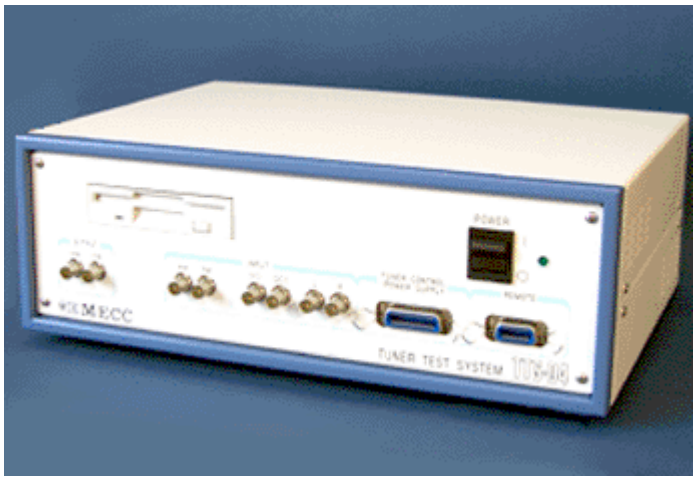
TTS-04

Tuner Test System



Inspection device for AM/FM electronic tuners in production.

The TTS-04 is a system to adjust and test tuners in a production process of AM/FM electronic tuners. Its compact chassis contains Signal Generator, Data Acquisition Unit, Power Supply and Control Unit, Remote Box, CPU Board and Display, Memory Unit and Software to control component units, which saves huge working space and provides efficient operation environment.

The TTS-04 can preprogram inspection and adjustment conditions for as many tuner models as required and has an automatic judgment function, reducing time taken for model changeover dramatically. The TTS-04, a device designed for high speed production, also contributes to quality control, as well.

- Covering frequency band for AM/FM broadcasting
  AM: 100kHz to 10MHz / FM: 60MHz to 160MHz
- IF INPUT(IF:200kHz to 20MHz) terminals can measure frequency bands of AM/FM broadcasting precisely.
- A power supply for a tuner, a control signal generator and a power supply for a Jig are accommodated in a single chassis, saving a working space.
- Automatic pass/fail judgment during measurements and condition setting for a tuner at an individual channel increase production efficiency and reduce changeover time.
- Condition setting for a tuner and judgment conditions can be easily programmed via PC (Windows98, 2000 or XP).

- PLL data format of a tuner for a frequency synthesizer can be automatically set by a standard formula.

- An off-the-shelf VGA monitor (640 x 480 pixels) will be connected to the TTS-04 and the display will be made in colors and in big fonts, which provides an operator-friendly working environment. (Please prepare a monitor at customer side.)

Rating		
Operational ambience(Indoor)	Operational temperature	5 to 35 degree C
	Operational humidity	30 to 80%(without dews)
	Storage temperature	-20 to 6 degree C
	Storage humidity	10 to 85% (without dews)
Line voltage		85V to 265V AC
Line frequency		50Hz / 60Hz
Power consumption		80VA or less
Dimensions		385 (W) x 140 (H) x 290 (D) mm
Weight	Main chassis	7kg or less
	Remote controller	2kg or less
Specifications		
Signal Generator (AM/FM OUTPUT)		
Input terminal		2 systems (AM/FM)
Oscillation frequency range		100kHz to 10MHz 60MHz to 160MHz
Frequency sweeping width		10kHz to 2MHz
Power output range		-70dBm to 5dBm
Flatness		±1.0dB
Power output decaying		In the step of 1dB
Spurious		-25dBc or less
Output impedance		75Ω(officially)
Output connector		BNC-J
Data Measurement Unit		
AM/FM INPUT terminal		
Input terminal		2 systems (AM/FM)
Oscillation frequency range		200kHz to 20MHz
Measured signal level		-60dBm to 5dBm
Absolute accuracy of the signal level		±1.0dB
Absolute accuracy of the frequency		±10kHz
Input impedance		75Ω(officially)
Input connector		BNC-J
DC INPUT terminal		
Input terminal (DC1, DC2)		2 systems (AM/FM)
Voltage measurement range		±10mV to ±400mV
Accuracy of voltage measurement		±2mV
Input impedance		1MΩ or less
Input connector		BNC-J
Polarity		To be programmed as per voltages after detections.

Control Software		
	Waveforms to be displayed	IF (Linear), POWER GAIN (log)
	Channels to be displayed	Max. 5 for AM / Max. 3 for FM
	Measurement method	Parameters will be manually switched and be measured.
Remote Controller (option)		
	Performs selection and measurement of tuners by connecting and operating the optional Remote Box.	
Measurement items		
Measurement parameters		
	IF LEVEL	
	Measurement range	0 to 10dB
	Display resolution	0.1dB
	Accuracy	±1.0dB
	POWER GAIN	
	Measurement range	0 to 60dB
	Display resolution	0.1dB
	Accuracy	±1.0dB
	Vt MONITOR	
	Measurement range	0 to 12V
	Display resolution	0.01V
	Accuracy	±0.1V
	Input impedance	1MΩ or more
	+B CURRENT	
	Measurement range	0 to 200mA
	Display resolution	1mA
	Accuracy	±5mA
	IF FREQUENCY	
	Measurement range	100k to 20MHz
	Display resolution	100Hz
	Accuracy	AM：±1kHz, FM：±10kHz