-law	A-law
31	mu-law	A-law