adt-audio

Standard Mono Input Module

BC-IM3

BC-IM3 is the standard mono-input module for the series BC3. Additional to the main functions there are implemented many important and useful functions for radio and television operation. In a lot of details the IM3 is very easy to configure. For the adaptation of the channel logic to the requirements there exist a lot of possibilities.

Beside the basis version IM3 the IM3s is available, which is equipped with a 128 mms Penny and Giles fader and with large illuminated buttons for the functions PFL, START and CHANNEL-On.

Both versions of the module are available with many options. So for example both versions can be equipped with balancing by transformers for all inputs and outputs.

BC3
the console system for on air applications by adt-audio.

The realisation of mixing systems up to 72 input channels, 16 audio sub groups, 10 sends with vca and cut grouping facilities is possible as well as configurations for small and medium studios by the extensive range of modules. Depending on the selection of modules it is possible to match the rules of the German IRT-Pflichtenheft 3/5. The consoles are designed for professional operation with highest reliability and longevity. The combination of excellent audio quality and longevity is realized by the use of only high value components. The BC3 consoles are modularly build and makes the construction of customized designed possible.

View of the BC-IM3 in original size

BC-IM3 is the standard mono-input module of the series BC3.

The module has 2 inputs. The microphone input is implemented balanced and floating (input transformer Haufe). A 48-V-phantom supply can be activated by the button P48. The gain can be regulated between 25 and 70 dB. A pad of 25 dB which can be inserted enables to process input signals up to 22 dBu. This pad can be adapted according to customer's information.

The high level input LINE input can be implemented electronically balanced or balanced and floating. The selection between microphone input and line input can be done by the button LINE. With this button there is also switched the selection of the logic control for the microphone functions like red light, cough and talkback command to start operation for line operation (see below).

The gain of the line input is adjustable about ± 20 dB by a separated fader, with a center detend position. At the output of the input section a phase reversal can be inserted. The phase reversal is active with microphone and line-operation.

The modules has 4 mono aux sends and a stereo cue send.

The cue send is located normally pre fader and pre cut and can be changed by jumpers to pre fader - post cut. The button POST switches this send post fader and pan pot. There exists a level pot and a Pan pot. A cut button makes possible the mute of the cue send independent of channel status. In the position POST the cue sends automatically takes over the position of the main Pan pot if this is turned on.

The aux-sends 1 to 3 are implemented identically. Normally they are located post fader and can be switched by separate PRE buttons pre fader. The control pre and post fader is done in mono.

- Mic input tranformer balanced
- Phantom supply with switch
- Connections for red light and cough
- the moderator's mic can be used for talkback command
- Start facilities in the line mode
- Line input with separate gain pot
- Phase reversal switch
- adjustable high pass filter
- 4-Band-EQ with 2 sweep bands
- Stereo cue send with level und pan
- 4 Aux sends with single PRE switches
- Aux 4 can be used for n-minus
- Channel Out can be alternatively fed from Aux 4
- 100mm oder 128 mm main fader
- extensive adaption with jumpers
- Start via fader and/or switch

Aux 4 is equipped with 2 other buttons. If the button CH OUT is pressed the aux 4 pot ist separated from the aux 4 bus and it is switched to channel output amplifier with priority. By this feature the channel output which is usually fed by the post fader output can be regulated separately from the main fader. It also can be switched pre main fader. In this way an additional direct output exists per channel for editing or playback functions. The PRE button of Aux4 can be altered by jumper directly to the output of the input section. Then this tap is located pre the processing functions.

With the button N-minus it is possible to use the channel output as n-minus-output in connection with the mix of Aux 4. This additional function extends the area of application of the module substantially. If n-minus is activated, the master's signal of Aux4, by which the local Aux4 signal is subtracted, is connected to the channel output. Talking to of the talkback line N-1 is possible but can also be blocked by a jumper within the module. This function represents no substitute for the telephone modules BC-IT3 and BC3-IT4. However, in this way it is possible to realize numerous additional sends when required with little expenditure within the mixing console.

The system offers the possibility to implement up to 4 addtional aux-sends. Therefore, special modules can be equipped with up to 10 sends (stereo cue and 8 x aux). The division to stereo and mono sends and other features can be chosen by the customer.

For the signal processing the BC-IM3 is equipped with an adjustable low pass filter, a 4band EQ, which can be inserted and also an insert point.

The low pass filter with 12 dB / octaves and can be regulated between OFF (<20 hertz) and 600 Hertz. The button FILT switches the filter in the audio line.

The equalizer is a 4-band version with a range from ± 15 dB per band. The HI-EQ is implemented as a baxandall filter with outlet with 15 kHz. The LOW-EQ is a bell filter with low resonance (Q 0.7) with a center frequency of 80 Hertz. This dimensioning makes possible an effective regulation of the bass range without unwanted Subsonic interests with increases become high-reinforced. Both mid bands are implemented with medium resonance (Q1.5) and can be adjusted in the center frequency in the area of 60 Hertz to 3 kHz for MID1 and from 300 Hertz to 15 kHz for MID2. The whole EQ is switched by a button into the audio line.

The insert point is completely buffered (output and input isolating amplifiers). Normally it is located post the EQ and can be put by jumper within the module before EQ. By this jumper block it is also possible to block the insert point completely. The insert output is always available on the connector panel, the insert input is switched into the audio line by pressing of the button INS. In this way external devices can remain connected and are used or bridged by operating the button. Insert input and output can be implemented alternatively electronically balanced or balanced and floating (transformer-balanced).

As the main fader a 100-mm slider fader or optional Penny and Giles fader with 128 mms is used. The fading of the audio-signal is done with high-quality VCA's. The CH ON button activates the channel. If it is not pressed, this has the same effects like the closing of the fader.

The pan pot is not usually in the audio path. It can be inserted by the button PAN and regulates with 3 dB center pads between the left and right selected master. The routing section of the module (see at the top) is implemented with buttons for the selection of 4 stereo-subgroups (GR1-2 to GR 7-8) and the stereo-master PGM. The module can be implemented alternatively also with a Mono selection for the audio-subgroups or a stereo-selection for 16 groups (8 x stereo).

The peak present dispaly is implemented with a 3color Led. It displays a level above -20 dB with green color and 0 dB with yellow color. By a rise of the level the color changes to orange and red. With red colouring the headroom still is approx. 5 dB. The peak present Led measures the level at the input of the fader.

The PFL system is implemented in stereo. The PFL signal can be switched within the master's modules to different loudspeakers, headphone and measuring ways. Different modes of operation are possible. A status function in the master's area switches between adding and mutually releasing operation. If ‚adding' is chosen, several channels can be switched and mixed at the same moment to PFL. At releasing operation all other PFL buttons are deactivated by pressing of another PFL button. Per channel it can be decided by a jumper whether PFL is put back while opening the fader (or press the CH ON button). Besides, in this case it can be chosen if with open fader PFL is active, as long as the button is pressed. A Central-Reset can be switched in the master's section.

The function of the start button depends first if MIC or LINE is selected. If LINE is chosen the configuration (jumper) of the channel defines in which way the Start / Stop-Signal is generated for the control of an external device. It can be chosen between static and pulsed operation. Farther can be chosen if the function is released only by the button or also by the fader. The start feedback can be implemented either as, real , feedback with external wiring or internal.

By microphone operation the start function is used for the putting of red light. Additional the COUGH button and the talkback command-function are released. The activation of the ON AIR control can also be realized by this function. Also here the control can be made possible alternatively by the fader.

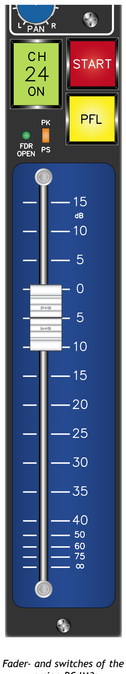
If the microphone way is in function it is possible to mute the microphone signal of the speaker with an externally connected COUGH button. The talkback-command's function can be released by the second external button. By this function the microphone signal pre fader is mixed in the listen line. In that way if the microphone fader is open the main line is automatically muted. The logic can be also so configured, that there is only possible a talkback command if the channel is switched off.

A LED signalises the actual status of the fader or the CH ON-button. This LED shines if the channel is released.

All audio-connections are implemented with XLR connectors (Neutrik). For the remote control connections there is used per channel a 9-pole Sub D socket.

Options:

different input pad
sug group select 8 x mono/8 x stereo
other zero levels than + 6dBu
standard input tranformer for line in
torodial input tranformer for line in
torodial input transformer for mic in
torodial input transformer for insert in
standard output transformer for insert out
torodial output transformer for insert out
standard tranformer for channel out
torodial output transformer for channel out
illuminated push buttons for CH ON, PFL and Start
P&G-fader 128 mm
additional VU or ledmeters for the input modules



Fader- and switches of the version BC-IM3s

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