

Aculab DSP65 firmware module

JATE compliance

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1 Introduction

The DSP firmware module limits any incoming signal to a value of -15 dBm0. This is applicable to all 32 channels for compliance to the Japanese ATE approval.

2 Functionality

The DSP firmware module enables the user to meet the Japanese Approval institute for Telecommunications Equipment (JATE) specification by utilising this firmware as an interface on primary rate cards. It limits any incoming signal to a value of -15 dBm0. This is applicable to all 32 channels and available in mu-law form only.

2.1 The JATE Algorithm Structure

Before the output stream is presented to the Japanese Network, it passes through a DSP loaded with the JATE firmware. This enables any data signal with a dB level below -15 dBm0 to be transmitted unaltered, while limiting any other signals above this threshold to -15 dBm0. The timeslots are mapped as follows:

```
input timeslots: 0-31 =====> output timeslots: 0-31
(mu-law)                (mu-law limited to -15dBm0)
```

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 = dspa or dspb

dsp_firmware = any firmware title with the extension .b65.

For A-law / mu-law conversion with gain control: jate.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, DSPs and their associated streams

3.2 Program types Available

There is one type of program available:

jate.b65

for JATE compliance.

4 Configuration

Timeslot	Input	Output
0	mu-law in	mu-law out limited to -15 dBm0
1	mu-law in	mu-law out limited to -15 dBm0
2	mu-law in	mu-law out limited to -15 dBm0
3	mu-law in	mu-law out limited to -15 dBm0
4	mu-law in	mu-law out limited to -15 dBm0
5	mu-law in	mu-law out limited to -15 dBm0
6	mu-law in	mu-law out limited to -15 dBm0
7	mu-law in	mu-law out limited to -15 dBm0
8	mu-law in	mu-law out limited to -15 dBm0
9	mu-law in	mu-law out limited to -15 dBm0
10	mu-law in	mu-law out limited to -15 dBm0
11	mu-law in	mu-law out limited to -15 dBm0
12	mu-law in	mu-law out limited to -15 dBm0
13	mu-law in	mu-law out limited to -15 dBm0
14	mu-law in	mu-law out limited to -15 dBm0
15	mu-law in	mu-law out limited to -15 dBm0
16	mu-law in	mu-law out limited to -15 dBm0
17	mu-law in	mu-law out limited to -15 dBm0
18	mu-law in	mu-law out limited to -15 dBm0
19	mu-law in	mu-law out limited to -15 dBm0
20	mu-law in	mu-law out limited to -15 dBm0
21	mu-law in	mu-law out limited to -15 dBm0
22	mu-law in	mu-law out limited to -15 dBm0
23	mu-law in	mu-law out limited to -15 dBm0
24	mu-law in	mu-law out limited to -15 dBm0
25	mu-law in	mu-law out limited to -15 dBm0
26	mu-law in	mu-law out limited to -15 dBm0
27	mu-law in	mu-law out limited to -15 dBm0
28	mu-law in	mu-law out limited to -15 dBm0
29	mu-law in	mu-law out limited to -15 dBm0
30	mu-law in	mu-law out limited to -15 dBm0
31	mu-law in	mu-law out limited to -15 dBm0