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Transmitting and receiving equipment for radiocommunication – Radio-over-fibre technologies and their performance standard – Part 4: Radio-over-fibre-based indoor distributed antenna system (DAS) for 5G

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TRANSMITTING AND RECEIVING EQUIPMENT FOR RADIOCOMMUNICATION – RADIO-OVER-FIBRE TECHNOLOGIES AND THEIR PERFORMANCE STANDARD –

Part 4: Radio-over-fibre-based indoor distributed antenna system (DAS) for 5G

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

Draft	Report on voting
103/253/FDIS	103/254/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.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and 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.

A list of all parts in the IEC 63098 series, published under the general title *Transmitting and receiving equipment for radiocommunication – Radio-over-fibre technologies and their performance standard*, can be found on the IEC website.

Future documents in this series will carry the new general title as cited above. Titles of existing documents in this series will be updated at the time of the next edition.

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- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

This document provides the performance standards of the RoF-based 5G indoor distributed antenna system (DAS) network for cost-effectively offering quality of service (QoS) guaranteed 5G mobile communication services with high bandwidth and low-latency characteristics without radio shadowing in an indoor environment. First of all, the system overview, system configurations, and the elements of the system are presented and then the electrical and optical interfaces for each system element are defined. Finally, the detail system performance specifications of each element are described for downlink and uplink configurations.

TRANSMITTING AND RECEIVING EQUIPMENT FOR RADIOCOMMUNICATION – RADIO-OVER-FIBRE TECHNOLOGIES AND THEIR PERFORMANCE STANDARD –

Part 4: Radio-over-fibre-based indoor distributed antenna system (DAS) for 5G

1 Scope

This part of IEC 63098 specifies a radio-over-fibre-based indoor distributed antenna system (DAS) for fifth generation wireless technology 5G.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60825-1, *Safety of laser products – Part 1: Equipment classification and requirements*

IEC 60950-1, *Information technology equipment – Safety – Part 1: General requirements*

3GPP TS 38.104 V15.3.0 (2018-10), 5G; NR; *Base Station (BS) radio transmission and reception*