

## ANTENNA SYSTEM

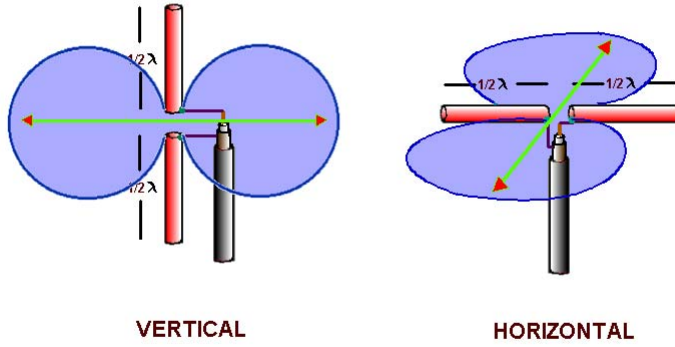
### HALF WAVE DIPOLE ANTENNA



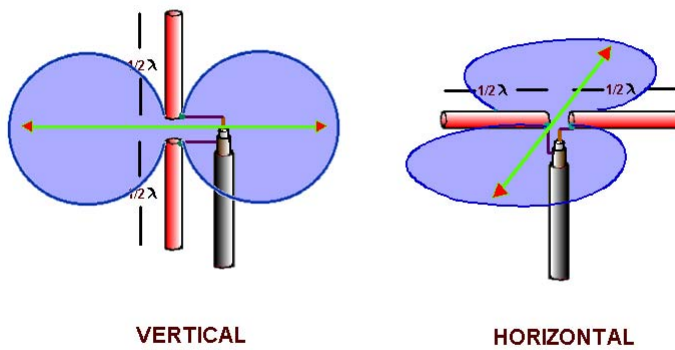
VERTICAL

HORIZONTAL

### HALF WAVE DIPOLE ANTENNA

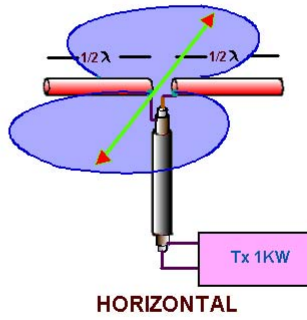
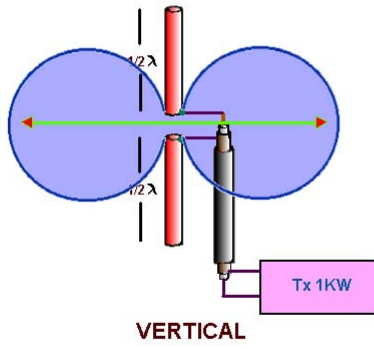


### HALF WAVE DIPOLE ANTENNA GAIN = 1



**HALF WAVE DIPOLE ANTENNA**

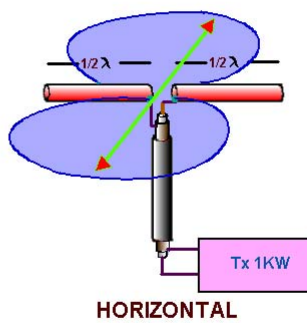
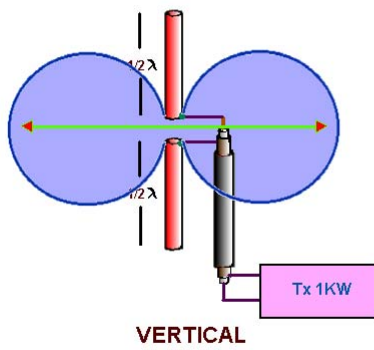
**GAIN = 1**



**HALF WAVE DIPOLE ANTENNA**

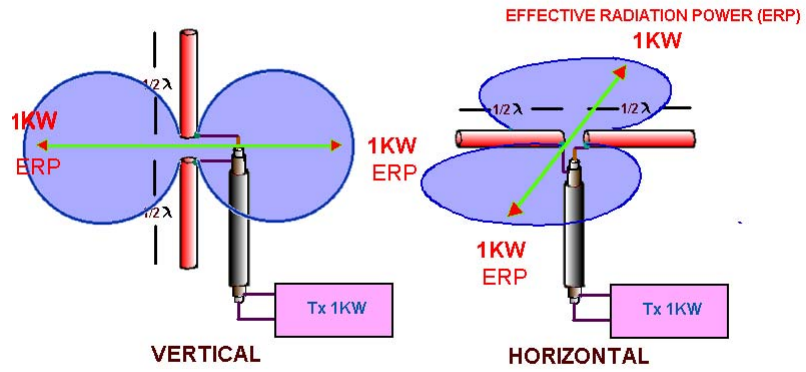
**GAIN = 1**

EFFECTIVE RADIATION POWER (ERP)

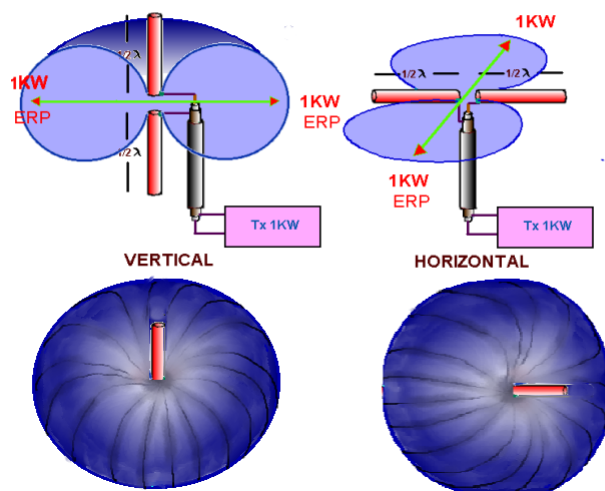


### HALF WAVE DIPOLE ANTENNA

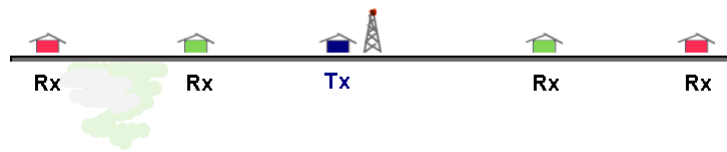
**GAIN = 1**



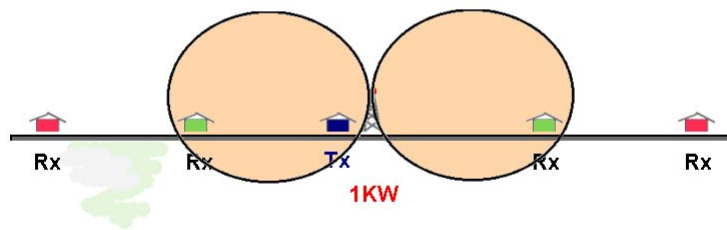
### HALF WAVE DIPOLE ANTENNA



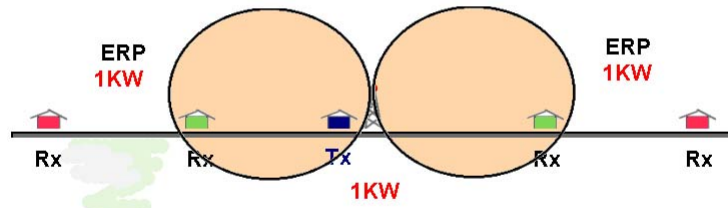
## HALF WAVE DIPOLE ANTENNA



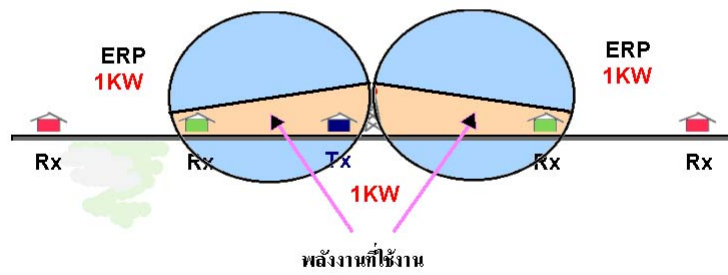
## HALF WAVE DIPOLE ANTENNA



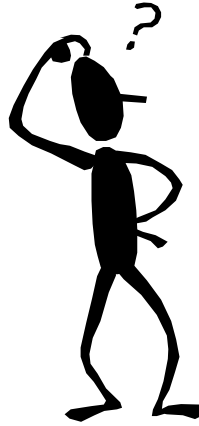
### HALF WAVE DIPOLE ANTENNA



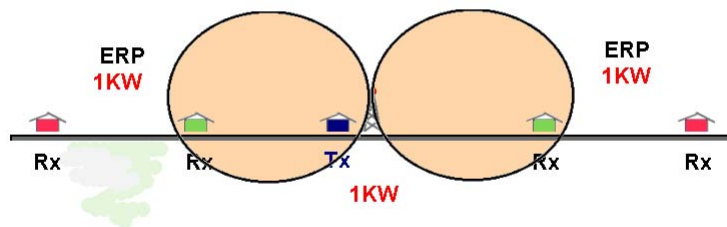
### HALF WAVE DIPOLE ANTENNA



- ถ้าต้องการให้การรับสัญญาณมากขึ้นจะต้องทำอย่างไร



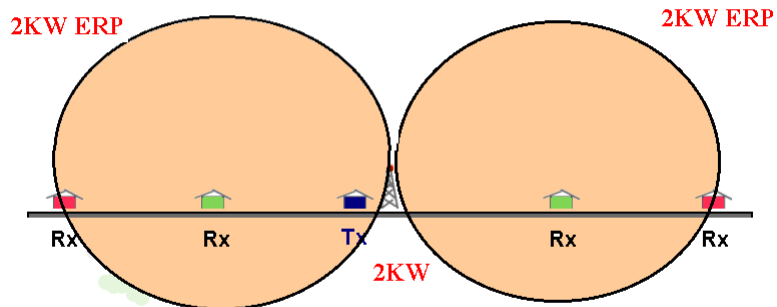
### HALF WAVE DIPOLE ANTENNA



เพิ่มกำลังงานจากเครื่องส่ง



### HALF WAVE DIPOLE ANTENNA

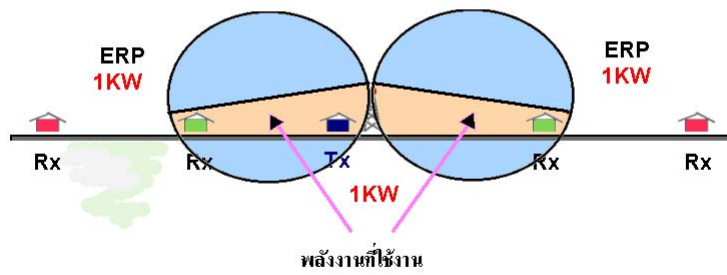




สูญเสียพลังงานไฟฟ้ามาก



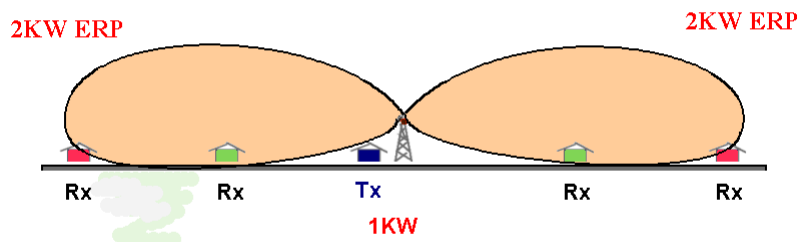
### HALF WAVE DIPOLE ANTENNA



เพิ่มอัตราการขยายที่สายอากาศ



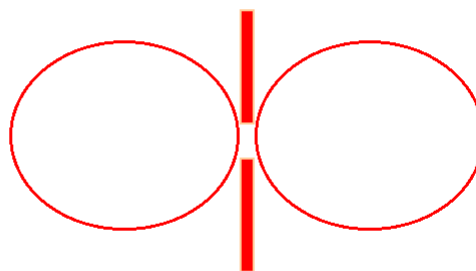
### HALF WAVE DIPOLE ANTENNA



แล้วทำอะไร

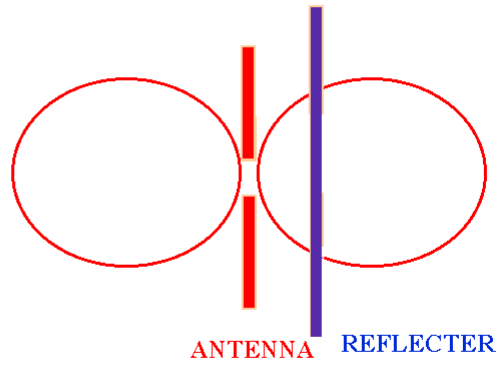


**HALF WAVE DIPOLE ANTENNA**

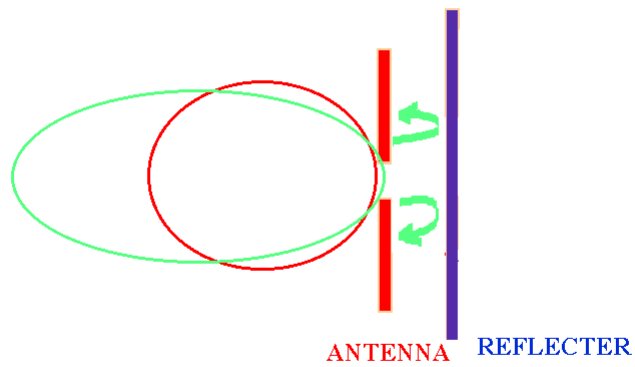


**ANTENNA**

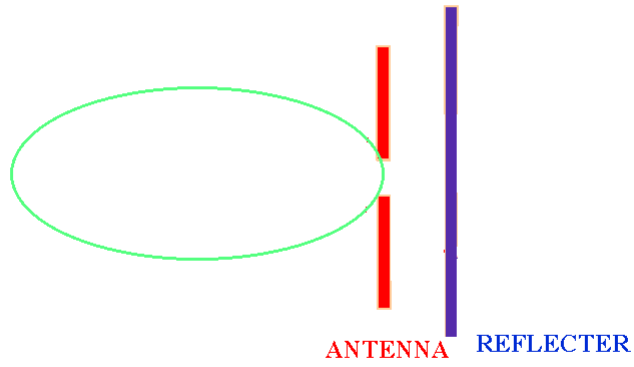
**HALF WAVE DIPOLE ANTENNA**



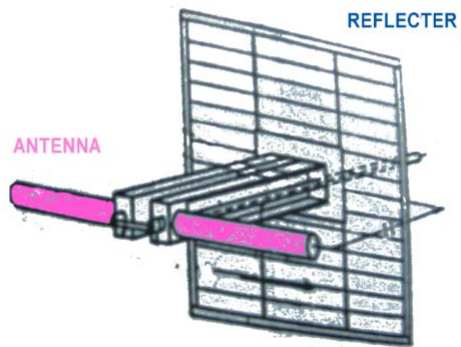
**HALF WAVE DIPOLE ANTENNA**



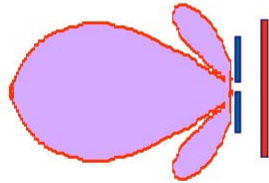
## HALF WAVE DIPOLE ANTENNA



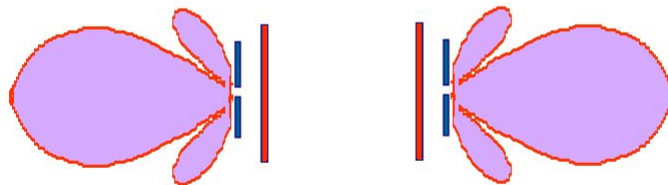
## SUPER GAIN DIPOLE ANTENNA

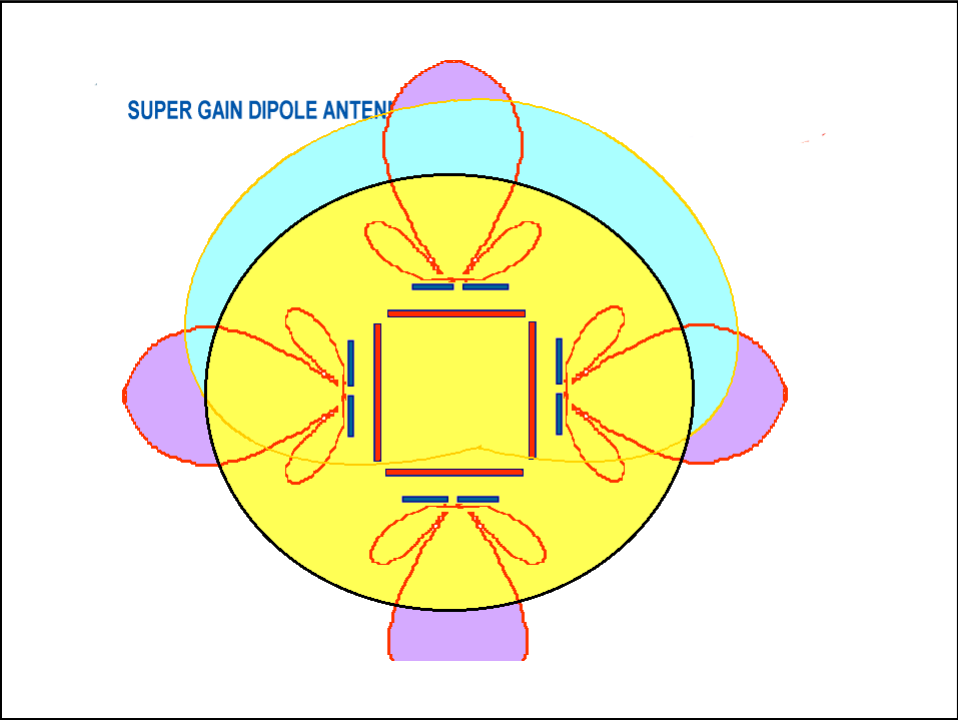
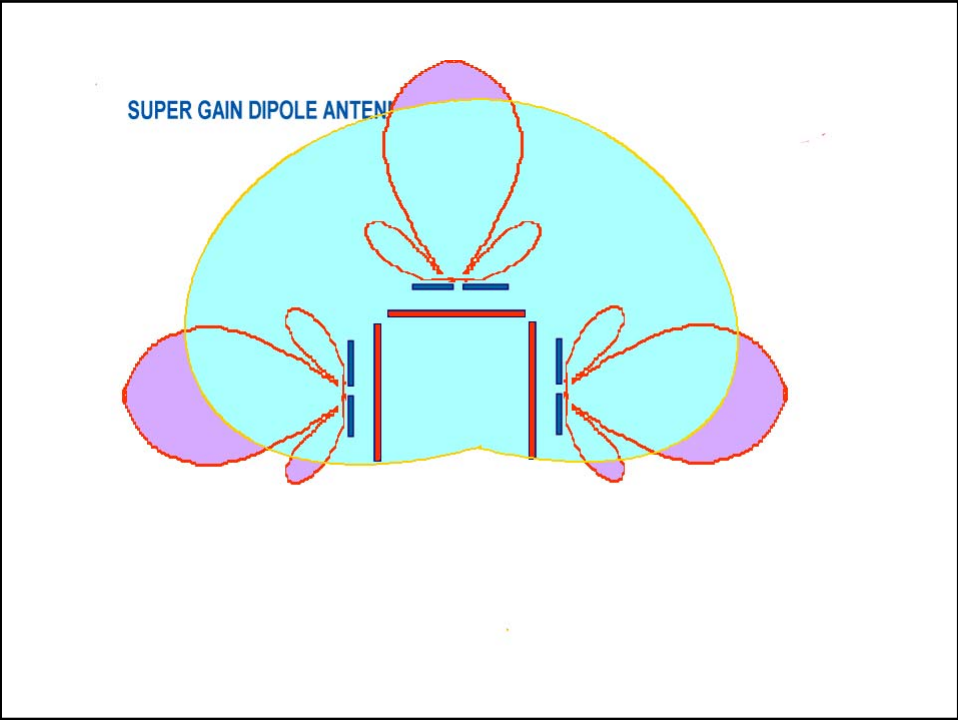


SUPER GAIN DIPOLE ANTENNA

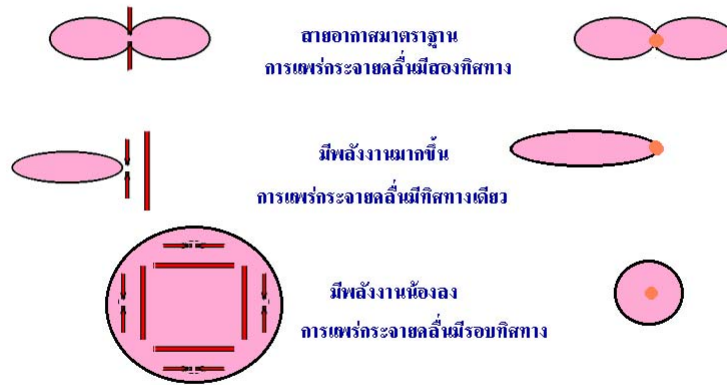


SUPER GAIN DIPOLE ANTENNA





## DIPOLE ANTENNA



ถ้าต้องการให้สายอากาศมีการแพร่กระจายคลื่นรอบตัวและมีอัตราการขยายหรือ Gain สูงขึ้นจะทำได้อย่างไร





**DIPOLE ANTENNA**

