



TV Encoder LSI with Built-in AIE (Adaptive Image Enhancer) BU6520KV

●Outline

The BU6520KV TV encoder integrates ROHM's proprietary AIE (Adaptive Image Enhancer) core for image correction. The result is significantly improved visibility due to compatibility between the input and the CCIR601/656 image format. In addition, operation is possible without a microcontroller by reading each setting value automatically from the EEPROM at the power source.

●Features

- 1) Supports SDTV composite video (CVBS) format
- 2) Built-in dynamic range correction, edge emphasis, and gamma filters
- 3) Input/output data format compatible with ITU-R BT.656 and YCbCr=4:2:2 with synchronization signal
- 4) Compatible with NTSC(27MHz and 28.63636MHz) and PAL (27MHz, 28.375MHz, and 35.46895MHz)
- 5) Data range compatible with full range and ITU-R BT.601
- 6) Registers settings enabled via 2-line serial interface
- 7) Registers can be automatically set up by reading from external EEPROM after resetting or when changing mode
- 8) Compatible with 4 power sources (VDD=1.50V, VDDIO=3.30V, VDDI2C=3.30V, AVDD=3.30V)

●Applications

Security cameras, vehicle cameras, drive recorders, intercoms, and the like.

●Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Source Voltage 1	VDDIO	-0.3 to +4.2	V
Source Voltage 2	VDDI2C	-0.3 to +4.2	V
Source Voltage 3	AVDD	-0.3 to +4.2	V
Source Voltage 4	VDD	-0.3 to +2.1	V
Power Dissipation	Pd	400 *1, 900 *2	mW
Input Voltage	VIN	-0.3 to IO_LVL+0.3 *3	V
Storage Temperature Range	Tstg	-40 to +125	°C
Operating Temperature Range	Topr	-40 to +85	°C

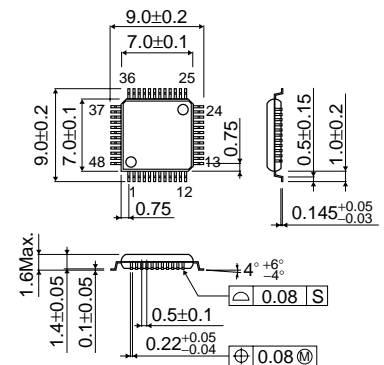
*1 IC derated at 4.0mW/°C above Ta=25°C

*2 When mounted on a 70x70x1.6mm glass epoxy board of. Derated at 9.0mW/°C above Ta=25°C

*3 IO_LVL is a generic name for VDDIO, VDDI2C, and AVDD

* Not designed to be resistant to radiation

●Dimensions (Unit:mm)



VQFP48C

- The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- The application circuit examples, information, and various data pertaining to the use of the products presented in this documentation are provided for reference purposes only.
- Please note that ROHM cannot bear any responsibility regarding any problems relating to industrial property rights resulting from their use thereof.

The products listed in this catalog are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

Current specifications in effect of 1st. January 2008.

Excellence in Electronics



ROHM CO., LTD.

21, Saiin Mizosaki-cho, Ukyo-ku, Kyoto
615-8885, Japan
TEL: +81-75-3112121 FAX: +81-75-315-0172
URL: http://www.rohm.com

Contact us for further information about the products.

Seoul TEL: +82-2-8182-700 FAX: +82-2-8182-715
Dalian TEL: +86-411-8230-8549 FAX: +86-411-8230-8537
Beijing TEL: +86-10-8525-2483 FAX: +86-10-8525-2489
Shanghai TEL: +86-21-6279-2727 FAX: +86-21-6247-2066
Shenzhen TEL: +86-755-8307-3008 FAX: +86-755-8307-3003
Hong Kong TEL: +852-2-740-6262 FAX: +852-2-375-8971
Taipei TEL: +886-2-2500-8956 FAX: +886-2-2503-2869
Singapore TEL: +65-6332-2322 FAX: +65-6332-5862
Philippines TEL: +63-2807-6872 FAX: +63-2809-1422
Thailand TEL: +66-2-254-4890 FAX: +66-2-256-6334

Malaysia TEL: +60-3-7958-8355 FAX: +60-3-7958-8377
Germany TEL: +49-2154-9210 FAX: +49-2154-921400
France TEL: +33-1-5697-3060 FAX: +33-1-5697-3080
United Kingdom TEL: +44-1-908-306700 FAX: +44-1-908-235788
San Diego TEL: +1-858-625-3630 FAX: +1-858-625-3670
Atlanta TEL: +1-770-754-5972 FAX: +1-770-754-0691
Dallas TEL: +1-469-287-5366 FAX: +1-469-362-7973
Kyoto TEL: +81-75-365-1218 FAX: +81-75-365-1228
Yokohama TEL: +81-45-476-2290 FAX: +81-45-476-2295



