


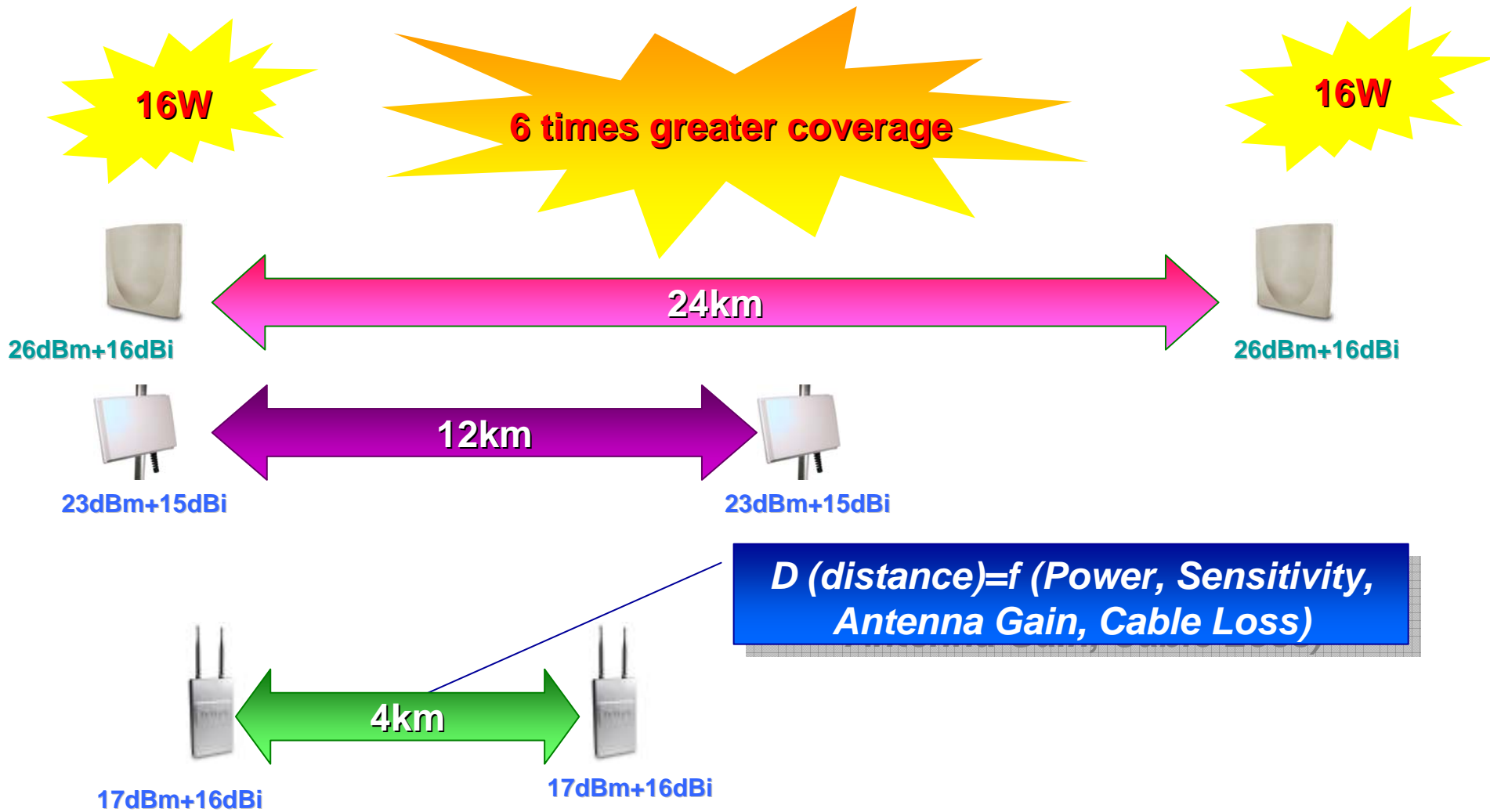


Wireless Last Mile Solutions



	Long Range	Ultra Long Range
2.4 GHz	 <p>EOC-3220</p> <ul style="list-style-type: none"> •26dBm+9dBi built-in antenna •802.11x Authenticator 	 <p>EOC-3610-S-EXT</p> <ul style="list-style-type: none"> •Output power up to 28dBm •SMA (Fr) Connector •VLAN Pass Thru •Multiple SSID •802.11x Authenticator
	 <p>EOC-3220 EXT</p> <ul style="list-style-type: none"> •Output power up to 26dBm •SMA (Fr) Connector •802.11x Authenticator 	
	 <p>EOC-3220 PLUS</p> <ul style="list-style-type: none"> •26dBm+16dBi built-in antenna •802.11x Authenticator <p><i>Compact size</i></p>	
5 GHz		 <p>EOC-8610S-EXT</p> <ul style="list-style-type: none"> •Output power up 28dBm in 802.11 b/g, 22dBm in 802.11a mode •SMA (Fr) Connector (Both 2.4GHz/ 5GHz)
		 <p>EOC-8610S-PLUS</p> <p>Output power up to 28dBm in 802.11 b/g 22dBm in 802.11a mode</p> <ul style="list-style-type: none"> •Built-in 16dbi (for 5GHz) (EIRP 44dBm) •SMA (Fr) Connector (for 2.4GHz)

Why EnGenius?





IP61/ 62

Draining in vertical/ in
15° dip angle



IP63/ 64

Spraying/ Splashing



IP65

Jetting



IP68

Continuous Immersion
(24 hours)



IP67

Temporary Immersion
(30 mins)



IP66

Strong Jetting

□ Well Protected installation



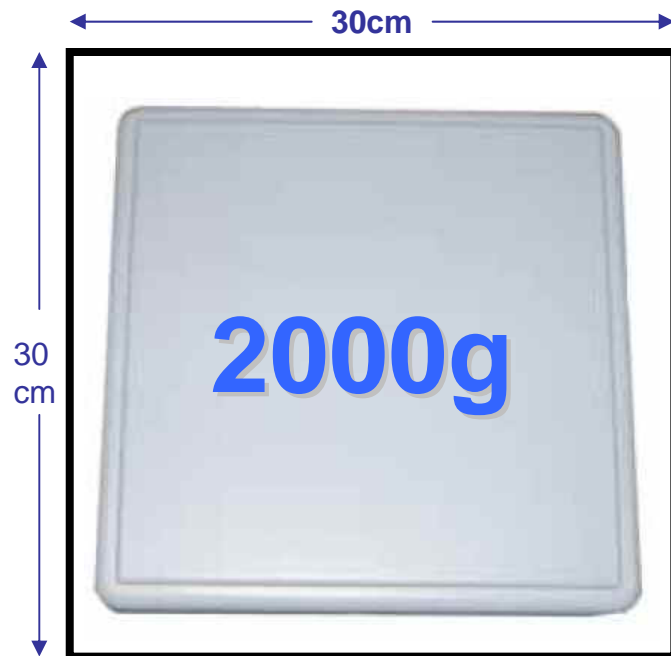
- ❑ Sustain higher wind velocity
- ❑ Easy Install to **SAVE** your installation cost

$$Fw = 0.5 \times Cw \times D \times A \times V^2$$

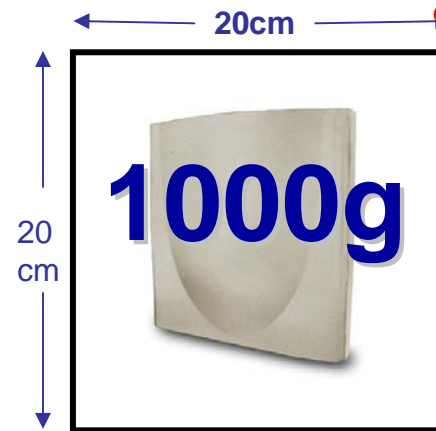
Fw= Resistance

A= Square Measure

Normal 16dBi



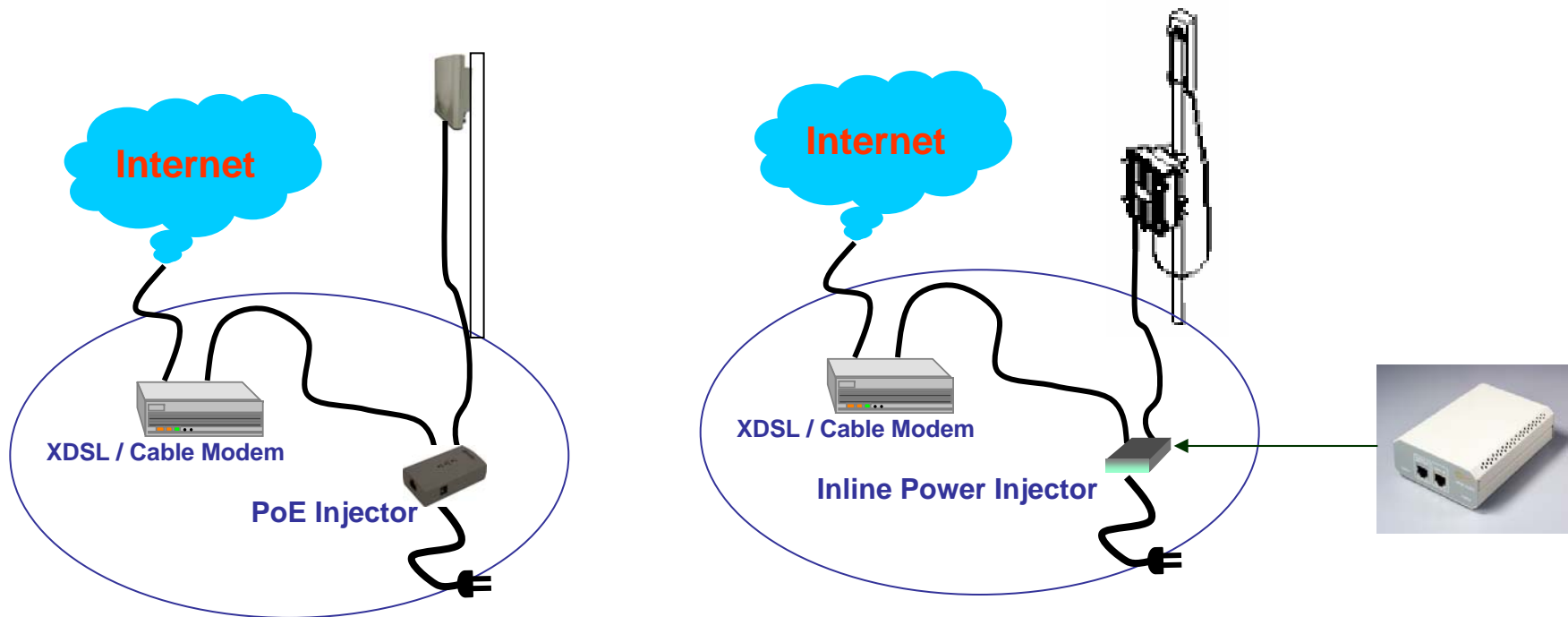
**EnGenius
16dBi**



**2/3
Wind Load**

❑ Power Over Ethernet (PoE, 802.3af compatible)

- ❑ Cut down cost on wiring
- ❑ Supports 100m Cat5 Ethernet cable for your deployment
- ❑ Supports 802.3af PSE or attached PoE injector
- ❑ Low maintenance



- Output Power Controllable**
 - Easy to fit in with different regulation**
 - Adjust higher power when the environment needed**

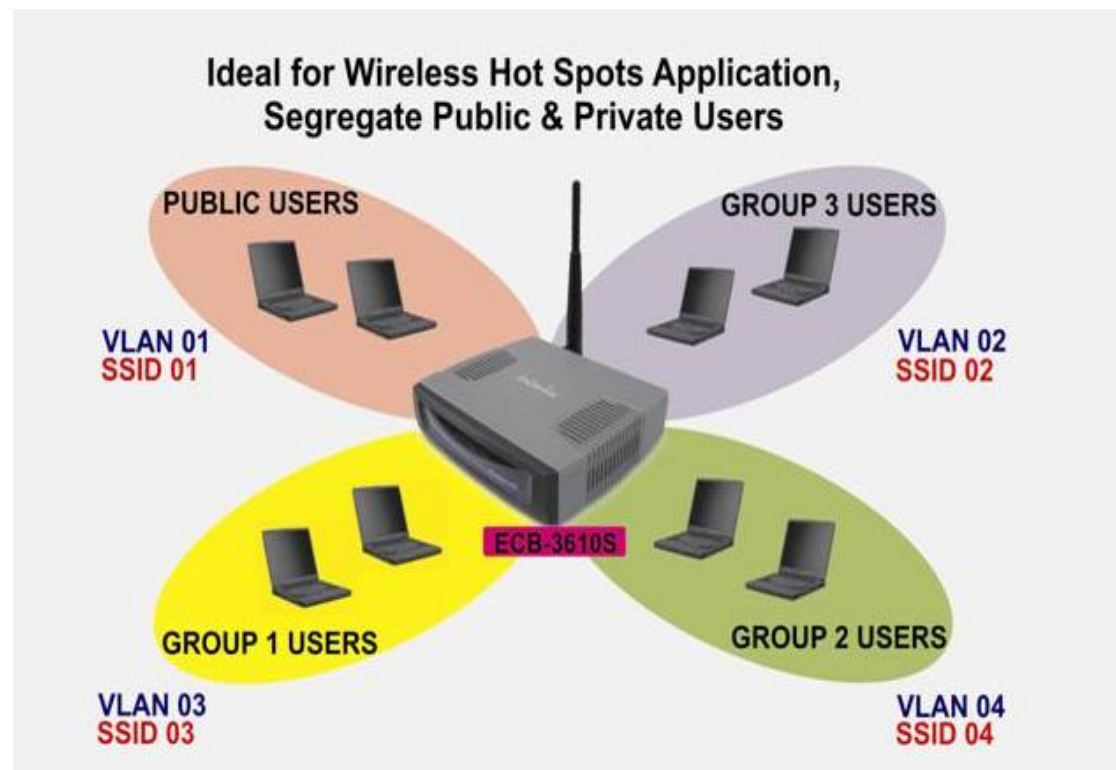
- IP/ MAC Transparent**
 - Manage all your client behind the Client Bridge**
 - Refuse non-authenticated client**

- Private MIB**
 - Flexibility in designing and adding valuable information**

- **SMA (RF) Connector (For EOC-3610S-EXT)**
- **Output Power Up to 28dBm or 600mW**
- **High Receive Sensitivity up to -95dBm**
- **VLAN Pass Thru**
- **Multiple SSID (4 SSIDs)**
- **802.1x Authenticator**



EOC-3610S-EXT



8610S Outdoor Series

LATEST!!



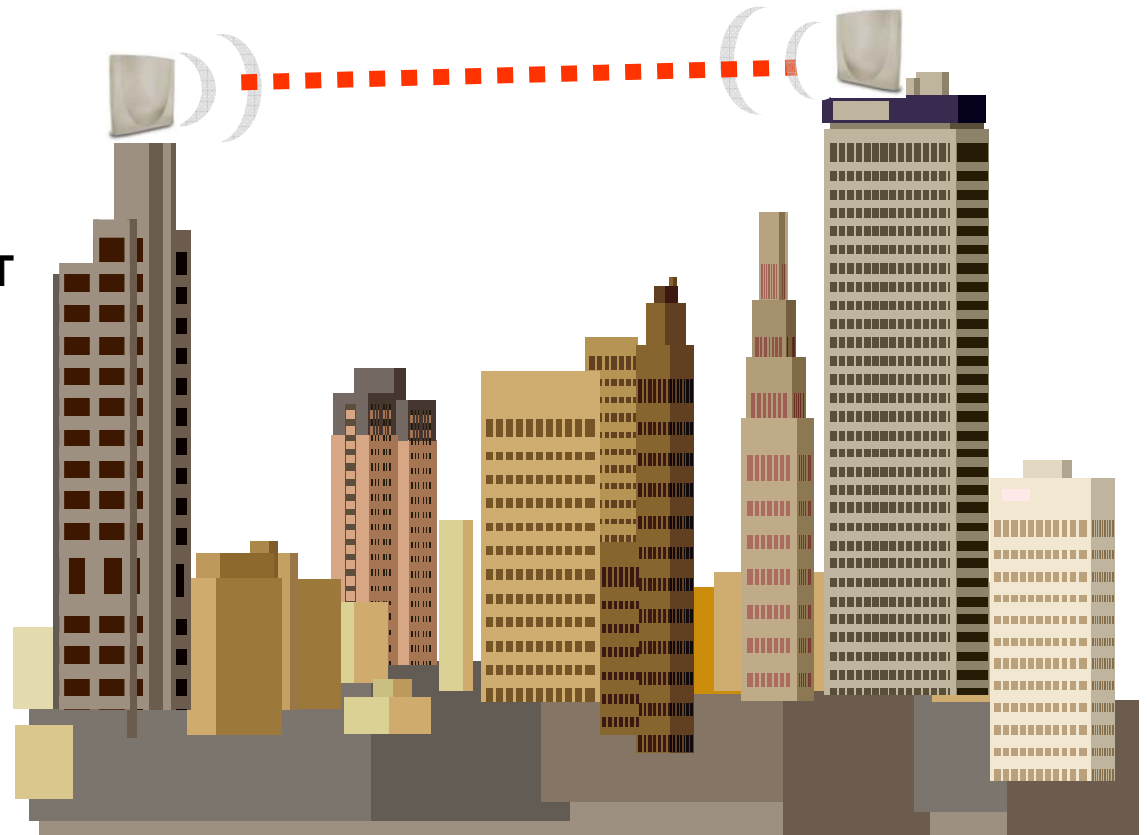
EOC-8610S-PLUS








EOC-8610S-EXT

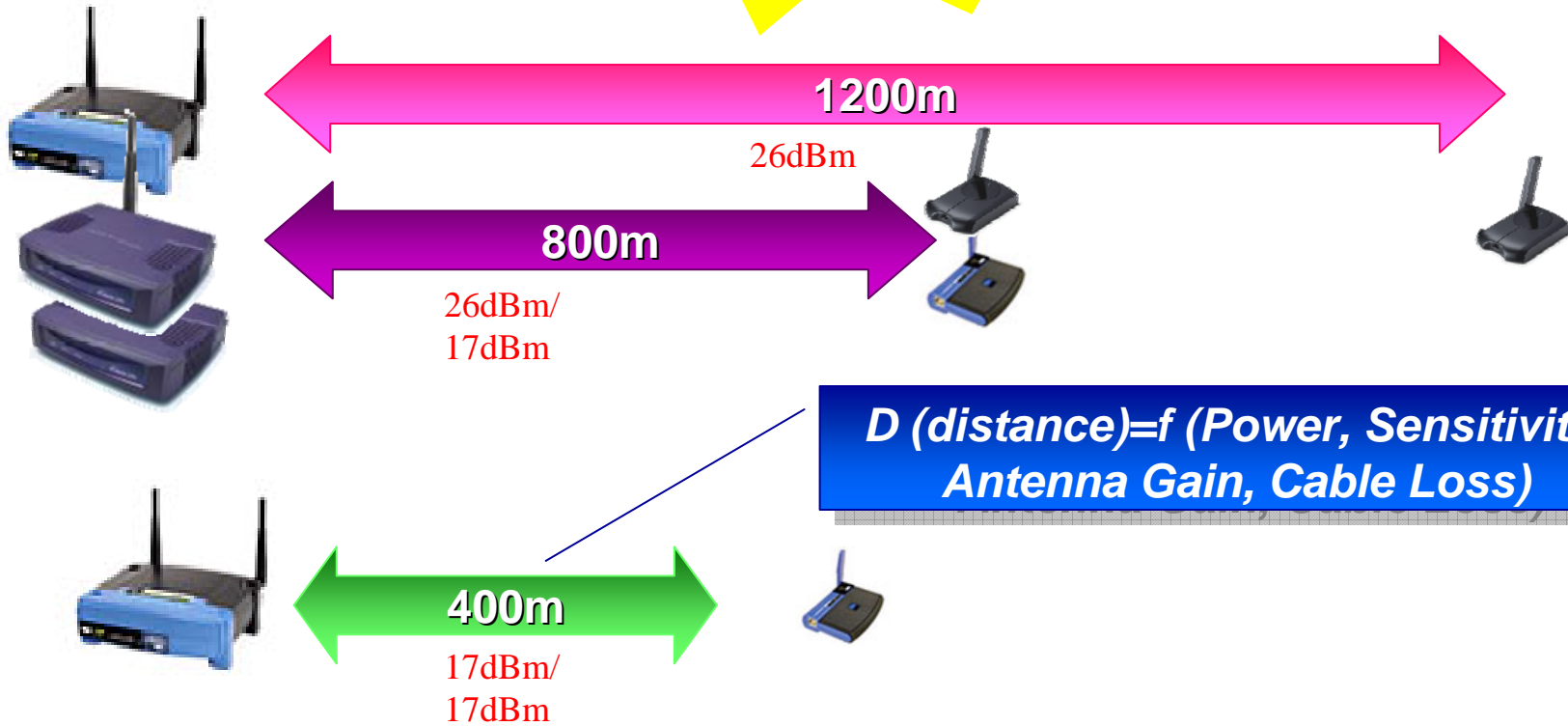
- Integrate (16dBi@5GHz)Antenna
- EIRP@802.11a: 44dBm
(EOC-8610S-Plus)
- SMA (Fr)*1 for 11a (EOC-8610S-EXT)
- Support 802.3af
- SNMP (V1)
- 802.1x supplicant

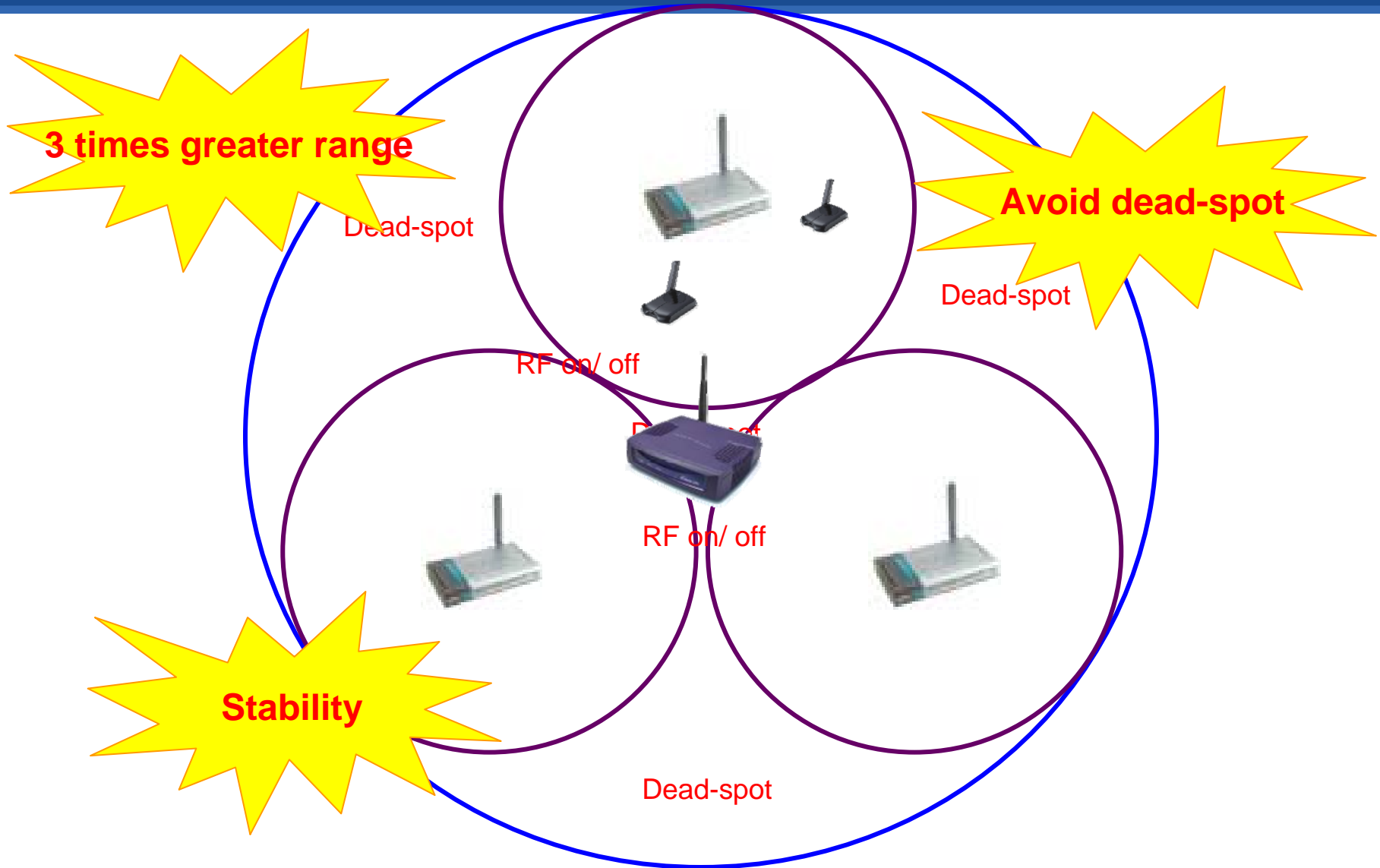
Up to 24 km



	Standard	Long Range	Ultra Long Range
2.4 GHz	 <p>ESR-1220</p> <ul style="list-style-type: none"> •Built-in 4 10/100Mbps port •802.1x authenticator •Denial of Service (DOS) Protection 	 <p>ECB-3220</p> <ul style="list-style-type: none"> •26dBm Output power •TNC (Fr) Connector •7+1 Mode feature 	 <p>ECB-3610S</p> <ul style="list-style-type: none"> •Output power up to 28dBm •VLAN Pass Thru •Multiple SSID •802.11x Authenticator
5 GHz			 <p>ECB-8610S</p> <ul style="list-style-type: none"> •28dBm Output power in 802.11b/g, 22dBm in 802.11a •TNC (Fr)*1 •802.1x supplicant •DFS/ TPC support
11n (Draft 2.0)	 <p>ESR-9710</p> <ul style="list-style-type: none"> •Built-in 4 Gigabit port •802.1x authenticator •Qos •Wireless Protection Setup (WPS) 		

3 times greater range

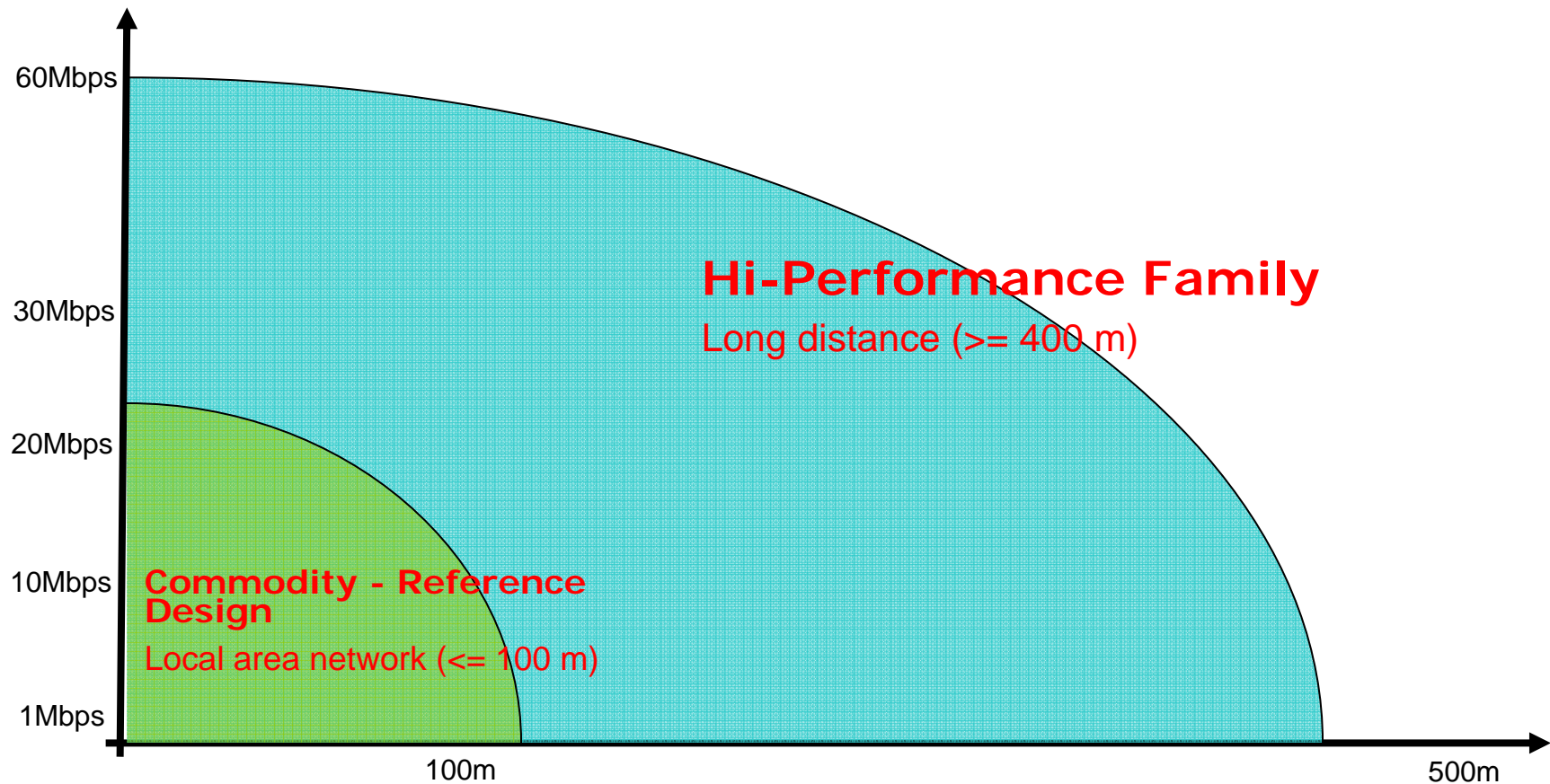




	802.11a				802.11g				802.11b			
	Power		Sensitivity		Power		Sensitivity		Power		Sensitivity	
	6Mbps	54Mbps	6Mbps	54Mbps	6Mbps	54Mbps	6Mbps	54Mbps	1Mbps	11Mbps	1Mbps	11Mbps
EnGenius	20dBm	17dBm	-90dBm	-74dBm	23dBm	20dBm	-92dBm	-76dBm	26dBm	26dBm	-96dBm	-92dBm
Other brands	15-17dBm	12-14dBm	-90dBm	-74dBm	17-20dBm	15-17dBm	-89dBm	-73dBm	17-20dBm	17-20dBm	-92dBm	-89dBm

➔ x4 Extended Range and x3 throughput

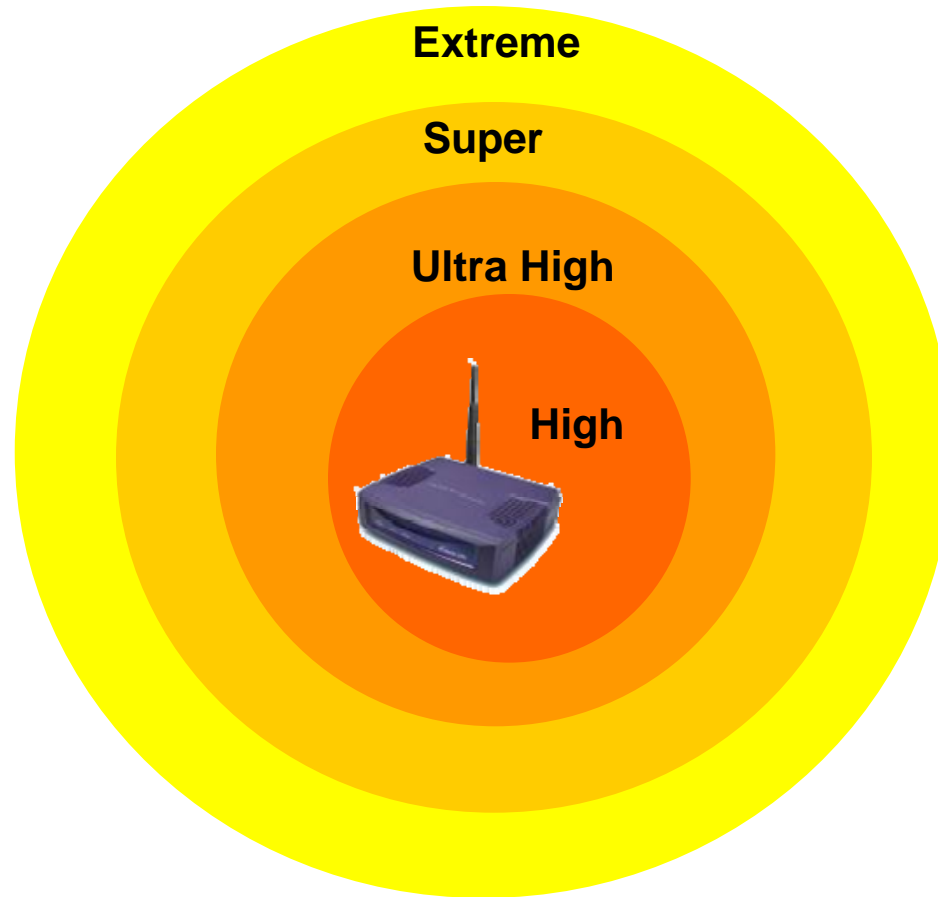
Data Throughput



**High Power 11g Wireless AP/Bridge
Router/Client Bridge/WDS**

ECB-3220

4 Levels Output Power Controllable



**Wireless AP/Bridge/Client
Bridge/WDS
ECB-8610S**

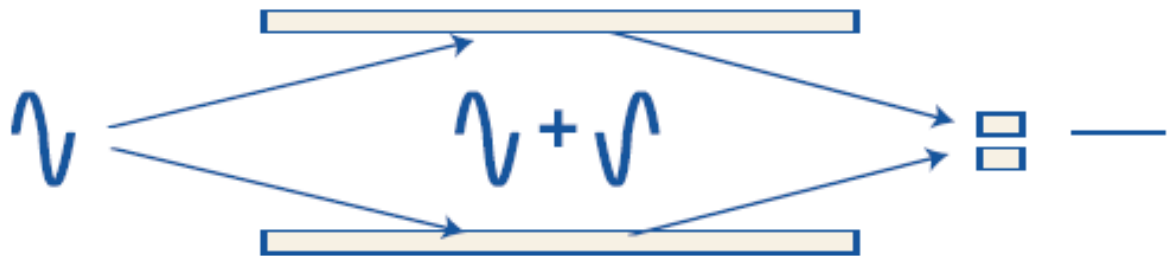
Dual Band



- Up to 28dBm @ 2.4GHz
- Up to 22dBm @ 5GHz

Benefit 1

Multipath interference occurs when reflected signals cancel each other out. 802.11a uses a slower symbol rate to minimize multipath interference.

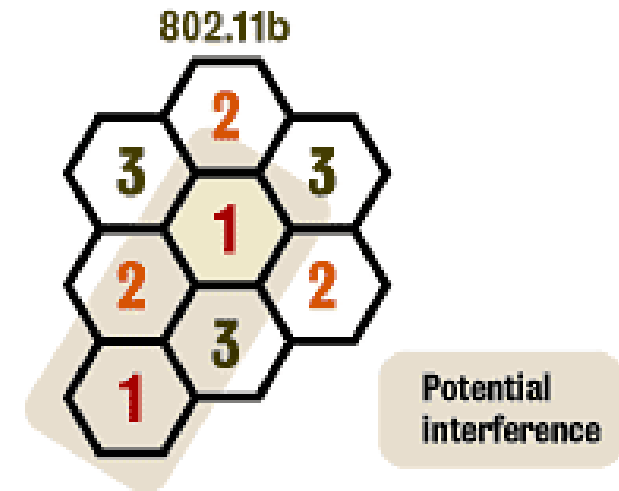


**Wireless AP/Bridge/Client
Bridge/WDS
ECB-8610S**


Benefit - 2

Interference issues

Because there are only three channels available for 802.11b, there will be more potential interference when setting up more than three access points. Access points on 802.11a have eight channels (with the potential to go up to 16 channels), which reduces the chance for Co-channel Interference.



SOURCE: ATHEROS

	Standard	Long Range	Ultra Long Range
2.4 GHz	 <p>EUB-3701</p> <ul style="list-style-type: none"> •Ralink 802.11b/g •Power Consumption \leq 250mA •WMM, 802.1x Client 	 <p>EUB-362 EXT</p> <ul style="list-style-type: none"> •Output power 23dBm •External SMA (Fr) connector •WMM, 802.1x Client, SuperG 	 <p>EPI-3601S</p> <ul style="list-style-type: none"> •Output power up to 27dBm •Super G Mode (108Mbps) •WMM, 802.1x Client <p>1st High Power</p>
		 <p>EUB-362EU2</p> <ul style="list-style-type: none"> •Output power 23dBm •Super G Mode (108Mbps) •WMM, 802.1x Client 	
5 GHz	 <p>EUB-8301</p> <ul style="list-style-type: none"> •Power Consumption \leq 400mA •WMM, 802.1x Client 	 <p>EUB-862EXT2</p> <ul style="list-style-type: none"> •Output power 23dBm @11b/g, 20dBm @11a •Super G & Turbo A (108Mbps) •801.11e (QoS) •Two exchangeable antenna 	
11n (2nd Ver)	 <p>EUB-9701</p> <ul style="list-style-type: none"> •Data rate up to 300Mbps •Support WMM (QoS) •Low power consumption 	 <p>EUB-9701EXT2</p> <ul style="list-style-type: none"> •Data rate up to 300Mbps •Detacheable antenna •Support WMM (QoS) <p>#World No1</p>	

Word No 1

EUB-9701 EXT2

Detachable Antenna

Draft 2.0 11n USB 2.0



- **High speed** up to 300Mbps data rate.
- IEEE **802.11n Draft 2.0** standards.
- Capable of **handling heavy data** payloads such as MPEG video streaming, on-line gaming,..etc
- Support **Wireless Multimedia** Enhancements
- Quality of Service (QoS)
- **Detachable Antenna** design that enable flexible deployment.

Using different antennas, wireless coverage can be design according to the environment.



Directional

- **Support applications which are throughput sensitivity**
 - Online gaming and video streaming
 - Intensive bandwidth usage within the LAN network
- **Release restriction of current Wi-Fi home networks**
 - Extend range and coverage
 - Diminish dead-spot indoor
- **Compatible with 802.11a/b/g**
 - 11n works well with existing 802.11a/b/g standard. Compatibility issue will not be a problem.

Throughput

Coverage

Interoperability

