Wireless Personal Area Network Study Group

A Liaison Update Report

History 1

- Our Sponsor submitted an IEEE Liaison Letter to the following Groups:
  - ATM Forum Wireless ATM (WATM) Working Group
  - Bluetooth Special Interest Group
  - ETSI Broadband Radio Access Networks (BRAN) Project
  - Infrared Data Association (IrDA)
  - Internet Engineering Task Force (IETF), MobileIP
  - Home Radio Frequency Working Group (HRFWG)
  - Wireless LAN Alliance (WLANA)

The HomeRF Working Group and Bluetooth Special Interest Group were the first and only to send delegates to the SG

November 1998 doc.: IEEE 802.11-98/359

History 2

- HomeRF Working Group Formed March 4, 1998
  - Liaison #1 May 5, 1998 -98/217
  - Liaison #2 July 7, 1998 -98/251r1
  - Liaison #3 September 15, 1998 -98/299
- Bluetooth Special Interest Group Formed May 20, 1998
  - Liaison #1 July 7, 1998 -98/253
  - Liaison #2 September 15, 1998 -98/300
  - Liaison #3 October 26, 1998 -98/350 (Minutes only)

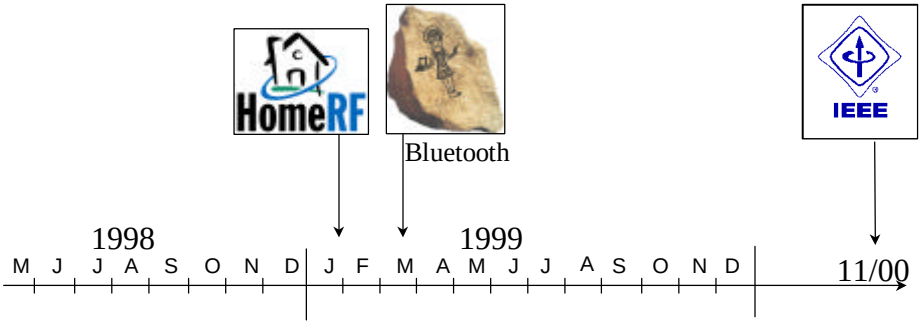
November 1998 doc.: IEEE 802.11-98/359

PHY Layer Comparisons

Parameter	IEEE 802.11 FHSS	HRFWG SWAP-CA	Bluetooth
Operating Frequency	2.400 - 2.4835 GHz	2.400 - 2.4835 GHz	2.400 - 2.4835 GHz
Spread Spectrum Method	FHSS	FHSS	FHSS
Data Rate	1 Mbps 2 Mbps	1 Mbps 2 Mbps	1 Mbps 2 Mbps (future)
Modulation Method	2-FSK 4-FSK (optional)	2-FSK 4-FSK (required)	2-FSK TBD
Modulation Index (h)	0.32 0.16		0.32 TBD
Effective Filter BW	Gaussian (BT = 0.5)		?????
Hop Rate	2.5 Hz	50 Hz	1600 Hz (max)
Channel Switch Time	224 microsec	300 microsec	220 microsec
Rx/Tx Turnaround Time	19 microsec	25 microsec	220 microsec
Antenna Diversity	Optional		Not Required
Tx RF Power	<1W (US)	100 mW (North America)	1 mW
Rx Sensitivity (@ BER?)	-80 dBm @ 1 Mbps	-76 dBm @ 1 Mbps	-70 dBm @ 1 Mbps
Tx Channel Freq. Tol.	+/- 60 kHz		?
Tx Spectrum Shape	|N-M| = 2 -20 dBm or -40 dBc |N-M| > 3 -40 dBm or -60 dBc		?
Hop Sequence (# Ch.)	?	?	?

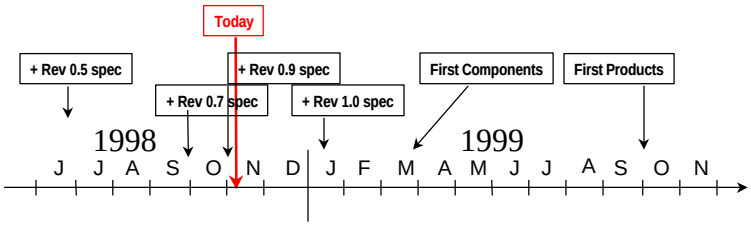
Source: -98/249r2

Liaisons by v1.0 Release Dates

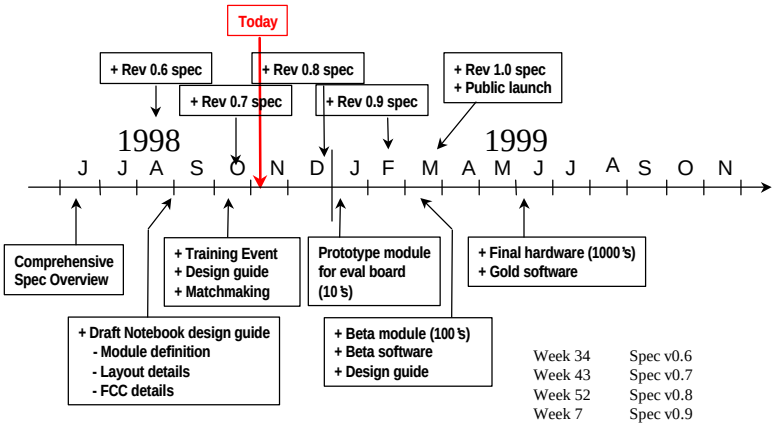


TASKS	DUR	ORIGINAL	CURRENT
Submit WPAN PAR	-	Jun-98	Feb-99
First Unapproved WPAN Draft Specification	9 mo	Mar-99	Nov-99
Draft Specification approved by 802.11 WG	6 mo	Sep-99	May-00
Draft Specification approved by IEEE SAB	6 mo	Mar-00	Nov-00

HomeRF WG - 11/9/98



Bluetooth SIG - 11/9/98



Week 34	Spec v0.6
Week 43	Spec v0.7
Week 52	Spec v0.8
Week 7	Spec v0.9
Week 11	Spec v1.0
Week 24	Test Requirement spec1.0
Week 41	Test specv0.9
Week 3	Test specv1.0

WPAN SG 11/9/98