bit

audison

bit Ten
Signal Interface Processor

ideato,
progettato,
costruito
in Italia

bit Drive

Power Supply

Voltage	11 ÷ 15 VDC
Idling current	0.4 A
Switched off without DRC	2.5 mA
Switched off with DRC	4 mA
Remote IN voltage	7 ÷ 15 VDC (1.3 mA)
Remote OUT voltage	12 VDC (130 mA)

Signal Stage

Distortion-THD @ 1 kHz, 1V RMS Output	0.005 %
Bandwidth @ -3 dB	10 ÷ 22k Hz
S/N Ratio @ weighted	
Master Input	95 dBA
Aux Input	96 dBA
Channel Separation (@ 1 kHz)	85 dB
Input sensitivity (Speaker In)	2 ÷ 15 V RMS
Input sensitivity (AUX in)	0.6 ÷ 5 V RMS
Input sensitivity (PHONE)	2 ÷ 15 V RMS
Input impedance (Speaker In)	2,2 kΩ
Input impedance (AUX in)	15 kΩ
Input impedance (PHONE)	2,2 kΩ
Max Output Level (RMS) @ 0.1% THD	4 V RMS

Input Stage

High Level (Speaker)	FL - FR - RL - RR - PHONE IN
Low Level (Pre)	AUX IN

Output Stage

Low Level Pre (Default)	FRONT L/R, REAR L/R, SUB

Connection

From / to personal computer	1 x USB / B (1.1/2.0)

Crossover N.5 (one each output channel)

Mode	Full / High Pass/ Low Pass/ Band Pass
Type and slope	Linkwitz @ 12/24 dB Butterworth @ 6/12/18/24 dB
Crossover frequency	68 steps @ 20 ÷20k Hz
Phase control	0° ÷ 180°

Equalizer

Hi-Level Input (Speaker In)	Automatic De-Equalization
Outputs	N.5 Graphic: ± 12 dB @ 31 Band ISO 1/3 Oct. 20 ÷ 20k Hz

Time Alignment

Distance	0 ÷ 510 cm / 0 ÷ 200.8 in.
Delay	0 ÷ 15 ms
Step	0,08 ms; 2,8 cm / 1.1 in.
Fine set	0,02 ms; 0,7 cm / 0.27 in.

Size

W x H x D (mm / in.)	191 x 34 x 131 / 7.51 x 1.33x 4.76
Weight (kg / lb.)	0,6 /1.322

Audio DSP and converters
32 bit Cirrus Logic (Clock speed: 147 MHz) Digital Signal Processing chip and A/D D/A converters working in PCM at 48 kHz with 24 bit resolution. The processor speed allows the user to hear and verify in real time the changes applied during the tuning.

Audio Inputs
4 independent high-level channels with automatic summing capability;
1 analog low-level stereo auxiliary input;
1 high-level momentary audio interrupt input (with priority) on Phone Mute cable (settable through PC).

Audio Outputs
5 independent analog PRE channels featuring adjustable level.

Control Connections
1 USB /B (2.0) connector for PC connection;
1 AC Link control bus connectors for DRC;
1 input for external Mute (settable through PC).

Configuration
Guided procedure that, thanks to a wide range of set names, provides the ability to assign each component to the bit Ten connections and automatically coordinate their functioning.

Turn-on Controls
ART, Automatic Remote Turn on/off, selectable from Hi-Level Front L. The ART can be enabled through an external switch;
Through the Remote IN;
Through the car ignition key with memory function;
Through the DRC (optional);
Automatically through the hands-free phone kit.

In/Out Volume
Input sensitivity manual adjustable for the Master Hi-Level inputs (with supplied Test CD);
Manual input sensitivity adjustment for auxiliary inputs;
Independent level control for each output channel for system fine tuning (-40 ÷ 0 dB).

De-equalization
Automatic de-equalization of signal fed into the high-level inputs (with supplied Test CD) if necessary. It can also be performed without the PC.

Equalizers
31-band graphic equalizer (1/3 Oct.; ±12 dB) for each output channels.

Crossover Filter
Filter typology: selectable; Hi-pass, Lo-pass, Full Range, Band pass with independent selectable cut-off slope.
Cut-off frequency: 68 steps available from 20 Hz to 20k Hz;
Cut-off slope: selecable; 6 to 24 dB/Oct.;
Selectable alignment: Linkwitz or Butterworth;
Mute: selectable for each output (On/Off);
Phase: selectable for each output (0°/180°);

Signal channels reconstruction
It can reconstruct a stereo output signal from a multi-channel input signal. In addition it can reconstruct rear, centre and subwoofer output channels from a stereo input.

Time Alignment
Guided procedure for the speaker distance data entry with an automated calculation (distance to time) for each channel for accurate delay times. System also provides for manual fine tuning of delay (0.02 ms fine set).

DRC (optional)
Master Volume, Subwoofer Volume, Balance and Fader controls, Input selection, Memory selection, Adjustable display brightness.

Memory
2 presets separately managed and recalled by the DRC (optional).

bit Ten software
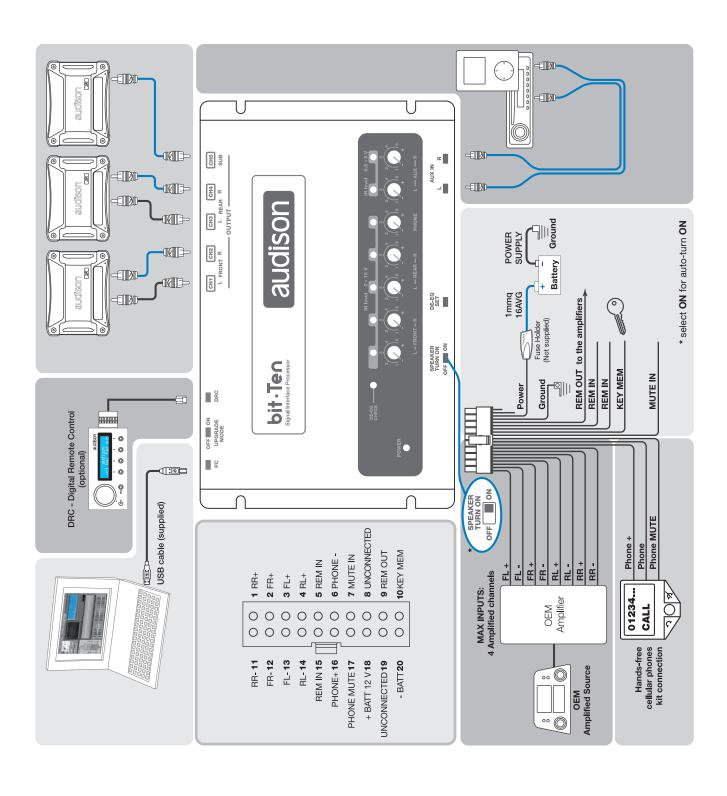Windows (XP, 7 and Vista) based software with "Standard" and "Expert" operating modes;
Screen resolution: 1024 x 600 px min.

Technology Art Sound
Manufactured by
elettromedia Italy

All specifications subject to change without notice_13.A

DRC - Digital Remote Control (optional)

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USB cable (supplied)

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POWER

DE-EQ CHECK

PC | UPGRADE MODE | OFF ON | DRC

OUTPUT
CH1 L FRONT R | CH2 R | CH3 L REAR R | CH4 R | CH5 SUB

IN level 2 – 15 V

IN level 0.6 – 5 V

L — FRONT — R | L — REAR — R | L — AUX IN — R

PHONE

DE-EQ SET

SPEAKER TURN ON OFF ON

1 RR+	RR- **11**
2 FR+	FR- **12**
3 FL+	FL- **13**
4 RL+	RL- **14**
5 REM IN	REM IN **15**
6 PHONE -	PHONE+ **16**
7 MUTE IN	PHONE MUTE **17**
8 UNCONNECTED	+ BATT 12 V **18**
9 REM OUT	UNCONNECTED **19**
10 KEY MEM	- BATT **20**

SPEAKER TURN ON
OFF ON
*

MAX INPUTS:
4 Amplified channels

FL +
FL -
FR +
FR -
RL +
RL -
RR +
RR -

OEM Amplifier

OEM Amplified Source

POWER SUPPLY

Ground

Battery –
+

1mmq 16AVG

Fuse Holder (Not supplied)

Power
Ground

REM OUT to the amplifiers
REM IN
REM IN
KEY MEM

MUTE IN

* select **ON** for auto-turn **ON**

Phone +
Phone
Phone MUTE

01234... CALL

Hands-free cellular phones kit connection

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