



**STMicroelectronics** comments to the public consultation on  
the Technical Specification for the Integrated Receiver  
Decoder for use with the second generation Digital  
Terrestrial Broadcasting System

issued by the Media Development Authority and the Info-  
Communications Development Authority of Singapore

**Draft IDA TS IRD-T2**

20<sup>th</sup> of August 2012

**Contact:** Laurent Le Morvan / [laurent.le-morvan@st.com](mailto:laurent.le-morvan@st.com) / +66 812083355

---

**Contents**

Summary of major points .....	2
Statement of interest.....	2
Comments.....	2
Conclusion.....	3

## Summary of major points

Within the scope of the Draft Technical Specification, ST would like to suggest one modification for section 5, one clarification for section 1.4 and propose to extend the specification to cover the power dissipation of the receivers with a new section 2.5.

While noting that the scope does not include advance features receivers, ST recommends to provision for a minimum specification catering for interactive services in new section 8.13.

## Statement of interest

STMicroelectronics would like to thank MDA & IDA for the opportunity to provide comments on the draft Technical Specification IRD-T2.

ST is a global leader serving customers across the spectrum of electronics applications with innovative semiconductor solutions.

ST has delivered semiconductor chipsets for Digital TV receivers and decoders since the onset of Digital Broadcasting more than 15years ago.

As a chipset supplier, STM is supportive of the approach that this draft spells out, as it benefits both consumers and industry stakeholders through the economy of scale that a large market with common minimum specifications will create.

## Comments

### Section 5

We recommend the specification to refer to the DVB-T2 standard [ETSI EN 302 755 v1.2.1](#), as a minimum specification to comply with.

It appears to us that in a country like Singapore with ubiquitous quality broadband penetration, fixed receivers like TV & STB would be better served with accessing radio through streaming rather than through broadcast.

The broadband connectivity would also serve the purpose of additional connected services (Catch up TV, VOD, SVOD, interactive commercial and public services...) which are today strategic for the value proposition of broadcasters and their technical service providers.

### Section 4.3

The requirement for decoding broadcast mix audio description mentioned in section 1.4 could be clarified in section 4.3.

Does this audio description mix need to be decoded at the same time as a non-mixed version of the main audio?

Which formats will be used for its broadcast and on which outputs is it required?

### Section 2.5: New Section on Energy efficiency under section 2

Households are one of the area identified by the Energy Efficiency Program Office (E<sup>2</sup>PO) of Singapore where energy efficiency shall be improved.

In line with the goal to introduce minimal deviation from international guidelines and specifications to avoid incurring unnecessary costs to customize receiver for the Singapore market, we recommend to introduce compliance to the European specification for ecodesign of electrical and electronic household and office equipment. (Commission Regulation (EC) No 1275/2008).

Such section could be added as:

*“The IRD-T2 power consumption in any condition providing only a reactivation function, or providing only a reactivation function and a mere indication of enabled reactivation function, shall not exceed 0,50 W”.*

### **Section 8.13: New Section on Data connectivity to provision for hybrid services on all receivers**

It is well documented that the convergence of broadcast and broadband services is transforming the current established value system of the media industry in other geographies (US, Europe). The convergence will certainly happen and impact as well Singapore.

We recommend the addition of the ancillary interface for hybrid operation and interactive services as a mandated interface.

Section 8.13 :

*“The IRD-T2 shall have built-in minimum one 100BaseT Ethernet ports with 100 Mbps. RJ-45 connectors shall be supported”*

As noted in the comment referring to Section 5, we are in the opinion that provisioning for broadband connectivity will allow the terrestrial platform and its stakeholders (broadcaster and technical service providers) to address and strive in rapidly changing patterns of video media consumption (linear, catch up , VOD). Current and future chipsets enable such feature at marginal hardware extra cost.

Ensuring a base of hybrid ready receivers will allow for the value of the service to be recognized by consumers and appropriate return of investment to happen for the DTT stakeholders.

## **Conclusion**

STMicroelectronics understands the balancing act between forward looking features set and shorter term considerations of affordability and speed of deployment when defining the minimum technical standard for the DTT receiver.

We believe the one proposed amendment (section 5) and the 2 proposed additions (section 2.5 and section 8.13) would embed scalability and value over the course of the Singapore Digital Terrestrial transition.

STMicroelectronics is grateful for the opportunity to comment on this matter.