



## DigiSmart™ 4100 / 4200-RT

FEATURES 5 SIGNALING MODES TO MEET ALL YOUR DID, DOD,  
AND LOCAL LOOP LINE SIGNAL TEST REQUIREMENTS

The DigiSmart™ 4100-RT is a trunk tester so versatile and so comprehensive, it has been awarded a U.S. patent recognizing its uniqueness. It packs the power to test both ends of a circuit into a handheld unit that the technician can take to every job.

U.S. PATENT 4,843,620

Add MF digit capabilities to the 4100-RT and you have the 4200-RT model. Affordably priced, both models are an industry best buy.

Five signaling modes are available at the touch of a button:

C/O Immediate Start C/O Wink Start	>	DOD
PBX Immediate Start PBX Wink Start	>	DID
Normal Loop	>	POTS

Transmit DTMF or Dial Pulse digits. Display up to 32 digits on the 4-line LCD. Scan each digit to analyze timing. Send and receive MF tones as well with the 4200-RT model.

Other features include:

- BRIDGE OR TERMINATE CIRCUIT
- 600 OR 900 OHM IMPEDANCE
- 1004Hz TONE SOURCE
- WINK TIMING ANALYSIS DISPLAYED
- 11 STANDARD CALL PROGRESS TONES
- VISUAL DISPLAY OF STATUS MESSAGES
- BANTAM AND MODULAR TEST JACKS
- SPEAKER FOR AUDIBLE MONITORING
- RUGGED RELIABLE CONSTRUCTION



The DigiSmart™ 4100-RT and 4200-RT come complete with hardshell plastic carrying case, wall-mount AC adapter, 6-foot test lead with bantam plug and two 5-way alligator clips, instruction booklet and one-year warranty.

# DigiSmart™ 4100 / 4200-RT Specifications

## Display

Alphanumeric LCD  
4 lines, 16 char/line  
32 digits maximum  
Signal levels are referenced to 900 ohms in the specifications below

## Speaker

1.5 inch round  
volume control  
internal mount

## Call Progress Tones

Frequencies (single or dual) 350, 440, 480, 620 Hz  
Transmit Level (each tone) -10 dBm nominal  
Transmit Level (each tone) -10 dBm nominal  
Frequency Accuracy +/- 0.75%  
Timing Accuracy +/- 2.5% of nominal

## DTMF/Dual-Tone Multi-Frequency

### TRANSMIT (Store, Send & Repeat)

Tone Duration 50 msec  
Interdigit Duration 50 msec  
Transmit Rate 10 digits/second  
Level: Low/High Group -6 / -3 dBm +/- 2 dB

### RECEIVE

Tone Duration (min) 35 msec  
Interdigit Duration (min) 35 msec  
Receive Rate (max) 14 digits/sec  
Sensitivity Range 0 to -30 dBm  
Twist (maximum) 10 dB

KEY	STONE NAME	FREQ. 1	FREQ. 2
1	Dial Tone	350 Hz	440 Hz
2	Reorder	480 Hz	620 Hz
3	Busy	480 Hz	620 Hz
4	Audible Ring	440 Hz	480 Hz
5	Recall Dial	350 Hz	440 Hz
6	Special AR	440 Hz	480 Hz
7	Intercept	440 Hz	620 Hz
8	Call Waiting	440 Hz	-----
9	Busy Verification	440 Hz	-----
0	Executive Override	440 Hz	-----
*	Confirmation	350 Hz	440 Hz

## Dial Pulse

### TRANSMIT (Store, Send & Repeat)

Pulse Rate 10 pulses/second  
Percent Break 67%  
Interdigit Period 800 msec

### RECEIVE

Pulse Rate (min / max) 8 to 16 pulses/sec  
Percent Break (min / max) 35% / 80%  
Interdigit Period (minimum) 160 msec

## DID Parameters

Line Resistance 1700 ohms maximum  
Wink Type Reverse Battery  
Off-Hook/Wink Delay 100 msec nominal  
Wink Duration 200 msec nominal  
Receive Inhibit Period 30 msec nominal  
Normal Battery Voltage -48 VDC nominal  
Reverse Battery Voltage 48 VDC nominal  
Battery Source Resistance Balanced 220 ohms  
Current Current limited to 70 ma

## MF/Multi-Frequency

### TRANSMIT (Store, Send & Repeat)

KP Tone Duration 100 msec  
Duration of all other tones 70 msec  
Interdigit Period 70 msec  
Tone Level (each tone) -6 dBm +/- 1 dB

### RECEIVE

Sensitivity Range 0 to -25 dBm  
KP Tone Duration (min) 60 msec  
Duration of all other tones 40 msec  
Interdigit Duration (min) 40 msec  
Twist (maximum) 6 dB

Special MF tones are displayed as two characters, reducing display capacity to less than 32 digits

## Wink Timing Analysis

### C/O WINK START MODE

Pre-Wink Interval 10 to 999 msec  
Wink Duration 100 to 290 msec  
PBX WINK START MODE  
Post Wink Interval 0 to 999 msec

### Analysis Resolution

1 msec  
Analysis Accuracy +/-2 msec

## Power Requirements

AC Adapter Class B transformer, 8 ft. cord  
Input Voltage 120 VAC, 60 Hz  
Output Voltages + 15 and -60 VDC

## Tone Source

Frequency 1004 Hz +/- 2 Hz  
Level into 900 ohms 0 dBm +/- 0.2 dB  
Level into 600 ohms 2 dBm +/- 0.5 dB

## Dimensions / Weight

Instrument 2.9 x 4.2 x 8.1 inches  
(7.4 x 10.7 x 20.6 cm)

1.75 lb (0.8 kg)

### Carrying Case

4.6 x 11 x 13.5 inches  
(11.7 x 27.9 x 39 cm)

4 lbs (1.8 kg)

