Proposed Comment Resolution for the new Japanese Frequency Band (MR-O-QPSK PHY)

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IEEE P802.15
Wireless Personal Area Networks

Title:	Proposed Comment Resolution for the new Japanese Frequency Band (MR-O-QPSK PHY)
Date Submitted:	September 28, 2011
Source:	Michael Schmidt - Atmel (email: michael.schmidt@atmel.com)
Re:	Task Group 15.4g sponsor ballot comment resolution
Abstract:	Proposed comment resolution for the new Japanese Frequency Band (MR-O-QPSK PHY)
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CID 203,222

Comment:
With regard to document IEEE 802.15-11-0510-04-004g,
specification for the Japanese frequency band should be revised.
Response:
Accept in principle. This is a proposed resolution for MR-O-QPSK.

Proposed Changes

Add the following entries to Table 66

PHY (MHz)	Frequency band (MHz)	Chip rate (kchip/s)	Modulation	Bit rate kb/s	Symbol rate (ksymbol/s)	Symbols
920	920-928	100	O-QPSK	6.25-50 (as defined in 16.3)	3.125	-

Proposed Changes

Add the following entries to Table 68a

Frequency band (MHz)	Modulation	$ChanSpacing$	$TotalNumChan$	$ChanCenterFreq_0$ (MHz)
920-928	O-QPSK	0.2	38	920.6

Proposed Changes

Add the following entries to Table 68h

Band	Spreading mode	Chip rate (kchip/s)	Rate modes supported
920 MHz	0	100	as defined in Table 147

Proposed Changes

- Change in 16.3.1.1 as indicated:
  "... for the 470 MHz, 868 MHz, <u>920 MHz</u>, and 950 MHz frequency band."

- Change in 16.3.1.3 (page 94) as indicated:
  "For the 470 MHz, 868 MHz, <u>920 MHz</u>, and 950 MHz frequency band, the SM field shall ..."

Proposed Changes

Add the following entries to Table 145

Frequency Band (MHz)	Chip rate (kchip/s)	BDE	Spreading
920-928 MHz	100	yes	$(32, 1)_{0/1}$-DSSS

Proposed Changes

Add the following entries to Table 146

Frequency band (MHz)	Chip rate (kchip/s)	BDE	rate $\frac{1}{2}$ FEC + interleaver	Spreading
920-928 MHz	100	yes	yes	$(8, 1)_{0/1}$-DSSS

Proposed Changes

Add the following entries to Table 147

Frequency band	Chip rate (kchip/s)	RateMode	BDE	rate $\frac{1}{2}$ FEC + interleaver	Spreading	Data rate (kb/s)
920-928	100	0	yes	yes	$(8, 1)_{0/1}$-DSSS	6.25
		1	yes	yes	$(4, 1)$-DSSS	12.5
		2	yes	yes	$(2, 1)$-DSSS	25
		3	no	yes	none	50

Add the following entries to Table 148

Frequency band	Chip rate (kchip/s)	RateMode	BDE	rate $\frac{1}{2}$ FEC + interleaver	Spreading	Data rate (kb/s)
920-928	not supported					

Proposed Changes

Add the following entries to Table 162

Frequency band (MHz)	RateMode
920-928	1 and 2 and 3

Proposed Changes

Add the following entries to Table 163

Frequency band (MHz)	length N_p	spacing M_p	chip sequence $p = (p_0, p_1, \ldots, p_{N_p-1})$
920-928	32	512	1101 1110 1010 0010 0111 0000 0110 0101

Add page 114 line 36 and 37 change as indicated:
"In the 470 MHz, 868 MHz, 780 MHz, 917 MHz, 920 MHz, and 950 MHz bands, a raised cosine pulse shape with ..."

Proposed Changes

Add the following entries to Table 164

Frequency band (MHz)	Symbol rate	Symbol length N_S	Symbol duration T_S
920-928	3.125	32	320

Add the following entries to Table 165

Frequency band (MHz)	phySHRDuration	phyPHRDuration
920-928	48	15

Proposed Changes

- ▶ Add the following line in 16.3.4.1
  - 920-928 MHz
- ▶ Add the following row to Table 166 (after the row of frequency band 920-928 MHz)

920-928	-110	-105	-100	-95

- ▶ Add the following row to Table 167 (after the row of frequency band 920-928 MHz)

920-928	not supported

- ▶ Add the following row to Table 168 (after the row of frequency band 920-928 MHz)

Frequency band (MHz)	‖Δf‖ (MHz)	0.2	0.4
920-928	ISR (dB)	10	30