GigaDevice Semiconductor Inc.

Differences Between GD32H779 and GD32H75x Products

Application Note
AN314

Revision 1.0

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1. Introduction

This application note mainly introduces the differences between the GD32H779 and GD32H75x series in terms of pinout and peripheral resources. The following chapters will provide a detailed explanation of these differences.

Note: This application note is for reference only. In case of any conflict with the user manual or datasheet, the user manual or datasheet shall prevail.

2. Peripheral resource differences

The resource differences between GD32H779xx and GD32H757xx series chips in LQFP100 package are listed in *Table 2-1. Peripheral resource difference comparison table GD32H779xx and GD32H757xx in LQFP100 package*.

Table 2-1. Peripheral resource difference comparison table GD32H779xx and GD32H757xx in LQFP100 package

Peripheral	GD32H779xx	GD32H757xx
FLASH(KB)	Up to 9728	Up to 3840
SRAM(KB)	Up to 1152	Up to 1024
General timer (16-bit)	7 (2,3,14-16,40-41)	10 (2-3,14-16,40-44)
SPI/I2S	6/4 (0-5)/(0-2,5)	5/4 (0-3,5)/(0-2,5)
USBHS	2	1
PKCAU	1	0
FFT	1	0
GPSI	1	0
SAI	4	2
CPDM	3	2
EDIM	1	0
RDCM	1	0
GPIO	80	78

The resource differences between GD32H779xx and GD32H757xx series chips in BGA100 package are listed in *Table 2-2. Peripheral resource difference comparison table GD32H779xx and GD32H757xx in BGA100 package*.

Table 2-2. Peripheral resource difference comparison table GD32H779xx and GD32H757xx in BGA100 package

Peripheral	GD32H779xx	GD32H757xx
FLASH(KB)	Up to 9728	Up to 3840
SRAM(KB)	Up to 1152	Up to 1024
General timer (16-bit)	7 (2,3,14-16,40-41)	10 (2-3,14-16,40-44)
SPI/I2S	6/4 (0-5)/(0-2,5)	5/4 (0-3,5)/(0-2,5)
USBHS	2	1
PKCAU	1	0
FFT	1	0
GPSI	1	0
SAI	4	2

Peripheral	GD32H779xx	GD32H757xx
CPDM	3	2
EDIM	1	0
RDCM	1	0
GPIO	80	78

The resource differences between GD32H779xx and GD32H757xx series chips in LQFP144 package are listed in *Table 2-3. Peripheral resource difference comparison table GD32H779xx and GD32H757xx in LQFP144 package*.

Table 2-3. Peripheral resource difference comparison table GD32H779xx and GD32H757xx in LQFP144 package

Peripheral	GD32H779xx	GD32H757xx
FLASH(KB)	Up to 9728	Up to 3840
SRAM(KB)	Up to 1152	Up to 1024
USBHS	2	1
ENET	2	1
PKCAU	1	0
FFT	1	0
GPSI	1	0
SAI	4	3
CPDM	4	2
EDIM	1	0
RDCM	1	0
GPIO	112	110

The resource differences between GD32H779xx and GD32H759xx series chips in BGA176 package are listed in *Table 2-4. Peripheral resource difference comparison table GD32H779xx and GD32H759xx in BGA176 package*.

Table 2-4. Peripheral resource difference comparison table GD32H779xx and GD32H759xx in BGA176 package

Peripheral	GD32H779xx	GD32H759xx
FLASH(KB)	Up to 9728	Up to 3840
SRAM(KB)	Up to 1152	Up to 1024
PKCAU	1	0
FFT	1	0
GPSI	1	0
SAI	4	3
CPDM	4	2
EDIM	1	0
RDCM	1	0
GPIO	128	124

The resource differences between GD32H779xx and GD32H759xx series chips in LQFP176

package are listed in *Table 2-5. Peripheral resource difference comparison table GD32H779xx and GD32H759xx in LQFP176 package*.

Table 2-5. Peripheral resource difference comparison table GD32H779xx and GD32H759xx in LQFP176 package

Peripheral	GD32H779xx	GD32H759xx
FLASH(KB)	Up to 9728	Up to 3840
SRAM(KB)	Up to 1152	Up to 1024
ENET	2	1
PKCAU	1	0
FFT	1	0
GPSI	1	0
SAI	4	3
CPDM	4	2
EDIM	1	0
RDCM	1	0
GPIO	120	115

3. Pinout differences

The following table lists the pinout differences between GD32H779xx and GD32H759/757xx series chips in different package types, refer to ***Table 3-1. Pinout differences comparison table for GD32H779xx and GD32H759/757xx under different packages***.

Table 3-1. Pinout differences comparison table for GD32H779xx and GD32H759/757xx under different packages

Package type	Pin number	GD32H779xx pin name	GD32H759/757xx pin name
LQFP176	82	PH6	VDDLDO
	87	PB14	USBHS1_DM
	88	PB15	USBHS1_DP
	130	PA11	USBHS0_DM
	131	PA12	USBHS0_DP
	135	NC	VDDLDO
	175	NC	VDDLDO
BGA176	A3	NC	VDDLDO
	A13	NC	VDDLDO
	B15	PA12	USBHS0_DP
	C15	PA11	USBHS0_DM
	K14	PB15	USBHS1_DP
	K15	PB14	USBHS1_DM
	R14	NC	VDDLDO
LQFP144	103	PA11	USBHS0_DM
	104	PA12	USBHS0_DP
LQFP100	70	PA11	USBHS0_DM
	71	PA12	USBHS0_DP
BGA100	B10	PA12	USBHS0_DP
	C10	PA11	USBHS0_DM

4. Revision History

Table 4-1. Revision history

Revision No.	Description	Date
1.0	Initial Release.	Nov. 9, 2026

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