

ISO/IEC JTC 1/SC 6 N 10526R

**Summary of Voting on Document SC 6 N 10341, ISO/IEC CD 8802-11,
Telecommunications and Information Exchange Between Systems – LAN/MAN
Specific Requirements – Part 11: Wireless Medium Access Control (MAC) method
and physical layer specifications**

SC 6 National Body P-Members (18)

Australia, Belgium, Brazil, Canada, Czech Republic, Denmark, Finland, France, Germany, Italy, Japan, Republic of Korea, Norway, Russian Federation, Sweden, Switzerland, United Kingdom, United States

P-Members in Favour (11 of 18)

Brazil, Canada, Czech Republic, Finland, France, Germany, Italy, Norway, Sweden, Switzerland, United Kingdom (Attach. 1)

P-Members Voting Against (2 of 18)

Japan (Attach. 2), United States (Attach. 3)

P-Members Abstaining (1 of 18)

Australia

P-Members who did not vote (4 of 18)

Belgium, Denmark, Republic of Korea, Russian Federation

Attachment 1 – United Kingdom

The UK requests that, as this is an IEEE802 document, the PE ensures that the most recent IEEE 802 draft is available for future ISO/IEC balloting.

Attachment 2 – Japan

The national body of Japan disapproves ISO/IEC JTC 1/SC 6N 10341, ISO/IEC CD 8802-11 for the comments below. If the comments are satisfactorily resolved, it will change its vote to approval.

Comment Number : 1
Comment Type : Minor Technical
Section/Clause : 2. Normative references
Pages : 2
Concern/Rationale : Radio access is regulated by ITU Radio Regulations.
Proposed Solution/Text : Add the following text.
7. ITU Radio Regulations

Comment Number : 2
Comment Type : Major Technical
Section/Clause : E. Annex
Pages : 369-____
Concern/Rationale : The article 25 of ITU Radio Regulations specifies that all transmissions shall be capable of being identified either by identification signals or by other means. In Japan, all Wireless LAN stations used 2.4GHz band are regulated to have the CALLING NAME for automatic transmitter identification, based on Radio Law established in accordance with article 25 of ITU Radio Regulations. Implementers are referred to the regulations of Japan. The national body of Japan proposes to add new Annex(E. Annex).
Proposed Solution/Text : Add new Annex.
E. Annex - The technical specification of calling name storage device and identification device for radio equipment for low power data communication system radio station. (See Attached document)

Comment Number : 3
Comment Type : Minor Editorial
Section/Clause : 14.6.2 Regulatory Requirements
Pages : 204
Concern/Rationale : The official name of private standardization body in Japan has been changed.
Proposed Solution/Text : Change the text as follows;
Approval standards: Association of Radio Industries and Businesses(ARIB)

Comment Number : 4
Comment Type : Minor Technical
Section/Clause : 14.6.15.7 Receiver radiation
Pages : 215
Concern/Rationale : Out-of-band spurious emissions shall be provided like DSSS PHY specifications.
Proposed Solution/Text : Add the following text.
The FHSS PHY shall conform with out-of-band spurious emissions by regulatory bodies.

Comment Number : 5
Comment Type : Minor Editorial
Section/Clause : 15.4.7.1 Transmit Power Levels
Pages : 258
Concern/Rationale : Table number is not correct.
Proposed Solution/Text : ' Table 11' should be replaced by 'Table 66'.

Comment Number : 6
 Comment Type : Minor Editorial
 Section/Clause : 15.4.7.1 Transmit Power Levels / Table 66
 Pages : 259
 Concern/Rationale : 'Compliance document' for Japan is not correct.
 Proposed Solution/Text : 'MPT ordinance 79' should be replaced by 'MPT ordinance for Regulating Radio Equipment, Article 49-20'.

E. Annex - The technical specification of calling name storage device and identification device for radio equipment for low power data communication system radio station (Informative)

The article 25 of ITU Radio regulations specifies that all transmissions shall be capable of being identified either by identification signals or by other means.
 In Japan, all Wireless LAN stations used 2.4GHz band are regulated to have the CALLING NAME for automatic transmitter identification, based on Radio Law established in accordance with article 25 of ITU Radio Regulations. Implementers are referred to the regulations of Japan.
 The specifications described below are established by MPT Notice: No.759,1992.

E.1 Calling name storage device

The calling name is a 12-digit decimal numeric value specified by the Minister of Posts and Telecommunications. The calling name storage device shall conform to the following conditions:

- a. Calling name storage device function
 - (a) A radio wave shall only be transmitted when a calling name is stored
 - (b) Once stored, a calling name shall not be easily erasable.
 - (c) The calling name storage device shall be difficult to remove.
 - (d) The calling name storage device shall operate normally when subject to normal temperature or humidity changes, vibrations, or shocks.
- b. Transmission signal condition
 - (a) The type of modulation and the modulation speed shall be equal to main transmitter / receiver.
 - (b) The signal shall consist of a bit sync signal, a frame sync signal, and a calling signal in the format shown in Figure 1.

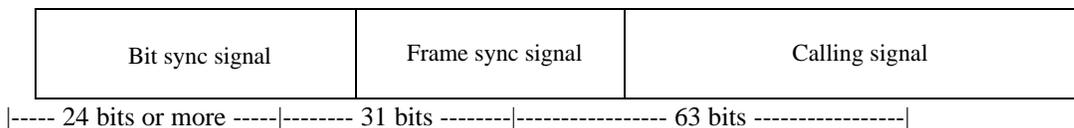


Figure 1 Signal configuration

- (c) The bit sync signal shall be a 24-bit or longer code consisting of alternating 1s and 0s.
- (d) The frame sync signal shall be a 31-bit M-pattern code as follows:

0001101110101000010010110011111 .

- (e) The calling signal consists of the following calling name and error correction code:

a₆₂ a₆₁ a₆₀ a₅₉ a₅₈ a₅₇ a₅₆ a₅₅ a₅₄ a₅₃ a₅₂ a₅₁ a₅₀ a₄₉ a₄₈ a₄₇ a₄₆ a₄₅ a₄₄ a₄₃ a₄₂ a₄₁ a₄₀ a₃₉ a₃₈ a₃₇ a₃₆ a₃₅ a₃₄

$a_{33} a_{32} a_{31} a_{30} a_{29} a_{28} a_{27} a_{26} a_{25} a_{24} a_{23} a_{22} a_{21} a_{20} a_{19} a_{18} a_{17} a_{16} a_{15} a_{14} a_{13} a_{12} a_{11} a_{10} a_9 a_8 a_7 a_6 a_5 a_4 a_3 a_2 a_1 a_0$.

a_{62} to a_0 are coefficients for terms 62 to 0 of a polynomial on a finite field of two places as follows:

Where, b_0 to b_{47} shall be the values of digits 1 to 48 when a calling name (12-digit numeric value) is converted into a binary value according to Table 1. b_{48} to b_{50} shall be 0.

$R(X)$ shall be the remainder polynomial of the division:

Calling name numeral	1	2	3	4	5	6	7	8	9	0
Binary value	0011	0100	0101	0110	0111	1000	1001	1010	1011	1100

Table 1 Calling name conversion into binary value

E.2 Identification device

The radio equipment that is connecting with the telecommunications circuit facilities (PSTN, etc.) shall have the identification device. The identification device shall be able to detect the calling name of the transmitting radio station that is communicating with, from receiving its radio wave.

Attachment 3 – United States

The US Member Body votes Do-Not-Approve on the Letter Ballot on CD 8802-11.

The US Member Body would support the project, but is of the opinion that the document needs to be completed with a formal description of the Medium Access Control protocol and needs to be improved on the editing, the consistency between the various clauses in the document and to remove items from the Management Information Base that do not carry interest to management.

Document SC 6 N 10527 contains all elements required to change the US Member Body vote to Approve.

A summary of the major changes is given below.

The following technical changes were made in the proposal relative to the CD:

1. The proposal contains the normative formal description of the MAC and a description of the Management Information Base in ASN1 notation. The formal description uses the SDL from ITU-T Recommendation Z.100.
2. The Management Information Base (MIB) has been reduced to those elements needed by a network manager. The CD contained many elements that were originally placed in the MIB as an internal communication means between functions in the MAC.
3. The data rates supported by the MAC have been extended to support up to 63.5 Mbit/s, in increments of 500 kbit/s. This is reflected in Txvector/Rxvector, service primitives, Beacons etc.
4. The parameter sets for Frequency Hopping, Direct sequence and Coordination function have been added.
5. The Wired Equivalent Privacy (WEP) mechanism now also encrypts the Integrity Check Vector (ICV), which provides a better protection.
6. The proposal supports encryption of multicast frames.
7. The PICS Proforma has been made internally consistent and consistent with the specification.
8. Direct peer-to-peer communication under an Extended Service Set (ESS) has been taken out.
9. Frames destined to multiple stations over the air may not be segmented anymore.
10. MLME service primitives and parameters were updated for consistency with the operation.

Editorial changes

Numerous editorial changes to remove typos, bring the text in line with OSI terminology, make definitions consistent and complete and the use better English. The proposal has been made consistent between various sections.