

# ISO/IEC 15149-2:2015-05 (E)

## Information technology - Telecommunications and information exchange between systems - Magnetic field area network (MFAN) - Part 2: In-band Control Protocol for Wireless Power Transfer

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		vi
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	2
4	Symbols and abbreviated terms .....	2
5	Overview .....	4
6	Network elements .....	5
6.1	General .....	5
6.2	Time element .....	5
6.2.1	General .....	5
6.2.2	Time element for MPAN .....	6
6.3	Physical element .....	7
6.3.1	Coordinator .....	7
6.3.2	Node .....	7
6.4	Address element .....	8
6.4.1	MFAN ID .....	8
6.4.2	UID .....	8
6.4.3	Group ID .....	8
6.4.4	Node ID .....	8
6.4.5	WPT ID .....	8
7	Network status .....	9
7.1	General .....	9
7.2	Network status for MPAN .....	9
7.2.1	Stabilization .....	9
7.2.2	Invigoration .....	9
7.2.3	Revitalization .....	9
7.3	MPAN state .....	9
7.3.1	Coordinator state .....	10
7.3.2	Node state .....	11
8	Physical layer frame format .....	13
8.1	General .....	13
8.2	Preamble .....	14
8.3	Header .....	14
8.4	Payload .....	14
8.5	Frame check sequence .....	14
9	MAC layer frame format .....	14
9.1	General .....	14
9.2	Frame format for MPAN .....	14

9.2.1	Frame header .....	15
9.2.2	Frame body .....	15
9.2.3	Frame type .....	15
9.2.4	Payload format .....	16
9.3	Frame format for power status feedback .....	25
9.3.1	Frame header .....	25
9.3.2	Frame body .....	26
9.3.3	Frame type .....	26
9.3.4	Payload format .....	27
10	MAC layer function .....	28
10.1	General .....	28
10.2	Stabilization .....	28
10.3	Invigoration .....	29
10.4	Revitalization .....	30
11	Air interface .....	31
11.1	Frequency .....	31
11.2	Signal waveform for WPT .....	31