C & U CREATIVE & UNIQUE

MICRONIX

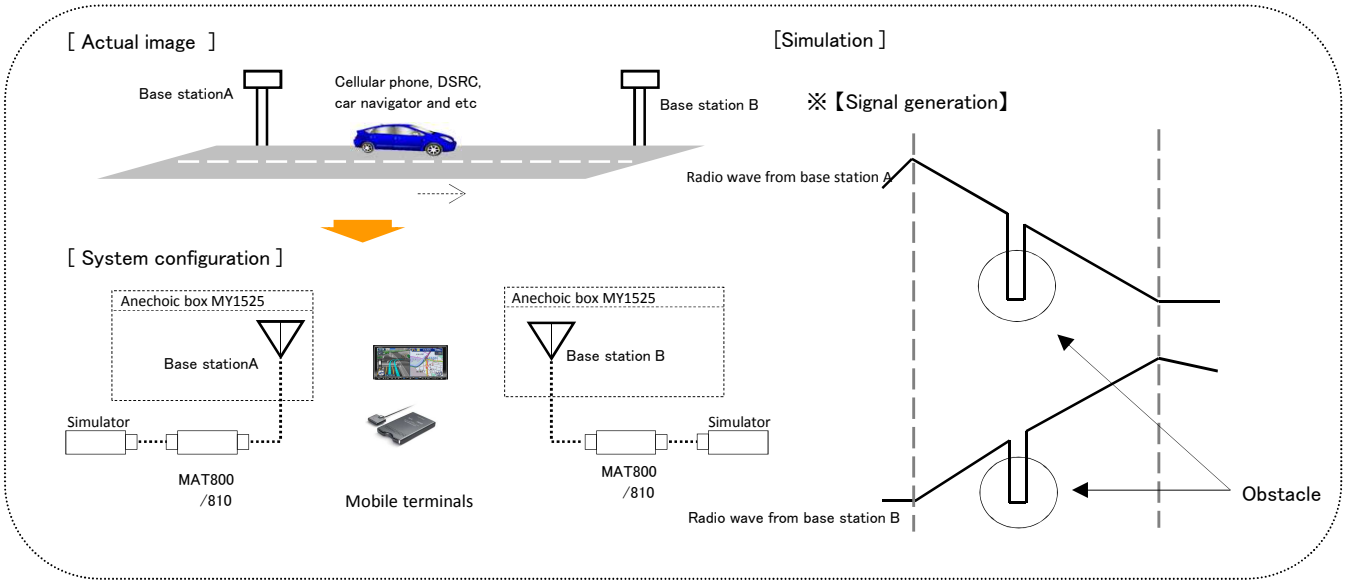
Handover test of mobile terminal

◇ Simulation of the transmission path between the base stations

＊Application＊

In mobile communication equipment such as mobile phone, the information should be transferred without breaking off when the transmission path is switched from a base station to next base station (called handover).
This handover test can be simulated using two or more units of MAT800 or MAT810.

＊Solution＊



■ Since mobile phone goes away from the base station A, the receiving level becomes low gradually, and conversely it becomes high gradually in the base station B. Moreover, there may be an obstacle blocking the radio wave in the middle.
This simulation is shown in the figure above "Signal generation".

■ High-speed programmable attenuators MAT800/810 are electronic type. Since any spike and chattering are not generated when switching, it is the optimum instrument for simulating the change of radio wave in the air.

■ The difference and feature from conventional attenuator are shown in the right table.

Difference and feature from conventional attenuator

Item	Traditional attenuator	MAT800/810	Remarks
Switching method	Mechanical	Electronic	
Switching speed	10 to 20 ms/point	2μs/point	Great improvement of time resolution
Attenuation step	About 1dB	0.05dB	Great improvement of amplitude resolution
Spike at switching	 Large spike	 No spike	The spike causes the communication error
Program memory	Nothing	128Kword built-in program memory	The air state is stored.
Memory readout	Not available	・FREE、BURST、GATE ・Trigger for readout ・Internal/external readout clock ・Pause period of readout cycle	Various memory readout function
Software for making attenuation program	Nothing	Making attenuation program can be done as easily as making arbitrary waveform.	Standard accessory of MAT800/810

＊System configuration＊

■ MAT800 ×2 units

Base station simulator	2
High-speed programmable attenuator [MAT800/model D]	2
Software for making attenuation program [MAS800]	2
SMA→N coaxial cable 1.5m [MC204-MA306]	4
Biconical antenna [MBA301]／accessories	4

2011/3

MICRONIX Corporation
2987-2 Kobiki-cho, Hachioji-shi, Tokyo Japan
Tel: +81-42-637-3667 Fax:+ 81-42-637-0227
URL http://www.micronix-jp.com
E-mail micronix_e@micronix-jp.com