NEC

Customer Notification

μPD780828A Subseries
μPD780828B Subseries™

8-bit Single-Chip Microcontrollers

Operating Precautions

μPD780824A
μPD780826A
μPD780828A
μPD78F0828A
μPD780824B
μPD780826B
μPD780828B
μPD78F0828B

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(A) Table of Operating Precautions

No.	Outline		µPD78F0828A	µPD78082xA
		Rev.		
		Rank Note	all	all
1	DCAN Resynchronization (Specification Change)		✗	✗
2	DCAN RXONLY Mode (Specification Change)		✗	✗
3	DCAN REDEF Function (Direction of use)		✗	✗
5	DCAN Extended Identifier (Direction of use)		✗	✗

✓ : Not applicable
✗ : applicable

Note: The rank is indicated by the letter appearing at the 5th position from the left in the lot number, marked on each product.

No.	Outline		µPD78F0828B	µPD78082xB
		Rev.		
		Rank Note	all	all
1	DCAN Resynchronization (Specification Change)		✗	✗
2	DCAN RXONLY Mode (Specification Change)		✗	✗
3	DCAN REDEF Function (Direction of Use)		✗	✗
4	DCAN High speed RX Loss and manipulated TX ID (Specification Change)		✗	✗
5	DCAN Extended Identifier (Direction of use)		✗	✗

✓ : Not applicable
✗ : applicable

Note: The rank is indicated by the letter appearing at the 5th position from the left in the lot number, marked on each product.

(B) Description of Operating Precautions

No. 1	DCAN Resynchronization (Specification Change)
	Details According to the CAN protocol specification (BOSCH CAN specification, version 2.0, Sept. 1991, part A, chapter 8) a CAN node has to perform a soft-synchronization, when acting as a transmitter sending a dominant bit if a recessive to dominant edge occurs after the sample point within phase segment 2. This scenario is only encountered in case of a disturbance. For this case the soft-synchronization is not performed by the implementations listed below. Due to this the nominal length of an error frame that follows this disturbance can be extended by the amount of time quanta allocated for the synchronization jump width. This has no influence to normal CAN operation. An impact on the application is not given since the length of error frames can not predicted anyway due to the superposition mechanism that is defined in the CAN protocol.

No. 2	DCAN RXONLY Mode (Specification Change)
	Details The RYONLY Mode of the DCAN is deleted. For detailed description pls. refer to the document EACT-CN-5001-1.0.pdf or later.

No. 3	DCAN REDEF Function (Direction of use)
	Details Issue REDEF function only directly after 'bus idle' was detected. Use RXF and TXF bits in CAN Control Register CANC for this purpose and disable all interrupts during these operations. Alternatively the regular initialization mode can be used for re-configuration of the message buffer area or when REDEF was used to provide data consistency, this method needs to be replaced by the normal method using DN and MUC bit. For detailed description, pls. refer to the document EACT-BR-5006-1.0.pdf or later.

No. 4	DCAN High speed RX Loss and manipulated TX ID (Specification Change)
	Details For detailed description, pls. refer to the document EACT-BR-5004-1.0.pdf or later.

No. 5	DCAN Extended Identifier (Direction of use)
	Details Pls. use Extended Identifiers only, if it can be guaranteed, that there are no two Extended Identifiers available on the CAN bus, which are identical within their Standard Identifier part. Otherwise, the data-contents of messages with same Standard ID-part, but differing within the Extended ID-part, can be mixed, may be lost or wrong stored, while error frames or stuff bit errors occur on the CAN-bus within specific time-slots. For detailed description pls. refer to the document EACT-BR-5010-1.2 or later.

(C) Valid Specification

Item	Date published	Document No.	Document Title
1	January 2003	U16504EE1V1UD00	µPD780824A, µPD780826A, µPD780828A, µPD78F0828A Preliminary User's Manual
2	January 2003	U16387EE1V1UD00E	µPD780824B, µPD780826B, µPD780828B, µPD78F0828B User's Manual

(D) Revision History

Item	Date published	Document No.	Comment
1	February 1, 2003	TPS-LE-OP-0828A	1st Release
2	February 12, 2003	TPS-LE-OP-0828A-1	1st Update Addition of Item 3
3	March 14, 2005	TPS-LE-OP-0828A-2	2nd Update Merging of documents TPS-LE-OP-0828A-1 and TPS-LE-OP-F0828-1 µPD780828A Subseries: Addition of item5 µPD780828B Subseries: Addition of item5