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## TL-6.5 SERIES II SIGNATURE LINE PREAMPLIFIER



More than seven years after introducing the TL6.5 Signature Preamplifier to wide acclaim, VTL presents a significantly revised version, the TL6.5 Series II. The new model incorporates numerous circuit improvements while retaining the best elements of the TL6.5 platform. The proven strengths of the original system design include a single chassis architecture, a fully balanced differential design, a hybrid circuit that combines tubes in the gain stage for voltage linearity, with a FET buffer for greater current capacity, a high resolution volume control with high overload capability, and precision-regulated power supplies. The highly-regarded user interface of the TL6.5 platform is renowned for its intuitive functionality and ease of use, with full-function remote control, and a fully bi-directional RS-232 control interface for increased compatibility with modern home theater systems.

The TL-6.5 Series II incorporates most of the advanced technology found in VTL's flagship preamplifier, the TL-7.5 Series III, for a dramatically higher level of performance compared to the original design. The new version features an extensively revised power supply based on current-sourced shunt regulator technology that minimizes impact on the audio signal. 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 is shock-mounted like the TL-7.5, and has been further optimized for linearity, with zero global negative feedback.

Also included in the upgrade are re-voiced audiophile grade capacitors and additional bypassing.

Enhancements to the Series II result in an overall more tube-like sonic character, with more defined images in the listening space, a higher level of inner detail, and a dramatically improved mid-bass and midrange. The TL6.5 Series II is an exceptional match with any of VTL's other Signature products.

## Feature list of the TL6.5 Signature Platform:

### Audio Circuitry 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
- 20 microfarad output capacitors for powerful bass control
- Tube complement: 2 x 12AU7/ECC82 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.

### Control/Power Supply Unit features:

- Precision regulation
- 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
- 2 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

## Additional feature list of the TL6.5 Series II Signature Preamplifier:

- New FET device output stage for more tube-like sound and simpler bias circuit
- Improved 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 capacitors in signal path with bypass system for improved HF resolution
- Vastly improved lower impact and greater precision-regulated current-sourced shunt power supply
- Teflon power supply bypass caps for improved top end
- Microphonically damped tube gain stage for greater vibration noise elimination

# Specifications

*TL6.5 Reference Line Preamplifier Series II*

Vacuum Tube Complement	2 x 12AU7
Inputs	3 pairs balanced/XLR or RCA single-ended 5 pairs single-ended/RCA
Outputs	1 pair 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 - 200KHz (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)	17.5 x 17.5 x 6 inches 44.5 x 44.5 x 15.3 cm
Weight	55 lbs (24.95 Kg) Fully packed Unpacked: 48 lbs (21.8 Kg)