

NEWS RELEASE

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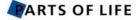
ALPS Develops TDQ Series of Digital Terrestrial TV Tuners – the Industry's Smallest

Single Unit Digital Terrestrial and Analog Broadcasting Receiver

Duesseldorf, Germany, November 04, 2005 – Alps has developed the industry's smallest series of tuner units for digital terrestrial broadcasting. The newly developed TDQ Series can also be used as an analog broadcasting receiver.

Digital terrestrial broadcasting began in Japan in December 2003 and continues to receive growing acceptance worldwide. The addition of digital broadcasting to conventional analog broadcasts has led to the coexistence of two different broadcasting methods. Given these circumstances, televisions and other devices require both digital and analog tuners to receive each broadcast.

Responding to this opportunity, Alps has developed a single digital terrestrial broadcasting unit, the industry's smallest, that can also be used as an analog broadcasting receiver. Currently, TVs and DVD recorders require separate digital terrestrial broadcasting and analog broadcasting tuners as well as an airwave distribution device in order to receive both digital and analog broadcasts. This requires significant space, an added inconvenience. Utilizing its proprietary engineering technology and expertise accumulated over many years, Alps has developed an ultra-compact single-unit tuner that can receive both digital terrestrial and analog broadcasts, which in turn contributes to more compact and thinner set devices.





Using an Inter Integrated Circuit (I²C) bus controller allows set manufacturers to freely specify signal start levels, as output signal levels can be regulated with RF automatic gain control (AGC) even when input signal levels are changed. This enables the control of varying field intensities that occur according to regions, making it easy to adjust settings by regions. Furthermore, by utilizing custom IC, which is made possible through Alps' proprietary high-frequency circuit technology, wide dynamic range and low phase noise can be attained. Through wide dynamic range, a widely variable level of RF-AGC settings is possible. In addition, low phase noise enables the reception of crisp digital images even when electrical fields are weak.

Moreover, the environmentally-friendly design includes a power saving mode that lowers consumption of electricity, contributing to the reduction of CO_2 emissions.

Features

Alps developed the industry's smallest TV tuner units capable of receiving both digital and analog broadcasts on a single unit.

- 1. Industry's smallest TV tuner unit capable of receiving digital and analog broadcasts
- 2. Use of I²C bus controller enables changes to RF AGC start level
- 3. Wide dynamic range and low phase noise attained by use of custom IC
- 4. Power saving mode helps to conserve electricity

Principal Applications

For use in television sets equipped for digital terrestrial broadcasts, DVD recorders, VCRs and set-top boxes





Specifications

	Japan	Europe	U.S.A.
Product name	TDQN	TDQD	TDQU
Dimensions (W×D×H)	55.0mm×38.0mm×13.0mm		
Input frequency range	UHF: 470~770MHz VHF: 90~468MHz	UHF: 470~862MHz VHF: 174~230MHz (U.K.: 470~862MHz)	UHF: 462~864MHz VHF: 54~426MHz
Input return loss	10dB typ.		
Image rejection	60dB typ.		
Output center frequency	57.0MHz	36.1666MHz	44.0MHz
IF band width	5.5MHz	6.7 / 7.6MHz (U.K.: 7.6MHz)	5.4MHz
Phase noise (at 10kHz offset)	- 90dBc / Hz typ.		
Noise figure	7dB typ.		
Output impedance	150Ω		200Ω

This news release and a press photo are available electronically at <u>http://www.presseagentur.com/alps/en/</u>







ALPS Electric Co., Ltd.

Since its establishment in 1948 ALPS has grown as a comprehensive manufacturer of electronic components. At present ALPS is creating innovative high-value-added products in its main business segments – Components, Magnetic Devices, Communications, Peripheral Products, and Automotive Electronics – which are contributing to the advance of a digital society. ALPS is a global company that carries out its operations with 23 production bases in 8 countries as well as 61 sales bases in 14 countries. Consolidated net sales in the year ended March 31, 2004 amounted to YEN 643 billion.

ALPS Electric Europa GmbH, a subsidiary of ALPS Electric Co., Ltd., was established in 1979. Since 1989, the European Head Office has been located in Düsseldorf, where a team of specialists works in Sales, Marketing, and Product Engineering. The activities of our branch offices in Munich, Paris and Milton Keynes, our sales office in Milan and our European distribution work are co-ordinated from Düsseldorf. ALPS Nordic AB, a 100 percent subsidiary of ALPS Electric Europa GmbH, is based in Sweden and services the Scandinavian market.

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