

ANTENNA

SYSTEMS & TECHNOLOGY

Fractus Chosen by Sagem Communications for World's Smallest MobileTV Handset with Internal Antenna

Fractus, the fractal antenna technology provider, has developed a custom-built DVB-H antenna for SAGEM's new myMobileTV handset making it the smallest DVB-H handset on the market with an internal antenna.

The miniature antenna measures 33 by 10.5 by 7 mm³ and supports the DVB-H standard on the UHF (470 to 750 MHz) frequency band. The myMobile TV handset measures 97 by 47 by 23 mm³ in size, with a 56 mm by 40 mm swivel QVGA color screen.

The vast majority of mobile TV handsets currently on the market use an external antenna, while the few using internal antennas are much bulkier than SAGEM's new design.

Fractus also overcame other RF challenges as the GSM and DVB-H frequency bands used in the phone intersect, potentially creating a major interference issue.

"Simply put, DVB-H is the single greatest challenge facing handset designers today as consumers are not willing to compromise on the aesthetic of their device in return for new features," said Alfonso Sanz, Fractus lead engineer, Products & Services Division.

"Most people could be forgiven for thinking that the external mobile antenna had been relegated to the history books, but mobile TV has brought about its reappearance."

To save space, the antenna for the myMobileTV handset was designed using Fractus' patented

fractal antenna technologies, allowing Sagem Communication to create a smaller phone platform than what has been achieved by other mobile TV manufacturers.

Mobile television raises major interference challenges caused by overlapping DVB-H and GSM frequencies and also from the differing body position when holding the phone in front of the body (watching TV) as opposed to the typical position against the head when making a call. Sagem's myMobileTV posed additional antenna design challenges because its swivel QVGA colour screen enables the handset to take multiple form factors - each of which demands meticulous RF planning to ensure consistently high reception.

Fractus provided SAGEM with complete antenna design, development, support, testing, manufacturing and approval services to ensure the customized antenna was as effective as possible within the handset, while respecting SAGEM's mechanical and design requirements.

Fractus was the first telecom antenna developer to announce a suite of DVB-H and ISDB-H internal mobile TV antenna solutions for all three mobile TV frequencies; VHF, UHF and 1.6 GHz L-band, in late 2006.



Sagem-my-750c combo with Integrated Antennas from Fractus



Fractus' TVNow Range of Antennas For Mobile TV

www.Fractus.com