

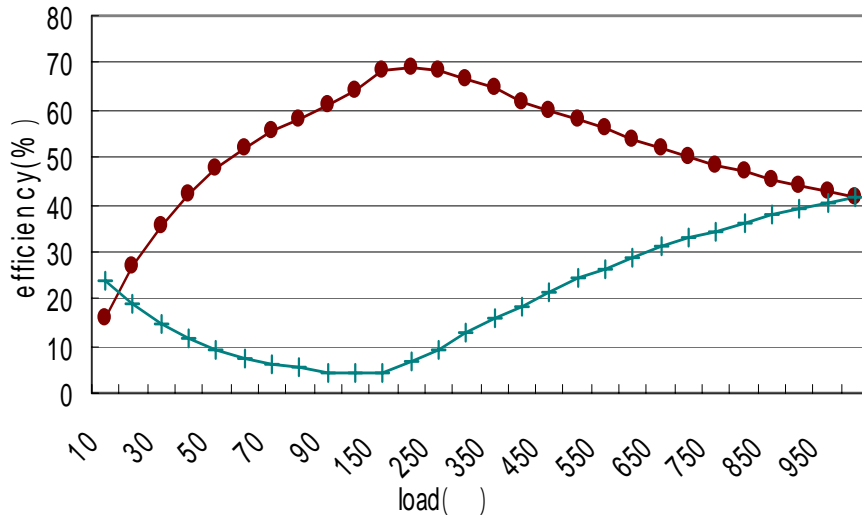


Development of High Conversion Efficiency Rectenna System with Reflection

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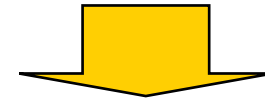
Purpose

<RF/DC conversion efficiency curve>



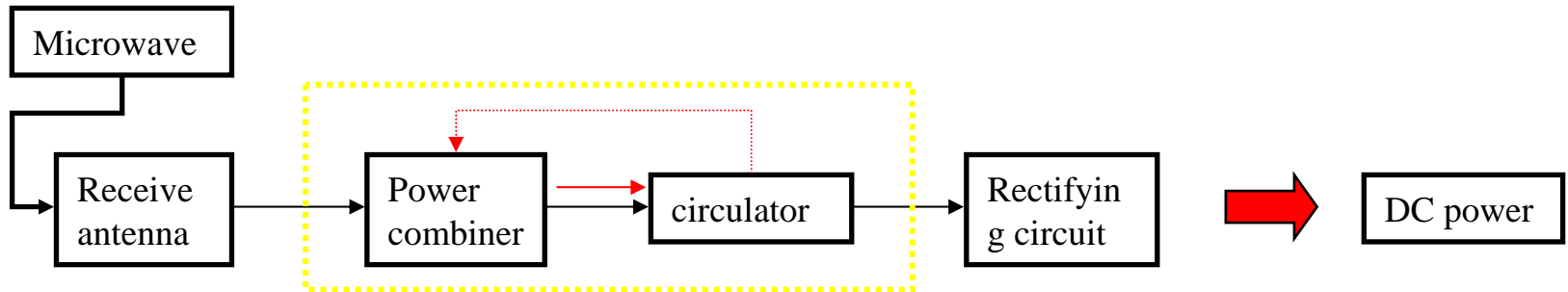
Input power:400mW
Optimum load:200
69%
Diode
:HITACHI(HSMSSWA)

- Stable efficiency on various load
- High conversion efficiency



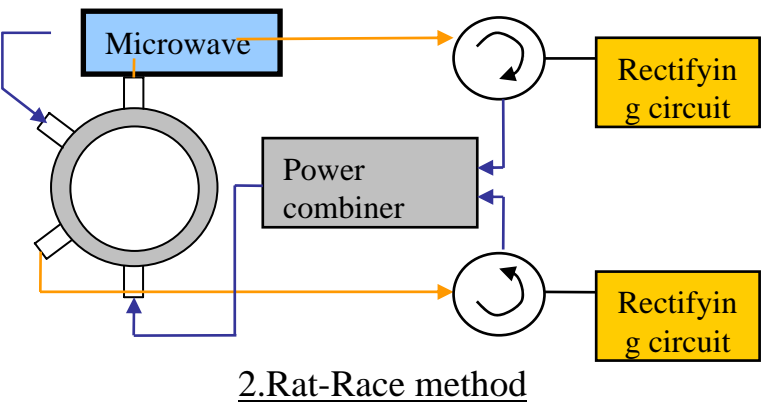
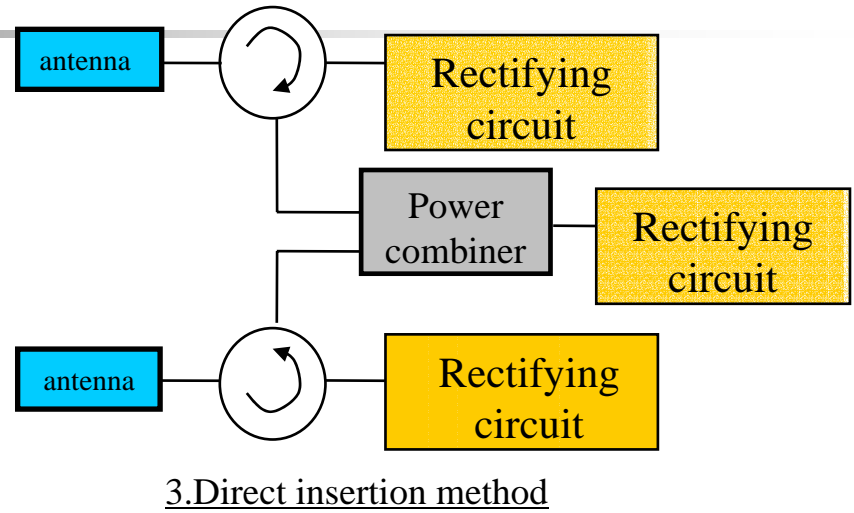
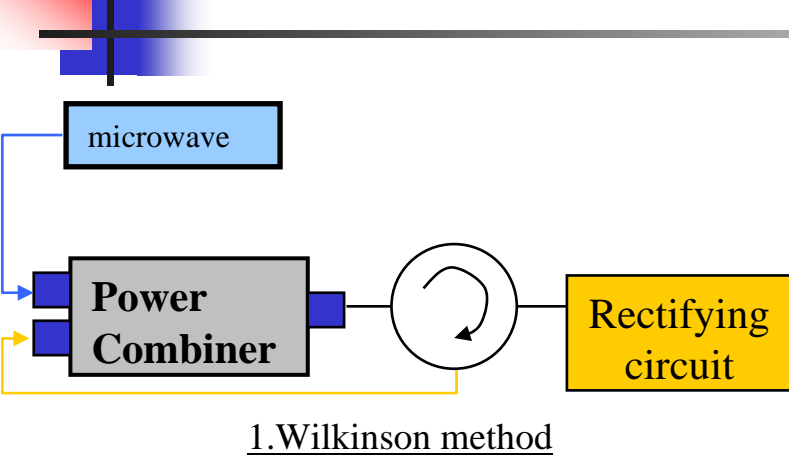
Use of reflection

We investigated about three methods of using reflection power



Flow of feedback system of rectenna

3 Methods of feedback system of rectenna



Result of experiment of 3 methods

	Efficiency	Optimum method	Rate of increase	Bandwidth of load at 60%
1. Wilkinson	65.5%	500	-2%	0.93
2. Rat-Race	68.5%	190	+ 3.5%	1.5
3. Direct insertion	72.2%	160	+ 4.2%	1.2