

D6575

Fully Digital Audio Processor with DSP



Description

The D6575 digital audio processor is a fully digital, automatic, intelligent, and full-featured device, specially designed for audio enhancement in digital conference systems, professional sound system projects, and advanced entertainment venues.

Features

- 96kHz sampling frequency, 32-bit DSP processor, and 24-bit A/D and D/A converters.
- 4 audio signal inputs, 3 groups of 5 microphone inputs, and standard 3.1, 4, or 5.1 channel output configurations.
- USB interface for PC connection; supports remote control and infrared control.
- Function settings can be configured directly via front-panel function keys or thumb wheel, or via PC control software, offering convenient, intuitive, and simple operation.
- A single unit provides 20 groups of device data storage and 10 groups of effect data storage, with data transfer capability between units via PC software.
- Function-lock feature ensures data security and prevents unauthorized operation from altering the working state of the unit.
- Each output channel features 7-band independent EQ (with parametric, high-shelf, and low-shelf options), high-pass filter, and low-pass filter, each with selectable slope and 3 different filter modes.
- Chinese-character LCD screen and 6-segment LED meters provide accurate digital level indication, mute, and edit status for input/output channels.
- Each input and output features delay, phase control, and mute settings; input delay up to 30ms, output delay up to 60ms.
- Output channel supports control of effect mix ratio, microphone volume, music volume, and effect volume.
- Microphone channels feature 4-level anti-feedback (howling) suppression; both microphone and music signals include noise gate processing.
- Effects section includes 3-band parametric equalization and a pair of high-pass/low-pass filters, with adjustable echo and reverb parameters.
- Channel parameters can be controlled via central controller through the S-terminal or USB interface.
- Supports WIFI connection to a PC and remote control via the Internet.
- Display resolution: $\geq 1279 \times 790$.

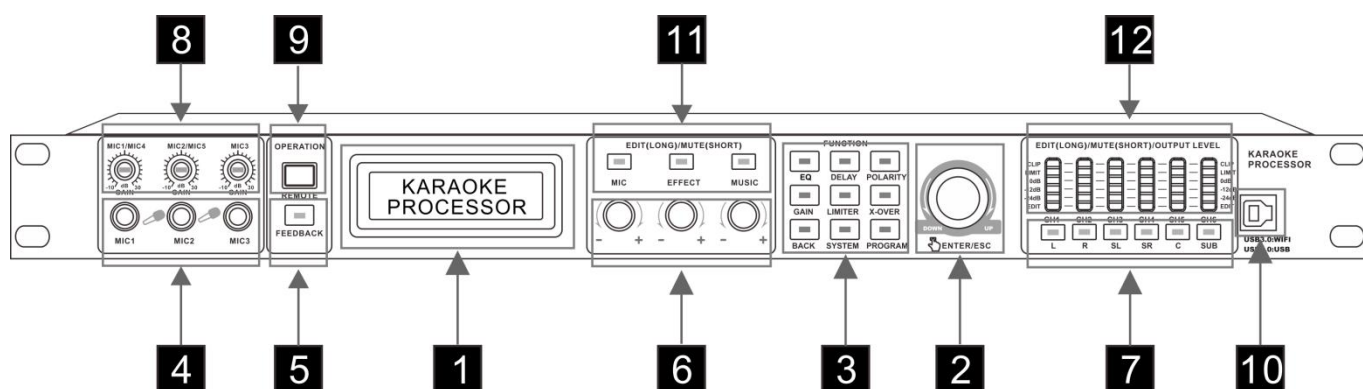
Specifications

Model	D6575
Output Channel Jacks	5.1 XLR male (a pair of main channel, a pair of surround, center, sub) and optical fiber output
Input Channel Jacks	1 in 4 music signal (RCA input, optional fiber input, coaxial input), 5 in three groups mic input hole
Input Impedance	Unbalance: 20K Ω
Output Impedance	Balance: 100 Ω
PC Port	1 USB (front panel)
Remote Control	S terminal
CMRR	> 70dB(1KHz)
Input Range	$\leq +5\text{dBu}$
Frequency Response	20Hz-20KHz(-0.5dB)
S/N R	$\geq 95\text{dB}@1\text{KHz } 0\text{dBu}$
THD	$< 0.03\%\text{OUTPUT}=0\text{dBu}/1\text{KHz}$
Crosstalk of Channels	> 110dB(1KHz)
Functions of Input Channels	
Input Mute	Each channel has independent mute control.
Input Delay	Each input channel has a separate delay control, adjustable range of 0-30ms, less than 10ms, step away from the 0.1ms; greater than 10ms, step away from the 1ms
Input Polarity	+/-
Input Select	MUSIC AUX/VOD/Coaxial/Optical, AUX/VOD can select 0dB or 6dB
Input EQ	Set a 9-band EQ for Music and MIC (EQ1 low, EQ9 high, others with PEQ): center frequency: 20Hz-20KHz, bandwidth: 0.01oct-3oct, with a step size of 0.01oct, gain: -30dB~+15dB, with a step size of 0.1dB, default frequency: EQ1 40Hz, EQ2 80Hz, EQ3 160Hz, EQ4 317Hz, EQ5 632Hz, EQ6 1261Hz, EQ7 2515Hz, EQ8 5018Hz, EQ9 10KHz. In addition to the 9-band EQ, additional high-pass and low-pass filters with fixed slopes are added.
Input Volume	Each input volume range: 0-100%, step@1%
Limiter	Each input channel has a limiter. Threshold: -30dBu~+20dBu step: 0.1dBu
Feedback	4 level
Functions of Output Channels	
Output Mute	Each channel has independent mute control.
Output Polarity	In-phase (+/+) or reversed phase (+/-)
Output EQ	Set a 7-band EQ for each output channel (low, high, PEQ): center frequency: 20Hz-20KHz, bandwidth: 0.01oct-3oct, with a step size of 0.01oct, gain: -30dB~+15dB, with a step size of 0.1dB, default frequency: EQ1 47Hz, EQ2 112Hz, EQ3 266Hz, EQ4 631Hz, EQ5 1495Hz, EQ6 3544Hz, EQ7 8399Hz.
Output Gain	Each output volume range: 0-100%, step@1%
Output Delay	Each output channel has a separate delay control, adjustable range of 0-60ms, less than 10ms, step away from the 0.1ms; greater than 10ms, step away from the 1ms
X-OVER	Each output channel can be independently set as LPF or HPF. These parameters can be adjusted. Filter type: Linkwitz-Riley; Bessel; Butterworth. The crossover frequency: 20Hz~20KHz, slope: 12db/oct; 18db/oct; 24db/oct;

		30db/oct; 36db/oct; 42db/oct; 48db/oct.
Limiter		Each output channel has a limiter, threshold: -30dBu~+20dBu step: 0.1dBu
Effect		3 band of EQ, HC/LC, effect ratio can be adjusted
Processor		96KHz sampling frequency, 32-bit floating-point DSP, 24-bit A/D and D/A conversion
Display		The distinguishing rate for 144*32 characters LCD screen
Power		≤30W
Power Supply		AC110V/220V 50/60Hz
Product Dimensions (W×D×H)		482×228×44mm
Net Weight		4.5kg
Shipping Dimensions (W×D×H)		1PC: 555×325×98mm/0.0177m ³ 6PCS: 573×337×615mm/0.1188m ³
Gross Weight		1PC: 5(kg) 6PCS: 31.5(kg)

Front / Rear Panel

Front Panel



1 LCD display

LCD Screen, display operation interface and information of each menu.

2 Encoder

- (1) Turn clockwise: The parameter increases / next option
- (2) Turn counter-clockwise: The parameter decreases / previous option
- (3) Short press: [ok] button
- (4) Long press: special confirmation

3 The menu information

- (1) 【EQ】 (2) 【DELAY】 (3) 【POLARITY】
- (4) 【GAIN】 (5) 【LIMITER】 (6) 【X-OVER】
- (7) 【BACK】 (8) 【SYSTEM】 (9) 【PROGRAM】

Under the parameters edit state, press (1)(2)(3)(4)(5)(6) will enter into the corresponding menu.

Under any state , press (7) will return or cancel the operation

Under any state, press(8) (9) will enter into the system menu

4 Microphone socket

Have three groups microphone socket with switch on the front panel, the priority is higher than Rear Panel's .

5 Feedback control key

This key have 5 states, when closed,the light is turn off, when from level 1 to 4,the light is in yellow.

To switch the states ,just press the key.

6 Microphone, Effect And music volume knob

Rotate knob to change the volume

7 Output mute, Edit keys

Press 【OUT 1】 , 【OUT 2】 , . . . 【OUT 6】 mute/edit

Short–touch press: Mute/Unmute Switch,the key's light is in red.

Long–touch press:when access Output editing function interface, the EDIT indicator light is turn on.

8 Microphone socket

Have three groups microphone socket with switch on the front panel,the priority is higher than Rear Panel's .

9 Infrared receiving window

Equiped with remote control operation throuth remote controller, the detail please refer the part of "Remote control Function introduction".

10 USB port

Adjusting the relative parameter through PC interface software

(Compatible USB2.0,USB3.0)

Through USB 3.0 cable connection wifi module, which can control the network connection, the remote control of the Internet

11 Input mute, Edit keys

【MIC】 , 【EFFECT】 , 【MUSIC】 mute/edit

Short–touch press: Mute/Unmute Switch,the key's light is in red.

Long–touch press:when access Output editing function interface, the EDIT indicator light is turn on.

12 Output indicator light

The LED meter shows the input figure with 6 segments and editing status

(1) CLIP (clip) show, the light will be open (RED)when signal distort

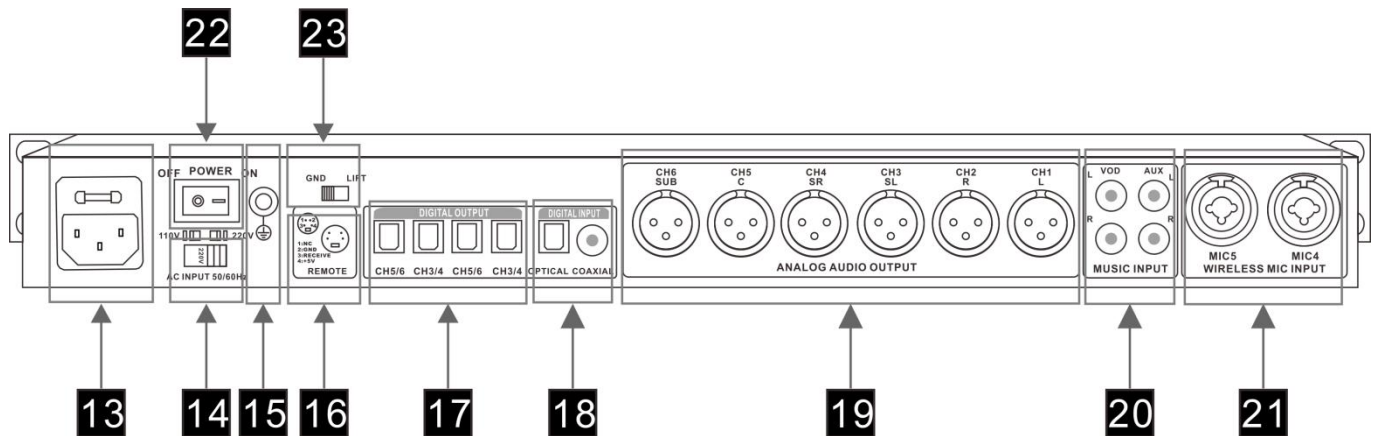
(2) Limit show ,the light turn to be orange

(3)COMP show , the light turn to be yellow

(4) -24 dB -0dB two section LED meter show (Green)

(5) Edit:When the light is in yellow, showing which channel are being edit.

Rear Panel



13 Exchanging current input socket

Inserting the relative AC input voltage ,according to the shift indicator of power transfer switch

14 Power transfer switch

Choosing the relative input voltage gear (110 V/220 V)

Warning: be sure to select the input according to the ac input voltage (110 v / 220 v) voltage gear, such as the wrong choice will may damage the device

15 Ground Strobe gating

Control the Turn on /Turn off communication between Chassis and Signal ground.

16 Remote control

Can instead of remote control to realize the remote control functions, also can realize the unified system control through conneting Central console.

17 Optical Outputs

Four groups of eight digital output channels, identified as CH5 / CH6, CH5 / Ch6, CH3 / CH4, CH1 / CH2.

18 Music Digital Inputs

Optical fiber and coaxial input, with analog input , choose one in four.

19 Analog Outputs

6 channels output, Marked as L (left Main),R(Right Main),SL (Left Surround), SR (right Surround),C (central),SUB (Subwoofer),Standard 5.1 Channel output.

20 Music Analog Inputs

2 set of analog input, identified as VOD, AUX, can be manually selected, can also be smart. Optional gain 0 db and 6 db.

21 Mic Input

Rear have two microphone sockets , marked as MIC4、 MIC5, the priority lower than Front Panel's .3 Video Inputs and 1 Output. And for 3 Optional/Automatic Video Inputs, Marked as BGM、 VOD、 AUX, have association with Music input.

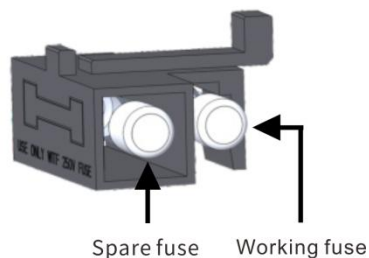
22 Power switch

Connect the input voltage labeled by power transfer switch, and click the switch to work well.

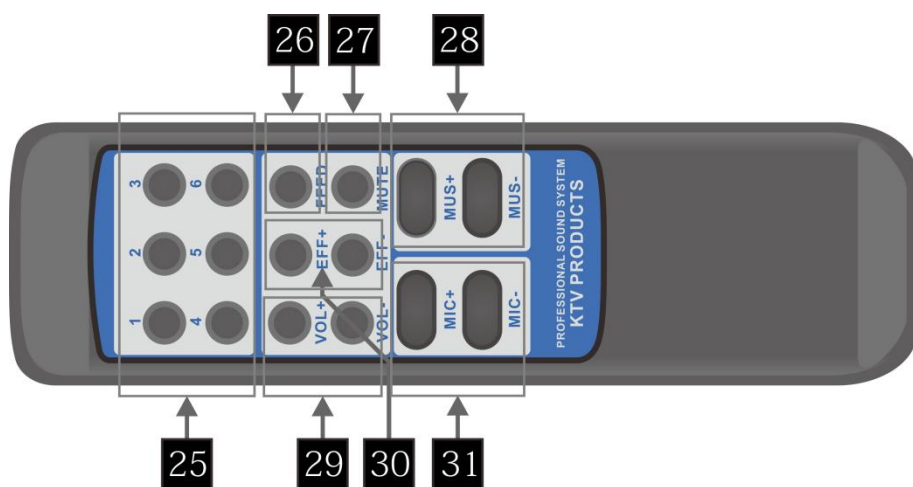
23 Earth wire strobe switch

The connection and disconnection of the cabinet earth and signal earth by the control of this switch .

24 Fuse socket: It can be removed from the AC power input socket. The installation diagram of its internal fuse is as follows



Remote Controller



25 Fixed effect calls

6 effect fixed modes , marked as 24 (6 keys), Silk screen printing mark1,2,3,4,5,6 respectively user data 1, user data 2, user data 3, user data 4, user data 5 and user data 6;

26 Feedback Switch

Feedback switch can closed or select levels, marked as 25

27 Mute Switch

Mute/Unmute Switch of output Channel.Marked as 26;

28 Music volume

Music volume adjusting keys, Marked as 27 (Two keys)

29 Master Volume

Master volume control keys , marked as 28(Two keys)

30 Effect volume

Effect volume control keys , marked as 29(Two keys)

31 Microphone volume

Microphone volume control keys , marked as 30(Two keys)