What characterize the NorDig specifications?

To achieve the strategic goals of the NorDig organisation there was a need to establish a set of common specifications, both for the receive side (IRD specifications), the transmit side (common Rules of Operation) and for compliance testing (Test Specifications).

The NorDig specifications refer to minimum requirements for the various functionality profiles (see figure 1), which are all based on relevant DVB specifications.

<table>
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<tr>
<th>NorDig Basic IRD</th>
<th>NorDig Basic PVR</th>
<th>NorDig Hybrid IRD</th>
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<td>non-interactive IRDs</td>
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<td>DVB-T/T2/S/S2/C demod</td>
<td>Interaction channel</td>
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<td>SDTV+HDTV</td>
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</table>

![Diagram of NorDig profiles and main building blocks](image)

Figure 1. The NorDig profiles and the main building blocks.

The **NorDig Basic TV profile** corresponds to basic requirements for digital broadcasting, services that do not depend on enhancements by applications or interaction. This profile is a subset of the Hybrid Profile.

The **NorDig Basic PVR profile** corresponds to basic requirements for digital broadcasting but include PVR requirement and do not depend on interaction / internet access. This profile is a subset of the Hybrid Profile.

The **NorDig Hybrid IRD profile** covers the NorDig requirements for interactive services, including a standardised API, based on the HbbTV. The Hybrid IRD profile requires Internet access.

The **NorDig Hybrid PVR profile** covers the NorDig requirements for interactive services, including a standardised API, based on the HbbTV and PVR requirement. The Hybrid PVR profile requires Internet access.

The NorDig specifications cover services that are coded in accordance with DVB/MPEG, and adapted for transmission in cable, satellite and terrestrial broadcast networks. The NorDig specifications are established with the aim that IRDs in the Nordic and Irish market shall satisfy a common set of minimum requirements, independent of operator/service provider and transmission media, and allow multi-operator use of the IRD.
What are the NorDig-Unified Requirements?

The unified NorDig specification includes the four profiles; NorDig Basic TV profile, NorDig Basic PVR profile, NorDig Hybrid IRD profile and NorDig Hybrid PVR profile.

The specifications of the NorDig IRDs are divided into two parts:

Part A: Hardware and firmware
Part B: The Software system and Application Programming Interfaces (API) as relevant.

The specification parts A and B outline the desired hardware and software architectures. Based on this framework the mandatory interfaces, functionality and performance requirements of the IRD are specified. Part B deals also with requirements to the operating system. Optional requirements are specified for recommended, but not mandatory functions.

The NorDig group represents broadcasters, operators and service providers in the Nordic countries and Ireland. The various members of NorDig are independent of each other but intend to transmit to IRDs that satisfy the specified common requirements. In order to ensure compliance with the NorDig requirements, the NorDig IRDs will be subject to a set of verification tests, based on NorDig Test Specifications.

What are the NorDig Rules of Operation?

The NorDig Rules of Operation specifies the use of some transmit parameters in order to ensure that they are used in a common way, independent of operator and media. The common rules are established to simplify the implementation of IRDs, especially for cases when independent operators broadcast to the same IRD (in the same network).

What are the NorDig Test Specifications?

The NorDig Test specifications are established in order to ensure compliance with the NorDig specifications. The compliance testing is based on self-testing by the IRD manufacturer. The testing is based on the HbbTV Test Suites for the API-part, for IRDs equipped with a standard API (NorDig Hybrid IRD profile and NorDig Hybrid PVR profile).