

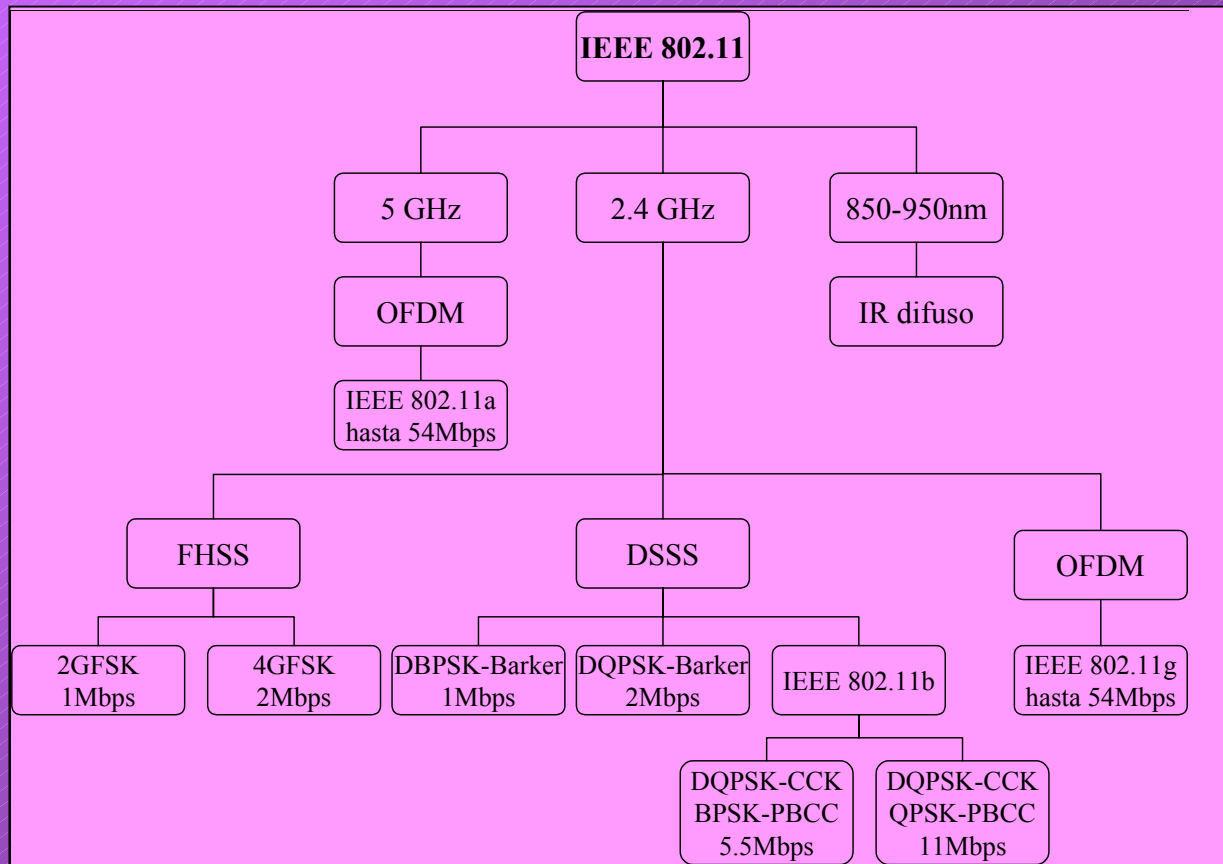
AlcalaWireless



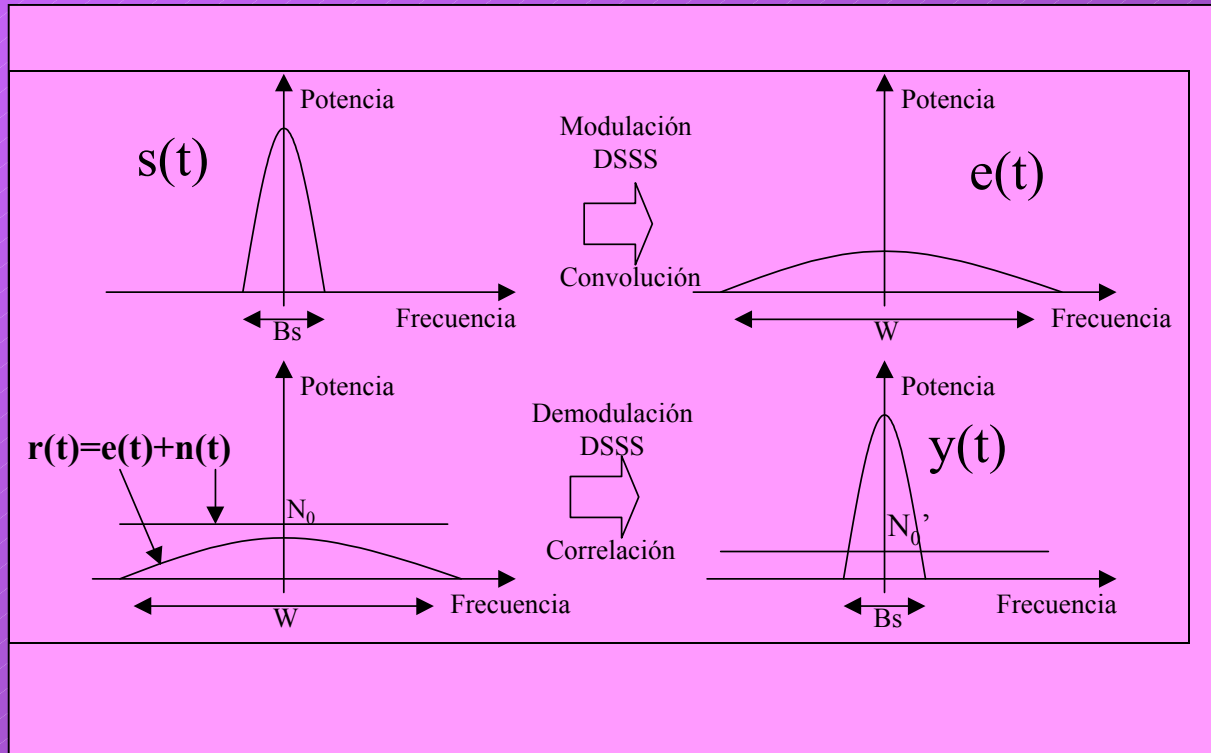
Nivel PHY y MAC



Estandar 802.11



DSSS



¿Qué me ofrece AW?

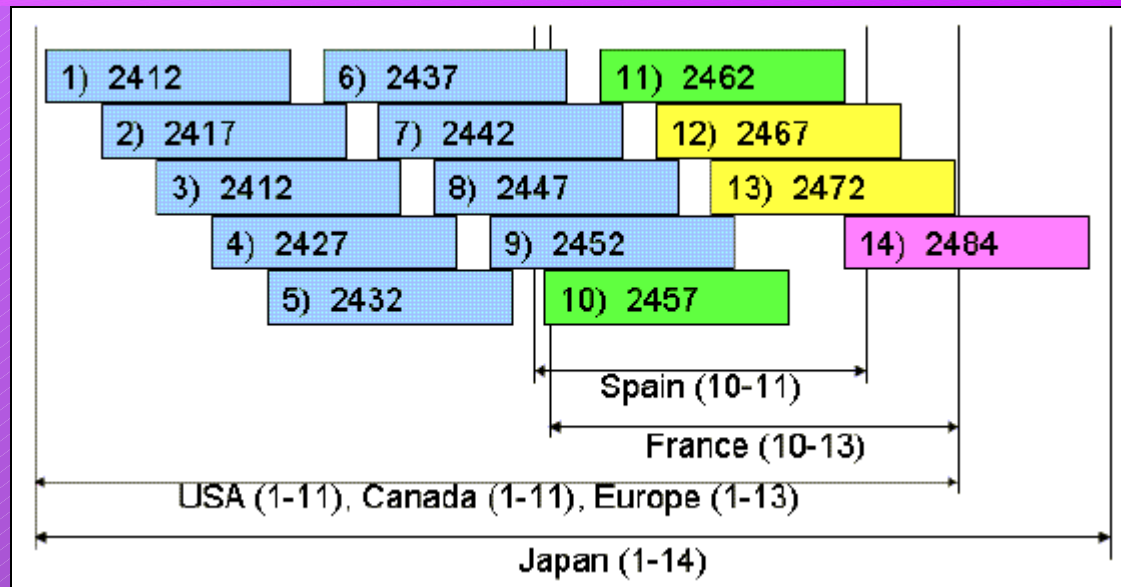


Table 1: World Wide Spectrum Allocation for IEEE 802.11 and 802.11b use. [14]

Country	Regulatory Agency	Frequency Range Available	DSSS Channels Available	FHSS Channels Available
United States	FCC	2.4 to 2.4835 GHz	1 through 11	2 through 80
Canada	IC	2.4 to 2.4835 GHz	1 through 11	2 through 80
Japan	MKK	2.4 to 2.497 GHz	1 through 14	2 through 95
France		2.4465 to 2.4835 GHz	10 through 13	48 through 82
Spain		2.445 to 2.475 GHz	10 and 11	47 through 73
Remainder of Europe	ETSI	2.4 to 2.4835 GHz	1 through 13	2 through 80



CNAF

- 1997: Se aprueba el estandar IEEE 802.11
- 1998: 2403 a 2500 MHz destinada a ICM
- 2002: 2400-2483,5 MHz destinada a redes inalámbricas



Canal

Table 112—European operating channels (except France and Spain)

Set	Number of channels	HR/DSS channel numbers
1	3	1, 7, 13
2	7	1, 3, 5, 7, 9, 11, 13



Figure 143—European channel selection—non-overlapping



Figure 144—European channel selection—overlapping



Potencia

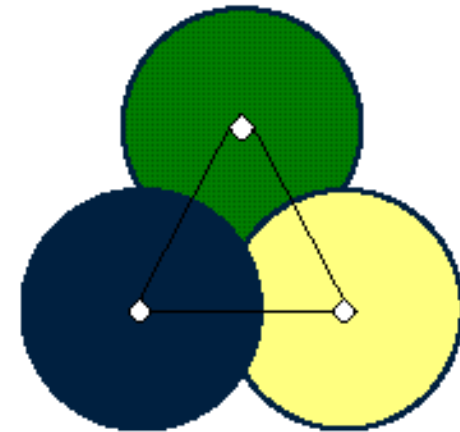
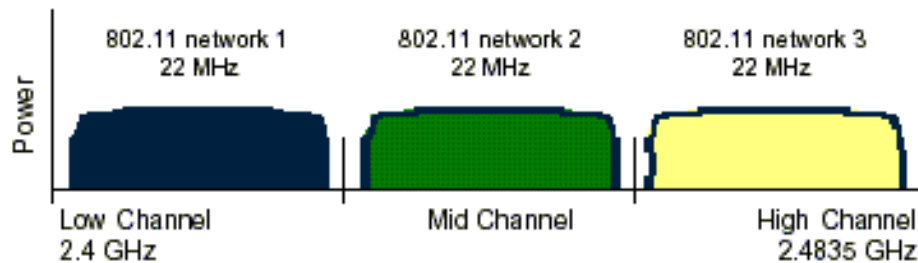
Table 115—Transmit power levels

Maximum output power	Geographic location	Compliance document
1000 mW	USA	FCC 15.247
100 mW (EIRP)	Europe	ETS 300–328
10 mW/MHz	Japan	MPT ordinance for Regulating Radio Equipment, Article 49-20



Cobertura

The 2.4 GHz ISM Band Supports
Three (3) Non-Overlapping 802.11b-based Networks



Source: Mobilian Corporation



Paquetes

MAC

Frame Control 2 bytes	Duration and ID 2 bytes	Address 1 6 Bytes	Address 2 6 Bytes	Address 3 6 Bytes	Sequence Control 2 Bytes	Address 4 6 Bytes	Frame Body 0 to 2312 Bytes	Frame Check Sequence 4 Bytes
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PHY

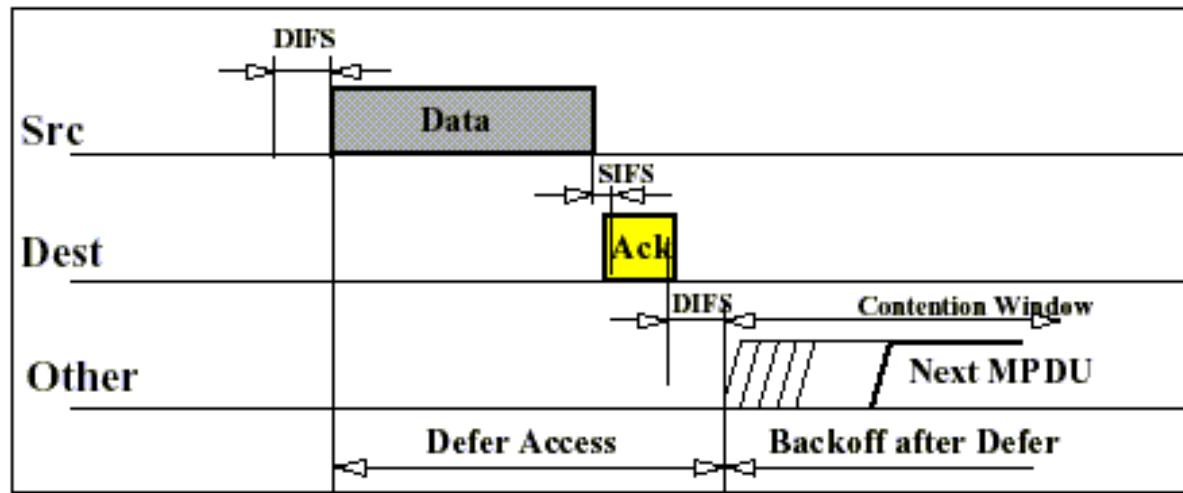
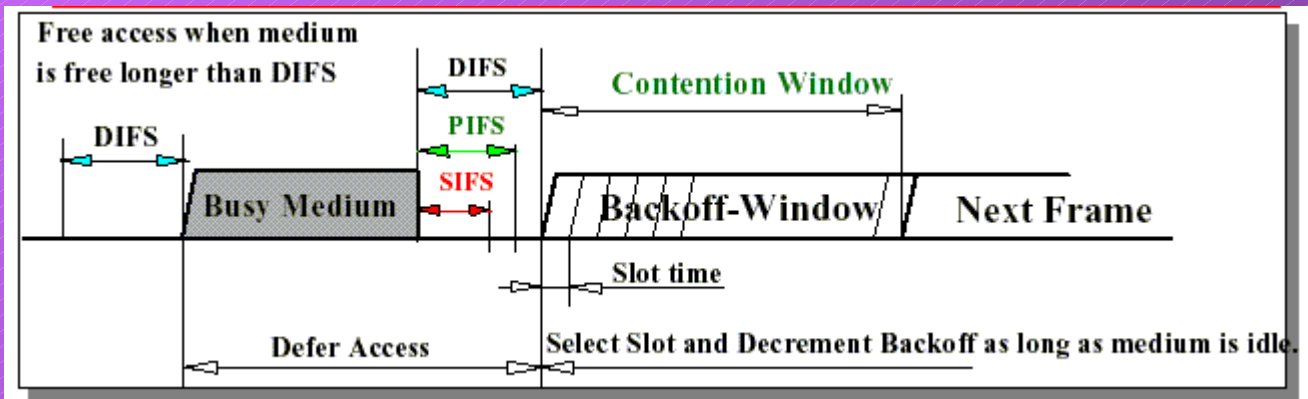
Long Data Packet Format (Mandatory, defined in 802.11 and 802.11b)

PHY Preamble 18 bytes	PHY Header 6 bytes	MAC Header 34 bytes	Ethernet Header 14 bytes	IP Header 20 Bytes	Data Payload + TCP or UDP or Other Header up to 1480 bytes	MAC Footer 4 bytes
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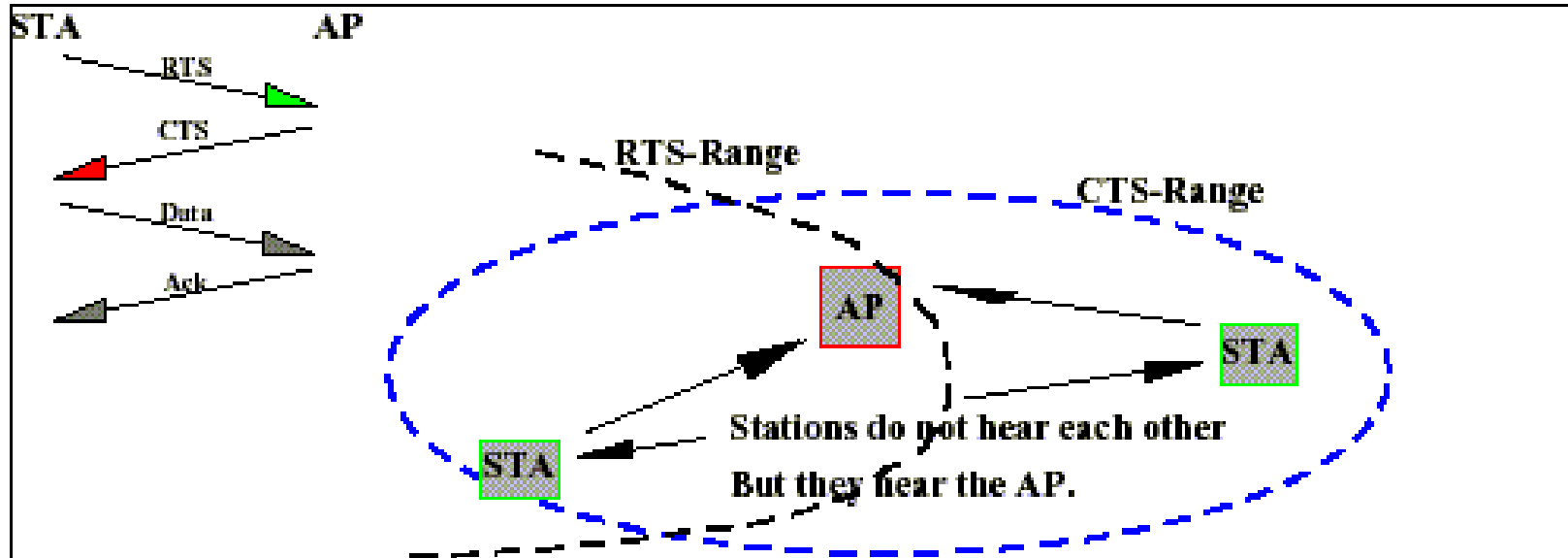
← 1 Mbps → ← 1, 2, 5.5 or 11 Mbps →



CSMA/CA



Problema del Nodo Escondido



ALCALÁ WIRELESS

GRACIAS POR SU ATENCIÓN

