

● **Product Outline**

■ Type	BU7879KVT
■ Function	30bit(+5bit) LVDS Receiver for Flat Panel Display
■ Package	TQFP64V
■ Supply voltage	3.3V ± 0.3V
■ Temperature range	-20°C ~ 85°C
■ Frequency range	8 ~ 90MHz

● **Feature**

- Five channels of LVDS data stream are converted to 35bits data of parallel LVCMOS level outputs.
- 30bits of RGB output data, 5bits of timing and control output data (HSYNC, VSYNC, DE, CTL1 and CTL2) are available.
- Support clock frequency from 8MHz up to 90MHz.
- Support consumer video format including 480i, 480P, 720P and 1080i as well.
- Support many kinds of PC video formats such as VGA, SVGA, XGA and WXGA.
- Provide 630Mbps per 1ch or 3.15Gbps per device throughput rate using 90MHz clock rate.
- User programmable LVCMOS data output triggering timing by using either rising or falling edge of clock.
- 30bit LVDS transmitter is recommended to use BU7878KVT.

● **Precaution**

- The contents of this specifications might be changed without a previous notice.
- Please be careful of handling the contents of this specifications document because use of Foreign Exchange and Foreign Trade Control Law (technology in use of design, manufacture and use) have the possibility of violating the law.
- This chip is not designed to protected from radioactivity.

● Block Diagram

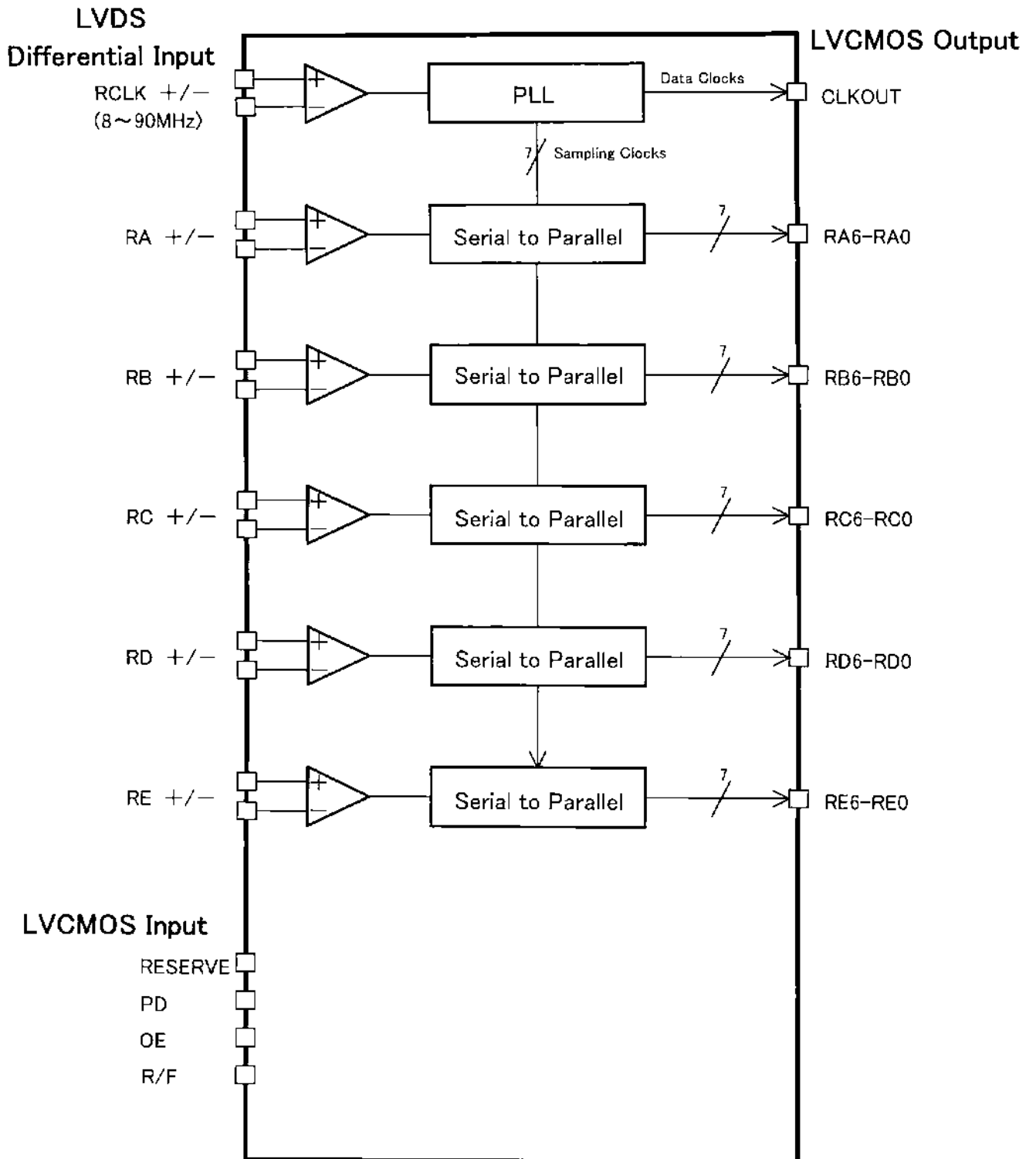


Figure-1 Block Diagram

● About the Power On Reset

Power on reset is not mandatory for this device.

(The PD pin should be set to high level when power on reset procedure is not used.)

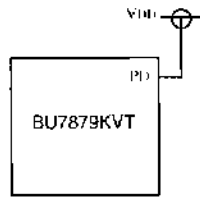
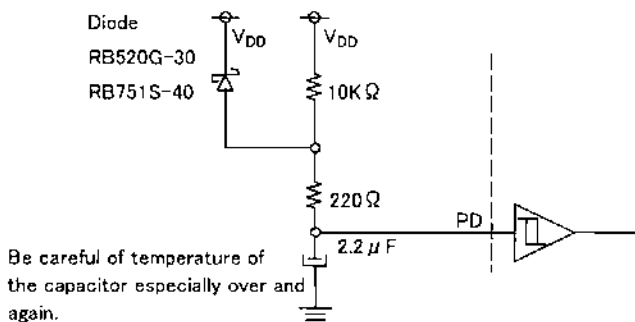


Figure-10 Terminal connection when power on reset is not used.

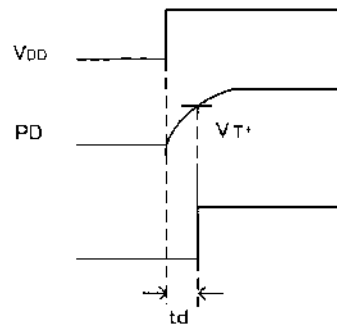
However, Power on reset procedure is strongly recommend for internal logic initialization by following two methods.

- ① The method of using CR circuit.
- ② The method of using external specific IC.

It is recommend to do enough examination for target application.

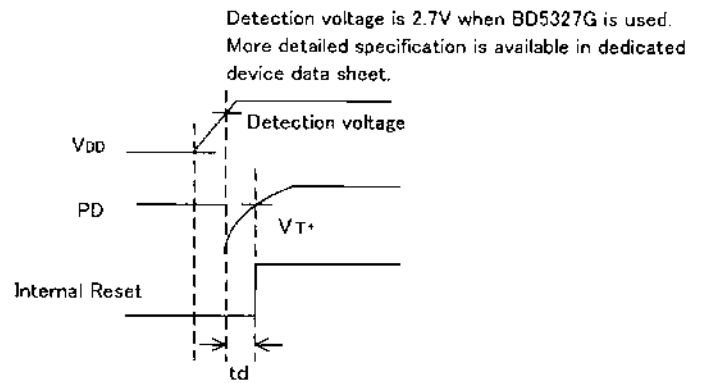
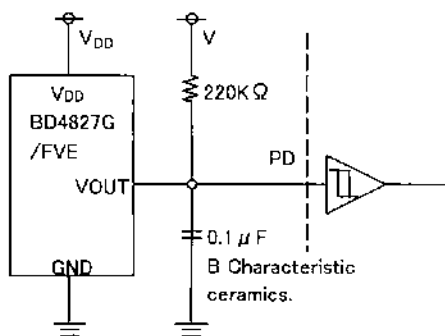


Be careful of temperature of the capacitor especially over and again.
B characteristic ceramics and function polymer aluminum electrolysis are recommended.



td is approximately equal to 20ms when the left RC coeuls are applied.

Figure-11 Power on reset by external a CR circuit



Detection voltage is 2.7V when BD5327G is used.
More detailed specification is available in dedicated device data sheet.

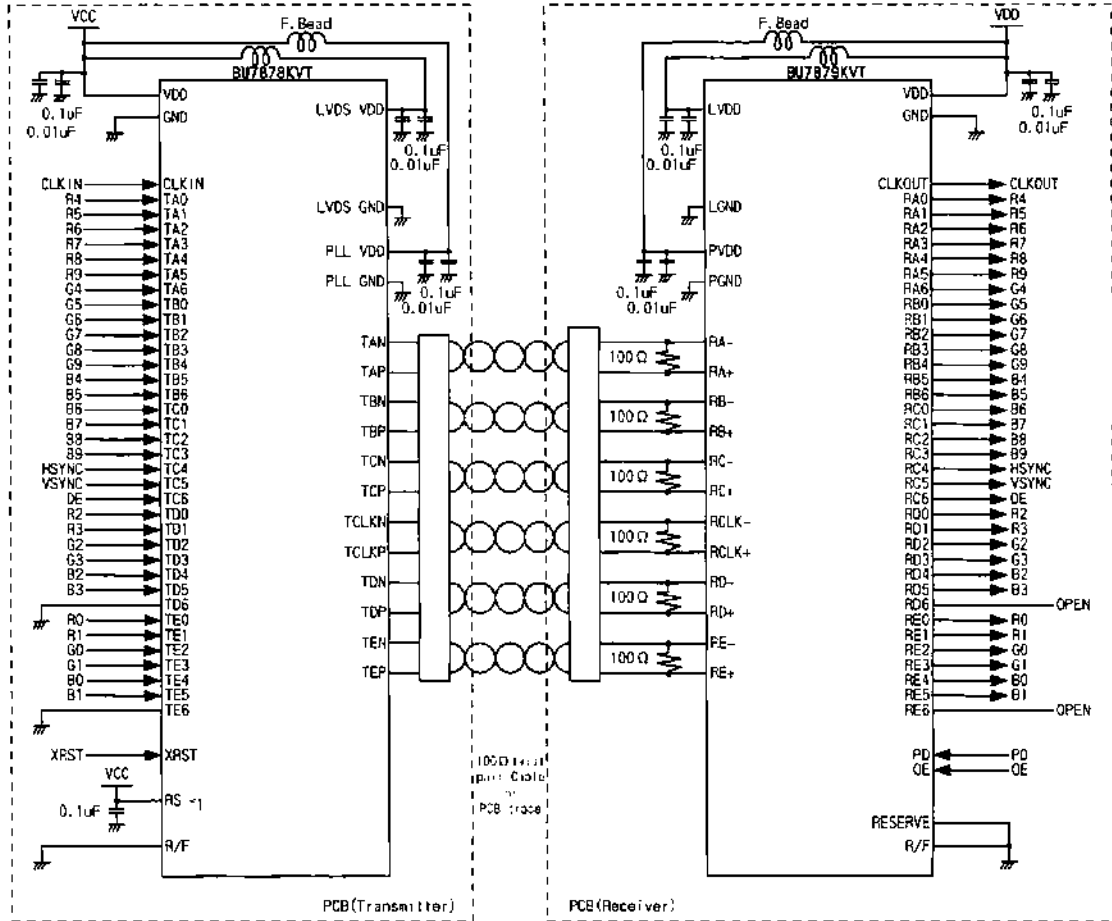
Figure-12 Power on reset by specific IC

●10 LVDS Level Input & Output

Example:

BU7878KVT : LVCMOS level input/Falling edge/LVDS normal(350mV) swing output

BU7879KVT : LVCMOS level output/Falling edge



* 1 :If RS pin is tied to VCC,LVDS swing is 350m V.
If RS pin is tied to GND,LVDS swing is 200m V.

Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. 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.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard use and operation. Please pay careful attention to the peripheral conditions when designing circuits and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or otherwise dispose of the same, no express or implied right or license to practice or commercially exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document are no antiradiation design.

The products listed in this document 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.

About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.

In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.

Thank you for your accessing to ROHM product informations.
More detail product informations and catalogs are available,
please contact your nearest sales office.

Please contact our sales offices for details ;

U.S.A / 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(972)312-8818	FAX : +1(972)312-0330
Germany / Dusseldorf	TEL : +49(2154)9210	FAX : +49(2154)921400
United Kingdom / London	TEL : +44(1)908-282-666	FAX : +44(1)908-282-528
France / Paris	TEL : +33(0)1 56 97 30 60	FAX : +33(0) 1 56 97 30 80
China / Hong Kong	TEL : +852(2)740-6262	FAX : +852(2)375-8971
Shanghai	TEL : +86(21)6279-2727	FAX : +86(21)6247-2066
Dilian	TEL : +86(411)8230-8549	FAX : +86(411)8230-8537
Beijing	TEL : +86(10)8525-2483	FAX : +86(10)8525-2489
Taiwan / Taipei	TEL : +866(2)2500-6956	FAX : +866(2)2503-2869
Korea / Seoul	TEL : +82(2)8182-700	FAX : +82(2)8182-715
Singapore	TEL : +65-6332-2322	FAX : +65-6332-5662
Malaysia / Kuala Lumpur	TEL : +60(3)7958-8355	FAX : +60(3)7958-8377
Philippines / Manila	TEL : +63(2)807-6872	FAX : +63(2)809-1422
Thailand / Bangkok	TEL : +66(2)254-4890	FAX : +66(2)256-6334

Japan /
(Internal Sales)

Tokyo	2-1-1, Yaesu, Chuo-ku, Tokyo 104-0082	TEL : +81(3)5203-0321	FAX : +81(3)5203-0300
Yokohama	2-4-8, Shin Yokohama, Kohoku-ku, Yokohama, Kanagawa 222-8575	TEL : +81(45)476-2131	FAX : +81(45)476-2128
Nagoya	Dainagayo Building 9F 3-28-12, Meieki, Nakamura-ku, Nagoya, Aichi 450-0002	TEL : +81(52)581-8521	FAX : +81(52)561-2173
Kyoto	579-32 Higashi Shiokouji-cho, Karasuma Nishi-iru, Shiokoujidori, Shimogyo-ku, Kyoto 600-8216	TEL : +81(75)311-2121	FAX : +81(75)314-6559

(Contact address for overseas customers in Japan)

Yokohama	TEL : +81(45)476-9270	FAX : +81(045)476-9271
----------	-----------------------	------------------------