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TL-7.5 SERIES III REFERENCE LINE PREAMPLIFIER



More than eight years after introducing the TL-7.5 Reference preamplifier to universal acclaim, VTL presents the latest version, the TL7.5 Series III. The new model incorporates numerous technological advances while retaining the best elements of the TL-7.5 platform. The proven strengths of the original system architecture include: a fully balanced differential design; a hybrid circuit that combines tubes in the gain stage for voltage linearity (less than 2dB NFB) with a MOSFET buffer for greater current capacity; a high resolution volume control; and a clean box/dirty box architecture with multiple precision-regulated power supplies. The highly-regarded user interface of the TL7.5 platform sets the standard for intuitiveness, and ease of use.

The Series III builds on improvements made to the Series II for an even higher level of performance. The new design features an extensively revised power supply based on current-sourced shunt regulator technology that minimizes impact on the audio signal by eliminating high voltage gain. Far more precise power regulation yields dramatically improved rejection of noise and AC fluctuation.

The completely redesigned high current gain stage utilizes newly available FET technology developed for green technologies such as solar panels and electric cars that require a normally-on state. Unlike MOSFETs that need to be biased on, normally-on devices operate more like vacuum tubes in the audio output stage, with simpler circuits that continuously conduct current, resulting in a more tube-like sound. The high-current gain stage has been further optimized for linearity with zero global negative feedback in the circuit.

Also included in the upgrade are new specially selected audiophile grade capacitors and a fully bi-directional RS-232 control interface for increased compatibility with modern home theater systems.

Enhancements to the Series III result in an even higher level of coherence, integration and transparency of sound, with dramatically improved mid-bass and midrange, and a more tube-like sonic character.

Feature list of the TL7.5 Reference Platform:

- Isolated Control Unit chassis with 12 separate fully regulated power supplies
- Separate Audio Unit chassis with zero internal digital activity and isolated from AC and power supply noise
- **Audio Unit features:**
 - Fully balanced differential circuit with balanced in and out, and mirror-image layout
 - Simple 2-stage circuit topology with differential gain stage and output buffers for musical purity and integrity
 - Ultra low impedance output stage to drive any length of cable and any power amplifier/paralleled amplifier/subwoofer load
 - 30 microfarad output capacitors for vastly improved bass control
 - Tube complement: 2 - 12AU7 tubes
 - Gain switching between normal gain and low gain with 6dB gain reduction
 - Single fully balanced differential 95-step 70dB discrete resistor relay attenuator for all attenuation functions, using low signal instrumentation ruthenium relays for greatest resolution
 - Microphonically damped tube gain stage for greater vibration noise elimination
- **Control/Power Supply Unit features:**
 - Ramped B+ filament soft-start power up for extended tube life
 - Huge energy storage power supply for elimination of AC fluctuation and noise rejection
 - Low noise processor control design for all functions
- **User Interface features:**
 - Processor loop – any of 8 inputs can be assigned as fixed unity gain pass through
 - Tape monitor function for both tape loops
 - 4 separately programmable trigger outputs
 - Bi-directional RS-232 interface
 - Programmable input offsets
- Rigid Combination steel and non-magnetic chassis and machined aluminum remote wand
- Factory upgradeable from Series I and Series II

Additional feature list of the TL7.5 Series III Reference Preamplifier:

- **Audio Unit features**
 - New FET device output stage for more tube-like sound and simpler circuit
 - New device in the gain stage current source for improved musicality and better single-ended operation
 - Zero Global NFB for vastly improved faster dynamic and tonal resolution, and unconditionally stable circuit, without any phase shift.
 - All audiophile grade Mundorf capacitors in signal path with bypass system for improved HF resolution
- **Control Power Supply Unit features**
 - Vastly improved lower impact and greater precision-regulated current-sourced shunt power supply
 - Teflon power supply bypass caps for improved top end

Specifications

TL7.5 Reference Line Preamplifier Series III

Vacuum Tube Complement	2 x 12AU7
Inputs	4 pairs balanced/XLR or RCA single-ended 4 pairs single-ended/RCA
Outputs	2 pairs balanced out 2 pairs single-ended RCA out 2 pairs single-ended RCA buffered Tape Out
Remote Control Functions	Power Source Select Volume up/down Mute Fade Balance Control Phase Reverse
Gain	Balanced in and Balanced out: 19.2 dB Single-ended in and Balanced out: 19.2 dB Balanced in and Single-ended out: 13.2 dB Single-ended in and Single-ended out: 13.2 dB
Output Impedance	25 Ohms (Max 150 ohms at 10Hz)
Input Impedance	50K Ohms (20k ohms min)
Frequency response + 0 - 1 dB	1 Hz - 100KHz (20Hz – 100kHz +0–1dB into 600 ohms with 900pf 20' interconnect cable)
Maximum Output Voltage < 1% THD	30V into 10K or above 10Hz – 200kHz +/- 1 dB 10V into 600 ohms
Channel Separation	> 100 dB @ 1KHz (>80 dB @ 20kHz)
Power Consumption	150 Watts
Dimensions (W x D H)	Control chassis 17.5 x 17.5 x 4 inches 44.5 x 44.5 x 10.2 cm

	Audio chassis 17.5 x 17.5 x 6 inches 44.5 x 44.5 x 15.3 cm
Weight	90 lbs (40.82 Kg) Fully packed in two boxes Unpacked weight: Audio Unit – 38 lbs (17.24 Kg) Control Unit – 32 lbs (14.50 Kg)