

OCTOPUS

The programmable Digital TV Front-End solution to the problem of worldwide standard's fragmentation

Currently, the broadcast mobile TV market is growing larger every day through the launch of networks across more and more countries. Despite this growth, standards fragmentation is causing problems for Operators and Retailers by impeding the deployment of enough devices in the market. Device availability is important in order to attract users and increase market penetration. Manufacturers are hesitant to build devices for each standard due to the unpredictable demand for products supporting any specific standard. Today, so called "multi-standard" solutions are, in general, limited, costly and target only specific markets.

Octopus: Advantages & Benefits for Device manufacturers

DiBcom's Octopus is a cost effective and flexible solution to the problem of worldwide standard's fragmentation for fixed and mobile TV. It is based on a programmable architecture that enables one design to be cost effectively targeted towards the most widely deployed standards today: DVB-T, DVB-H, DVB-SH, CMMB, CTTB, ISDB-T (1SEG & Full-SEG), DAB, DAB+, T-DMB and ATSC, ATSC-M/H.

- Flexible** ➔ Use of a programmable Vector Signal Processing (VSP) engine along with a modular architecture
- Sensitive** ➔ | No-compromise broadcast-specific design of the VSP
Benefits from many years of field proven expertise
- Optimal** ➔ Size, Cost and Power consumption due to shared resources integration of a "Power Module Unit" (PMU) and use of a 65 nm technology

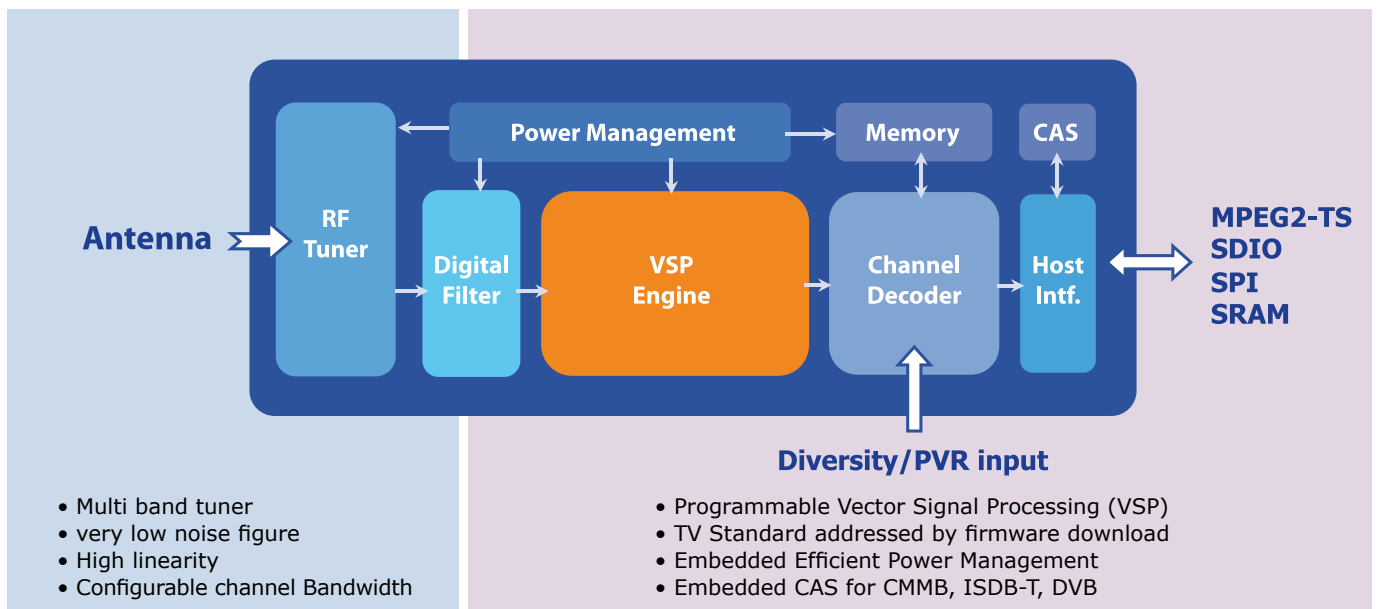
The programmable architecture is ideal for a one-to-many strategy (all regions, all applications are addressed with one device). The main benefits of this architecture are the reduction of R&D costs and time to market.

It offers high performance and low power consumption, in all functional modes. The performance is similar to previous generations of DiBcom products, but also adjustable using optimal voltages & frequencies.

It integrates a PMU for a simpler design (single voltage input), efficient power consumption and longer battery life.

The Octopus architecture, based on VSP, avoids the hardware duplication or the dependency on powerful CPU's as is the case for other multi-standard solutions. It also embeds descramblers for all conditional access (CAS) protected content.

Octopus Block Diagram



Thanks to Octopus, one TV receiver design can address different markets depending on which firmware is loaded. The following pictures illustrate an example of multi-market coverage using the same hardware device downloaded with three different application firmware images.



Conclusion :

Mobile TV markets are evolving region by region and at different rates, sometimes creating a lack of a variety of devices. Octopus allows manufacturers to design devices for all existing and emerging markets based on the same chipset thereby eliminating the need to produce multiple versions based on single standard support from competing solutions. Octopus can therefore accelerate your time to market providing a competitive edge that can't be beat!

