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E-1100/1100B

**4x4 MIMO
Fading Simulator**



MIMO Fading Channels Now on Your Desktop

Compact and Wideband Simulator

E-1100B is a software reconfigurable baseband fading simulator designed for 4x4 MIMO communication systems. Ability of simulating wideband signals and MIMO channels is enclosed in a compact and slender case by digital technique.



E-1100B

Real-Time and Easy-to-Use Simulator

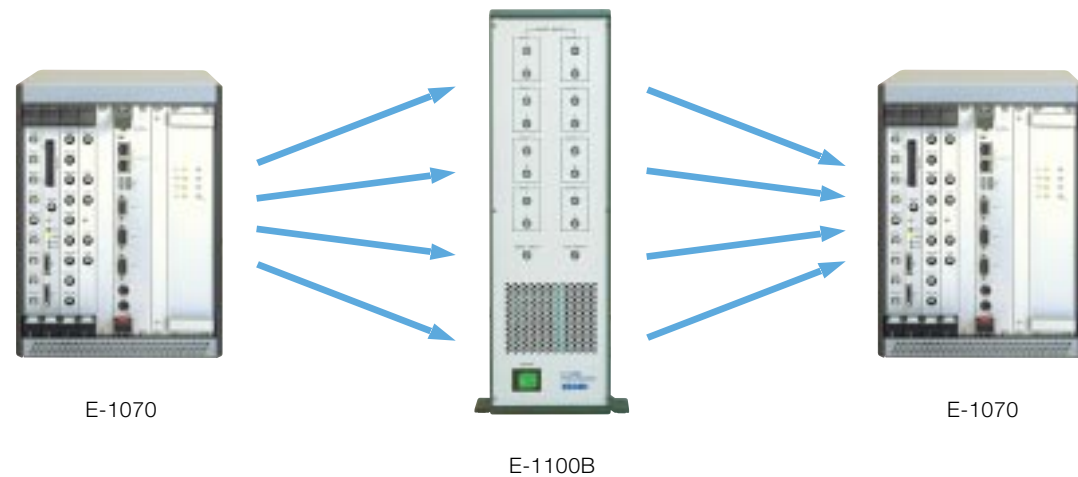


E-1100 (Prototype)

E-1100 is a fading simulator with RF interface for IEEE 802.11n wireless LAN system. Connection between Tx and Rx of DUT allows MIMO fading channels to realize instantly.

Total Simulation Environment

Using E-1100B with E-1070 Signal Processing Platform, a total MIMO simulation environment appears on your desktop.



E-1070

E-1100B

E-1070

Key Features

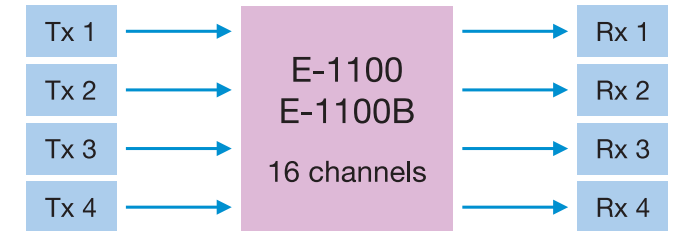
Supports IEEE 802.11n Channel Models

- 16 channels for 4x4 MIMO
- Up to 18 delay taps for each channel
- 1050 ns maximum delay with 10 ns resolution
- 40 MHz signal bandwidth

Optional Parameters for Channel Models

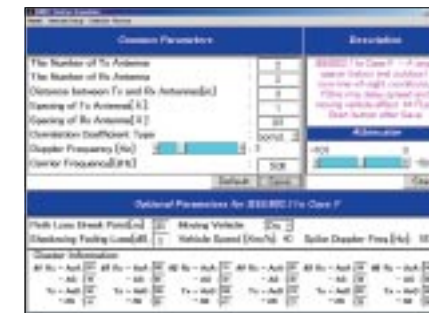
- Array configuration
- Antenna directivity
- Mutual coupling between antenna elements
- User specific angular profile

AWGN Generation



User Interface

Controlling through GUI on PC connected via Ethernet allows simple selection of channel models and optional parameters.



Main Menu of GUI



Antenna Parameter Settings



Example of Antenna Directivity

Specifications

Model	E-1100	E-1100B
Channels	4 x 4 = 16 channels	4 x 4 = 16 channels
Interface	RF, analog baseband	Analog baseband
RF Frequency Range	2.4-2.5 GHz, 4.9-5.6 GHz	—
Bandwidth	40 MHz	40 MHz
LAN Interface	100/10 BaseT	100/10 BaseT
Power Requirements	90-260 VAC, 50-60 Hz 600 W maximum	90-260 VAC, 50-60 Hz 300 W maximum
Dimensions (mm)	520 (W) x 560 (H) x 520 (D)	150 (W) x 450 (H) x 470 (D)
Weight	35 kg	15 kg