

JRC

MULTI-PATH FADING SIMULATOR NJZ-1600B

**Most Suitable Method of Evaluating
Multi-Path Fading Effects
On Digital Mobile Communications**



The 3GPP standard propagation path test conditions incorporate the evaluation of the radio equipment that responds to dynamic changes in the multiple delay propagation path.

NJZ-1600B provides the most suitable method of simulating and evaluating RF multi-path fading effects in the RF band (800- 3000 MHz) with time delay in a fixed or mobile environment.

Special Features

- RF band (800-3000 MHz) with 20 MHz of RF bandwidth
- Two independent channels of paths can be simulated
- Supports GSM and IS-95 models
- Supports up to 6 independent paths per channel
- Supports 12 multi-path simulation of 1 direct RF signal model and 11 delayed RF signal models
- Dynamic delay profile simulation is available
- Supports Doppler shift, Rayleigh, and Rician fading modeling



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Major Specification

Channels	2 independent channels
Number of paths	12 max.
Carrier frequencies	800 to 3000 MHz (0.1 MHz steps)
Bandwidth	20 MHz (± 10 MHz relative to preset carrier frequency.)
Standard input level	-20dBm
Input level range	-20dBm to -50dBm
Input/output impedance	50 Ω , VSWR 2.0 or less
Output attenuation	85dB, adjustable in 1dB steps
Insertion loss	0 \pm 3dB (when the output attenuation and each channel level are set to 0dB at the medium value of 50%)
Maximum fading frequency	0 to 800 Hz (0.1 Hz steps)
Time delay	0 to 200 μ sec. (0.0005 μ sec.steps)
Rayleigh fading	Applicable to all paths Amplitude distribution : ± 3.0 dB or less deviated in a range of -30 to +10dB relative to the medium value of 50%
Rice fading	Applicable to path 1, path 2, path 7 and path 8 CMR : 0.1dB steps in a range of 0 to 30dB Shift factor : 0.1 steps in a range of 0 to ± 1.0
Doppler shift	Applicable to all paths Shift factor : 0.1 steps in a range of 0 to ± 1.0
Relative level	0 to -30dB (0.1 dB steps)
Correlation factor	0 to 1.0 (0.1 steps)
Dynamic attenuation	0 to 30dB, up to 30dB/4ms
Profile control	Number of profiles per sequence : 100 profiles Profile switching interval : 4ms to 60s (1ms steps) (internal mode) External timing available
Power supply	100/200VAC, 50/60Hz
Size	425(W) \times 200(H) \times 550(D) mm
Weight	Approx. 23kg
External interface	IEEE-488 and RS-232C

• Specifications may be subject to change without notice

For further information, contact:



Since 1915

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ISO9001, ISO14001 Certified