
Različica specifikacije Qi 2.0 - 6. del: Komunikacijski protokol (IEC 63563-6:2025)

Qi Specification version 2.0 - Part 6: Communications protocol (IEC 63563-6:2025)

Qi Spezifikation Version 2.0 - Teil 6: Kommunikationsprotokoll (IEC 63563-6:2025)

Spécification Qi version 2.0 - Partie 6: Protocole de communications (IEC 63563-6:2025)

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ICS:

29.240.99	Druga oprema v zvezi z omrežji za prenos in distribucijo električne energije	Other equipment related to power transmission and distribution networks
33.160.99	Druga avdio, video in avdiovizuelna oprema	Other audio, video and audiovisual equipment
35.200	Vmesniška in povezovalna oprema	Interface and interconnection equipment

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NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 63563-6

March 2025

ICS 29.240.99; 35.240.99

English Version

**Qi Specification version 2.0 - Part 6: Communications Protocol
(IEC 63563-6:2025)**

Spécification Qi version 2.0 - Partie 6: Protocole de
communications
(IEC 63563-6:2025)

Qi Spezifikation Version 2.0 - Teil 6:
Kommunikationsprotokoll
(IEC 63563-6:2025)

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EN IEC 63563-6:2025 (E)**European foreword**

The text of document 100/4251/FDIS, future edition 1 of IEC 63563-6, prepared by TC 100/Technical Area 15 "Wireless Power Transfer" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63563-6:2025.

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IEC 63563-6

Edition 1.0 2025-02

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Qi Specification version 2.0 –
Part 6: Communications Protocol

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QI SPECIFICATION VERSION 2.0 –

Part 6: Communications Protocol

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IEC 63563-6 has been prepared by technical area 15: Wireless Power Transfer, of IEC technical committee 100: Audio, video and multimedia systems and equipment. It is an International Standard.

It is based on *Qi Specification version 2.0, 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
100/4251/FDIS	100/4281/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.

The structure and editorial rules used in this publication reflect the practice of the organization which submitted it.

This document was developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
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Qi Specification

Communications Protocol

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Version 2.0

April 2023

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RELEASE HISTORY

Specification Version	Release Date	Description
v2.0 Final Draft	April 2023	Initial release of the v2.0 Qi Specification.

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1 General

The Wireless Power Consortium (WPC) is a worldwide organization that aims to develop and promote global standards for wireless power transfer in various application areas. A first application area comprises flat-surface devices such as mobile phones and chargers in the Baseline Power Profile (up to 5 W) and Extended Power Profile (above 5 W).

1.1 Structure of the Qi Specification

General documents

- Introduction
- Glossary, Acronyms, and Symbols

System description documents

- Mechanical, Thermal, and User Interface
- Power Delivery
- Communications Physical Layer
- Communications Protocol
- Foreign Object Detection
- NFC Tag Protection
- Authentication Protocol

1.2 Scope

The *Qi Specification, Communications Protocol* (this document) defines the messaging between a Power Transmitter and a Power Receiver. The primary purpose of this messaging is to set up and control the power transfer. As a secondary purpose, it provides a transport mechanism for higher-level applications such as Authentication. The communications protocol comprises both the required order and timing relations of successive messages.

1.3 Compliance

All provisions in the *Qi Specification* are mandatory, unless specifically indicated as recommended, optional, note, example, or informative. Verbal expression of provisions in this Specification follow the rules provided in ISO/IEC Directives, Part 2.

Table 1: Verbal forms for expressions of provisions

Provision	Verbal form
requirement	“shall” or “shall not”
recommendation	“should” or “should not”
permission	“may” or “may not”
capability	“can” or “cannot”

1.4 References

For undated references, the most recently published document applies. The most recent WPC publications can be downloaded from <http://www.wirelesspowerconsortium.com>.

1.5 Conventions

1.5.1 Notation of numbers

- Real numbers use the digits 0 to 9, a decimal point, and optionally an exponential part.
- Integer numbers in decimal notation use the digits 0 to 9.
- Integer numbers in hexadecimal notation use the hexadecimal digits 0 to 9 and A to F, and are prefixed by "0x" unless explicitly indicated otherwise.
- Single bit values use the words ZERO and ONE.

1.5.2 Tolerances

Unless indicated otherwise, all numeric values in the *Qi Specification* are exactly as specified and do not have any implied tolerance.

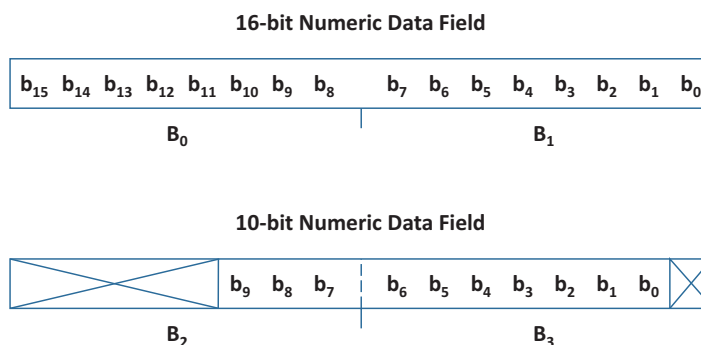
1.5.3 Fields in a data packet

A numeric value stored in a field of a data packet uses a big-endian format. Bits that are more significant are stored at a lower byte offset than bits that are less significant. Table 2 and Figure 1 provide examples of the interpretation of such fields.

Table 2: Example of fields in a data packet

	b₇	b₆	b₅	b₄	b₃	b₂	b₁	b₀
B₀	(msb) 16-bit Numeric Data Field (lsb)							
B₁								
B₂	Other Field					(msb)		
B₃	10-bit Numeric Data Field						(lsb)	Field

Figure 1. Examples of fields in a data packet



1.5.4 Notation of text strings

Text strings consist of a sequence of printable ASCII characters (i.e. in the range of 0x20 to 0x7E) enclosed in double quotes ("). Text strings are stored in fields of data structures with the first character of the string at the lowest byte offset, and are padded with ASCII NUL (0x00) characters to the end of the field where necessary.

EXAMPLE: The text string "WPC" is stored in a six-byte fields as the sequence of characters 'W', 'P', 'C', NUL, NUL, and NUL. The text string "M:4D3A" is stored in a six-byte field as the sequence 'M', ':', '4', 'D', '3', and 'A'.

1.5.5 Short-hand notation for data packets

In many instances, the *Qi Specification* refers to a data packet using the following shorthand notation:

<MNEMONIC>/<modifier>

In this notation, <MNEMONIC> refers to the data packet's mnemonic defined in the *Qi Specification, Communications Protocol*, and <modifier> refers to a particular value in a field of the data packet. The definitions of the data packets in the *Qi Specification, Communications Protocol*, list the meanings of the modifiers.

For example, EPT/cc refers to an End Power Transfer data packet having its End Power Transfer code field set to 0x01.

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