



# COVERING NOTE

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GENERAL SECRETARIAT OF THE INTERNATIONAL TELECOMMUNICATION UNION

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Geneva, 13 September 2012

ITU – TELECOMMUNICATION STANDARDIZATION SECTOR

**Subject: Erratum 2 (09/2012) to Recommendation ITU-T G.9960 (2011),**  
*Unified high-speed wireline-based home networking transceivers - System architecture and physical layer specification*

*Replace the first page of the Recommendation with the following two pages:*



# Recommendation ITU-T G.9960

## Unified high-speed wire-line based home networking transceivers – System architecture and physical layer specification\*

### 1 Scope

This Recommendation specifies the system architecture and functionality for all components of the physical (PHY) layer of home network transceivers designed for the transmission of data over premises wiring including inside telephone wiring, coaxial cable, power-line wiring, plastic optical fibres, and combinations of these.

Specifically, this Recommendation defines:

- the home network architecture and reference models;
- the physical layer specification (PCS, PMA and PMD).

These transceivers are intended to be compatible with other devices sharing the in-premises wiring.

Additionally, this Recommendation provides for spectrum notching for compatibility with amateur radio services.

### 2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

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| [ITU-T G.9961]   | Recommendation ITU-T G.9961 (2010), <i>Unified high-speed wire-line based home networking transceivers – Data link layer specification</i> ; Corrigendum 1 (2010). |
| [ITU-T G.9964]   | Recommendation ITU-T G.9964 (2011), <i>Unified high-speed wireline-based home networking transceivers – Power spectral density specification</i> .                 |
| [ITU-T X.1035]   | Recommendation ITU-T X.1035 (2007), <i>Password-authenticated key exchange (PAK) protocol</i> .  |
| [IEEE 802.1D]    | IEEE 802.1D-2004, <i>IEEE Standard for Local and metropolitan area networks: Media Access Control (MAC) Bridges</i> .  |
| [FIPS 197]       | FIPS PUB 197 (2001), <i>Advanced encryption standard (AES)</i> .   |
| [NIST-SP800-38C] | NIST-SP800-38C (2004), <i>Recommendation for Block Cipher Modes of Operation: the CCM Mode for Authentication and Confidentiality</i> .                            |

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\* France Telecom Orange is concerned that the migration from existing powerline implementations has not yet been adequately addressed and proposes that the industry delays implementation until this is included. In fact, this Recommendation will deeply fragment the industry for many years and create significant interference problems for service providers and users since devices based on this Recommendation could be deployed on the same medium where others solutions have been already deployed.

### **3 Definitions**

This Recommendation defines the following terms:

**3.1 address association table (AAT):** A table that associates MAC addresses of the application entities with the DEVICE\_ID of the nodes through which these application entities can be reached.