

INTERNATIONAL STANDARD

**Qi Specification version 2.0 –
Part 11: MPP Communications Protocol**



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QI SPECIFICATION VERSION 2.0 –

Part 11: MPP System Specification

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It is based on *Qi Specification version 2.0, MPP Communications Protocol* and was submitted as a Fast-Track document.

The text of this International Standard is based on the following documents:

Draft	Report on voting
100/4255/FDIS	100/4276/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

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Qi Specification

MPP Communications Protocol

Version 2.0

April 2023

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RELEASE HISTORY

Specification Version	Release Date	Description
2.0	April 2023	First release of this v2.0 specification.

Contents

Contents	2
List of Tables	5
1 Introduction	8
1.1 Overview.....	8
2 Magnetic Power Profile	10
2.1 Overview.....	10
2.1.1 Restricted Mode.....	10
2.1.2 Full Mode.....	10
2.2 Power Receiver Requirements.....	11
2.2.1 Amplitude Shift Keying (ASK).....	11
2.2.2 Startup Behavior.....	11
2.2.3 Profile Activation.....	13
2.3 Power Transmitter Requirements.....	15
2.3.1 Frequency Shift Keying (FSK).....	15
2.3.2 Timings Override.....	16
2.3.3 Startup Behavior.....	16
2.4 Supporting EPP and MPP protocols.....	19
2.4.1 MPP/EPP Support on PRx.....	19
2.4.2 MPP/EPP Support on PTx.....	20
3 Negotiation Phase	21
3.1 Overview.....	21
3.2 Requirements.....	21
3.2.1 Negotiation Phase Timings.....	22
3.2.2 FSK Cycles.....	22
3.2.3 Entering Negotiation Phase With Error Status.....	22
3.2.4 Power Transfer Contract Extension.....	23
3.3 Negotiation Phase - 128kHz.....	24
3.3.1 Nominal negotiation flow.....	24
3.3.2 Negotiation flow with PTx error status.....	26
3.3.3 Frequency Selection.....	27
3.4 Negotiation Phase - 360kHz.....	27
3.4.1 PRx Extended Capabilities.....	30
3.4.2 PTx Extended Capabilities.....	30
3.4.3 Exchange Power Loss Accounting Parameters.....	30

3.4.4	Power Negotiation.....	30
3.4.5	Retrieve PTx Extended ID.....	30
3.4.6	Exchange Enabled Data Streams.....	30
3.4.7	Power Control Profile.....	30
3.4.8	Cloaking Duration.....	30
3.4.9	MPP Proprietary Requests / Packets.....	31
3.5	NFC Identification (Informative).....	32
4	Power Transfer Phase	33
4.1	Overview.....	33
4.2	Extended Control Error Packet.....	33
4.2.1	Handling.....	33
4.2.2	PTx Response.....	34
4.2.3	Example.....	34
4.3	Power Loss Accounting Packet.....	36
4.3.1	Handling.....	36
4.3.2	PTx Response.....	37
4.4	Control Status.....	37
4.5	GET Request.....	37
4.5.1	PRx Initiated.....	37
4.5.2	PTx Initiated.....	38
4.5.3	Examples.....	38
4.6	MPP-Restricted to Full mode Transition.....	39
4.6.1	Transition with power interruption.....	40
4.6.2	Transition without power interruption.....	40
5	Cloak Phase	43
5.1	Overview.....	43
5.2	Cloak Ping Requirements.....	43
5.3	Cloak Entry.....	43
5.3.1	PRx Initiated.....	44
5.3.2	PTx Initiated.....	44
5.4	Cloak Exit.....	45
5.5	Detect ping.....	46
5.6	State Diagram.....	46
5.7	Cloak Timings.....	49
5.8	Examples.....	50
6	Extended Data Streams	56
6.1	Overview.....	56
6.2	Simultaneous Data Stream Extension.....	56
6.2.1	Error Handling.....	57
6.2.2	Timings.....	57
6.2.3	Cloaking Compatibility.....	57
6.3	Data Integrity Extension.....	58
6.4	Examples.....	58
7	Packets and Streams	67
7.1	Power Receiver data packets.....	67
7.1.1	Cloak - CLOAK (0x18).....	69
7.1.2	Extended Control Error - XCE (0x19).....	70
7.1.3	Specific Request - SRQ (0x20).....	71

7.1.4	Specific Request [Frequency Selection] - SRQ/freqsel (0x20)	75
7.1.5	Specific Request [Power Level] - SRQ/egpl (0x20)	76
7.1.6	Specific Request [Cloak Ping Delay - Low Byte] - SRQ/cloakl (0x20)	77
7.1.7	Specific Request [Cloak Ping Delay - High Byte] - SRQ/cloakh (0x20)	78
7.1.8	Specific Request [Power Control Profile] - SRQ/pcp (0x20)	79
7.1.9	Specific Request [Cloak Detect Ping Delay] - SRQ/detect (0x20)	80
7.1.10	Specific Request [Proprietary Parameters] - SRQ/MppProp (0x20)	81
7.1.11	Get Request - GET (0x28)	82
7.1.12	Enabled Data Streams - EDS (0x29)	83
7.1.13	Simultaneous Auxiliary Data Transport - SADT (multiple header codes)	84
7.1.14	Simultaneous Data Stream Response - SDSR (0x38)	85
7.1.15	Simultaneous Auxiliary Data Control - SADC (0x48)	86
7.1.16	Report - REPORT (0x58:0)	87
7.1.17	Report [PRx Identification] (0x58:0)	88
7.1.18	Power Loss Accounting (0x58:1)	89
7.1.19	Power Loss Accounting Parameters - PLAP (0x78)	90
7.1.20	Qi MPP Extended Identification - MPP-XID (0x81)	91
7.1.21	Extended Power Receiver Capabilities - ECAP (0x84)	92
7.2	Power Transmitter data packets	93
7.2.1	Error Status - ERR (0x01)	94
7.2.2	Cloak Request - CLOAK (0x1E:0)	95
7.2.3	Regulation Control Status - RCS (0x1E:3)	96
7.2.4	Charge Status - CHS (0x1F)	97
7.2.5	Get Request - GET (0x2E)	98
7.2.6	Enabled Data Streams - EDS (0x2F)	99
7.2.7	Inverter Voltage - INV (0x3F:0)	100
7.2.8	Simultaneous Auxiliary Data Transport - SADT (multiple header codes)	101
7.2.9	Simultaneous Data Stream Response - SDSR (0x3F:1)	102
7.2.10	Estimated K - KEST (0x3F:2)	103
7.2.11	Simultaneous Auxiliary Data Control - SADC (0x4F)	104
7.2.12	Power Loss Accounting Parameters - PLAP (0x5F)	105
7.2.13	Extended Power Transmitter Identification - XID (0x8F:0)	106
7.2.14	Extended Power Transmitter Extended Capabilities - ECAP (0x8F:1)	107

List of Tables

1.1 MPP Specifications Departure from Qi EPP.....	8
2.1 MPP ID Packet Parameters.....	11
2.2 MPP FSK Parameters.....	14
2.3 MPP FSK Patterns.....	14
2.4 MPP PTx Parameters Override	15
3.1 PRx packets allowed during MPP negotiation phase.....	20
3.2 MPP Negotiation Phase Timing Parameters.....	21
3.3 MPP Power Transfer Contract Elements	23
4.1 MPP Control Error Parameters.....	33
4.2 Power Loss Accounting Timing Parameters.....	35
4.3 PTx Initiated GET Timing Parameters.....	37
4.4 MPP Restricted to Full Transition Timing Parameters.....	39
5.1 Cloak Detect Parameters	45
5.2 Cloak Time Parameters	48
6.1 Data Streams Identifiers	55
6.2 Extended Data Streams Timing	56
6.3 Data Stream CRC Properties.....	57
7.1 MPP PRx ASK Packets.....	68
7.2 PRx End Of Power Reason Codes	69
7.3 End Of Power Request FSK Responses	69
7.4 Extended Control Error FSK Responses.....	70
7.5 MPP Specific Requests.....	71
7.6 Specific Request Frequency Selection parameters	72
7.7 Frequency Selection Request FSK Responses	72
7.8 Power Level Selection Request FSK Responses	73
7.9 Cloak Ping Delay Selection Request SRQ/cloakl - FSK Responses	74
7.10 Cloak Ping Delay Selection Request SRQ/cloakh - FSK Responses	75
7.11 Power Control Profile Values	76
7.12 Power Control Profile Selection Request FSK Responses.....	76
7.13 Cloak Detect Ping Delay Selection Request FSK Responses	77
7.14 Proprietary Specific Parameters Request FSK Responses.....	78
7.15 PRx Get Request Types.....	79
7.16 Simultaneous Auxiliary Data Transport - SADT FSK Responses	81

7.17 PRx Simultaneous Data Stream Response Type.....	82
7.18 Simultaneous Auxiliary Data Control Request Field.....	83
7.19 Simultaneous Auxiliary Data Control Parameter Field	83
7.20 Report ID Field.....	84
7.21 Report [PRx Identification] FSK Responses.....	85
7.22 PLA FSK Responses.....	86
7.23 Received Power Parameters FSK Responses.....	87
7.24 PRx Capabilities Packet FSK Responses.....	89
7.25 MPP PTX FSK Packets	90
7.26 PTx Error Status Codes.....	91
7.27 PTx End Of Power Reason Codes.....	92
7.28 PTx Regulation Control Status Values.....	93
7.29 PTx Charge Status Values.....	94
7.30 PTx Get Request Fields.....	95
7.31 PTx Simultaneous Data Stream Response Type	99
7.32 PTx Power Limit Reason Code	104

Introduction



1.1 Overview

Magnetic power profile (MPP) is a protocol extension that provides additional messages, new power states/modes, new power transfer contract elements, and aims to provide the following functionalities:

- Operating Frequency Negotiation
- Cloaking (Power Pause)
- Generic Information Exchange
- Simultaneous Data Stream Transactions
- Fast PTx to PRx communication
- Maximum Power and Power Control Profiles Determination
- Extended Power Negotiation
- Extended PTx/PRx Identification and Capabilities
- Extended Control Error Packets and Received Power Packets
- Power Transmitter Battery Level Reporting
- Ecosystem Scalability

A summary of differences between Magnetic Power Profile and EPP is listed below in Table 1.1.

MPP extension allows devices to operate under Restricted mode (no PTx communication) at 360kHz without performing any explicit negotiation with the Power Transmitter. This flexibility enables devices with limited resources (e.g., devices with no FSK support) to take advantage of the frequency change feature.

Table 1.1: MPP Specifications Departure from Qi EPP

Feature	EPP	MPP
PTx Handshake Message	EPP FSK ACK Message	MPP FSK ACK Message (Section 2.3.1)
FSK Parameters Negotiation	EPP allows FSK parameters negotiation	Fixed FSK parameters
Data Streams	Single Stream Transfer	Multiple Concurrent Transfer
Foreign Object Detection	FOD Packet, Calibration, RP	Replaced with MPP Power Loss Accounting Packet