

Wireless LAN (Jaringan Nirkabel)

Seminar Wireless LAN

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Membangun Hotspot Wireless LAN

- Kebutuhan :
 - Wireless AP (Hardware Based atau Software Based)
 - Antenna (HomeMade atau Commercial)
 - Server Unix/Linux : Bandwidth limiter/Proxy, Server Otentikasi
 - Koneksi Internet

Wireless Access Point

1. Hardware Based AP

Mendukung berbagai konfigurasi : AP, AP-client, AP-router/Gateway, AP repeater.

<http://www.linksys.com/>

<http://www.compex.com/>

<http://www.senao.com/>

<http://www.smc.com/>

<http://www.dlink.com> dll

2. Soft Based (HostAP, HermesAP)

Menggunakan kartu WLAN (WNIC) sebagai Access Point pada OS Linux/BSD, mampu mendukung lebih banyak layanan. Seperti VPN, Captive Portal (nocat) dan Proxy.

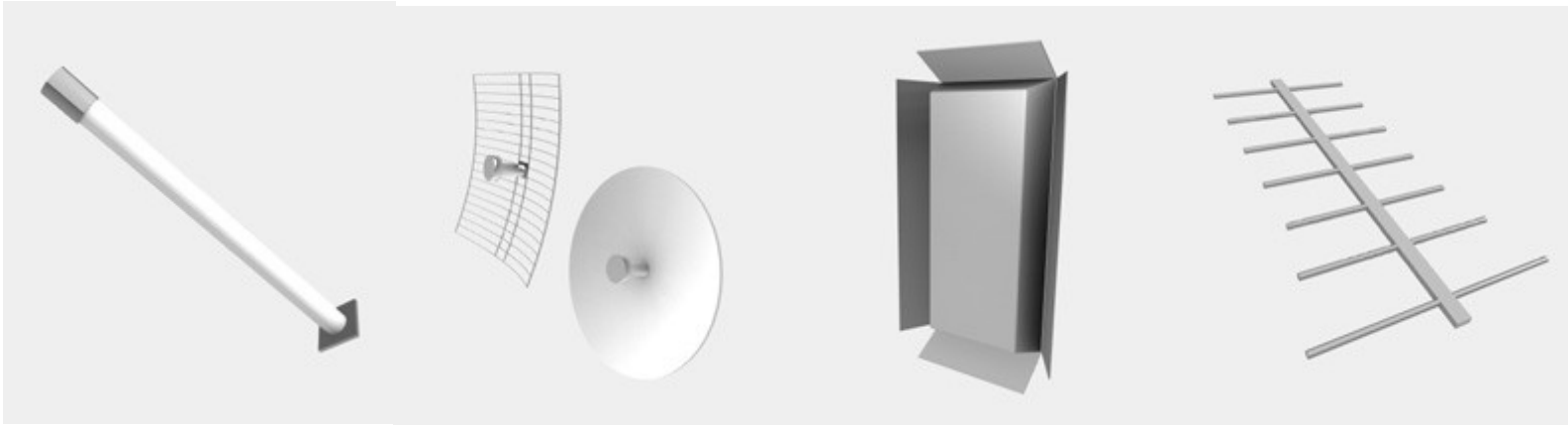
<http://hostap.epitest.fi/>

<http://oob.freeshell.org/nzwireless/hostap.html>

<http://hunz.org/hermesap.html>

Antenna

- Jenis
 - Omni Directional Antenna
 - Directional Antenna

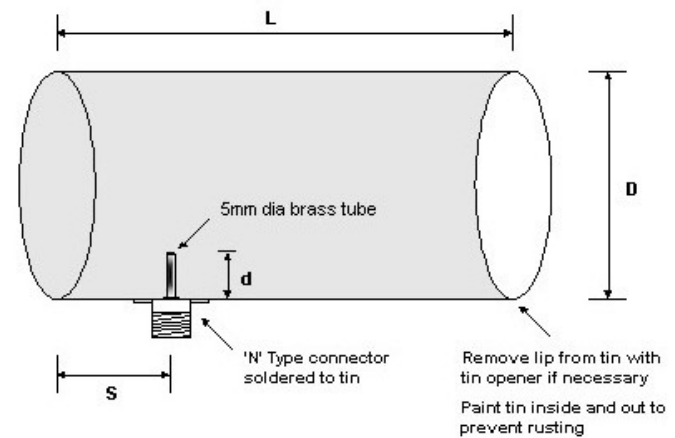


Macam macam Antenna

Antena Kaleng



Antena Kaleng Susu

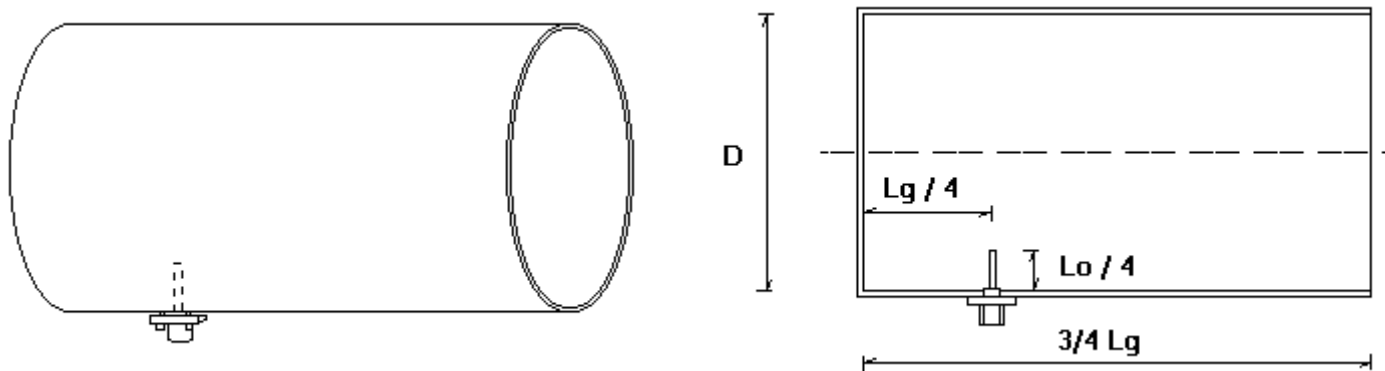


Comparative tests indicate that antenna provides approximately 11dB gain over a dipole

Frequency	Type of tin	Dimensions			
1.3GHz	20 litre Big vegetable oil container	D = 279mm	L = 366 mm	S = 73mm	d = 50mm
2.3GHz	Catering size 'Nescafe' tin	D = 150mm	L = 190mm	S = 48mm	d = 26mm
3.5GHz	Small 'Farley's first milk tin	D = 115mm	L = 100mm	S = 25mm	d = 17mm

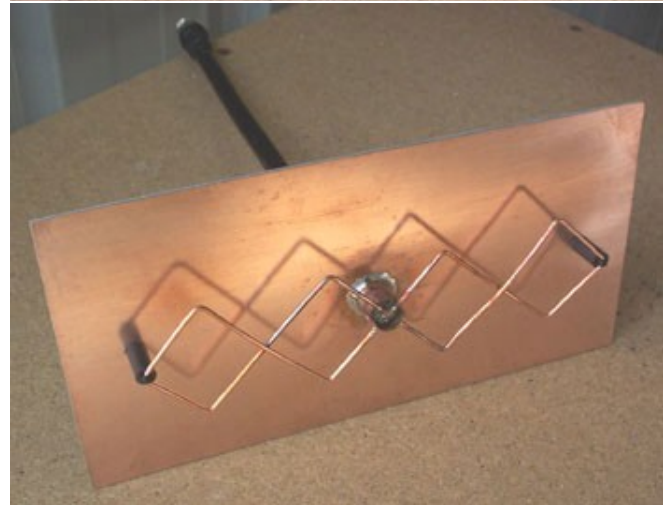
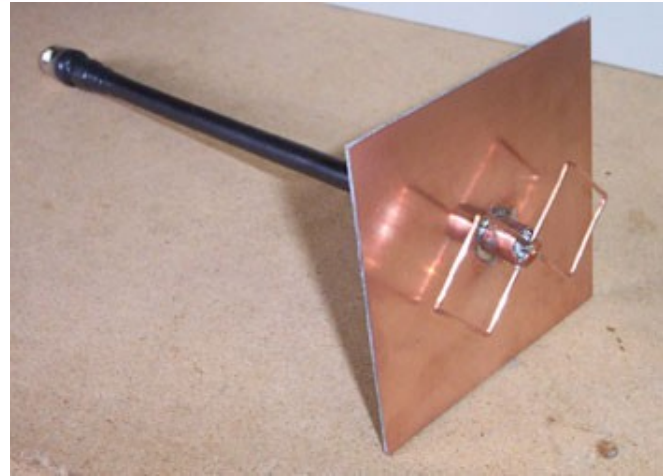
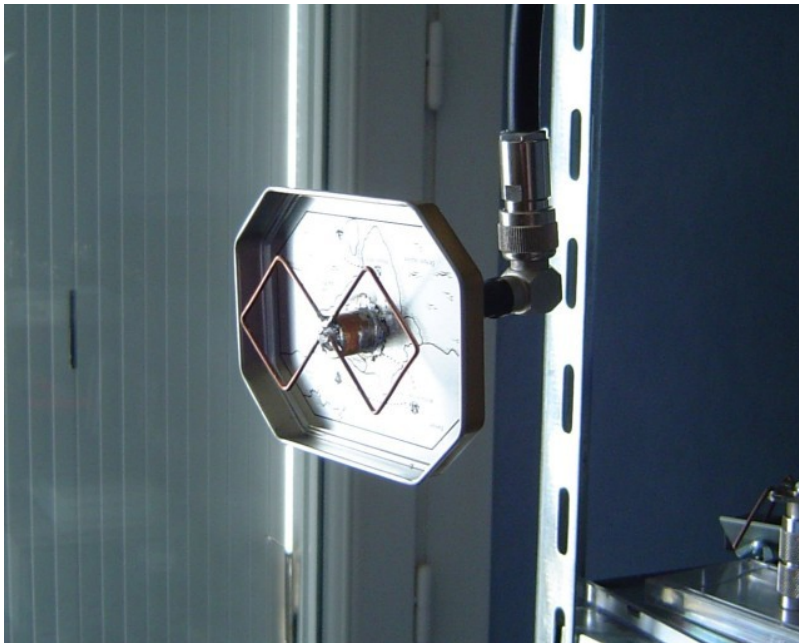
<http://www.turnpoint.net/wireless/cantennahowto.html>

Antena Kaleng



<http://www.saunalahti.fi/elepal/antenna2.html>
<http://www.saunalahti.fi/elepal/antenna2calc.php>

Antena BiQuad



<http://www.seattlewireless.net/index.cgi/SardineCanAntenna>
<http://www.seattlewireless.net/index.cgi/DirectionalBiQuad>

Antena Kaleng + Dish (parabola)



<http://www.wvc.edu/~frohro/Airport/Primestar/Primestar.html>

Antena Pringles (yagi)



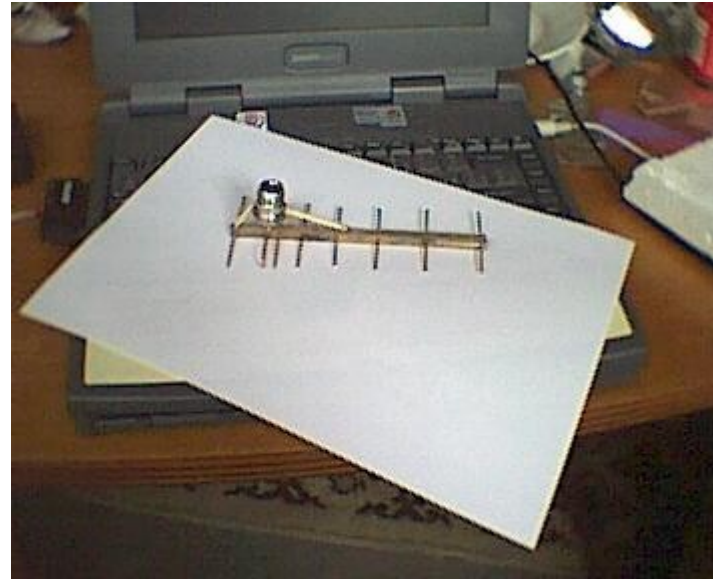
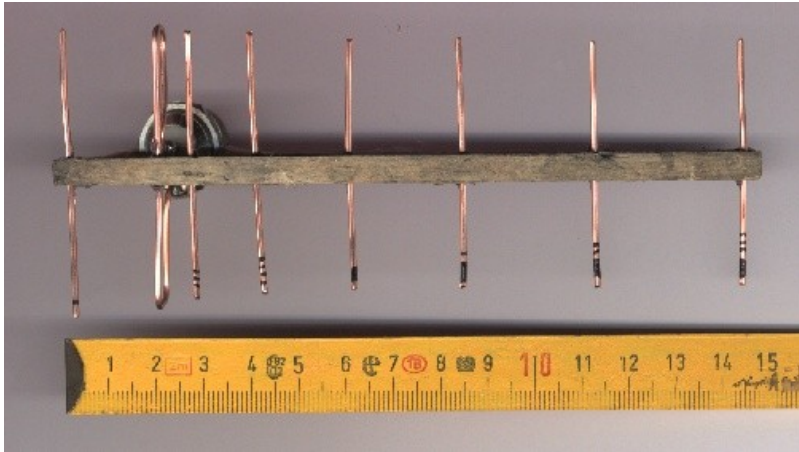
<http://verma.sfsu.edu/users/wireless/pringles.php>
<http://www.oreillynet.com/cs/weblog/view/wlg/448>

- Omni HomeMade



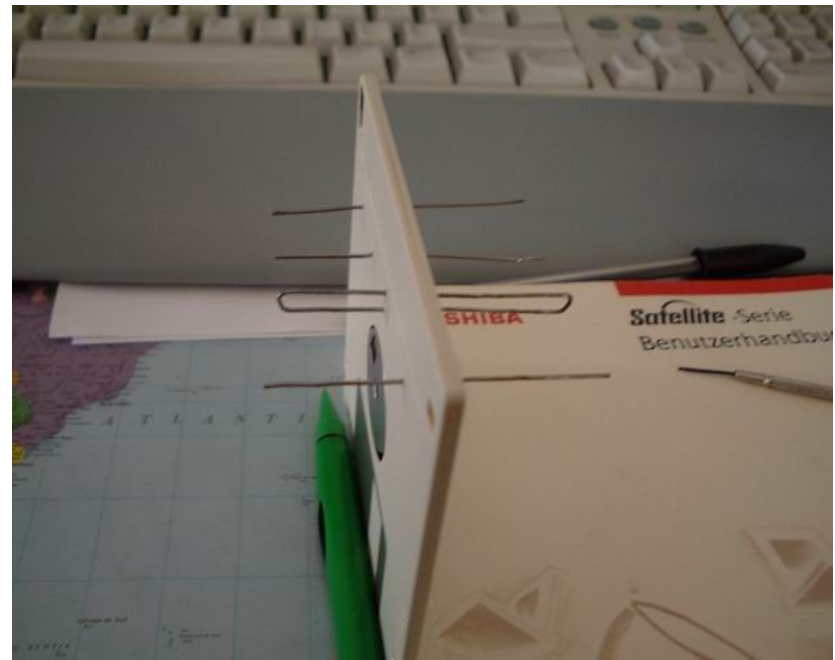
<http://wireless.gumph.org>

- Antena Yagi



<http://www.seattlewireless.net/index.cgi/MicroTVAerial>

- Antena Disket



<http://www.wifi-montauban.net/communaute/index.php/DisquettAntenna>



<http://www.te.ugm.ac.id/~josh/wireless/kaleng/>



- Server Otentikasi, Proxy, dan Bandwidth Limiter

- FreeRadius (AAA) <http://www.freeradius.org>
- Squid Proxy <http://www.squid-cache.org>
- NoCat for Linux <http://nocat.net> (captive portal) dan For BSD <http://www.pogozone.net/projects/nocat>
- Chillispot <http://www.chillispot.org>
- HTB & CBQ <http://luxik.cdi.cz/~devik/qos/htb> and <http://www.icir.org/floyd/cbq.html>



Penutup

Terimakasih

Pertanyaan ?

Masukan ?