

Octets: 1	Variable
GTS Directions	GTS Device Address List

Figure 48nac—Simplified GTS Specification IE

The GTS Device Address List field contains one address for each GTS slot defined as indicated in the Number of GTS Slots field in the Simplified SF Specification IE. Each GTS device address list entry is a short (i.e., 16-bit) address assigned to the device that has been granted the GTS slot. If a slot has not been allocated, the address list entry for that slot shall contain the value 0xffff.

5.2.4.29 LECIM Capabilities IEs

5.2.4.29.1 LECIM DSSS Capabilities IE

The following IE declares the LECIM DSSS capabilities supported by a device. The presence of this IE in a transmitted frame indicates that the device supports a LECIM DSSS PHY. The IE format is shown in Figure 48nad.

Octets: 2	2	Variable
LECIM Bands Supported	LECIM DSSS Features Supported	Channels Supported

Figure 48nad—LECIM FSK Capabilities IE

The LECIM Bands Supported field is a bitmap that shall be encoded as described in Table 4v. A value of one indicates that the band is supported; a value of zero indicates that a band is not supported.


Table 4v—LECIM Bands Supported field encoding

Bit number	Band supported
0	169 MHz
1	433 MHz
2	470 MHz
3	780 MHz
4	863 MHz
5	915 MHz
6	917 MHz
7	920 MHz
8	2450 MHz
9–15	Reserved

The LECIM DSSS Features Supported field shall be encoded as shown in Table 4w.

Table 4w—LECIM DSSS Features Supported field encoding

Bit number	Description
0	BPSK modulation supported
1	O-QPSK modulation supported
2–5	Maximum spreading factor supported
6–9	PPDU sizes supported 0001 = Reserved 0010 = Fixed size 16 octet PPDU supported 0100 = Fixed size 24 octet PPDU supported 1000 = Fixed size 32 octet PPDU supported
10–15	Reserved

 Channels Supported field is a set of channel maps that shall be formatted as described in Figure 48nae.

Octets: 0/1	0/1	0/1/25	0/1/5	0/1/5	0/1/17	0/1/3	0/1/2	0/1/52
Channel map for Band 0	Channel map for Band 1	Channel map for Band 2	Channel map for Band 3	Channel map for Band 4	Channel map for Band 5	Channel map for Band 6	Channel map for Band 7	Channel map for Band 8

Figure 48nae—Channels Supported field format

The Channels Supported field content depends on the value of the LECIM Bands Supported field. For each band, the channel numbering is given in 8.1.2. For each band indicated as supported, a corresponding channel bit map is constructed, having the format as shown in Figure 48nae. The first bit field of each map, shown in Table 4x, indicates whether all channels in that band are supported. If this field is set to one, then all channels defined for the band in 8.1.2 are supported and the channel map is 8 bits. If the first bit field is set to zero (i.e., not all channels in that band are supported), then the subsequent fields indicate which individual channels are supported. The bit field corresponding to a channel number is set to one to indicate that the channel is supported and set to zero to indicate the channel is not supported. When multiple bands are supported, as indicated in the LECIM Bands Supported field, the corresponding channel maps are concatenated in order, such that the channel maps occur in the order of the bands given in Table 4v, i.e. channel map corresponding to the band indicated by bit 0 of the LECIM Bands Supported field is transmitted first.

~~5.2.4.29.2 LECIM FSK Capabilities IE~~

~~The following IE declares the LECIM FSK capabilities supported by a device. The presence of this IE in a transmitted frame indicates that the device supports a LECIM FSK PHY. The IE format is shown in Figure 48nad.~~

~~The LECIM Bands Supported field is defined in Table 4v of 5.2.4.29.1. The LECIM FSK Features Supported field is encoded as shown in Table 4y. The Channels Supported field is shown in Figure 48nae, and the corresponding channel map format is given in Table 4x.~~

Table 4x—Channel map format

Bit position	Description
0	All channels in band supported
1	Channel 1 supported
2	Channel 2 supported
...	
<i>n</i>	Channel <i>n</i> supported, where <i>n</i> is the number of channels supported for the band in 8.1.2

Octets: 2	2	Variable
LECIM Bands Supported	LECIM FSK Features Supported	Channels Supported

Figure 48naf—LECIM FSK Capabilities IE

Table 4y—LECIM FSK Features Supported field encoding

Bit number	Description
0	2-level FSK supported
1	Positional modulation supported
2	Symbol rate 37.5 ksps supported, 200 kHz channel spacing (19.2.2)
3	Symbol rate 25 ksps supported, 200 kHz channel spacing (19.2.2)
4	Symbol rate 12.5 ksps supported, 200 kHz channel spacing (19.2.2)
5	Symbol rate 37.5 ksps supported, 100 kHz channel spacing (19.2.2)
6	Symbol rate 25 ksps supported, 100 kHz channel spacing (19.2.2)
7	Symbol rate 12.5 ksps supported, 100 kHz channel spacing (19.2.2)
8	FEC supported
9	Interleaving supported
10	Scrambling supported
11	Short PHR supported
12	Long PHR supported

5.2.4.30 DSSS Operating Mode Description IE

The DSSS Operating Mode Description IE content is encoded as shown in Table 4z.

Table 4z—Operating Mode Information field encoding for DSSS

Bit number	Description
0–3	Operating band: 0 = invalid 1–9 = defined 10–15 = reserved
4–12	Channel number. The maximum valid value depends on the operating band according to Table 68l.
13	Modulation selection: 0 = BPSK 1 = O-QPSK
14–15	Chip rate in kchip/s: 0 = invalid 1 = 100 2 = 200 3 = 500 4 = 600 5 = 1000 6 = 2000 7 = reserved
16–18	Channel spacing. Channel spacing for indicated operating band, as given in Table 68l.
19–20	PSDU size: 00 = invalid 01 = 16 octets 10 = 24 octets 11 = 32 octets
21–22	SHR components present: 01 = preamble present 10 = SFD present
23–26	Spreading factor
27–51	Gold code LFSR2 initialization value

5.2.4.31 FSK Operating Mode Description IE

The FSK Operating Mode Description IE content is encoded as shown in Table 4aa.

5.2.4.32 PHY Parameter Change IE

The PHY Parameter Change IE is used by a device to notify a peer device or devices to switch operating band, channel, or other PHY-specific operational parameter. The IE may be used in a directed frame to initiate a change between specific peers, or it may be used in periodic beacons to affect a coordinated change among members of a PAN. The specific procedures for affecting a change are out of the scope of this standard.

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Table 4aa—Operating Mode Information field encoding for FSK

Bit number	Description
0–3	Operating band: 0 = invalid 1–9 = defined 10–15 = reserved
4–12	Channel number. The maximum valid value depends on the operating band according to 8.1.2.
13	Position modulation supported.
14–15	Symbol rate: 0 = 37.5 ksps 0 = 25 ksps 0 = 12.5 ksps
16	Channel spacing: 0 = channel spacing for indicated operating band is 200 kHz 1 = channel spacing for indicated operating band is 100 kHz
17	FEC enabled: 0 = not enabled 1 = enabled
18	Interleaving enabled: 0 = not enabled 1 = enabled
19	Scrambler enabled: 0 = not enabled 1 = enabled
20	Short PHR may be used when the bit value is 1. Otherwise, the bit value is 0.
21	Long PHR may be used when the bit value is 1. Otherwise, the bit value is 0.
22–31	Reserved

The PHY Parameter Change IE shall be formatted as illustrated in Figure 48nag.

Octets: 2	2
Effective Time of Change	Notification Time

Figure 48nag—PHY Parameter Change IE

The Effective Time of Change field shall contain a time in the future, in microseconds, when the change should occur.

The Notification Time field shall contain the local time value in the generating device at the time the frame containing the IE is generated.