

bit Ten D

Signal Interface Processor



ideato,
progettato,
costruito
in Italia



Full DA
24 bit/48 kHz

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 @ A weighted	
Digital Input:	105 dBA
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):	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
Digital Optical IN (S/PDIF max 96 kHz/24bit):	OPTICAL IN

Output Stage

Low Level Pre (Default):	FRONT L/R, REAR L/R, SUB
Digital AD Link:	CH1 ÷ CH8 S/PDIF

Connection

From / To Personal Computer	1 x USB / B (1.1/2.0)
To Audison Electronics	AC Link controls

Crossover N.5 (one each output channel)

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

Equalizer

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

Time Alignment

Distance:	0 ÷ 510 cm / 0 ÷ 200.8 inch
Delay:	0 ÷ 15 ms
Step:	0.08 ms; 2.8 cm / 1.1 inch
Fine set:	0.02 ms; 0.7 cm / 0.27 inch

Size

W (Width) x H (Height) x D (Depth)	
(mm/inches):	191 x 34 x 131 / 7.51" x 1.33" x 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 optical digital 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 1 AD Link output featuring 8 independent digital audio channels through a single CAT 5.S LAN cable for use with amplifiers featuring AD Link input
Control Connections	1 USB / B (2.0) connector for PC connection 1 AC Link control bus connector for DRC 1 AC Link control bus for use with amplifiers featuring AC Link 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 D connections and automatically coordinate their functions
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 vehicle ignition key trigger with memory function Through the DRC Automatically through the hands-free phone kit momentary interrupt
In/Out Volume	Manual input sensitivity adjustment 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.; ±12dB) for each analog and digital output channel
Crossover Filter	Filter typology: Hi-pass, Lo-pass, Full Range or Band-pass with independent selectable cut-off slope Cut-off frequency: 70 steps available from 20 Hz to 20 kHz Cut-off slope: 6 to 24 dB/Oct. Filter alignment: Linkwitz or Butterworth Mute function: 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	Master Volume, Subwoofer Volume, Balance and Fader controls, Input selection, Memory selection, Adjustable display brightness. Access to digital features of amplifiers featuring AC Link
Memory	2 presets separately managed and recalled with the DRC
bit Ten D software	Microsoft Windows (XP, Vista and 7) based software with "Standard" and "Expert" operating modes screen resolution: 1024 x 600 px min.

