eive a calibration and/or repair quote-RMA from R.A.E. Servic Click here>> www.raeservices.com/services/quote.htm MUITI-Purpose Universal HDSL Tester HDSL (292kH2.) ISDN BRI (U-Intertace) - SDSL (384kH2.)

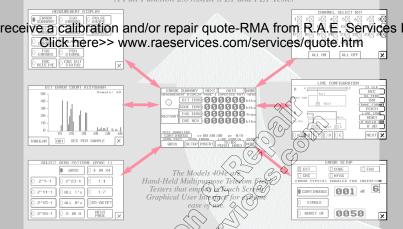
A Hand-Held Combination Tester for the Telecom Field Technician A powerful tool for testing:

- E1/Fractional E1 Digital Circuits
- Wideband Analog Transmission Impairment
- DataCom both Synchronous and Asynchronous

ST, ISO, IEC, ANSI, NCSL, MIL-STD by www.raeservices.co

Ameritec Corporation is an ISO 9001:2000 Certified Company

### DIGITAL A Full Function 2.048MBPS E1 and FE1 Tester



#### **Digital Tester**

The digital test functionality of the Most 404e allows a wide range of testing on factors of are provided in order to allow bidiy function of the insert testing. The unit can be functioned for the insert testing. The unit can be functioned for the monitor the line for BEPK functional difference of and TS16 frame synchronization and Charlows. The Model 404e is comparing by functional difference of as PCM30 and PC 357 forming with TDB3 encoding. Enhanced Digital Guidonal

With the Enhance Digital Otiún, an EI telephone is added with dial, talk & lizer Stability on any user selected El voice channel. The Enhanced Digital option provides VF testing of any user selected channel including voiceband level, frequency, noise and return loss. Real-time error counters are augmented by histograms so that the distribution of errors during a test can be studied.

The Enhanced Digital option augments the standard patterns with 5 user programmed long patterns which can be as short as 1 byte or as long as 128

#### A Shysical Layer Testing

The Model 404e measures the actual E1 trequency and level to verify basic signaling integrity.

### Error Display

Real time error counters of framing, code, logical and CRC errors are kept for the duration of the test. Individual error type displays can be accessed each showing errored seconds, error free seconds, degraded minutes and other pertinent G821 data.

#### Datacom (optional)

Extensive pattern generation and detection with G821 bit error rate reporting are provided.

V.35, RS232, RS449 and EIA530 interfaces are provided in the Model 404e. Errors can be injected into the data one bit at time or in bursts. The Model 404e also reports the presence of both Transit and Receive clocks to make troubleshooting fast and easy.

#### AutoTesting with AM440

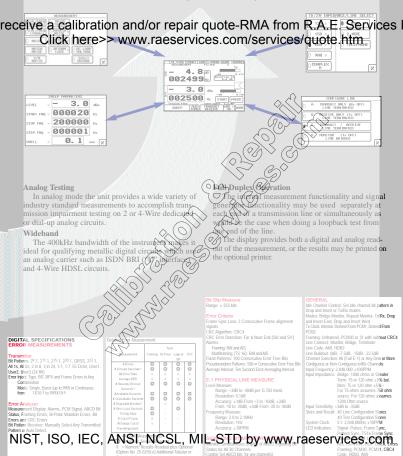
Model 404e test analog measurements automatically with AM440 Remote Test Partner placed at the other end of the wire. LVL/FREQ/NOISE are examples of auto tests performed with the Model 404e-400 and the

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graphical display of pulse shape with the G.703 or a user set table Mask.

## ANALOG

A Full Functional Analog Transmission Impairment Tester



Transmit user set NFAS bits in a repeating multiframe

nation

lest Timer: Continuous or Timed - Time

Hour. 59 Min., 59 Sec.

Programmable From 00 Hour, 00 Min., 00 Sec. to 99

DIGITAL SPECIFICATIONS	DATACOM SPECIFICATIONS	and Sweep Mode	DC LOOP VOLTAGE
(continued) Enhanced Digital Technical	INTERFACES V28RS232	NOISE Transmitter: Quiet Termination	Receiver Range: 0 to ± 120 VDC
Specifications (Option No. 25-0250e)	EIA530/RS530A: V 35	Receiver	Accuracy: ±1 Volt
Additional Bit Patterns 1 - 128 Octet User Defined Patterns (5)	V.36/RS449	Range: +9 to - 65dBm Resolution: 1dB	RING VOLTAGE/FREQUENCY Receiver
Histogram Display Tabular and Graphical Histograms of	Includes Datacom Software, Emulates DCE, DTE Maximum Data Speed: 200, 600, 1200, 2400, 4800	Accuracy: Same as Receiver Above Filters: 400kHz Lo Pare, Deophoraetric, Sound	Range: 10 to ± 120 VAC, 20 to 1000Hz
eceive a calibrati	on and/or repair	quote-RMA from	R.A.E. Services
Severely Erro	> www.raeservic	es com/services	auote htm
Sync Loss Seconds	> www.raeservio	Transmitter: 1020Hz (Holding Tone)	Duration: 60/60 On or Off Minimum
Frame Slips E1 Physical Line Measure	LEVEL FREQUENCY Transmitter	Receiver Notch: 995 to 1025Hz >50dB	Twist: 9dB Maximum Display: Up to 22 Digits
Pulse Shape Measure: Measurements: Graphical Display, Pulse Width,	Var Mode: 20Hz to 400kHz in steps or Direct Numeric Entry 1020Hz Mode: 1020Hz Fixed	- Other Specifications Same as "Noise" Above So Long As Holding Tone Level Is Less Than 40dB Above The	Display Mode: Fill and Hold or FiFo GENERAL
Rise Time, Fall Time, Overshoot, Undershoot	Slope Mode: 304, 1020, 2004 or 3004Hz	Noise Level	Input: 2- or 4-Wire
Range: +1 to -3dBm Masks: G.703, user	Step Dwell: 0.1 to 999.9 sec. Sweep Mode: Start Freq: 20Hz to	NOISE TO GROUND Transmitter: Quiet Termination	Receive Impedance (Terminate): 135, 150, 600, 900 or 1200ohms (Complex A available. Contact factory)
Single Channel Monitor Monitor: Any Voice Channel	400kHz Stop Freq: 20Hz to 400kHz	Receiver Range: -35 to +39dBm	Receive Impedance (Bridge): >50K ohm, Bridging Loss <0.2rdB
Decode: DTMF, Pulse Signaling States: Onhook, Offhook	Step Size: 1Hz to 199.9kHz Step Dwell: 0.1 to 999.9 sec.	Resolution: 1dB Accuracy: ±1.5dB	Transmit Source Impedance: Open, 135, 150, 600, 900 or 1200 ohm
Modes: User	SF Skip: 2130 to 2430Hz	Filters/Detector: - Same as "Noise" Above	DC Blocking: 200 VDC
Channel Select: Direct Enter, Scroll E1 Telephone	Frequency Accuracy: ± .01% Level Range: -50 to +10dBm	SIGNAL TO NOISE RATIO Transmitter: 1020Hz (Holding Tone)	Balance: NodB @ 50 to 120Hz Decreasing 6/8510Caxe bove 120Hz
Signaling States: Onhook, Offhook, Wink, Flash Modes: User	Resolution: 0.1dB Accuracy:	Receiver Signal Range: -40 to +10dBm	Nerten Dess: >30dB Nold Circuit: 2w (Tx Pair) DC = 200 ohm,
Dial: DTMF, Pulse	At + 10dBm to -19dBm @ 1004Hz to 1020Hz the	Noise Range: -65 to -20dBr ( )	ACV>20K ohm
Push To Talk Channel Select: Direct Enter, Scroll	accuracy will be within ± 0.1 dBm @600 -1900 Ohms 600/900 Ohms	Ratio Range: 10 to 50dB	Senaling: DTMF from Full 16 Button Keypad Monitor: Built-In Speaker with Selection of Transmit,
Analog Measurements Send	200Hz 206Hz 1006Hz 4006Hz		Receive or Measure Monitor Talk: Built-In Microphone with Push-to-Talk
Signal: Quiet, 1020Hz, Variable Frequency, Slope, Sweep, Return Loss Noise	+10d8m + 10.2 ± 0.3 ± 1.2	+346 @ 10 50005	Store/Recall: 40 User Defined Test Setups and 40 User
Level Range: +3dBm to -40dBm	-40dBm	Noise below 200 medices accurate to 2008 except when using Psychologistic filter	Defined Line Configurations PHYSICAL
Resolution: ±0.1dB Accuracy: ±0.2dB	100/135 Ohms	HRULSE NOISE (3 LEVEL)	Power: Internal Rechargeable NIMH Battery Pack Battery Life: 6 Hours (average)
Frequency: Range: 200 to 3500Hz	400Hz 18Hz 200kHz 400kHz	Receiver	Ext. Power/Recharge: 115/230 VAC Adapter, Optional 12 VDC Cigarette Lighter Adapter
Resolution: ±1Hz	+10.8m ± 0.5 ± 0.4 ± 1.2	The stand Difference (2, C) or 6dB	Weight: 1.56kg
Accuracy: ±1Hz Receive:	-5008m ±1.0 ±1.5	Accuracy: ±1dB Timer: 0.1 to 99,9 min or Continuous	Size: 1264cc Dimensions: 198 x114 x 56mm
Level: Range: +3 to -40dB	Receiver Level Range: -64.9 to +10dBm	Max Court 94 Aeach of three Counters	Operating Temp: 0 to 40° Celsius Storage Temp: -20 to 60° Celsius
Resolution: ±1Hz	Resolution: 0.1dB	IMPOLSE NOISE WITH TONE	Printer: Output port compatible with Ameritec Model
Accuracy: ±0.2dB Frequency:	Accuracy: Accuracy is ± 0.1dB@100(10N2NH) @ 0 to-20dBm	Temperature 1020Hz (Holding Tone)	AM-47XT-D Graphics Printer Line Connections:
Range: 200 with 3500Hz Resolution: ±1Hz	200 200 200 000	Cher Specifications Same as "Impulse Noise" Above -	<ol> <li>or 4- Wire Analog: 5' Analog Input Cable Assembly with Miniclips at User End</li> </ol>
Accuracy: ±1Hz CMsc:		Transmitter: 32Hz to 4kHz Band Limited White Noise or Sine Wave @ -10 to -2dBm	* Mates with ADC PJ777 or Switchcraft TT253
Range: +3 to -40dB	NO7 (9/0	Receiver	Ordering
Resolution: ±1dB Accuracy: ±1dB		Measurement: Simultaneous ERL, SRL (Lo), SRL (Hi) Range: 0 to 40dB (2-Wire), 0 to 50dB (4-Wire)	The Model 404e-400 is supplied standard with the following:
Return Loss ERL, SRL (Lo), SRL (Hi)	Departing Averaging	Resolution: 0.1dB Accuracy: ±0.5dB	Basic Unit w/battery (6hrs) Bantam Connectors/no cables
Range: 0 to 40dB	Eline ADNHZ ED Bess, 15kHz to Pass, 60Hz Hi Pass	Transhybrid Loss Compensation (TLP): -99.9 to	for Datacom Testing Mode
Resolution: ±0.1dB Accuracy: ±0.3dB	Nange 20Hz to 400kHz	+99.9dB Detector: RMS	AC Adapter Analog Input Cable with Clips
	Tecolution/Accuracy: x01% of yeading ± 1 count (Sensityly: -65 to x00% with S/N Ratio >20dB	DROPOUTS Dropouts Threshold: 12dB	Serial Input Cable One Touch Pen
$\mathcal{C}$	Inductory Response: Standical or Tabular Plot of Level vs Frequency While in Level/Frequency Mode	Accuracy: ±1dB	Instruction Manual Softcase
	AP		Accessories
	A		25-0250e Enhanced Digital (option) AM-47XT-D Accessory Printer
	AP		(includes battery and connecting cable) 26-0015 Replacement AM-47XT Printer Ribbon
		9	48-0047 Bantam to Bantam Cable-6Ft. 48-0285 Replacement Analog Input Cable
	The second se	- Contraction of the Contraction	48-0285 Replacement Analog Input Cable DTE/DCE Datacom Cables (Call for Info)
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	III MON SCHEDURE		
			760 Arrow Grand Circle
-			Covina, CA 91722 USA
at the			TEL 626.915.544
NIST ISO, IFC	ANSI, NCSL, MI	L-STD by www r	aeservices com
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#### Test Complete

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