

**GY**

**INDUSTRY STANDARD OF THE  
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**GY/T 328-2020**

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**Technical specification for operation and maintenance of radio  
and television steel tower mast  
(English Translation)**

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## Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Please note that certain contents of this document may involve patents. The issuing agency of this document is not responsible for identifying these patents.

This standard is under the jurisdiction of the National Radio, Film and Television Standardization Technical Committee (SAC/TC 239).

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## 1 Scope

This standard specifies the daily inspection and maintenance, professional maintenance, reinforcement and transformation, and operation of radio and television steel tower mast ("steel tower mast").

Management requirements.

This standard applies to the operation and maintenance of radio and television steel tower masts, and other steel tower masts can be used as reference.

## 2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

GB/T 11345-2013 Ultrasonic testing technology, testing level and assessment for non-destructive testing of welds (ISO 17640:2010, MOD) GB 14907-2018 Steel structure fireproof coating GB/T 21431-2015 Technical Specification for Building Lightning Protection Device Testing GB/T 26952-2011 Weld non-destructive testing Weld magnetic particle testing acceptance level (ISO 23278:2006, MOD) GB 50017-2017 Steel Structure Design Standard GB 50135-2019 Design standard for high-rise structures GB 50205-2001 Code for acceptance of construction quality of steel structure engineering GB 50207-2012 Code for quality acceptance of roofing engineering GB 50208-2011 Code for quality acceptance of underground waterproof engineering GB 50210-2018 Building Decoration Engineering Quality Acceptance Standard GB 50367-2013 Code for design of reinforcement of concrete structures GB/T 50621-2010 Technical standards for on-site inspection of steel structures GB 51203-2016 Code for acceptance of construction quality of high-rise structure engineering GY/T 64 Radio and TV steel tower mast corrosion protection coating GY/T 178-2001 Medium and short wave antenna feeder operation and maintenance regulations GY/T 5034-2015 Design Specification for Medium and Short Wave Broadcast Transmitting Station GY 5062-1998 TV and FM radio transmission (rebroadcast) station (station) design specification GY 5077-2007 Specification for quality acceptance of radio and television microwave communication towers and masts GY/T 5089-2014 Specification for Reliability Testing and Appraisal of Broadcasting and Communication Steel Tower Mast JGJ 8-2016 Building Deformation Measurement Specification JGJ 102-2003 Technical Code for Glass Curtain Wall Engineering JGJ 123-2012 Technical Specification for Foundation Reinforcement of Existing Buildings JGJ/T 139-2001 Glass curtain wall engineering quality inspection standard JGJ/T 324-2014 Standard for testing method of building curtain wall engineering

## 3 Terms and definitions

The following terms and definitions apply to this document.

**Steel tower and mast** Self-standing towers and guyed towers (masts) and their foundations with steel structure as the main stress structure.

**Guyed steel tower (mast)** A high-rise steel structure composed of columns and cables.

**Height of tower and mast** the vertical distance from the bottom surface of the tower foot bottom plate of the steel tower mast structure to the top surface of the tower top lightning

rod installation location.

Check and measure

Check and measure the main technical requirements (including indicators and others) of the steel tower masts that have been completed and delivered.

Maintenance

Inspect the steel tower mast structure that has been completed and delivered, including daily inspection and maintenance, professional maintenance, and reinforcement and transformation.

Maintenance administrative unit the main unit responsible for the normal operation of the steel tower mast structure.

Maintenance unit

The main unit with relevant qualifications to implement the operation and maintenance of the steel tower mast structure.

Routine inspect

Maintenance personnel conduct periodic routine inspections on steel tower masts.

Professional maintenance the maintenance unit professionally handles unqualified items or problems in the steel tower mast structure.

3.10

Vertical deviation

The distance from the top of the steel tower mast from the center position/tower mast height.

3.11

External hangings

Except the antenna feeder, the objects hanging on the steel tower mast, such as lighting devices, warning signs, billboards, etc.

3.12

Enclosure system space enclosing Non-load-bearing envelope structure and building function accessories.

3.13

Super structure

The main stress-bearing components and connections in the upper stress structure and the enclosure structure.