T-Series Specifications

System

Format	Separate MixRack and Surface with control & audio over a single CAT5 ACE™ cable
DSP	iDR-64 RackExtra 64x32 mix engine located in MixRack
Audio Network Port A	Local audio to/from Surface - ACE™ up to 120m CAT5 (depending on cable)*
Audio Network Port B	Network option plug-in cards available - see website for details
Control Network	TCP/IP Ethernet (links to Surface via Port A ACE™), built-in switch
PL-Anet	At MixRack for A&H PL Series remote controllers and GPIO
MIDI	In/Out.Can tunnel between Surface and MixRack via network
USB	x2: Data transfer, archiving and firmware update, external touchscreen, keyboard
VGA	For connecting an external monitor to the TouchScreen
Mains Power	Internal, 100-240V.AC, 47-63Hz, 160W max per unit

Architecture

Input Channels	64x with HPF, Insert, Gate, PEQ, Compressor, Limiter/De-esser, Delay
Output Mixes	32x with Ext-in, Insert, PEQ, 1/3 oct GEQ, Compressor, Limiter, Delay
Mix Types	Any combination of Groups, Auxes, Internal FX, Mains, Matrix (mono or stereo)
Main Mix Types	Mono, LR, LCR, LCRplus, LRSub, LCRSub, LRM, LCRM, None (monitors)
Mono / Stereo	Channels and Mixes may be configured as mono or stereo
Patchbays	Virtual patching of: Inputs, Inserts, FX, Mix Ext in, Outputs, Port B audio channel I/O
Inserts	Inserts assignable on all inputs and mixes, patch to any sockets
FX Engines	8x internal stereo 'RackExtra' FX racks, each capable of DSP emulations of industry classics
FX Patching	Inserted or Send/Return loop. Mono or stereo sends, stereo returns
FX Returns	8x extra 'short' stereo return paths (PEQ) or use IP channels (full processing)
Max Sources to the Mix	72x (64 IP channels and 8x stereo internal FX returns)
DCAs	16x can be used as DCA or Mute groups
Other processing	64x Gates, 96x Compressors, 96x Limiters, 112x PEQ, 32x GEQ

Performance

Digital processing	48kHz sampling, up to 48-bit processing
System Latency	Analogue IN to Analogue OUT (MixRack) <1.6ms, ACE link is 100us (0.1ms) per hop
ADC	24-bit multi-bit delta sigma, 108 dB dynamic range
DAC	24-bit multi-bit delta sigma, 117 dB dynamic range
Frequency Response	20-20kHz +0/-0.5dB
THD+Noise (analog in to out)	0.0018% (-94dBu) @ +16dBu output (mic pre unity gain)
Residual Output Noise	-94dBu typical

Audio Inputs and Outputs

XLR Mic/Line Inputs	Recallable, Balanced, -15 to +65dBu, 1dB resolution, 25dB pad, +48V
Preamp Performance	>4kΩ, +32dBu max input, Noise EIN (150Ω) -127dB
TRS Jack Line Inputs	+/-24dB trim, >6kΩ, +4dBu nominal, +22dBu max
RCA Phono Line Inputs	+/-24dB trim, >10kΩ, 0dBu nominal, +18dBu max
XLR Line Outputs	Balanced, Relay protected, <75Ω, +4dBu nominal, +22dBu max
TRS Jack Line Outputs	Balanced, Relay protected, <75Ω, +4dBu nominal, +22dBu max
RCA Phono Line Outputs	Unbalanced, Relay protected, <75Ω, 0dBu nominal, +18dBu max
RCA Phono Digital	2 ch SPDIF I/O. Input upto 96kHz sampling rate. Output at 48kHz sampling rate

Audio Connections

iDR-32 MixRack	32x XLR mic/line in, 16x XLR line out
iDR-48 MixRack	48x XLR mic/line in, 24x XLR line out
iLive-T80 Surface	Inputs 8x [4xTRS, 2xRCA, 1xSPDIF], Outputs 8x [4xTRS, 2xRCA, 1xSPDIF]
iLive-T112 Surface	Inputs 16x [8xTRS, 4xRCA, 2xSPDIF], Outputs 12x [8xTRS, 2xRCA, 1xSPDIF]
Local Monitor	TRS L and R available at the Surface
Headphones	MixRack: 1/4" jack. Surface: 1/4" jack and minijack

Control

iLive-T80 Surface	20x faders, 2 banks (12,8), 4 layers = 80 control strips
iLive-T112 Surface	28x faders, 3 banks (12,8,8), 4 layers = 112 control strips
Strip Assign	Assign any strip as Input, FX, Mix master, DCA, engineer's Wedge/IEM
TouchScreen	800x600 backlit, colour, touch with on-screen keyboard, data encoder
Processing Strip	Instant access to processing, Illuminated encoders, meters, PFL access
Soft Keys	8x user assignable
Faders	100mm motorised, GEQ fader flip mode
Meters	3 colour, 12 LED meter on every strip, PAFL, proc block and TouchScreen
Edit Functions	Copy, Paste, Reset of processing and mix parameters
Monitor Functions	PFL/AFL selectable, PAFL tools, Local/Phones outputs, Dual Wedge/IEM
Talkback	TB mic with phantom power, assignable to any mix, patching, Latch function
Additional Surface Functions	Freeze in Layers, Alt View, Screen and LED dimmer
Other control	MIDI, A&H PL Series remote controllers
iLive Editor software for laptop	Java-based online/offline editor and live control, connect via TCP/IP network

Memories

Libraries	Name and store processing, FX, channel parameters and PL device settings
Scenes	250x Store all or selected parameters, editable tree structure, Recall Safes
Shows	Stores current settings, preferences, all Scenes, Libraries
User Profiles	Administrator and up to 7 Guest users, Permissions, Password protectable
USB	Transfer and archive Shows and Libraries, USB Show Scene filter

Weights and Dimensions

iDR-32 MixRack	6U rack, 482mm (19") x 265mm (10.4") x 250mm (10"), 12kg (26.4lbs)
iDR-48 MixRack	8U rack, 482mm (19") x 353mm (14"") x 250mm (10"), 16kg (35.2lbs)
iLive-T80	770mm (30.2") x 280mm (11") x 640mm (25"), 20kg (44lbs)
iLive-T112	1090mm (42.6") x 280mm (11") x 640mm (25"), 27kg (59.4lbs)
Operating Temperature Range	5deg - 35deg Celsius

* 120m spec tested with Neutrik Etherflex and Belden Catsnake 1305A, both with EtherCon connectors.