SECTION2

SPECIFICATIONS

2.01 The major specifications of the TTS 100P test set are listed in Table 2-1. Frequency response information for the bandpass and noise weighting filters is given in Tables 2-2 through 2-6.

Table 2-1. Overall Specifications.

RECEIVE SECTION	
LEVEL MEASUREMENTS	
Frequency Range:	100Hz to 60 kHz
Level Range:	-70 to +15 dBm
Resolution:	0.1 dB
Sampling Rate:	5 per second
Detection Method:	full-wave averaging
Absolute Accuracy At 1 kHz:	±0.1 dB from -40 to +10 dBm ±0.3 dB from -70 to ±15 dBm (typically ±0.1 dB).
Frequency Response:	see Figure 2-1
Bandpass Filter: (noise protection)	Selectable; 200 Hz to 10 kHz bandpass (refer to Table 2-2).
NOISE MEASUREMENTS	
Circuit Noise Range:	0 to 85 dBm for 600 or 900 ohms 10 to 85 dBm for 135 ohms
Noise- With-Tone Range:	10 to 85 dBm for 600 or 900 ohms 20 to 85 dBrn for 600 or 900 ohms
Noise-To-Ground Range:	40 to 125 dBrn
Resolution:	1 dB
Sampling Rate:	2.5 per second
Detection Method:	full-wave quasi-rms

Table 2-1. (Cont'd)

Circuit Noise Accuracy:	±1 dB from 0 to 85 dBrn for 600 or 900 ohms ±1dB from 10 to 85 dBrn for 135 ohms
Noise With Tone Accuracy:	±1 dB from 10 to 85 dBrn for 600 or 900 ohms ±1 dB from 20 to 85 dBrn for 135 ohms
Noise-To- Ground Accuracy: (holds over full 0 to 50 C temperature range)	±1.5 dB from 40 to 125 dBrn scaled for 600 or 900 ohm circuits ±1.5 dB from 50 to 125 dBrn scaled for 135 ohm circuits
Weighting Filters:	standard: C-message, 3 kHz, 15 kHz, and program (refer to Table 2-3 through 2-6)
FREQUENCY MEASUREMENTS	
Range:	Autoranging with two ranges: Below 100 Hz to 9.999 kHz; 9.99 kHz to 99.9 kHz
Display:	Four-digit LED, displays digits whenever level is read
Reading update rate:	5 times per second
Accuracy:	±1 LSD
Resolution:	Autoranging 1Hz or 10 Hz
TRANSMIT SECTION	
Frequency Range:	100 Hz to 60 kHz continuously variable in 2 ranges; can be set to ±1 count accuracy using the digital readout
Fixed Frequencies:	Selectable 404, 1004, and 2804 Hz
Output Level Range:	From -50 to + 10 dBm, in two ranges: -50 to -20, and -20 to +10 dBm.
Output Level Accuracy:	Self calibration; can be set to accuracy limits of receive section

Table 2-1. (Cont'd)

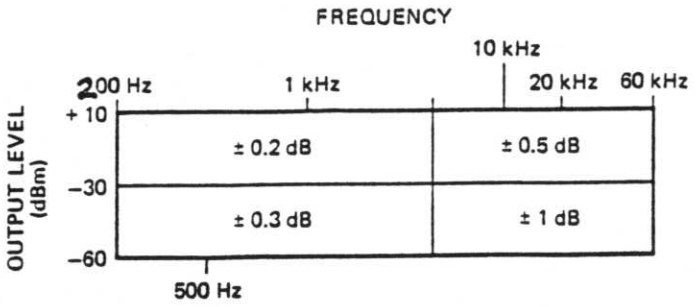
Flatness 600/900 ohms (135 ohms not specified)	
Harmonic Distortion:	≤-40 dB (all harmonics 100 Hz to 3.5 kHz ≤-50 dB (THD HOLD TONE)
GENERAL	
Input/Output Balanced Impedances:	135, 600, or, 900 ohms
Input/Output Return Loss: (without holding circuit)	≥30 dB from 500 Hz to 60 kHz for 135 ohms ≥30 dB from 100 Hz to 20 kHz for 600 or 900 ohms
Input/Output Return Loss: (with holding curcuit)	same as without hold circuit except that below 300 Hz and above 10 kHz, the return loss specification is relaxed by 6 dB/octave when in 600 or 900 ohms.
CAL Send Key:	Loops oscillator to the level/ noise input direct
Input Bridging Impedance: (without holding circuit)	≥25 kohms at 1 kHz for 135, 600, or 900 ohms
Input Bridging Loss: (with holding cirduit)	≤0.2 dB from 100 Hz to 60 kHz for 135 or 600 ohms ≤0.3 dB from 100 Hz to 60 kHz for 900 ohms
Input Noise-To-Ground Impedance:	400 kohms tip to ring; 200 kohms tip to ground or ring to ground
Input Common Mode Rejection:	per Bell Technical Reference 41009

Table 2-1. (Cont'd)

Line Holding:	active current source;25mA nominal
Input/Output Protection:	300 Vdc bocking, both bridging and termination 200 Vdc noise-to-ground
Power:	Rechargeable Gel Cell batteries supply up to 6-8 hours of continuous operation; also operates on 115 VAC 60 Hz (230 VAC optional)
Temperature Range:	operation: 0°C to 50° C (32°F to 122° F) Storage: -20°C to 65°C (-4°F to 149°F) 149 F)
Relative Humidity:	0 to 95% at $\leq$40°C ($\leq$104°F) 0 to 85% at $\leq$50°C ($\leq$122°F)
Size:	14 1/2" wide X 6" high X 6" deep.
Weight:	10 lbs. (with batteries)