



Date: July 1996

**ISO/IEC JTC1/SC6
TELECOMMUNICATIONS AND INFORMATION
EXCHANGE BETWEEN SYSTEMS
Secretariat: U.S.A. (ANSI)**

LIAISON STATEMENT

To: ISO/IEC JTC 1/SC 6

Title: ISO/IEC Standard for Wireless LAN

Source: IEEE 802 (via the U.S. National Body)

Project: Proposed as JTC 1.06.43.11

Action: For review and comment

IEEE 802 would like to thank SC 6 for its interest in the IEEE Wireless LAN document (SC 6 N 10 046) and for initiating a New Project ballot for an ISO/IEC Standard for a Wireless LAN. Please find below the responses to the questions in ISO/IEC JTC1/SC6 N 10,003.

1. Frequency ranges

The frequency bands used by IEEE 802.11 have been determined by the regulatory authorities throughout Region 1, 2 and 3. Some minor differences in the rules and the frequency range (see table, at Frequency Range) are accommodated in the standard

2. Countries accommodating IEEE 802.11 devices

After consultation with knowledgeable members of the 802.11 working group we have determined that, so far, the following countries allow devices as IEEE 802.11 devices:

Abu Dhabi	Finland	Korea	Singapore
Australia	France	Latvia	South Africa
Austria	Germany	Lithuania	Spain
Belgium	Hong Kong	Malaysia	Sweden
Canada	Hungary	Morocco	Switzerland
China	Iceland	Netherlands	Taiwan
Common.Ind.States	Indonesia	New Zealand	Thailand
Cyprus	Ireland	Norway	Turkey
Czech Republic	Israel	Philippines	UK
Denmark	Italy	Portugal	Ukraine
Estonia	Japan	Saudi Arabia	US

3. Countries where IEEE 802.11 devices are not yet accommodated

Poland, and 7 countries in the middle East have not (yet?) made the band available for IEEE P802.11 like devices..

4. Comparison between IEEE 802.11 and ETSI 300 652

The following table summarizes the features of both standards as far as we understand the features of the ETSI draft standard:

Feature\Standard	IEEE 802.11	ETSI 300 652
Technology	<ul style="list-style-type: none"> • Direct Sequence Spread Spectrum or • Frequency Hopping Spread Spectrum • Infrared 	<ul style="list-style-type: none"> • GMSK with equalisation
Bitrates	<ul style="list-style-type: none"> • 2 Mbit/s for DSSS and IR with fall back 1 Mbit/s • 1 Mbit/s for FHSS with 2 Mbit/s, channel characteristic permitting 	<ul style="list-style-type: none"> • 23.5 Mbit/s
Frequency range	<ul style="list-style-type: none"> • Japan: 2471 - 2497 MHz • France: 2.446-2.4835 GHz • Spain: 2.445-2.475 GHz • remainder of the world: 2400 - 2483.5 MHz see also table in section 2 	<ul style="list-style-type: none"> • Europe: 5150 - 5300 MHz (5 channels)
RF power (maximum allowed)	<ul style="list-style-type: none"> • US: 1 watt • Europe: 100 mW • Japan: 10 mW/MHz • Other countries: about 100 mW 	<ul style="list-style-type: none"> • Europe: 1 Watt
Bandwidth	<ul style="list-style-type: none"> • 11 MHz (DSSS) • 79 times 1 MHz (FHSS) 	<ul style="list-style-type: none"> • 23.5 MHz
Interworking	<ul style="list-style-type: none"> • all networks providing MAC service 	<ul style="list-style-type: none"> • IEEE 802.3
Services	<ul style="list-style-type: none"> • ISO/IEC 10039:1991, IT, OSI - LAN - MAC service definition for asynchronous transfer with limited Time-Bounded services 	<ul style="list-style-type: none"> • IEEE 802.3 with extensions for time bound services
Modes of operation	<ul style="list-style-type: none"> • Access Point (Infra-Structure) based or peer to peer 	<ul style="list-style-type: none"> • peer to peer only

Feature\Standard	IEEE 802.11	ETSI 300 652
Medium access scheme	<ul style="list-style-type: none"> Carrier Sense Multiple Access with Collision Avoidance; support for time bounded services in Access Points 	<ul style="list-style-type: none"> Non Pre-emptive Multiple Access with multiple priority levels
Forwarding between nodes	<ul style="list-style-type: none"> via access point only 	<ul style="list-style-type: none"> directly between nodes (optional)
Power Conservation	<ul style="list-style-type: none"> yes, based on beacons by Access Point 	<ul style="list-style-type: none"> yes, based on sleep declarations by power conserving nodes
Security	<ul style="list-style-type: none"> yes, RC-4 algorithm 	<ul style="list-style-type: none"> yes, ETSI algorithm

5. Future extensions

As spectrum regulations and technology permit, extensions beyond the current 2 Mbit/s are expected to be designed by IEEE 802.11.

