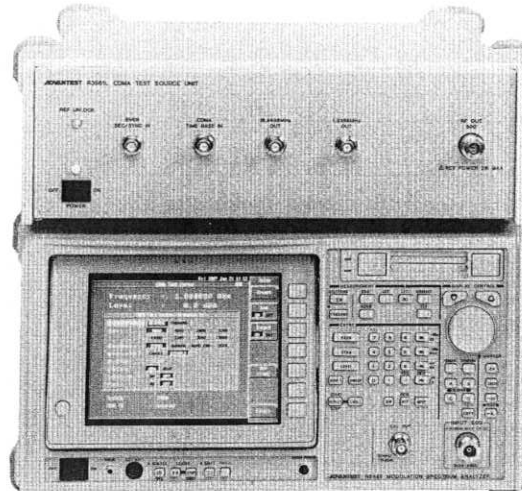
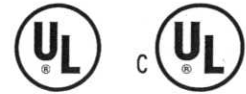


Spectrum Analyzers

Essential to CDMA Base Station Installation/Maintenance

R3561L Test Source

- Enables receiver sensitivity testing with light-weight and compact size.
- Improved waveform quality ($p \geq 0.96$).
- Wide frequency band (Cellular, PCS).
- Modulated signal conforming to IS-95 standards.
- All functions can be controlled by the R3465/3463 (OPT. 09 required).

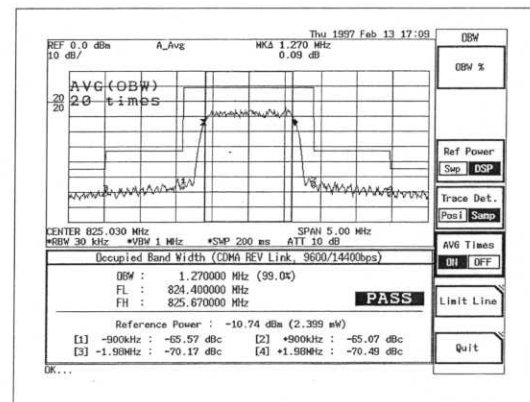


R3561L CDMA Test Source Unit

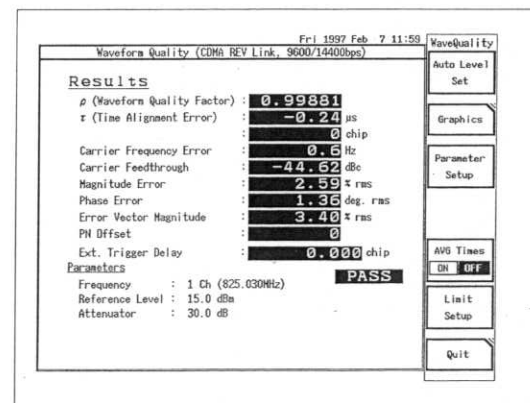
The CDMA Test Source Unit R3561L is operated in combined with the Modulation Spectrum Analyzer R3465 or R3463. (The CDMA Test Control Option (OPT. 09) is required to the R3465/3463.) Output of the modulated signal based on IS-95 standards enables Rx test at a base station. The frequency band of both Cellular and PCS can be covered by a single unit R3561L.

■ Specifications

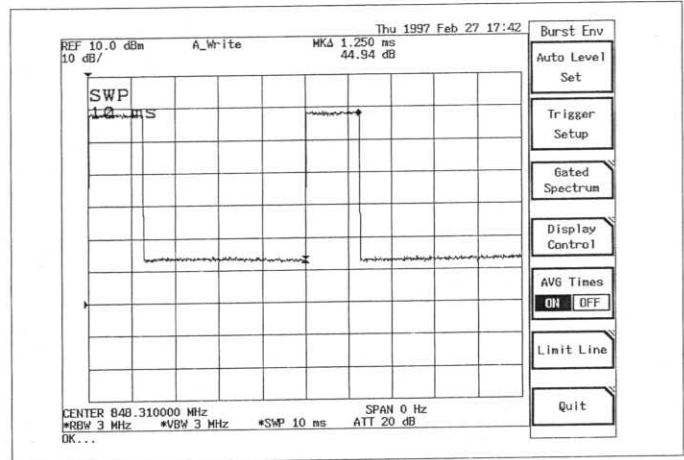
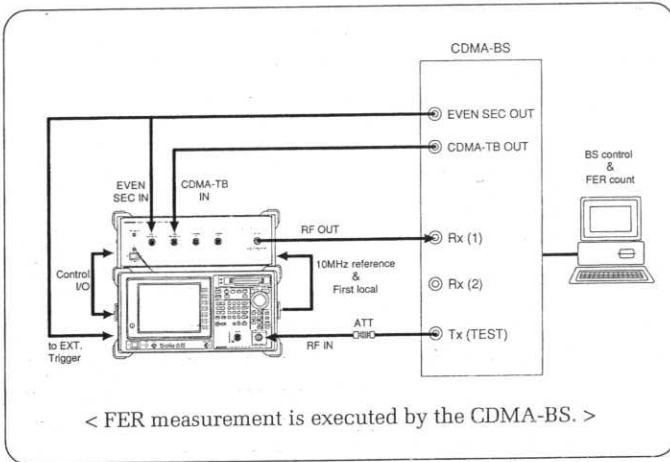
- Output frequency
Range : 50MHz to 2000MHz
Resolution : 1Hz
- Output level
Range : -125dBm to 0dBm
Resolution : 0.1dB
- Signal purity
Adjacent-channel noise : ≤ -45 dBc
(BW=30kHz, 900kHz offset, 0dBm)
- Waveform quality : $p \geq 0.96$



▲ CDMA Signal Output (OBW)



▲ CDMA Signal Output (Waveform Quality)



▲ Sample of CDMA Burst Signal Output

The R3561L is compatible with all data rates prescribed in IS-95. It ensures the receiver sensitivity test as well as bursted signal. The data source includes Random/All 0/Random+2% error and 600-frames user-buffer memory enables user defined test.

Specifications

Output frequency

Range: 50MHz to 2000MHz

Resolution : 1Hz

Accuracy : Based on the reference accuracy

Output level

Range : -125dBm to 0dBm

Resolution : 0.1dB

Accuracy

: ± 1.5 dB (output level -120dBm to 0dBm, frequency ≤ 1000 MHz)

± 2.5 dB (output level -125dBm to -120.1dBm, frequency ≤ 1000 MHz)

± 1.5 dB (output level -110dBm to 0dBm, frequency > 1000 MHz)

± 2.5 dB (output level -125dBm to -110.1dBm, frequency > 1000 MHz)

*Operating temperature $25^{\circ}\text{C} \pm 10^{\circ}\text{C}$

Signal purity

Harmonics : ≤ -30 dBc (output level 0dBm)

Non-harmonics : ≤ -55 dBc (frequency offset > 5 kHz)

Adjacent-channel noise

: ≤ -45 dBc (band 30kHz, frequency offset 900kHz, output level 0dBm)

Modulation

Reverse Link

Modulation : OQPSK (EIA/TIA/IS-95)

Channel : Traffic channel

Data rate : 9600bps/4800bps/2400bps/1200bps, 14400bps/7200bps/3600bps/1800bps

Data source : 600 frames (ZEROS / RANDOM / RANDERR)
600 frames (USER, written via GPIB)

Forward Link

Modulation : QPSK(EIA/TIA/IS-95)

Channel : Pilot channel

Waveform quality : $p \geq 0.96$

PN offset : 0 to 511($\times 64$ chips)

Long code mask : 42 zeros

Burst ON/OFF ratio : ≥ 20 dB

Reference Source

Synthe Reference Input

: 19.6608MHz, 15MHz, 10MHz, 9.8304MHz, 5MHz, 4.9152MHz, 2.4576MHz, 2MHz, 1.2288MHz, 1MHz
Level 0dBm to +23dBm, Input impedance 50Ω (BNC)

CDMA Time Base Input

: 19.6608MHz, 15MHz, 10MHz, 9.8304MHz, 5MHz, 4.9152MHz, 2.4576MHz, 2MHz, 1.2288MHz, 1MHz, INTERNAL
Level 0dBm to +23dBm, Input impedance 50Ω (BNC)

Even Second Sync Input : 2Sec TTL (BNC)

10MHz Reference Output

: 10MHz, ≥ 0 dBm, Output impedance 50Ω (BNC)

CDMA Clock Output

1.2288MHz : TTL level, Output impedance 50Ω (BNC)

19.6608MHz : TTL level, Output impedance 50Ω (BNC)

20msec/26.67msec/80msec/Even second : TTL (D-sub 9pin)

Other I/O Interface

RF OUT

: N-type connector (50Ω),

Max. reverse input power 2W

SWRE 1 : 1.5(output level < -10 dBm)

Serial I/O : Dedicated interface for the R346X Series

REF UNLOCK LED

: Lit at RF-SYNTHESIZER/CDMA-TIMEBASE PLL UNLOCK

General Specifications

Operating temperature/humidity range

: 0°C to 50°C , 85%RH or less (no condensation)

Storage temperature

: -20°C to 60°C

Power source : AC100V -120V/AC220V -240V(auto switched),

50Hz/60Hz, 150VA or less

Weight : 10kg

Dimensions : Approx. 110mm(H) \times 350mm(W) \times 420mm(D)