

IQADBB Analog Black Burst Generator

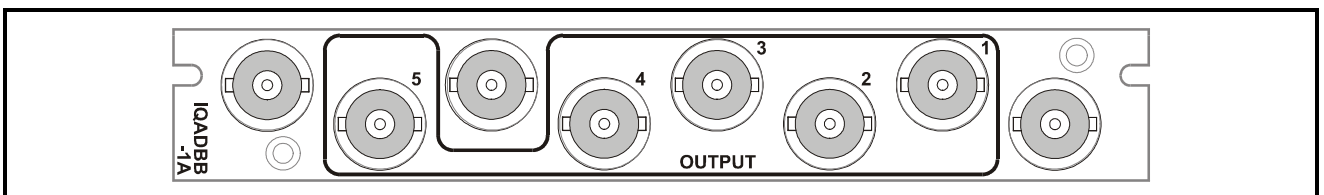
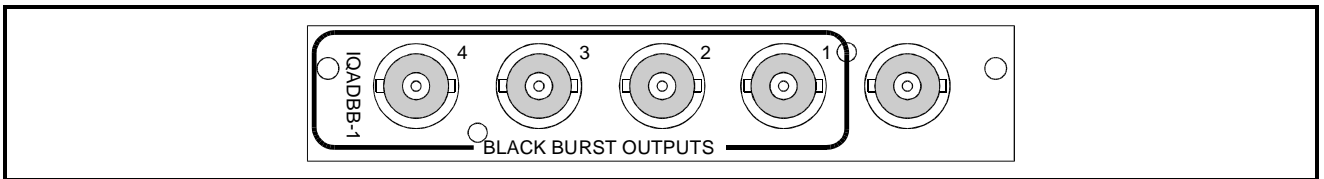
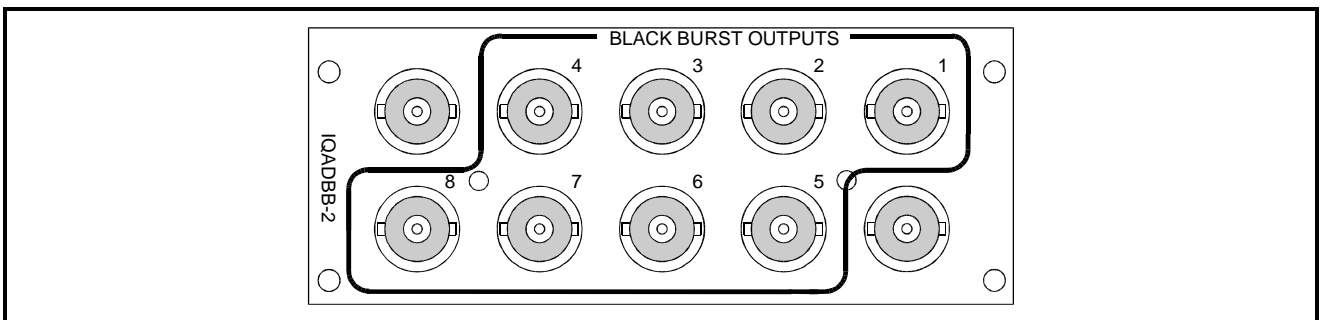
Module Description

The IQADBB generates up to 8 composite black burst outputs in one of 3 standards (PAL/NTSC/PAL-N). A higher quality 1ppm stability version is available. As the signal is digitally generated the IQADBB offers excellent

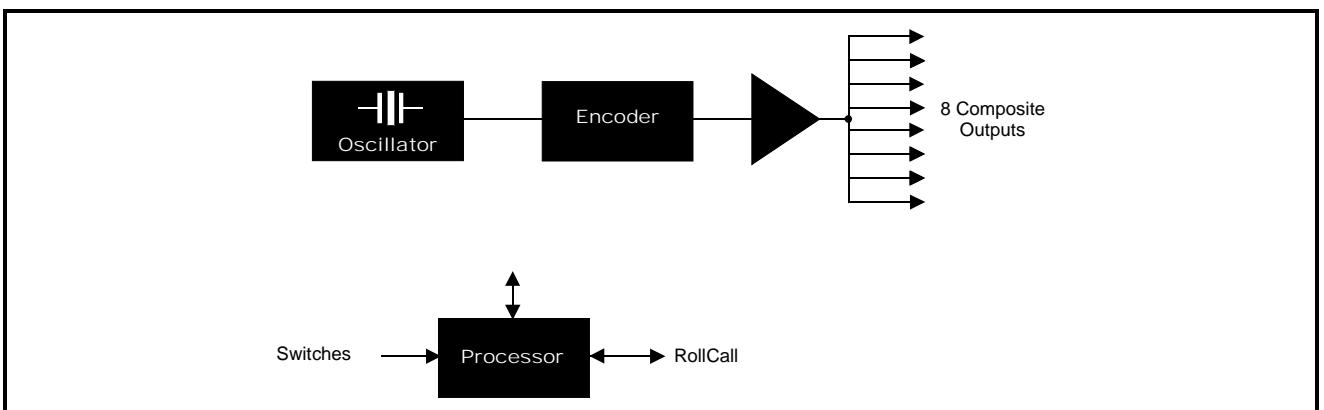
temperature stability as well as stable Sch phase and multi-standard capability.

Full RollCall remote and card edge control is available.

REAR PANEL VIEWS



BLOCK DIAGRAM



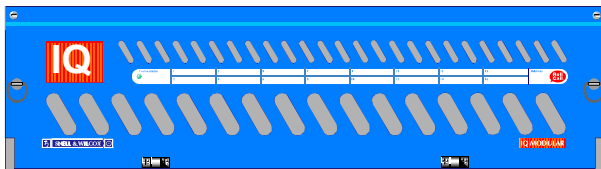
Versions of the module cards available are:

IQADBB-2-0	Black Burst Generator 10 ppm stability with 8 outputs	Double width module
IQADBB-1-0	Black Burst Generator 10 ppm stability with 4 outputs	Single width module
IQADBB-2-S	Black Burst Generator 1 ppm stability with 8 outputs	Double width module
IQADBB-1-S	Black Burst Generator 1 ppm stability with 4 outputs	Single width module
IQADBB-1A-0	Black Burst Generator 10 ppm stability with 4 outputs	Single width module
IQADBB-1A-S	Black Burst Generator 1 ppm stability with 4 outputs	Single width module

Note that there are two styles of rear panels available. They are not interchangeable between the two styles of enclosures. However, the cards may be fitted into any style of enclosure.

‘A’ Style Enclosure

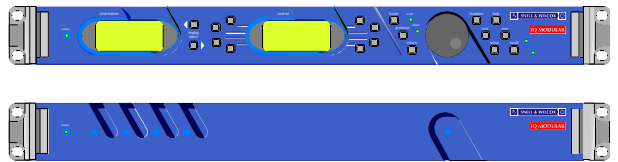
Rear panels **with** the suffix A may only be fitted into the ‘A’ style enclosure shown below.



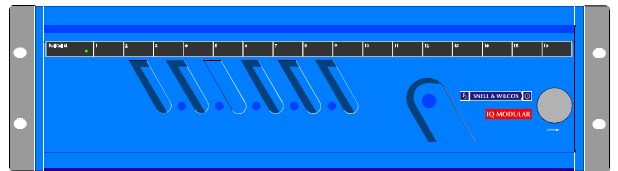
(Enclosure order codes IQH3A-E-O, IQH3A-E-P, IQH3A-N-O, IQH3A-N-P)

‘O’ Style Enclosures

Rear panels **without** the suffix A may only be fitted into the ‘O’ style enclosures shown below.



(Enclosure order codes IQH1S-RC-O, IQH1S-RC-AP, IQH1U-RC-O, IQH1U-RC-AP, Kudos Plus Products)



(Enclosure order codes IQH3N-O, IQH3N-P)

Features

- Up to 8 composite PAL/NTSC/PALN outputs
- Stable and controllable SCH phase
- Full RollCall remote control and card edge control
- 1ppm stability version available

Technical Profile

FEATURES

Signal Outputs

Analog Composite..... Up to 8 Encoded Black Burst at standard level

Preset Controls

Standard PAL/ NTSC/PAL-N

NTSC/PAL-N Pedestal..... On/Off

ScH Phase..... 0-360° in 1° steps

Indicators

Power Supplies OK

SPECIFICATIONS

Signal Outputs

Sync Output Level..... 0.3 V pk-pk into 75 Ohms (PAL)
0.286 V pk-pk into 75 Ohms
(NTSC/PAL-N)

Burst Output Level 0.3 V pk-pk into 75 Ohms (PAL)
0.286 V pk-pk into 75 Ohms
(NTSC/PAL-N)

Output Level Error..... <1% as supplied

Output Return Loss..... Better than -35 dB to 5.0 MHz

ScH Phase..... 0° ±2°

Signal/Noise Ratio better than -72 dB (unweighted)

Internal Processing 8-Bit composite encoding with 9-Bit
oversampled DAC's

Free Run Stability ±10 ppm typical (-0 versions)
±1 ppm typical (-S versions)

EMC Performance Information

Environment Commercial and light industrial E2

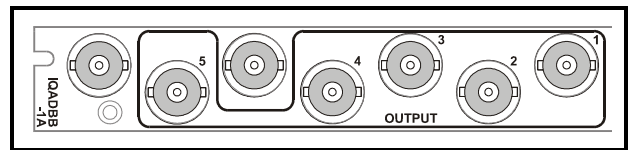
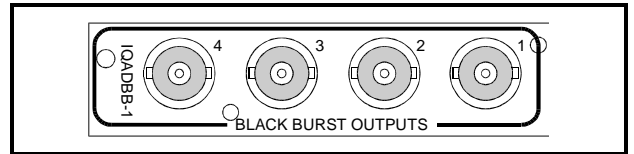
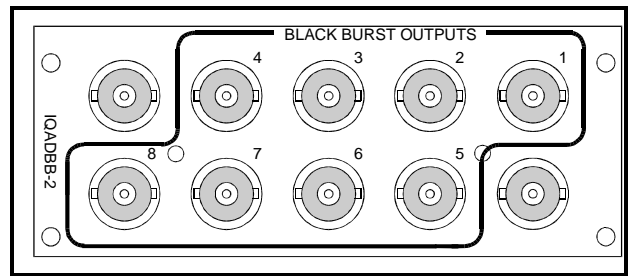
Peak Mains Inrush Current following a 5 second mains
interruption
No mains input

Performance Information.... Immunity to conducted
common-mode RF interference
(EN 55103-2 immunity
phenomenon I6):
When one of the black and burst
outputs is subjected to modulated
common-mode RF interference at
a level of 3 V, up to 20 mV pk-pk of
interference may be present at
other outputs.

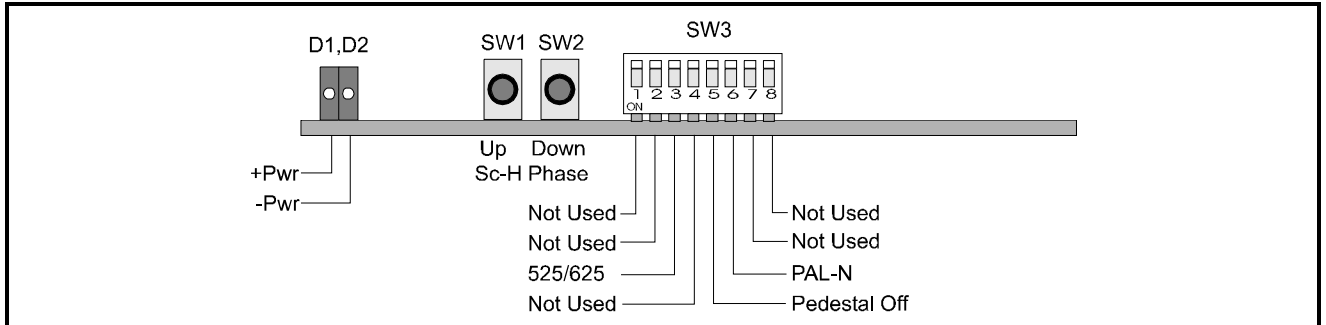
OUTPUTS

Black Burst Outputs

These are the 8 (-2 version), 4 (-1 version) or 5 (-1A version) black burst outputs of the unit via BNC connectors.



CARD EDGE CONTROLS



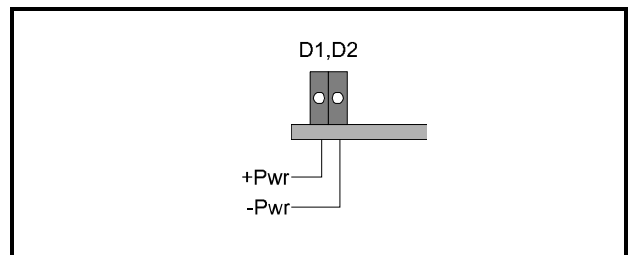
Adjustment of the settings of the IQADBB is available either via card edge controls and/or via a more comprehensive remote control system using RollCall™

Note that the availability of some of the card edge controls will depend on the card version; see feature table for variations.

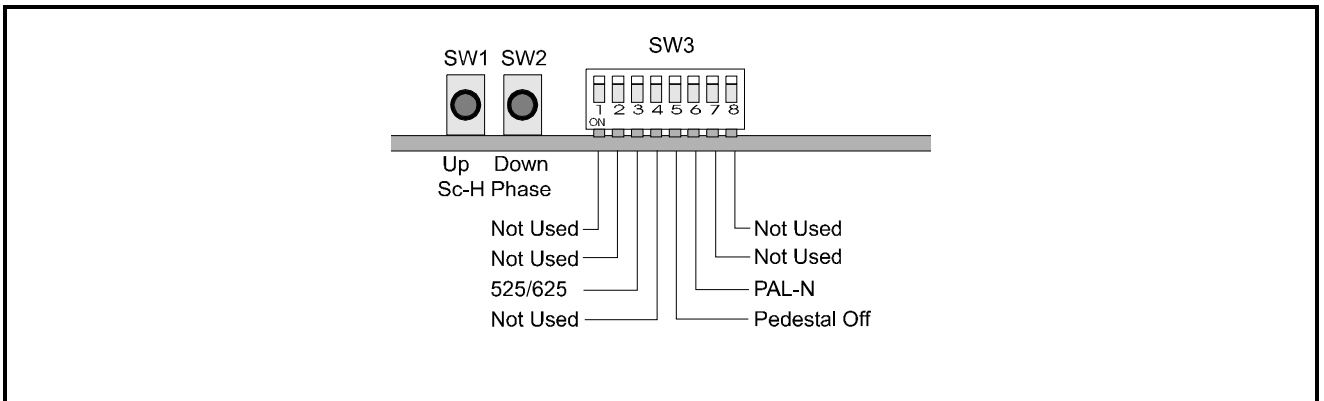
LED INDICATORS

+Pwr and -Pwr

When illuminated these LED's indicate that the positive and negative power supplies are present.



CARD EDGE CONTROL FUNCTIONS



The push buttons SW1, SW2 allow the ScH Phase to be adjusted. SW3 selects various operating modes.

SW1 and SW2

These push buttons allow the ScH phase of the output signal to be adjusted.

Operating SW1 will increase the value and SW2 will decrease the value. Changes will be in steps of 1°.

To select the preset value of 0° both buttons should be pressed together.

Note that the new setting will be saved approximately 2 seconds after the last change.

DIL SWITCH (SW3) FUNCTIONS

(ON = Down and OFF = Up)

Position 1 and 2

These positions have no function.

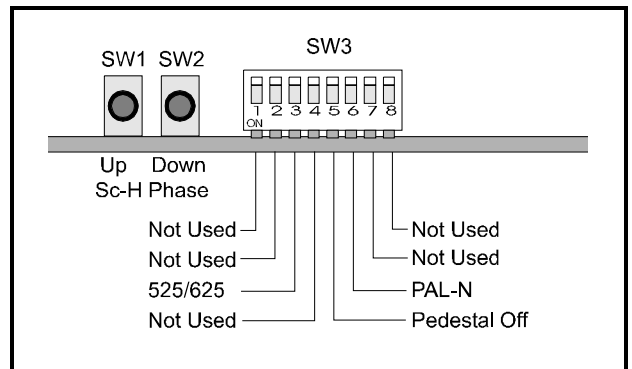
Positions 3 and 6

These positions allow the output standard to be set.

O/P Std.	Position 3	Position 6
PAL-N	ON	ON
PAL	ON	OFF
NTSC	OFF	N/A

Position 4

This position has no function



Position 5

When set to ON this position allows the pedestal to be removed from the output signal when operating in the NTSC mode. **It has no function when operating in PAL or PAL-N modes.**

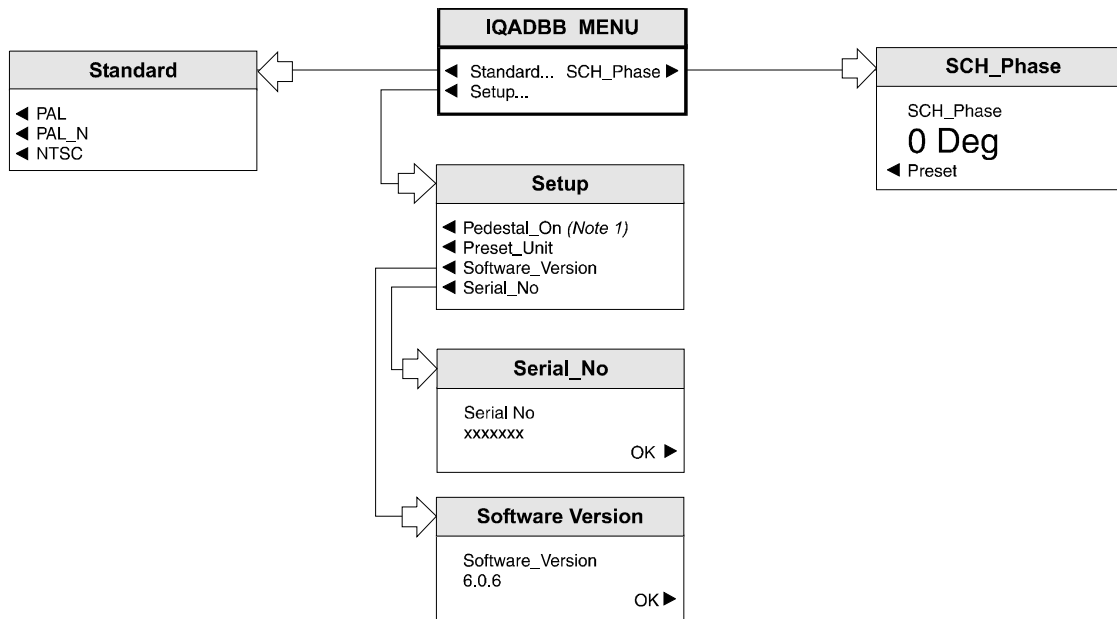
The pedestal is present on the output if this position set to OFF (NTSC-M) or absent if this position is set to ON (NTSC-J)

Default setting is to OFF

Note that the output level is automatically adjusted to give standard peak level with or without a pedestal.

Positions 7 and 8

These positions have no function.



***IQADBB
Menu System***

Note 1 The Pedestal_On function is only available in the Supervisor mode

OPERATION FROM AN ACTIVE CONTROL PANEL

The card may be operated with an active control panel via the RollCall™ network.

The menus available for this card are shown on page opposite and will appear in the Control display window.

Operational details for the remote control panel will be found in SECTION 1 of the Modular System Operator's Manual.

MENU DETAILS

(see IQADBB Menu System on previous page)

MAIN MENU

The main, or top level menu allows various sub-menus to be selected by pressing the button adjacent to the required text line.

Note that where a menu item is followed by three dots (...) this indicates that a further sub-menu may be selected.

Whenever a menu item is selected the parameters of that selection will be displayed in the Information window of the front panel. Where the selection is purely a mode selection and does not enable a sub-menu, the text will become reversed (white-on-black) indicating that the mode is active. If the mode is not available for selection the text will remain normal.

◀ Standard

This menu selection allows the operating standard of the unit to be set.

◀ Setup

This selection reveals a sub-menu that allows the following functions to be set up:

◀ Pedestal_On (NTSC selected)

Note that this function is only available in the Supervisor mode

This toggle ON/OFF function allows the pedestal to be ON (included) or OFF (removed) from the output signal.

The status of the Pedestal On/Off function will be shown in the information window.

◀ Preset_Unit

Selecting this function presets various functions such that some sort of signal is produced at the output even though some settings may be inappropriate for the input signal. This is useful if many settings have been set in error such that no output signal is being produced. The unit will be reset to NTSC mode with pedestal ON and this data will be displayed in the information window.

◀ Software_Version

Selecting this item reveals a display showing the version of the software fitted in the module. Select OK to return to the Setup Menu.

◀ Serial No

This displays the serial number of the unit. Select OK to return to the Setup menu.

SCH_Phase ►

This function allows the Sch phase of the output signal to be adjusted. Rotating the spin-wheel will adjust this value and the numerical display shows the phase in degrees.

The range of adjustment is 359° (continuously adjustable) in steps of 1° and the preset value is 0°.

THE INFORMATION WINDOW

The Information window has three lines of text indicating current selections and various information messages.

Note that in a RollCall™ system some units will overwrite the information window indication with their own messages. Under these conditions the control panel will only be able to write to the information window when the unit has been disconnected.

The first line will contain the name of the module which is currently being controlled.

The second, third and fourth lines provide specific information about the operating conditions of the module.

Example of text displayed

Line 1	01:IQADBB
Line 2	Standard:PAL
Line 3	Pedestal:OFF

Text Line Details

- Line 1 This line contains the name of the module and Gateway code data.
- Line 2 This line gives information about the output standard.
Output standard may be PAL, PAL-N, or NTSC.
- Line 3 This line gives information about the status of the pedestal

