

TECHNICAL SPECIFICATIONS

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loudspeaker specifications		T200 / T3A	T300 / T4A	T400 / T5A	T500 / T6A	T4MA	T5MA	T5SA
components		1" compression driver with titanium diaphragm				1" coaxial driver		-
		10" woofer	12" neodymium woofer	15" neodymium woofer	15" neodymium woofer	12" woofer	15" woofer	15" neodymium woofer
power handling (EIA RS-426A)		200W continuous 400W peak	300W continuous 600W peak	400W continuous 800W peak	500W continuous 1000W peak			
impedance		8 Ohm	4 / 8 Ohm	4 / 8 Ohm	4 / 8 Ohm			
passive crossover		LP: 12dB/oct. @ 3kHz HP: 18dB/oct. @ 3kHz	LP: 12dB/oct. @ 2.5kHz HP: 18dB/oct. @ 2.5kHz	LP: 12dB/oct. @ 2kHz HP: 18dB/oct. @ 2kHz	LP: 12dB/oct. @ 5.8kHz HP: 6dB/oct. @ 5.8kHz LP: 18dB/oct. @ 800Hz HP: 12dB/oct. @ 800Hz			
connections (passive version)		1/2 x SPEAKON						
construction		Laminated beech plywood with black scratch-resistant paint - Metal grid - Metal handles and speaker stand adapter						
dimension		357x490x355	400x608x390	452x690x430	452x804x430	506x326x422	586x356x495	466x600x600
weight (passive / active)		14,5 / 22	17,5 / 25	22,5 / 32	28 / 37	26	33,5	43,5
processor/amplifier specifications		T3A	T4A	T5A	T6A	T4MA	T5MA	T5SA
output power EIA (1kHz, max THD 1%)		100W high 200W low	100W high 300W low	100W high 400W low	200W high 400W low	50W high 250W low	100W high 350W low	500W
input sensitivity		0 dB (0.775V)						
input impedance		30 kOhm (balanced) - 15 kOhm (unbalanced)						
A/D converters		24 bit						
D/A converters		24 bit dynamic range 100 dB sampling rate 48kHz						
active crossover		type Bessel, Butterworth or Linkwitz-Riley variable from 15.6 Hz to 16 kHz 6, 12, 18 o 24 dB per octave						
eq		25 parametric bands peak, 6dB lo-shelf, 12dB lo-shelf, 6dB hi-shelf, 12dB lo-shelf, notch gain +/- 15dB, variable with 0.5dB step bandwidth from 0.05 to 3.00 octave, variable with 0.05 step frequency from 15.6 Hz to 16 kHz						
alignment delay		max delay 200 mm						
plug-in		noise gate, anti-feedback, multiband compressor						
protections		Independent peak limiter on each output Long term power protection on each output LFC - Low Frequency Control						
distortion		<0.02 %						
controls		volume - PRESET select - shield on/off						
connections		1 x COMBO + 1 x XLR-M					2 x XLR-F + 2 x XLR-M	
power supply		see label						
system specifications		T200 / T3A	T300 / T4A	T400 / T5A	T500 / T6A	T4MA	T5MA	T5SA
SPL MAX continuous		120 dB	123 dB	124 dB	126 dB	122 dB	124 dB	125 dB
frequency response (-10 dB)		60Hz - 20kHz	55Hz - 20kHz	50Hz - 20kHz	45Hz - 20kHz	55Hz - 20kHz	50Hz - 20kHz	40Hz - 160Hz
dispersion (Cov)		90° x 65°	100° x 60°	100° x 60°	90° x 65°	80° x 80°	80° x 80°	-

T3A/T4A/T5A/T6A preset list

LEM INDOOR
LEM OUTDOOR
FLAT
ENTERTAIN
MAX LOUD
CD PLAYER
WALL MOUNT
STAGE MONITOR
LEM INDOOR SW
LEM OUTDOOR SW
FLAT SW
ENTERTAIN SW
MAX LOUD SW
CD PLAYER SW
WALL MOUNT SW
MIC PLUG&PLAY

T5SA preset list

d400
d400 HOUSE
2xT3A + 2 x T5SA
2xT3A + 1 x T5SA
T4A
T4A HOUSE
T5A/T6A
T5A/T6A HOUSE
T4MA
T5MA
80Hz
100Hz
120Hz
140Hz
160Hz
180Hz

T4MA/T5MA preset list

FULL RANGE
VOCAL 1
VOCAL 2
DRUMFILL+SW
GUITAR
PIANO
PAIR
ONSTAGE

The same presets
are also available
with plug-in
ANTI-FEEDBACK
activated.

LEM

PROFESSIONAL SOUND



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the sound of innovation.

Titanium series by LEM is a loudspeaker system line in beech plywood cabinets that combines professional features and state-of-the-art performance with the most advanced technology. Each part of the project, from custom made loudspeakers, to oversized amplifiers and cabinet construction has been carefully designed for the optimum performance and maximum sound quality in every situation. Beyond this, the active versions of **titanium** speakers are equipped with one of the most innovative **digital control systems** for loudspeakers. Thanks to 40bit resolution and 24bit low-noise conversion, the titanium digital processor is able to perform, with very high precision, all the processing features needed for the best acoustic performance. The **titanium** series consists of 11 models, which include 4 passives, 4 actives, a sub-woofer and two active stage monitors. These have been designed to be used either as mobile systems in LIVE and DJ applications or as a fixed systems in small and medium sized public venues, clubs, conference rooms and theatres.



technology



The titanium active versions are equipped with **bi-amplified** modules (class H for low section and class AB for high section), able to deliver to the transducers continuous power with a very high dynamic reserve and efficiency. Each amplification module includes a dedicated **digital processor** based on LEM's RED208 proprietary DSP, one of the most advanced DSPs in the world especially designed for digital audio applications. With high fidelity sound and a huge processing power, the processor offers an impressive set of functions, including high-precision EQ and CROSSOVER filters, delay lines for a perfect loudspeaker alignment and a multi-function protection system for maximum durability and reliability. In addition, thanks to digital processing, all titanium active models offer the possibility to choose between **16 different PRESETS**, prepared by LEM's technicians and sound engineers to provide the speakers with diverse acoustic and dynamic responses for all kinds of usage and personal requirements. Unlike usual active speakers, thanks to the available presets, the titanium speakers **give you whatever kind of sound you need in any situation**. The presets can be selected from the control panel and consist of diverse equalizations and DSP settings, which also allows the different titanium models to be used with the active sub-woofer T5SA.

speakers

The HF section uses a **1" compression driver with titanium diaphragm**, which provides higher reliability and greater sound brilliance than those made in traditional materials. The **wide dispersion horns** provide the maximum coverage without distortion. All **woofers** are custom made to LEM's specifications and they offer greater **power handling and efficiency**. **Neodymium**, used on the woofer's magnet, guarantees high quality acoustic performance whilst, at the same time, reduces the total weight of the cabinet.

<p>T3A / T200 Two way system 1" compression driver with titanium diaphragm 10" woofer Amplifier 100+200W (T3A) Power handling 200W (T200)</p>	<p>T4A / T300 Two way system 1" compression driver with titanium diaphragm 12" neodymium woofer amplifier 100+300W (T4A) power handling 300W (T300)</p>	<p>T5A / T400 Two way system 1" compression driver with titanium diaphragm 15" neodymium woofer amplifier 100+400W (T5A) power handling 400W (T400)</p>	<p>T6A / T500 Three way system 1" compression driver with titanium diaphragm 8" midrange 15" neodymium woofer amplifier 200+400W (T6A) power handling 500W (T500)</p>

T4MA and T5MA stage monitors

Titanium series includes **two stage monitors, T4MA and T5MA**, which use coaxial speakers and are housed in small-size, low-profile cabinets that can be 'invisible' on any stage. Both models have the choice of two different set-ups when placed on stage (35° or 55°), according to the distance of the listener from the monitor. Even T4MA and T5MA, thanks to the integrated digital processor, offer the choice of 16 different presets prepared to provide the monitors with diverse acoustic and dynamic responses according to the instruments used. The monitors can be coupled also to the T5SA sub-woofer to obtain full-range, high-efficiency drum-fill systems.



T5SA sub-woofer

T5SA sub-woofer uses a special 15" neodymium woofer with a 4" moving coil, able to give the greatest excursion, efficiency and power handling. T5SA includes a series of PRESETS with crossover and EQ settings for the perfect match with each model of titanium, including stage monitors. Moreover, there is a series of generic PRESETS with crossovers at different frequencies, which allow T5SA to be used with other brands of satellites. To make transportation easier the T5SA has two metal handles and 4 wheels on the rear panel.



cabinets

Titanium cabinets are made with **13-layer beech plywood**, which combines light weight with strength and high durability. They are finished with black scratch-resistant paint and are protected with **1,5 mm metal grid** with an exclusive design and double folding for an improved stiffness. Each model includes one or two metal handles and a metal speaker stand adaptor. In the 10" and 12" models also included are **4 M8 flying points** for wall or ceiling mounting using simple chains or steel cables or the more suitable LEM accessories SC41 (T4A and T300) and SC42 (T3A and T200).



passive versions

The titanium passive versions (T200, T300, T400 and T500) are equipped with **crossover filters** made with selected components, for an optimal frequency distribution, and with a sophisticated electronic protection circuit to prevent the overload of the HF driver. All models, T200 excluded, are available with 4 or 8 Ohm impedance.

<p>T5SA Sub-woofer 15" neodymium woofer amplifier 500W</p>	<p>T4MA Two way stage monitor coaxial loudspeaker 1" compression driver 12" woofer amplifier 50+250W</p>	<p>T5MA Two way stage monitor coaxial loudspeaker 1" compression driver 15" woofer amplifier 100+350W</p>

