

Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)**Submission Title:** [$\pi/2$ BPSK description related comment resolutions]**Date Submitted:** [9 September 2008]**Source:** [R. Funada, M.A Rahman, C.S Sum, T. Baykas, J. Wang, H. Harada, M. Umehira, S. Kato]

Company [National Institute of Information and Communications Technology (NICT)]

Address [3-4 Hikari-no-oka, Yokosuka-shi, Kanagawa 239-0847, Japan]**Voice:**[+81-46-847-5074] , **FAX:** [+81-46-847-5440]**E-Mail:**[funada@nict.go.jp, aziz@nict.go.jp, sum@nict.go.jp, tuncerbaykas@nict.go.jp, junyi.wang@nict.go.jp, harada@nict.go.jp, umehira@mx.ibaraki.ac.jp, shu.kato@nict.go.jp]**Re:** [In response to]**Abstract:** [Comment Resolutions related to $\pi/2$ BPSK and (G)MSK description]**Purpose:** [This document provides a list of the editing staff that will be working on 802.15.3c.]**Notice:** This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.**Release:** The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15.

Summary

- This document proposes resolutions for comments related to $\pi/2$ BPSK and MSK/GMSK description.

Suggested Resolutions for Comments 402, 511, 610

CID	Subclause	Page	Line	Comment	SuggestedRemedy	Response
402	12.2.2.1.1	68	48	Are the $\pi/2$ BPSK and GMSK modulations equivalent as seen by the receiver is concerned? If not, how will a receiver know which is sent and how can we insure interoperability between products? If they are equivalent, can we remove one of the descriptions from the normative text? Maybe it can be kept in an informative annex.	Clarify what we want to do here.	$\pi/2$ BPSK is approximately equivalent to (G)MSK. Revise the text and the figure to clarify the approximate equivalence of $\pi/2$ BPSK and (G)MSK.
511	12.2.2.1	74	1-32	Table 100, How is $\pi/2$ BPSK and GMSK differentiated in each mode?	Need discussion.	Resolve as indicated in CID 402
610	12.2.2.1.1	69	1-32	Figure 190 is confusing when considered along side the text in lines 23-32. $c(n)$ is overloaded in Figure 190; it doesn't have the same meaning in 190(b) as it does in 190(a). The text clearly is using the $\pi/2$ -BPSK (190(a)) interpretation. Also note that $\pi/2$ -BPSK with appropriate choice of filter is an APPROXIMATION to (G)MSK; they are not equivalent for finite-length filters.	This subclause needs a major re-write. For a start, replace " $c(n)$ " with $a(n)$ in figure 190(b).	Accept in principle: Rewrite the text and remove Figure 190.