

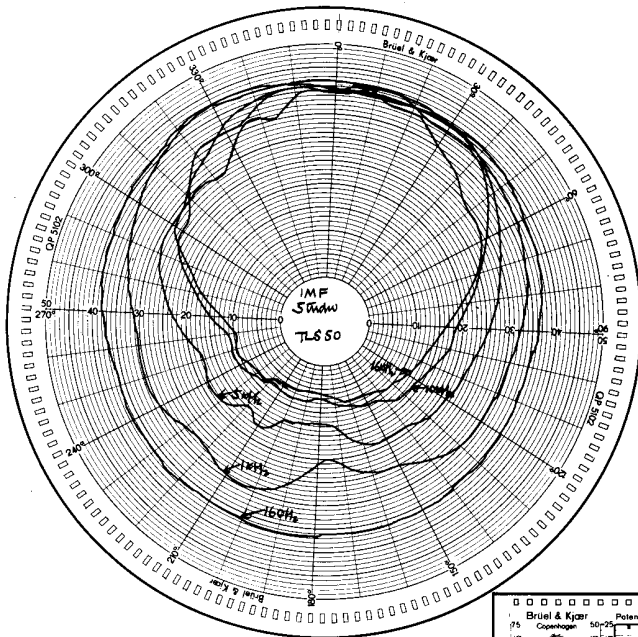
A 'transmission line' speaker is a purely professional concept in that performance, rather than price, size or operating principle is the primary criterion of merit. What is a transmission line? Why is it not more common among loudspeakers? To answer the first query is to answer the second - it is a complex and potentially expensive way of providing near perfect conditions for modern drive systems to perform at optimum and is not suitable for 'mass production'.

The IMF 'TLS' are advanced versions of the transmission line reproducer which was developed some years ago to aid in laboratory research. They incorporate the latest and most refined drive systems enclosed in new and radically re-designed transmission lines. These speakers are for use with the best equipment. A 'TLS' is a sophisticated speaker; its virtues will not be apparent to the novice who will want something more obvious. It will be most appreciated by the cognoscenti.

The transmission line independently provides for its driver a near ideal acoustic environment. The bass line absorbs the back wave, progressively rising with frequency, and is open ended. By careful graduation of the density of the absorbents, and inverse tapering of the line, the open end extends very low frequency generation over a wide band. At the low frequencies the line adds acoustic mass to the diaphragm, doubling its effective area and creating more ideal conditions for proper conception of bass in the room.

The crossover points have been carefully chosen to preserve homogeneity and to maintain smooth impedance curves. The 'left' speakers have their mid and high units grouped at the right side; the 'right' speakers have them on the left side. The purpose is to provide a carefully controlled dispersion pattern inward and away from room boundaries so that the maximum of direct information and the minimum of reflected reaches the listener.

No cost cutting or production compromises have been applied to the TLS; the entire concept has been preserved as one of performance at any price rather than to a price. Were there better drive systems, enclosure techniques or construction methods, they would have been incorporated.



THE STUDIO TLS 50 LOUDSPEAKER

A free standing loudspeaker system measuring approximately 36" x 14" x 15" wide. Bass unit 8" foam surround impregnated diaphragm, mid - range 5" impregnated cone contained in separate line, tweeter 1 1/8" soft dome and 3/4" chemical dome super-tweeter. Crossover electrical four way at approximately 375Hz, 3kHz and 13kHz. Frequency range 23Hz to beyond audibility. Calibrated level controls ± 2 dB for mid and high frequencies. Efficiency measured via pink noise 1 metre on axis : 50 watts produces 100dB. Nominal impedance 8 ohms. Driving power requirement 25 to 60 watts. Supplied in matched 'mirror-image' pairs in teak or walnut.

Conditions of test : Measurements of samples taken under anechoic conditions with reflection coefficient better than 0.1. Equipment employed B & K pen recorder, noise and signal generator, third octave filters and polar turntable.

Subject to alteration without notice.

Distortion ref. 90 dB at 1 kHz :

Studio TLS 50

Harmonic	2nd	3rd
40Hz	0.25%	0.03%
100Hz	1.0%	0.15%
500Hz	0.15%	0.06%
1kHz	0.15%	0.05%
5kHz	0.12%	0.04%
10kHz	0.8%	0.03%

