



**Digital Video Broadcasting (DVB);  
Next Generation broadcasting system to Handheld,  
physical layer specification (DVB-NGH);  
Part 4: Hybrid MIMO Profile**

ETSI EN 303 105-4 V1.1.1 (2022-03)

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**EBU DVB<sup>®</sup>**

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**Reference**

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# Foreword

This draft European Standard (EN) has been produced by Joint Technical Committee (JTC) Broadcast of the European Broadcasting Union (EBU), Comité Européen de Normalisation ELECTrotechnique (CENELEC) and the European Telecommunications Standards Institute (ETSI), and is now submitted for the combined Public Enquiry and Vote phase of the ETSI standards EN Approval Procedure.

**NOTE:** The EBU/ETSI JTC Broadcast was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related fields. Since 1995 the JTC Broadcast became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

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The DVB Project is an industry-led consortium of broadcasters, manufacturers, network operators, software developers, regulators and others from around the world committed to designing open, interoperable technical specifications for the global delivery of digital media and broadcast services. DVB specifications cover all aspects of digital television from transmission through interfacing, conditional access and interactivity for digital video, audio and data. The consortium came together in 1993.

The present document is part 4 of a multi-part deliverable. Full details of the entire series can be found in part 1 [1].

Proposed national transposition dates	
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# 1 Scope

The present document describes the next generation transmission system for digital hybrid (combination of terrestrial with satellite transmissions) MIMO broadcasting to handheld terminals making use of multi-aerial structures at the transmitting and receiving ends. It specifies the relationship of the hybrid MIMO profile physical layer part to the physical layer part of the other three profiles, namely the base profile ETSI EN 303 105-1 [1], the MIMO profile ETSI EN 303 105-2 [2] and the hybrid profile ETSI EN 303 105-3 [3], from the input streams to the transmitted signal. This transmission system is intended for carrying Transport Streams or generic data streams feeding linear and non-linear applications like television, radio and data services. DVB-NGH terminals might also process DVB-T2-lite signals.

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## 2 References

### 2.1 Normative references

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The following referenced documents are necessary for the application of the present document.

- [1] ETSI EN 303 105-1: "Digital Video Broadcasting (DVB); Next Generation broadcasting system to Handheld, physical layer specification (DVB-NGH); Part 1: Base Profile".
- [2] ETSI EN 303 105-2: "Digital Video Broadcasting (DVB); Next Generation broadcasting system to Handheld, physical layer specification (DVB-NGH); Part 2: MIMO Profile".
- [3] ETSI EN 303 105-3: "Digital Video Broadcasting (DVB); Next Generation broadcasting system to Handheld, physical layer specification (DVB-NGH); Part 3: Hybrid Profile".

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Not applicable.

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## 3 Definition of terms, symbols and abbreviations

### 3.1 Terms

For the purposes of the present document, the terms given in ETSI EN 303 105-1 [1] apply.