



## **Open Radio equipment Interface (ORI); ORI interface Specification; Part 1: Low Layers (Release 4)**

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Reference

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## Foreword

This Group Specification (GS) has been produced by ETSI Industry Specification Group (ISG) Open Radio equipment Interface (ORI).

The present document is part 1 of a multi-part deliverable covering the ORI Interface Specification, as identified below:

**Part 1:** "Low Layers (Release 4)";

Part 2: "Control and Management (Release 4)".

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# 1 Scope

The present document defines low layer protocols aspects of the Open Radio equipment Interface (ORI). Low layer protocols are those terminating the ORI Link (a bi-directional interface in-between two directly-connected ORI ports, on two ORI nodes).

The Layer 1/2 protocols of CPRI Specification [1] have been used as a baseline for which further requirements for protocols up to and including the Layer 2 have been defined.

See the associated specification "Requirements for Open Radio equipment Interface" [2] for more information on how the Low Layer protocols relate to other aspects of the ORI interface.

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# 2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

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## 2.1 Normative references

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

[1] "Common Public Radio Interface (CPRI); Interface Specification V6.0".

NOTE: Available at <http://www.cpri.info/spec.html>.

[2] ETSI GS ORI 001: "Open Radio equipment Interface (ORI); Requirements for Open Radio equipment Interface (ORI) (Release 4)".

[3] SFF INF-8074i: "SFP (Small Formfactor Pluggable) Transceiver", Revision 1.0, May 12, 2001.

NOTE: Available at <http://www.sffcommittee.com>.

[4] SFF SFF-8431: "Enhanced Small Form Factor Pluggable Module SFP+", Revision 4.1, 6th of July 2009.

NOTE: Available at <http://www.sffcommittee.com>.

[5] ETSI TS 125 104: "Universal Mobile Telecommunications System (UMTS); Base Station (BS) radio transmission and reception (FDD) (3GPP TS 25.104)".

[6] ETSI TS 125 215: "Universal Mobile Telecommunications System (UMTS); Physical layer; Measurements (FDD) (3GPP TS 25.215)".

[7] ETSI TS 125 133: "Universal Mobile Telecommunications System (UMTS); Requirements for support of radio resource management (FDD) (3GPP TS 25.133)".

[8] ETSI TS 136 104: "LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception (3GPP TS 36.104)".

[9] ETSI GS ORI 002-2: "Open Radio equipment Interface (ORI); ORI interface specification, Part 2: Control and Management (Release 4)".

[10] ETSI TS 145 001: "Digital cellular telecommunications system (Phase 2+); Physical layer on the radio path; General description (3GPP TS 45.001)".