

## 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

## 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

## 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

## 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

## 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

## 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

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

## 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

## 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

## 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)

