

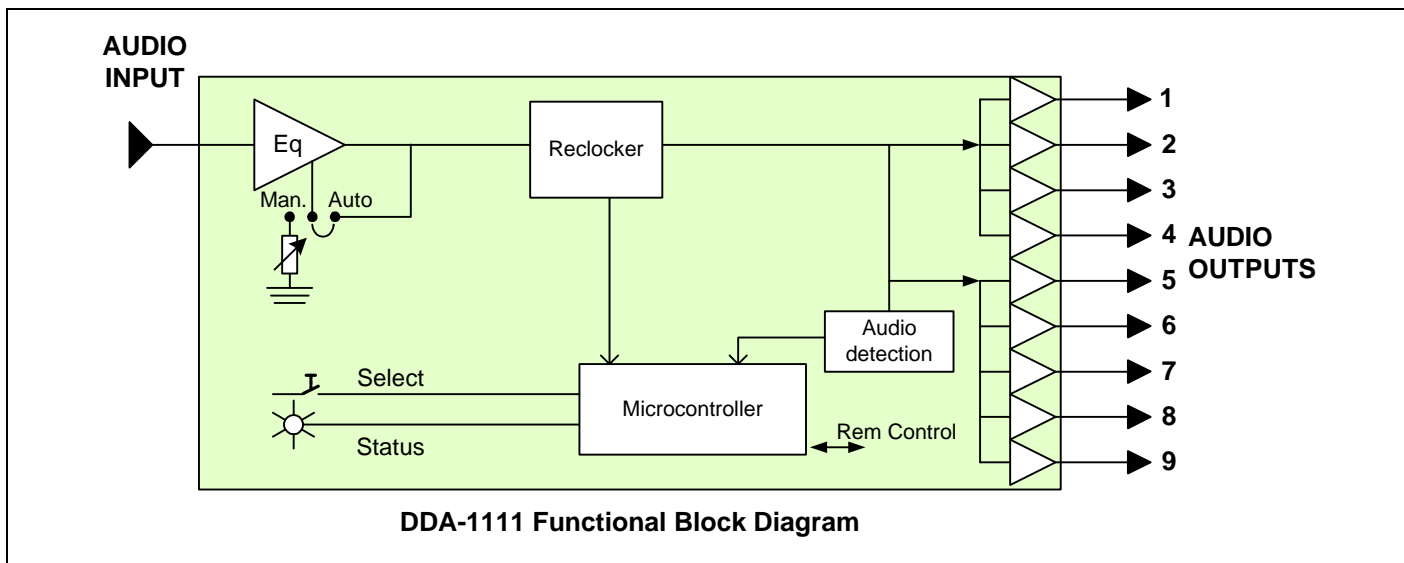
## DDA-1111

### Introduction

The Digital Audio Distribution Amplifier DDA-1111 supports AES-3id 75 Ω and provides 9 outputs. The input features clock regeneration for reduced jitter and signal restoration. A signal detection stage permits to control the content of the audio signal. A multi-coloured Led, visible with the door closed, report the card status. The DDA-1111 requires a "single " or a "double" rear connector panel.

### Features

- Digital distribution amplifier 1 input 4 or 9 outputs
- AES-3id audio unbalanced input
- Remote control of carrier quality
- Silence detect with user adjustable delay and threshold
- Status Led and remote reporting
- Signal regeneration
- V, U, C, P bits transparency



### Specifications

#### Input

Signal: ..... AES-3id (SMPTE 276M)  
Level: ..... 0.1 to 7.0 Vpp  
Impedance: ..... 75 Ω unbalanced  
Equalization: ..... 0 to >1000 m

#### Outputs

Signal: ..... AES-3id (SMPTE 276M)  
Level: ..... 1 Vpp  
Impedance: ..... 75 Ω unbalanced  
Return loss: ..... 15 dB  
Jitter reduction: ..... >15 dB (@ 100 kHz)  
Specific jitter: ..... <0.005 UI pp (700 Hz to 100 kHz)

#### Signal Processing

Sampling: ..... 28 to 100 kHz  
Processing delay: ..... <12 μs @ 48kHz  
Signal absence  
- threshold: ..... -48 / -72 dBFS (6 dB step)  
- delay: ..... de 0 to 255 s  
V, U, C, P bits transparency

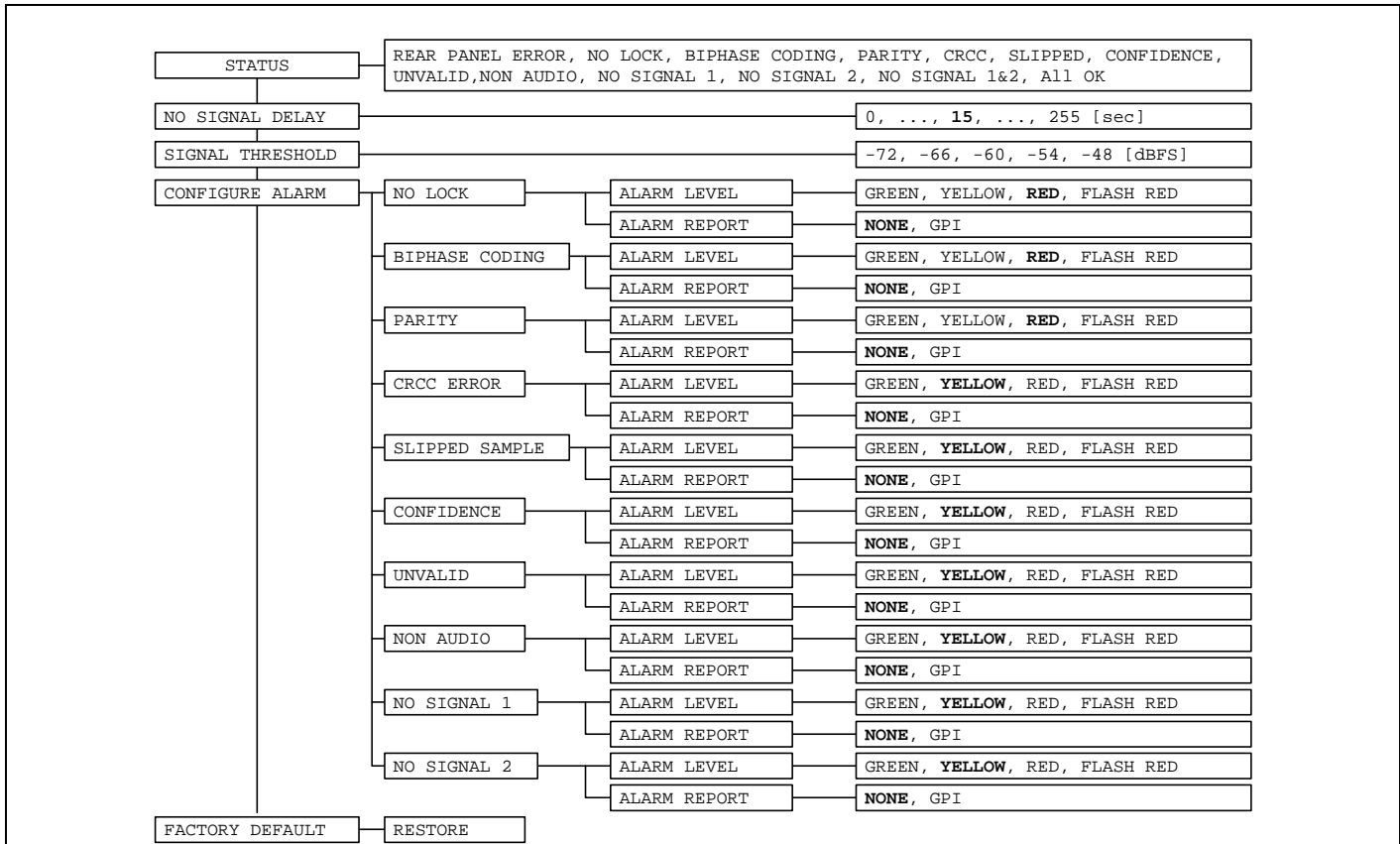
#### Miscellaneous

Power: ..... single: 1.4 W  
..... double: 2 W

## Menu Introduction

Most parameters are accessed and changed via an easy-to-use menu. The flow chart below outlines the entire DDA-1111 menu path. Each menu is described throughout this section.

The procedure and the operation mode are described in the common paragraph of the DENSITÉ Manual. The menu organisation is made out of a main menu and several sub-menus. A press on the [SELECT] front panel push button accesses to the menu. A lack of activity turns off the display. Default values are written with bold characters.



## Menu Description

### {STATUS}

Displays status of the different board alarms. The higher-level alarm is displayed, even if not configured to activate the *STATUS* led. **ALL OK** indicates an absence of alarm.

**REAR PANEL ERROR** Indicates an absence of the rear panel or an incompatibility between the module and the rear panel. The *STATUS* led turns on flashing red.

**NO LOCK** Indicates that the input stage is not locked on the incoming AES.

**BIPHASE CODING** Indicates a biphase coding error .

### PARITY

Indicates a parity error.

### CRCC

Indicates a CRCC error.

### SLIPPED

Indicates a sample slipping.

### CONFIDENCE

Indicates an input signal up to be low.

### UNVALID

Indicates an invalid sample.

### NON AUDIO

Indicates the audio content is not linear PCM samples.

### NO SIGNAL

Indicates an internal signal level lower than the selected threshold during a user defined period.

**{NO SIGNAL DELAY}**

**NO SIGNAL DELAY** Signal absence is declared when the level signal is lower than the signal threshold during the selected period, it can be adjusted from 0 to 255 s. The default value is set to 15 s.

**{SIGNAL THRESHOLD}**

**SIGNAL THRESHOLD** The absence signal threshold can be adjusted from -72 to -48 dBFS by 6 dB steps. The default value is -60 dBFS.

**{CONFIGURE ALARM}**

It is possible to associate the *STATUS* Led colour and/or a GPI relay activation to each detected error.

Alarm relay activation depends of the *ENABLE* selection of the controller board menu GPI REPORT.

**ALARM LEVEL** Associates to each error the *STATUS* led colour: GREEN, YELLOW, RED and FLASH RED. This selection has no influence on the {STATUS} menu display.

**ALARM REPORT** The default value NONE is assigned to errors. Alarm relay activation will be associated to an error when GPI is set..

**{FACTORY DEFAULT}**

**RESTORE** Set the module with the factory default parameters.

**Status and Report**

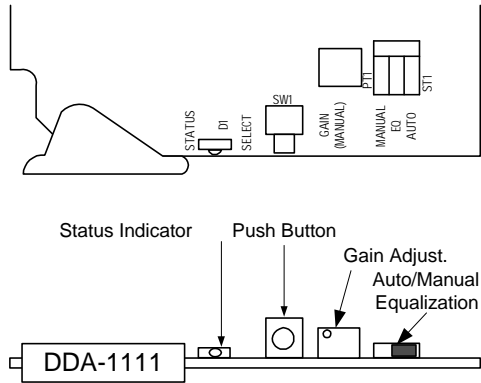
This table shows the front Led colour and the report action according to the level of a given error condition. Notice that the “Flashing Yellow” Status LED indicates that the SELECT button on the front panel has been pushed, and the card is being accessed via the communication protocol.

	Serial Report	GPI Report	Green	Yellow	Red	Flashing Red	Flashing Yellow
NO LOCK on digital input	✱				✱		-
Biphase Coding Error	✱				✱		-
Parity Error	✱				✱		-
CRCC Error	✱			✱			-
Slipped Sample	✱			✱			-
Confidence	✱			✱			-
Invalid	✱			✱			-
Non Audio	✱			✱			-
No signal detected on Input 1	✱			✱			-
No signal detected on Input 2	✱			✱			-
Card accessed via the communication protocol	-	-	-	-	-	-	Yes
Rear Panel not matching	-	-	-	-	-	Yes	-

Factory default: ✱

Note: The non requested message affectation to an alarm status can only be accessed by the communication protocol (serial port)

## Front Edge Presentation

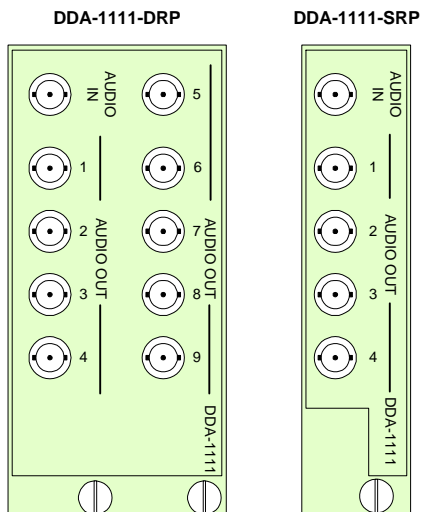


## Configuration

PT1	CABLE EQUALIZATION ADJSUTMENT
GAIN (MANUAL)	Trimmer for fine adjustment of the input signal equalization
ST1	MANUAL / AUTOMATIC EQUILAIZATION SELECTION
MANUAL / AUTO	When the cable length is known, best results can be obtained in the manual setting.

## Connections

DDA-1111 is used with the single rear panel DDA-1111-SRP that includes 1 input to 4 outputs or with the double rear panel DDA-1111-DRP that includes 1 input to 9 outputs.



## Board Presentation

