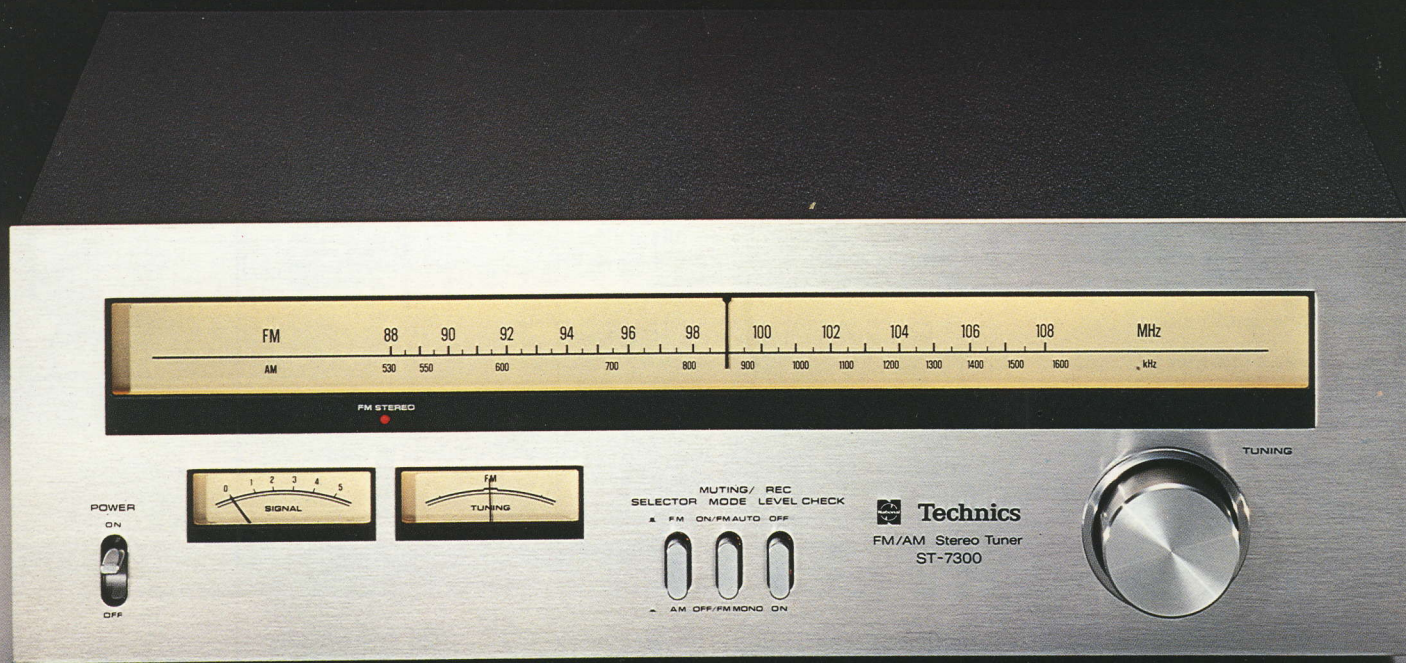




Technics

ST-7300

FM/AM Stereo Tuner



There are many high fidelity enthusiasts who seek the quality and control features of a separate tuner, but are put off by the prohibitive prices of "separates". For them, the ST-7300 is the perfect answer. It yields a flat frequency response curve from 20 Hz to 15 kHz, with a low 0.4% total

harmonic distortion in stereo, excellent sensitivity and selectivity figures, and a 75 dB signal-to-noise ratio. The ST-7300 demonstrates the high degree of performance that can be enjoyed at a very reasonable cost. We invite your critical examination.

ST-7300 FM/AM Stereo Tuner

Frequency response 20Hz-15kHz (+0.2 dB, -1.0 dB), phase locked loop FM stereo decoder, built-in test signal generator for accurate FM recording level setting.

Test Signal Generator for Perfect FM Recording Level Settings

Accurate level adjustments are critical in FM taping. The ST-7300 eliminates the guess work with a built-in test signal generator whose output corresponds to 50% of FM signal modulation. Simply switch on the 440 Hz pure sine wave generator and set the tape recording level.

Direct Antenna Connections

The antenna terminals are connected directly to the circuit board of the front end, without intervening wires. The results are an extremely good sensitivity, and excellent spurious and image rejection.

3-Ganged Capacitor FM Front End

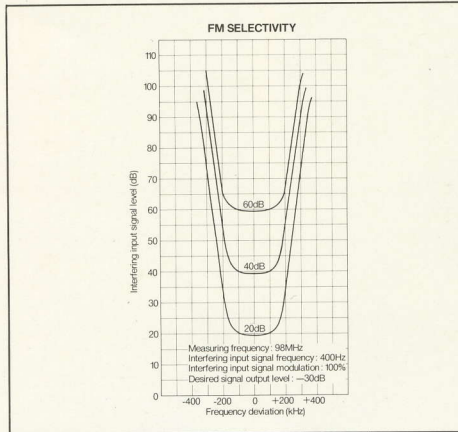
The high S/N ratio and sensitivity of the ST-7300 are due in large measure to the FET and 3-ganged capacitor used in the first stage of the front end.

Flat Frequency Response Over A Wide Spectrum, 20 Hz—15 kHz (+0.2 dB, -1.0 dB)

The remarkably flat frequency response curve over a broad range of frequencies is made possible by use of Chebyshev-characteristic low pass filters. These filters also attenuate the 19 kHz pilot signal to a level at which it will not interfere with the audio signal.

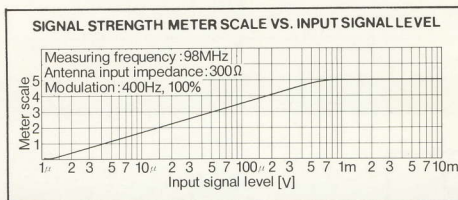
Flat Group Delay Filters in IF Stage

Three 2-element flat group delay ceramic filters in IF stage contribute to the tuner's excellent sound fidelity as evidenced by a total harmonic distortion of 0.4% (stereo), and S/N of 75 dB. Five differential amplifiers give high gain and an impressive selectivity rating of 75 dB (IHF).



Two Tuning Meters

The zero-center meter indicates exact center of channel tuning on FM. The signal strength meter works for both AM and FM. When used together, these two meters make FM tuning a simple matter. Quadrature demodulation by an integrated circuit assures meter linearity right up to the 60 dB (1000 μ V) input level.

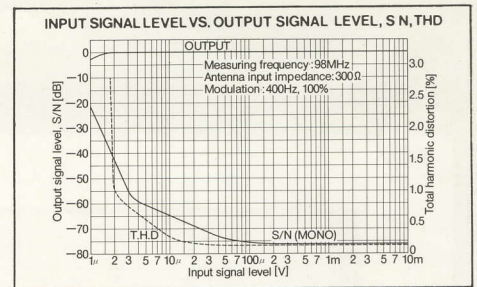


PLL FM MPX Decoder

A phase locked loop provides the 38 kHz time switching signal by which the two channels of FM MPX broadcasts are decoded. The phase comparator and feedback techniques employed interlock both frequency and phase of input and output signals to provide clearly defined channel separation despite temperature and humidity changes.

Sensitivity 1.0 μ V at S/N 20 dB (75 ohms)

The ST-7300 offers a truly amazing sensitivity: full 1.0 μ V at \pm 40 kHz deviation. Even more important, 46 dB quieting level can be reached with a signal strength of 19 μ V (75 ohms) in stereo. When using an outdoor antenna with the ST-7300 a coaxial cable (75 ohm impedance) is recommended.



Technical Specifications

FM TUNER SECTION

Frequency range:	88—108 MHz
Sensitivity (\pm 40 kHz deviation):	
S/N 30 dB	2.0 μ V (300 Ω), 1.4 μ V (75 Ω)
S/N 26 dB	1.8 μ V (300 Ω), 1.2 μ V (75 Ω)
S/N 20 dB	1.5 μ V (300 Ω), 1.0 μ V (75 Ω)
IHF usable sensitivity	2.0 μ V
S/N 46 dB quieting sensitivity	19 μ V (75 Ω , stereo)
Total harmonic distortion:	
MONO	100 Hz, 0.2%
	1 kHz, 0.2%
	6 kHz, 0.5%
STEREO	100 Hz, 0.4%
	1 kHz, 0.4%
	6 kHz, 0.5%
S/N (\pm 40 kHz deviation):	
MONO	69 dB, (75 dB, IHF)

STEREO	65 dB, (70 dB, IHF)
Frequency response:	20 Hz—15 kHz,
	+0.2 dB ~ -1.0 dB
Alternate channel selectivity:	75 dB
Capture ratio:	1.0 dB
Image rejection at 98 MHz:	55 dB
IF rejection at 98 MHz:	82 dB
Spurious response rejection at 98 MHz:	80 dB
AM suppression:	55 dB
Stereo separation:	45 dB (1 kHz)
	35 dB (10 kHz)
Leak carrier:	-60 dB (19 kHz, 38 kHz)
Channel balance (250 Hz—6300 Hz):	\pm 1.5 dB
Limiting point:	1.2 μ V
Bandwidth:	
IF amplifier	200 kHz

FM demodulator	820 kHz
Antenna terminals:	300 Ω , 75 Ω
AM TUNER SECTION	
Frequency range:	525—1605 kHz
Sensitivity:	30 μ V, 260 μ V/m
Selectivity:	20 dB
Image rejection at 1000 kHz:	45 dB
IF rejection at 1000 kHz:	40 dB

GENERAL

Output voltage & impedance:	0.5V/4.7k Ω
Power consumption:	11W
Power supply:	50/60 Hz,
	110/120/220/240V
Dimensions	410 x 139 x 317 mm
(W x H x D):	(16 $\frac{5}{32}$ " x 5 $\frac{15}{32}$ " x 12 $\frac{15}{32}$ ")
Weight:	5.1 kg (11.2 lb.)

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Matsushita Electric