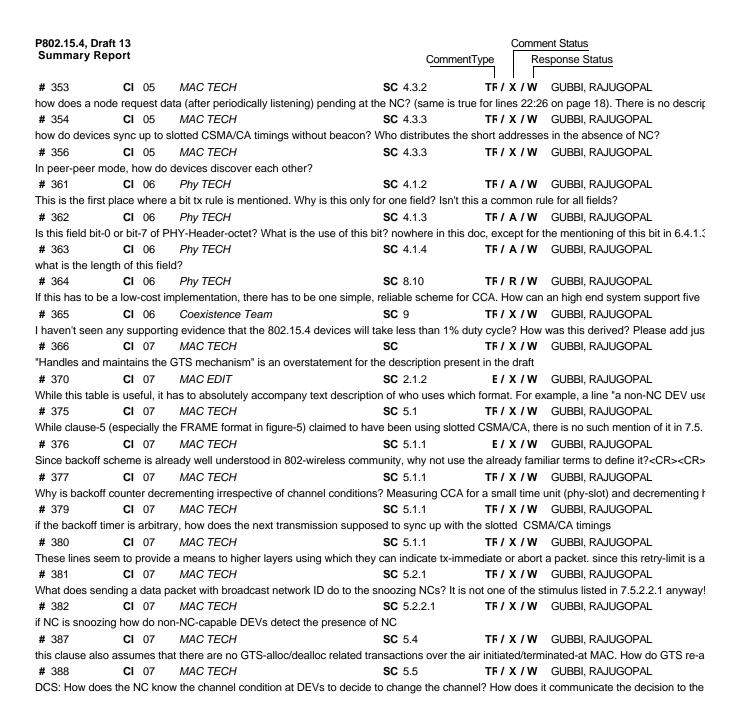
P802.15.4. Draft 13 Comment Status **Summary Report** Response Status CommentType # 10 SC 00 E/A/W Gifford, lan **CI** 00 Team FDIT The use of shall/should/may/can/will/must throughout the document needs to used in accordance with IEEE's style. # 55 **CI** 07 MAC TECH **SC** 7.1 1/X/W Bourgeois, Monique What if a device receives a primitive that it does not understand? How is this handled? # 101 Clause 5 TECH SC 5.4.5.1 1/ X / W Bourgeois, Monigue This does not specify whether or not "another device currently transmitting on the channel" belongs to the same network as the device. # 105 **CI** 07 MAC TECH SC Table 68 1/ X / W Bourgeois, Monique Some of the MAC PIB objects are not referenced anywhere in the draft. # 109 MAC TECH SC Table 64 **CI** 07 1/X/W Bourgeois, Monigue This is the only mention of multicast/broadcast frames. # 111 **CI** 07 MAC TECH **SC** 7.3 1/X/W Bourgeois, Monigue Do we really want to use CSMA for beacons, since they are responsible for synchronizing the network (what if GTS is supported)? # 112 SC 7.5.4.1 **CI** 07 MAC TECH 1/ X / W Bourgeois, Monigue What happens if a network coordinator receives a GTS request while it has a previous request pending? How does it handle simultaneous # 113 **CI** 07 MAC TECH SC 7.5.2.2.1 **1/X/W** Bourgeois, Monique Does a network coordinator change its macFrameOrder to 15 when it enters snooze mode? # 114 **CI** 07 MAC TECH SC 7.5.2.1 1/X/W Bourgeois, Monique What if two networks do somehow choose the same network ID? How would this conflict be resolved? # 115 **CI** 07 MAC TECH SC Table 57 1/X/W Bourgeois, Monique One bit for Address Type does not allow for future expansion of the protocol. # 126 **CI** 07 MAC TECH SC 7.5.4 1/X/W Bourgeois, Monique When does handshaking occur for GTS transmissions? # 144 SC 6.1 **CI** 06 Phy TECH TF / D / W Breen, Greg The standard aims to comply with 15.247. This regulatory document requires a 6dB bandwidth of 500 KHz, but the specified 915 MHz PHY I # 145 **CI** 06 Phv TECH **SC** 6.6.2.6 1/R/W Breen, Grea The pulse shape specification seems to be incorrect because it shall produce an irregular waveform. # 172 **CI** 05 MAC TECH SC 5.4.5.1 1/X/W Carmeli, Boaz It is not clear from the standard what a device should do in case of failer to transnit a beacom when the channel is busy. Should it choose a # 181 Phy TECH **SC** 6.8.8 1/A/W Carmeli, Boaz **CI** 06 The mapling between the integer and the energy level shell be defined. # 182 **CI** 06 Phv TECH SC 6.8.9 1/A/W Carmeli, Boaz The mapling between the integer and the link cuality level shell be defined. # 188 **SC** 5.4.3.2 1/X/W Carmeli, Boaz MAC TECH What happen to pending message at the network coordinator that is never requested by the relevent network node. Is there a time-to-live tin # 193 **CI** 06 Phv TECH **SC** Table 16 (6.5 1/A/W Carmeli, Boaz Why the phyMaxPacketSize is so small? is it really only 58 bytes for the 2.4 GHz phy? If so - why the 900 MHz phy has longer packet size # 194 **SC** 7.1.1.3.2 1/X/W Carmeli, Boaz MAC EDIT What happen to packet with Destantion Address not equal to the Destanation Address of the receiving device (a 'not-for-me' packet). Which

P802.15.4. Draft 13 Comment Status **Summary Report** CommentType Response Status 1/A/W Carmeli, Boaz # 195 **CI** 06 Phv TECH SC 6.8.10 The CCA mode 4 is not clear to me (sorry). What do we gain from listening to the channel for max PPDU size. it seems more important to w # 196 **CI** 07 MAC TECH **SC** 7.2.2.4.2 1/X/W Carmeli, Boaz What if there are more then 16 addresses pending? Are they transmitted in cyclic order? MAC TECH 1/X/W Carmeli, Boaz Can we support another addresses convention in which the network id will be a single byte long, and the device address will be of two by # 199 **CI** 06 Coexistence Team SC 6.9 1/X/W Chen, Hung-Kun The section of coexistence for 802.15.4 does not address all other IEEE devices using 2.4 GHz band, such as 802.15.1, 802.15.3, Also it on # 200 **SC** 00 Global EDIT E / A / W Chen. Hung-Kun Should add PD(-SAP), MD(-SAP), MA(-SAP) in the acronym section for completeness' sake # 201 **CI** 06 Phv TECH SC 6.8.10 E / A / W Chen, Hung-Kun CCA mode 4: The timer is set to the max PPDU size. What should happen if the PPDU length information is decoded? Does the CCA keep # 205 Coexistence Team **SC** 6.9 **CI** 06 TF / X / W Chen, Kwang-Cheng The section of coexistence for 802.15.4 does not address all other IEEE devices using 2.4 GHz band, such as 802.15.1, 802.15.3. Also it on # 240 **CI** 06 Phy TECH **SC** 6.9.2 TF / A / W CYPHER, DAVID Is CSMA/CCA mechanism different from CSMA/CA, CSMA-CA, or what is it? # 246 MAC TECH **SC** 7.1.2.5.3 TF / X / W CYPHER, DAVID An inconsistency with the value of the GTSlength description in table 38 of 7.1.2.6.1 and the text described here. **CI** 07 # 261 MAC TECH SC 7.5.2.1 TF / X / W CYPHER, DAVID Statement states that "a network coordinator shall ensure that any network coordinators ... are awake ..." and only gives an option on how # 263 MAC TECH **SC** 6.3.1.3.3 1/X/W CYPHER, DAVID This clause states that, "The effect on receipt of this primitive by the MAC sublayer is unspecified." Is this statement made because there is # 266 **CI** 06 Phy TECH SC 6.5 Table 16 TF / A / W CYPHER, DAVID There is currently no default or mimimum required number of channels that must be supported. However, at least one channel must be sup # 267 **CI** 06 Phv TECH **SC** 6.5 table 16 TF / R / W CYPHER, DAVID No default/initial/minimum value is given for the Clear Channel Assessment Mode. Clause 6.8.10 states that the 802.15.4 Phy shall provide # 279 **CI** 00 Coexistence Team **SC** 00 1/X/W Golmie, Nada The current draft for TG4 does not address the issue of coexistence with other systems operating in the same band. # 294 SC 6.8.1 **1/A/W** Gorday, Paul Phy TECH Tx-to-RX turnaround time and Rx-to-Tx turnaround time, as currently specified, do not guarantee handshake operation. # 301 **CI** 06 Phv TECH SC Table 17 1/A/W Gorday, Paul The new PN sequence is suboptimum for multipath performance. # 302 SC Table 16 Phv EDIT E / A / W Gorday, Paul The PIB objects phyCurrentChannel and phyNumChannelsSupported are not referenced in any of the sections. # 303 **CI** 06 Phv TECH SC Table 16 1/A/W Gorday, Paul The spec lists no restrictions on phyNumChannelsSupported? For example, must a compliant device support all channels within a given bar Phy TECH SC 6.7 1/A/W Gorday, Paul

Comment Type: TR/technical required T/technical E/editorial
Comment Status: X/received D/dispatched for consideration A/accepted R/rejected
Response Status: O/open W/written C/closed U/unsatisfied Z/withdrawn

The 2.4 GHz PHY specifies a Transmit PSD mask, but the 868/915 PHY does not.

Comment Status P802.15.4. Draft 13 **Summary Report** CommentType Response Status E / A / W Gorday, Paul # 310 **CI** 06 Phy TECH SC General comment regarding PHY chapter. Is there a reference to a test document that describes how various specfications are verified? F # 312 Phy TECH SC Table 15 1/A/W Gorday, Paul Should the Data Start-of-Packet delimiter be changed such that there is a hamming distance of 4 between it and the preamble? MAC TECH **SC** 2 TF / X / W GUBBI. RAJUGOPAL essentially this sentance claims the DEVs can obtain short addresses for operation in LR-WPAN. Nowhere in the draft the procedure requir # 320 CI 05 MAC TECH SC 2 TF / X / W GUBBI. RAJUGOPAL The first sentence in second complete para in 5.2 claim that DEVs can talk to each other without NC. How do they detect each other? How i # 321 SC 2.1.1 TF / X / W GUBBI, RAJUGOPAL MAC TECH Sentence here claims that a network ID is chosen that is not currently in use by any other network within the radio range. How? What mech # 322 **CI** 05 MAC TECH SC 2.1.1 TF / X / W GUBBI. RAJUGOPAL How is the network identifier obtained at a DEV? No where in this draft the mechanism needed for such a distribution nor the frame formats # 323 MAC TECH SC 2.1.1 TF / X / W GUBBI. RAJUGOPAL **CI** 05 This sentence claims that task of joining a network occurs above the MAC layer. What does this mean in terms of frame format used and un # 324 **CI** 05 MAC TECH SC 2.1.2 TF / X / W GUBBI. RAJUGOPAL The use of word "although" implies that peer-peer network can operate with or without NC. But there is no description of such an operation # 325 **CI** 05 MAC TECH **SC** 2.1.2 TF / X / W GUBBI, RAJUGOPAL This sentence claims that NC can be nominated. What if there are multiple DEVs with same network ID waking at the same time and startin **CI** 05 # 326 MAC TECH SC 2.1.2 TF / X / W GUBBI. RAJUGOPAL This sentence claims that NC can be nominated. What if there are multiple DEVs with same network ID waking at the same time, starting sc # 331 **CI** 05 Cluster-Tree Team SC 2.1.3 TF / D / W GUBBI, RAJUGOPAL What is this "predefined time period" SC ALL # 335 **CI** 00 MAC TECH TF / X / W GUBBI, RAJUGOPAL This entire draft is vague about "network ID". In 5.2.1.3 and frame format in Table-61 (pp 79) imply that data can be communicated over diffe # 339 **CI** 05 MAC TECH **SC** 3.2 TF / X / W GUBBI. RAJUGOPAL The claim of "time slot maintenance" in the MAC is ambiguous. There are no mechanisms defined for GTS request, allocation and deallocati # 340 **CI** 05 MAC TECH **SC** 3.2 TF / X / W GUBBI, RAJUGOPAL The claim of "Guaranteed packet delivery" in the MAC is ambiguous. There is no receovery mechanism if the max retry has reached. Isn't it? **CI** 05 # 341 MAC TECH **SC** 3.2 TF / X / W GUBBI. RAJUGOPAL This claims list does not cover all that is claimed in clause 5. Where are others like power management, security, association/disassociation # 345 **CI** 00 MAC TECH SC ALL TF / X / W GUBBI. RAJUGOPAL Power management completely escapes the draft except the mention of its requirement in 5.4.1. For example there is absolutely nothing in t # 347 SC 4 MAC TECH TF / X / W GUBBI. RAJUGOPAL Choose macBaseFrameDuration to be a power of 2. It eases the implementation of timers to be 'm' bit wide. Otherwise it depends on the 'm # 351 CI 05 MAC TECH SC 4.3 TF / X / W GUBBI. RAJUGOPAL These lines are not clear enough. If beacon is needed for network connection purposes and if NC is currently not sending beacons because MAC TECH SC 4.3.1 TF / X / W GUBBI. RAJUGOPAL These lines are not clear enough. if beacons are absent doesn't the clock drift at DEVs make the slotted CSMA/CA timings to get misaligned



P802.15.4. Draft 13 Comment Status **Summary Report** CommentType Response Status TF / X / W GUBBI, RAJUGOPAL # 389 **CI** 07 MAC TECH SC 5.5 DCS: What is the timeout for DEVs to start searching for the missing NC? How does a DEV distinguish the conditions among (a) bad chann # 390 **CI** 07 MAC TECH SC 5.6 TF / X / W GUBBI, RAJUGOPAL How does the "macMAxHandshakeWaitDuration" work in GTS? MAC TECH SC 5.6.1 TF / X / W GUBBI. RAJUGOPAL This clause does an attempt to describe the ack-timeout procedure. If what is needed already exists in an understood format, especially wit # 422 **CI** 06 MAC TECH SC 6.3.1.1 1/X/W Gutierrez. Jose What happens when a PD-Data.request is done with a MPDU whose length makes the overall phyPacketsize greater than the phyMaxPacket # 424 SC Table 4 Phv TECH **1/A/W** Gutierrez. Jose What happens when the length of a received packet is greater than phyMaxPacketSize? # 428 **CI** 06 Phv EDIT SC Table 14 E/A/W Gutierrez. Jose On table 14 there is an inconsistency between what this table states and the explanation in section 5.4.4. On 5.4.4 the sync header, beacon # 431 SC **CI** 05 PHY TECH 1/X/W Gutierrez. Jose We need to add information related to the need of the sync burst packet. Nowhere in the whole document is mention the need of this function 1/ A / W Gutierrez, Jose # 432 **CI** 06 Phv TECH SC Table 16 We have a phyNumChannelsSupported in the PIB but this may not be enough since we have 2 PHY's! SC 6.9 # 435 Coexistence Team 1/X/W Gutierrez. Jose **CI** 06 Section 6.9 needs to be expanded. Not enough information **CI** 07 # 447 MAC TECH SC 7.1.2.15 1/A/W Gutierrez. Jose Page 70:<CR>Section 7.1.2.15.1: How does the MAC knows where to search? the network ID in the PIB -> then state it.<CR><CR>On line # 451 MAC TECH SC Table 52 1/A/W Gutierrez. Jose Table 52: Why do I need to track the beacon? I mean it is good to know you are in sync (and when you are not) but this can be a function in SC 7.5.2 # 469 **CI** 07 MAC FDIT E/X/W Gutierrez, Jose Recommend to add a flow diagram for Sections 7.5.2.1 and 7.5.2.2 # 479 **CI** 07 MAC TECH SC 1/X/W Gutierrez. Jose Need sequence diagrams showing some scenarios of operation of the cluster tree -> the Use of the MAC primitives specific for cluster tree # 480 **CI** 07 MAC TECH SC 1/X/W Gutierrez, Jose HOW A SHORT ADDRESS IS ALLOCATED? SC Table 26 # 482 **CI** 07 MAC TECH 1/X/W Gutierrez, Jose Table 26: In TxOptions: What is the meaning of "transmit in the current GTS"? # 483 **CI** 07 MAC TECH SC 7.1.2.6 1/X/W Gutierrez. Jose Page 63 and 64: The GTS Reallocation looks like garbage collection. I would like to eliminate this functionality and leave it for the upper laye SC 7.5.4.2 MAC TECH 1/X/W Gutierrez. Jose Why the upper layers have to do a confirmation of the GTS reallocation? Can we leave the reallocation for the upper layers? # 485 **CI** 07 MAC TECH SC 7.5.4.1 1/X/W Gutierrez. Jose What is the protocol for a NC to setup a GTS? How does a node request a GTS? # 535 MAC TECH SC Table 44 1/X/W Jamieson, Phil

The ChannelList parameter talks about a list of channels from the list of available PHY channels. How will this be done? Do we refer to the

P802.15.4. Draft 13 Comment Status **Summary Report** CommentType Response Status 1/X/W Jamieson. Phil # 564 **CI** 07 MAC TECH SC 7.5.2.4 Editorials - see remedy. < CR > CR > Paragraph 2, the synchronization "as described above" probably needs to be spelled out - synchronisatic # 577 **CI** 06 Phy TECH SC Table 16 **1/A/W** Jamieson, Phil The description of the PIB entry phyMaxPacketSize is not quite worded correctly and is also restrictive for a 2.4GHz PHY implementation the # 579 Phv TECH SC 2.5.3 TF / A / W Kinney, Patrick A sensitivity of -85 dBm is not good enough for the 868/928 PHY. The major reason for this device over the 2.4 GHz device is range. The ϵ # 581 **CI** 06 Phv TECH SC 6.3.1 TF / A / W Kinney, Patrick The limits for transmit PSD are unclear as to whether they are averages or peak limits # 582 Phv TECH SC table 19 1/A/W Kinney, Patrick what should be limits are stated as desired levels, eg adj chan rej = 0 dB # 583 **CI** 06 Phv TECH SC .7 TF / D / W Kinney, Patrick The method proposed for 868/928 has not been validated with published analyses or test results for sensitivity, BER vs interference, multiple # 585 **CI** 06 **SC** 9.2 Coexistence Team 1/X/W Kinney, Patrick The following verbage isn't strong enough: <CR><CR>The 802.15.4 devices have several characteristics that improves its coexistence with # 586 **CI** 06 Phy TECH **SC** 7.3.3 **1/A/W** Kinney, Patrick what should be limits are stated as desired levels, eg adj chan rej = 0 dB # 588 **CI** 07 MAC TECH **SC** 1.2.7 TF / X / W Kinney, Patrick The reallocation of GTSs is a good idea but I cannot understand how the mechanism's stated in this section will work. Specifically how will # 591 **CI** 07 MAC TECH SC 5.2.2 TF / X / W Kinney, Patrick I did not find any description of the mechanism for resolving duplicate network id's. I understand the network search but it may not find a ne # 592 MAC TECH **SC** 5.5 TF / X / W Kinney, Patrick Dynamic Channel Selection is a good feature (very good for coexistence) but is not described in detail # 593 **CI** 07 MAC TECH SC 5.2.3 **TF / X / W** Kinney, Patrick In Network Synchronization, there really is no description of the procedure to attach and join a network. Specifically I believe that logical ad # 594 **CI** 07 MAC TECH SC 5.2.3 TF / X / W Kinney, Patrick In Network Synchronization, there really is no description of the procedure to attach and join a network. Specifically, how is authorization (# 595 **CI** 06 Phv TECH SC 8.5 TF / D / W Kinney, Patrick Power shutback is required for this standard but is not addressed as to when it should be used or not used. Spefically: "A compliant transr # 596 Coexistence Team **SC** 00 TF / R / W Lansford, Jim **CI** 06 This specification describes a physical layer that, at the RF interface, is not interoperable, and does not coexist with other IEEE adopted or r. # 597 **CI** 06 Coexistence Team SC 6.9 TF / X / W Liu. Shawn The section of coexistence for 802.15.4 does not address all other IEEE devices using 2.4 GHz band, such as 802.15.1, 802.15.3. Also it on # 600 SC 6.9 Coexistence Team TF / X / W Maa, Yeong-Chang The section of coexistence for 802.15.4 does not address all other IEEE devices using 2.4 GHz band, such as 802.15.1, 802.15.3. Also it on # 604 **CI** 06 Phv TECH SC 6.7.3.3 1/A/W Martin, Fred Spec is too tight, making LO noise and phase modulator accuracy into difficult design tasks. The spec could be relaxed to as much as 40% # 615 Phv TECH SC Table 16 1/ A / W Roberts, Richard

Comment Type: TR/technical required T/technical E/editorial
Comment Status: X/received D/dispatched for consideration A/accepted R/rejected
Response Status: O/open W/written C/closed U/unsatisfied Z/withdrawn

In description of the phyNumChannelsSupported

P802.15.4. Draft 13 Comment Status **Summary Report** CommentType Response Status # 617 **CI** 00 Coexistence Team SC TF / X / W Shellhammer, Steve The standard does not sufficiently address the issue of wireless coexistence. # 622 **CI** 06 Phy TECH SC Table 4 E/A/W Shepherd, Nick What is the algorithm for deriving the value of ppduLinkQuality?<CR><CR>Is "0" good or bad? Phy TECH E / A / W Shepherd, Nick What is the algorithm for defining the value of Energy Level?<CR><R>Is "0" high or low?<CR><CR>How do this figure relate to the energy # 626 **CI** 06 Phv TECH SC Table 16 1/ A / W Shepherd, Nick phyNumChannelsSupported: the description for this is not complete. For instance, a value of 1 indicates that, presumably, the PHY can han # 628 Phv TECH **SC** 8.10 1/R/W Shepherd, Nick This section is very complex for a lightweight implementation. SC Table 68 # 642 **CI** 07 MAC TECH 1/A/W Shepherd, Nick macBeaconTxTime: What unit does this use, eg seconds? What time is returned? Absolute time from when? Who is responsible for keepi **CI** 07 # 644 MAC TECH SC 5.4.1 1/X/W Shepherd, Nick This explanation of allocating a GTS is not complete. Is it possible to allocate the complete frame to GTSs, leaving no contention period? Sh # 646 **CI** 07 MAC TECH **SC** 5.5 1/X/W Shepherd, Nick This clause specifies that a clear channel is detected by use of the MLME-ED Energy Detection method, in conflict with clause 6.8.10 # 650 SC 1 CI A Global EDIT 1/ A / W Shepherd, Nick Empty Annex. CI B SC # 651 Global EDIT 1/ A / W Shepherd, Nick No conformance statement SC # 660 **CI** 00 Global EDIT E/X/W Kinney, Pat

SPECIALLY ADDED COMMENT:<CR><CR>It has come to my attention that what TG4 calls a "packet" 802.11 calls a<CR>frame. This will