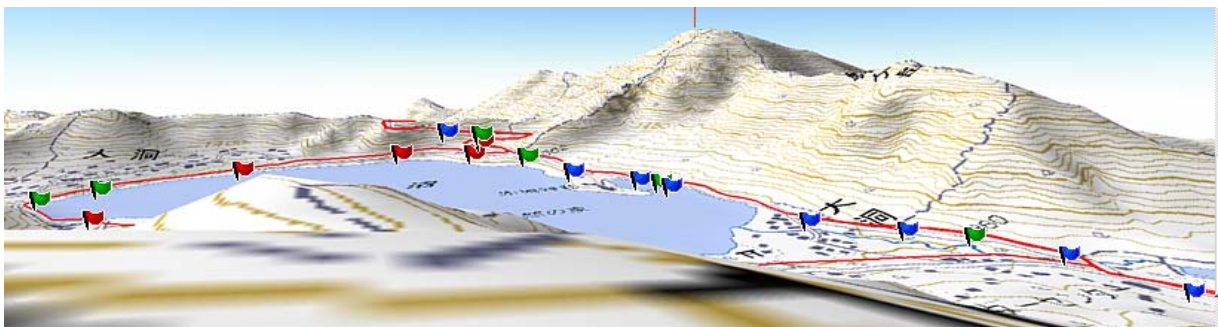


MAD-SS propagation in the mountainous district

Proof example



The prospects from the TX setting spot and a RX spot

Blue Flag RX OK

Green Flag Partial RX OK

RedFlag RX NG

Simple evaluation

- Mt. Akagi Peak 1673.9m
height from Lake 300m
- longest outreach 2062m
- expect outreach in the mountainous >1000m
- expect outreach

~500m	TX,RX antenna Height $\geq 1.5m$
~1500m	intervals from propagation road to the surface of the earth $\geq 10m$
~2000m	$\geq 30m$

Experiment system 150.88MHz

- TX -61dBm (Equivalent Dipole power=12.5nW)
- RX Vertical $1/2 \lambda$ Dipole Height 1.5m



Mathematical Assist Design Laboratory
54-2 Kamisadori Maebashi city
Gunma 371-0816 Japan
Email: mad@mail.wind.ne.jp
www.madlabo.com/mad/product/ss
(Japanese)

Patent : SPREAD SPECTRUM SYSTEM COMMUNICATION
UNIT AND ITS METHOD FOR ESTABLISHING
HIGH SPEED SYNCHRONIZATION

Japan 3639839

Korea 10-0688329 2007/02/22

USA Patent No.: US 7,471,716 B2 Date: Dec. 30,2008

EU Patent No.: 1528690 Publication date: 2005-05-04