ATS-5X
Audio Transmission Test Set

The ATS-5X is a comprehensive handheld test instrument for installation and troubleshooting of equipment or circuits in leased and dial-up networks. ATS-5X is designed to comply with IEEE and Bell specifications plus, it provides enhanced test capability such as Echo Measurement and Longitudinal Balance to address today’s issues in public networks. The ATS-5X can function as a telephone handset on 2-wire and 4-wire circuits with dial, bridge, talk and listen capability. Rugged construction with a bright, clear LCD touchscreen makes control and operation intuitive and very straightforward. Use the ATS-5X to verify proper functionality of your network to send and receive quality voice or tone information. The ATS-5X brings network stability through rapid audio fault identification and improved service quality.

Benefits:

- Simple/intuitive touchscreen operation
- Keypad or usb mouse/keyboard to supplement touchscreen
- Measures echo parameters for quality of service verification.
- Spectra display for identifying interference sources.
- Rapid 23-tone measurement of signal-to-noise and total distortion.
- Slope and P/AR measurements
- Compact rugged design for field use.
- Delay emulation to simulate echo.
- Longitudinal Balance measurement to identify cause of hum/noise.
- Functions as telephone handset
- Impulse noise measurement.
- Large color LCD display of multiple parameters and results
- Saves measurement data to USB Drive (not supplied).
- Excellent rechargeable battery life

ATS-5X adds quality and value to the network, saving time and money!
ATS-5X SPECIFICATIONS

TRANSMITTER
- Frequency: Range: 50Hz to 20kHz
- Resolution: 1Hz
- Accuracy: ±0.2dB
- Resolution: 0.01 dB

Transmit Level
- Range: -40dBm to +10dBm
- Resolution: 0.01 dB
- Accuracy: ±2dB from 0 dBm to 40dBm for 15kHz filter or no filter ±1dB elsewhere

Harmonic Distortion (to 20kHz)
- <0.5% [-15dBm to +10dBm]
- <1% [-30dBm to -15dBm] [200Hz to 10kHz]
- <3% elsewhere

Source Impedance
- Settings: 600Ω, 900Ω
- Accuracy: ±5%
- Flatness: ±5%

RECEIVER
- Frequency: Range: 50Hz to 20kHz
- Resolution: 1Hz
- Accuracy: ±1Hz

Receive Level
- Range: -80dBm to +10dBm
- Resolution: 0.01 dB
- Accuracy: ±0.1dB at 1000Hz from +10dBm to -20dBm, ±0.2dB elsewhere
- Flatness: ±0.5dB
- Type: DFT

Noise Level
- Range: 0dBm to +100dBm
- Resolution: 0.01 dB
- Accuracy: ±2 dB from 0 dBm to 10 dBm, ±1dB elsewhere

Noise with Tone
- Range: 0dBm to +100dBm
- Resolution: 0.01 dB
- Accuracy: ±3 dB from 0dBm to 10 dBm, ±2 dB elsewhere

Termination Impedance
- Settings: 600Ω, 900Ω, bridging [>25kΩ]
- Accuracy: ±5%
- Flatness: ±5%

Filters
- C-Message: 3.4kHz flat
- D Filter: 15kHz flat
- 1010Hz Notch: C-Message & 1010Hz Notch
- None (20kHz flat)

23-TONE
- Transmit Level
  - Range: -40dBm to +4dBm
  - Resolution: ±0.1dB
  - Accuracy: ±2dB
  - Flatness: ±0.1dB

Receive Level
- Range: -90dBm to +4dBm
- Resolution: ±0.1dB
- Accuracy: ±2dB
- Flatness: ±0.1dB

Envelope delay distortion
- Range: -1800μsec to +1800μsec
- Resolution: ±1μsec
- Accuracy: ±5μsec

Signal/Noise Ratios
- Signal to IM distortion
  - Range: -100dB to +100dB
  - Resolution: 0.01 dB
  - Accuracy: ±0.2dB

- Signal to Noise
  - Range: -100dB to +100dB
  - Resolution: ±0.01 dB
  - Accuracy: ±0.2dB

IMPULSE NOISE
- Filters: All settings

Threshold Level
- Resolution: 0.01dB

Level Range: -20dBm to +10dBm
- Resolution: 0.01dB
- Accuracy: ±0.2dB

Counting
- Time: Max rate: 10 impulses per second (dead time is 100ms)
- Frequency: Max value: > 1,000,000

HOLDING TONE
- Standard 1010Hz notch
- Range: 950 – 1050Hz

PULSE DIAL
- Off-hook duration: 60 ms
- On-hook duration: 90 ms
- Inter-digit time: 800 ms

SPECTRUM
- Frequency: Range: 50Hz to 20kHz
- Resolution: 14Hz
- Accuracy: ±0.5dB
- Flatness: ±3dB for balance >70dB <90dB
- ±1dB for balance < 70dB

ECHO MEASUREMENT
- Time Range: 10 – 2000 msec
- Resolution: ±1 msec
- Accuracy: ±±2 msec

DELAY EMULATOR (4-wire)
- Time
  - Range: 10 – 700 msec
  - Resolution: ±1 msec
  - Accuracy: ±±2 msec

- Attenuation
  - Range: 0 to 30 dB
  - Resolution: ±0.01 dB
  - Accuracy: ±0.3 dB

Peak to Avg. Ratio (P/AR)
- Transmitter
  - Level Range: -40dBm to +2 dBm
  - Level resolution: 0.01 dB
  - Level accuracy: ±0.2 dB
  - P/AR ratio: 100:2 counts

- Receiver
  - Level Range: -80dBm to +2dBm
  - Level resolution: 0.01 dB
  - Level accuracy: ±0.2 dB
  - Filters: 1.3 kHz band-pass filter
  - P/AR Range: 0 to 120 units
  - P/AR Resolution: 1 unit
  - P/AR Accuracy±2 units
  - ±3 dBm to +2 dBm), ±4 units elsewhere

VOLTAGE LIMITS (Terminals)
- DC blocking voltage: 60VDC
- Max AC voltage: 100VPEAK

HOLDING CURRENT
- 23mA to 25mA

POWER
- DC Input: 12v DC, 1000mA
- Fully Charged Battery Life: 6 hours nominal

POWER MODULE
- AC Input: 100-240v AC, 50-60Hz, 0.5A

DATA STORAGE
- USB Drive
- User provided

PHYSICAL
- Size: 11.5”L x 3.9”W x 1.5”H (open)
- 6.0”L x 3.9”W x 2.7”H (closed)

- Weight: 1.6 lbs
- Operating Temp.: -10°C to 55°C
- Storage Temp.: -20°C to 80°C
- Max Humidity: 90% non-condensing

Made in U.S.A.

Specifications subject to change without notice.

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