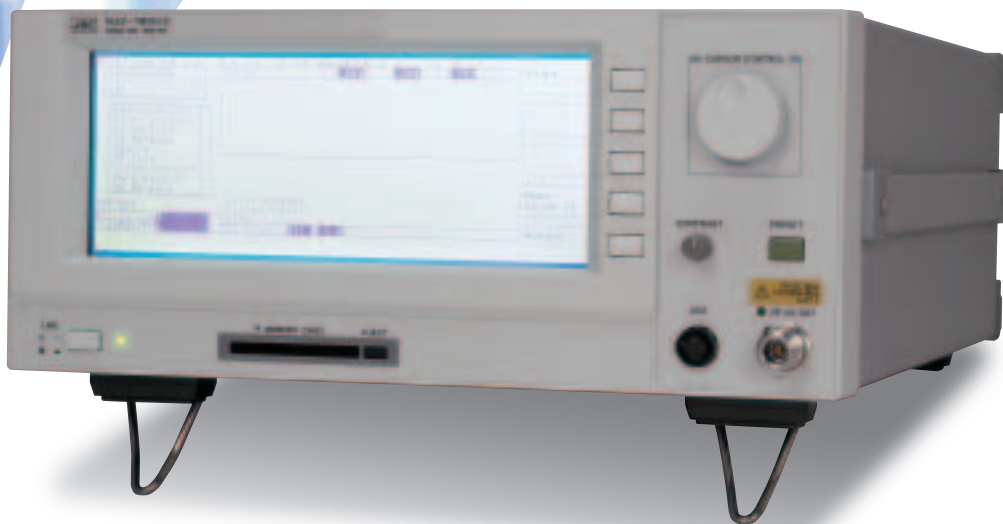


**JRC**

# CDMA MOBILE STATION TESTER NJZ-1800C

**Numerous product features —**

very affordable test set for  
mobile-phone service and repair



- Complete CDMA, CDMA2000 1X and 1xEV-DO coverage to be able to test CDMA mobile phones no matter where you are in single test set
- Get high-performance, consistent, and reliable test results comparable to a manufacturing test solution, with signal-level and power-measurement accuracy of  $\pm 0.6\text{dB}$
- Perform variety of automated and manual service tasks, from automated go/no-go verification testing to module-level repair and calibration
- All at a great price — best performance in its price class



*Japan Radio Co., Ltd.*

## Specifications Summary

- CDMA Cellular (US, Korea, and Japan), CDMA PCS (US and Korea) coverage in one instrument.
- Built-in automatic test : 3 channels tests at a radio system and automatic handoff from among 3 radio system

### CDMA call processing functionality

#### Radio system support :

IS-2000 (US, Korea, and Japan), IS-95A (Cellr/IS95A), TSB-74 (Cellr/TSB74), ARIB T53 (Cellr/T53), J-STD-008 (PCS US, PCS Korea P0, and PCS Korea P1), IS-866

#### Handoff support :

Softer handoff between two sectors A and B  
Hard handoff between any two RF channels  
Multi-mode hard handoff between Cellr/IS95A and PCS US, between Cellr/TSB74 and PCS US, and from IS-2000 to IS95A.

### CDMA signal generator

#### Frequency Range :

869MHz to 894MHz (Cellr/IS95A and Cellr/TSB74), 832MHz to 834MHz, 838MHz to 843MHz, 843MHz to 846MHz, and 860MHz to 870MHz (Cellr/T53), 1805MHz to 1870MHz (PCS Korea P0 and P1), 1930MHz to 1990MHz (PCS US)

Accuracy : Same as reference oscillator

#### Amplitude :

Range : -110dBm to -20dBm  
Accuracy :  $\pm 1.0$ dB at  $\leq -50$ dBm  
 $\pm 2.0$ dB at  $> -50$ dBm  
Resolution : 0.1dB

#### CDMA modulation :

Type : QPSK based on IS-95A, cdma2000 and 1xEV-DO  
Residual rho :  $> = 0.912$  (typically  $> 0.95$ )  
Data generation patterns : PN9 for loopback, Single Byte Pattern for TDSO  
Power control bit : Always up, Always down, Open loop

### CDMA analyzer

#### Input frequency range :

824MHz to 849MHz (Cellr/IS95A and Cellr/TSB74), 887MHz to 889MHz, 893MHz to 898MHz, 898MHz to 901MHz, and 915MHz to 925MHz (Cellr/T53), 1715MHz to 1780MHz (PCS Korea P0 and P1), 1850MHz to 1910MHz (PCS US)

#### CDMA power measurement :

Range : -60dBm to +39dBm  
Accuracy :  
 $\pm 1$ dB (typically  $\pm 0.6$ dB) at  $\geq 0$ dBm  
 $\pm 2$ dB (typically  $\pm 1.2$ dB) at  $\geq -40$ dBm and  $< 0$ dBm  
 $\pm 3$ dB (typically  $\pm 1.8$ dB) at  $< -40$ dBm  
Resolution : 0.2dB

#### CDMA modulation measurement :

Input range : -20dBm to +39dBm  
Modulation type : OQPSK based on IS-95A  
HPSK based on cdma2000 RC3,4,1xEV-DO

#### Rho measurement :

Single Code Rho : IS-95 and cdma2000 RC1,2  
Multi Code Rho : cdma2000 RC3,4,1xEV-DO  
Range : 0.9 to 1.0  
Accuracy :  $\pm 0.01$  at  $\geq 0.95$   
 $\pm 0.02$  at  $< 0.95$   
Resolution : 0.001

#### Frequency error measurement :

Range :  $\pm 10$ kHz  
Accuracy :  
 $\pm (30\text{Hz} + \text{frequency reference accuracy})$  at average of 4 measurements  
Resolution : 1Hz

#### CDMA frame error rate measurement (loopback) :

Method :  
Data loop back at full rate per service option 002 or Service Option 009 supporting confidence limits (95% or off) as outlined in TIA/EIA-98A Appendix A.1.  
Range : 0% to 100%  
Resolution : 0.00001%  
Displayed results : Measured FER, number of errors, number of frames tested, and one of the following : pass, fail, or ---- (pass/fail not applicable)

#### CDMA frame error rate measurement (TDSO) :

Method : Test Data Service Option per Service Option 32 supporting confidence limits (95% or off)  
Range : 0% to 100%

#### CDMA packet error rate measurement (1xEV-DO) :

Method : PER1 FTAP : Forward Traffic channel Rate is 307.2kbps  
PER2 FTAP : Forward Traffic channel Rate is 2457.6kbps  
confidence limits (95% or off)  
Range : 0% to 100%

### DC power supply

Range : 3VDC to 12VDC at 0.1VDC step , (Max. 1A)

### DC current measurement

Range : 0mA to 1000mA in 1mA Resolution  
Accuracy :  $\pm 3$ mA at  $\leq 100$ mA ,  $\pm 30$ mA at  $> 100$ mA

### RF Input/Output

Maximum safe reverse power : +41dBm (12.6W, CW; supplemental characteristic)  
Impedance : 50 ohm nominal, Input SWR :  $< 1.5:1$   
Connector : N-type (f)

### Reference oscillator

Frequency : 10MHz  
Frequency accuracy :  $\pm [(\text{Time since calibration} \times \text{Aging rate}) + \text{Temperature effects} + \text{Accuracy of calibration}]$   
Aging rate :  $\pm 0.1$  ppm per year  
Temperature stability :  $\pm 0.1$  ppm at 0°C to 40°C  
Reference output level : +3dBm, 50 ohm, supplemental characteristic  
Reference input level : 0dBm to 10dBm, 50 ohm, supplemental characteristic  
Connector : BNC (f) connector

### General specifications

Size : 350(W)  $\times$  150(H)  $\times$  400(D)mm  
Weight :  $< 15$ kg  
Operating temperature : 0°C to +40°C  
Storage temperature : -20°C to +60°C  
Operating humidity : 15 %RH to 95 %RH @ +40°C  
Power : 88VAC to 264VAC, 47Hz to 63Hz,  $< 250$ VA  
Safety : European Council Directive 73/23/EEC  
IEC 61010-1 : 1990+A1+A2 / EN 61010-1 : 1993+A2  
CAN/CSA C22.2 No. 1010.1-92  
EMC : European Council Directive 89/336/EEC  
EN 61326-1 : 1997 + A1  
CISPR 11 : 1997+A1 / EN 55011 : 1998 Group 1, Class A  
Altitude :  $< 2000$  meters

• Specifications may be subject to change without notice

For further information, contact:



Since 1915

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