

```
/*
 * imx219_tables.h - sensor mode tables for imx219 HDR sensor.
 *
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 *
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 */

#ifndef IMX219_I2C_TABLES
#define IMX219_I2C_TABLES

#define IMX219_TABLE_WAIT_MS 0
#define IMX219_TABLE_END 1
#define IMX219_MAX_RETRIES 3
#define IMX219_WAIT_MS 3

struct imx219_reg {
    u16 addr;
    u8 val;
};

static struct imx219_reg mode_3280x2460[] = {
    /* software reset */
    {0x0103, 0x01},
    /* global settings */
    {0x30EB, 0x05},
    {0x30EB, 0x0C},
    {0x300A, 0xFF},
    {0x300B, 0xFF},
    {0x30EB, 0x05},
    {0x30EB, 0x09},
    {0x0114, 0x03},
    {0x0128, 0x00},
    {0x012A, 0x18},
    {0x012B, 0x00},
    /* Bank A Settings */
    {0x0157, 0x00},
    {0x015A, 0x08},
    {0x015B, 0x8F},
    {0x0160, 0x0A},
    {0x0161, 0x83},
    {0x0162, 0x0D},
    {0x0163, 0x78},
    {0x0164, 0x00},
    {0x0165, 0x00},
    {0x0166, 0x0C},
    {0x0167, 0xCF},
    {0x0168, 0x00},
    {0x0169, 0x00},
    {0x016A, 0x09},
    {0x016B, 0x9F},
    {0x016C, 0x0C},
    {0x016D, 0xD0},
    {0x016E, 0x09},
    {0x016F, 0x9C},
    {0x0170, 0x01},
    {0x0171, 0x01},
    {0x0174, 0x00},
    {0x0175, 0x00},
    {0x018C, 0x0A},

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{0x018D, 0x0A},
/* Bank B Settings */
{0x0257, 0x00},
{0x025A, 0x08},
{0x025B, 0x8F},
{0x0260, 0x0A},
{0x0261, 0x83},
{0x0262, 0x0D},
{0x0263, 0x78},
{0x0264, 0x00},
{0x0265, 0x00},
{0x0266, 0x0C},
{0x0267, 0xCF},
{0x0268, 0x00},
{0x0269, 0x00},
{0x026A, 0x09},
{0x026B, 0x9F},
{0x026C, 0x0C},
{0x026D, 0xD0},
{0x026E, 0x09},
{0x026F, 0x9C},
{0x0270, 0x01},
{0x0271, 0x01},
{0x0274, 0x00},
{0x0275, 0x00},
{0x028C, 0x0A},
{0x028D, 0x0A},
/* clock setting */
{0x0301, 0x05},
{0x0303, 0x01},
{0x0304, 0x03},
{0x0305, 0x03},
{0x0306, 0x00},
{0x0307, 0x57},
{0x0309, 0x0A},
{0x030B, 0x01},
{0x030C, 0x00},
{0x030D, 0x5A},
{0x455E, 0x00},
{0x471E, 0x4B},
{0x4767, 0x0F},
{0x4750, 0x14},
{0x4540, 0x00},
{0x47B4, 0x14},
{0x4713, 0x30},
{0x478B, 0x10},
{0x478F, 0x10},
{0x4793, 0x10},
{0x4797, 0x0E},
{0x479B, 0x0E},
/* stream on */
{0x0100, 0x01},
{IMX219_TABLE_WAIT_MS, IMX219_WAIT_MS},
{IMX219_TABLE_END, 0x00}
};

static struct imx219_reg mode_3280x1846[] = {
/* software reset */
{0x0103, 0x01},
/* global settings */
{0x30EB, 0x05},
{0x30EB, 0x0C},
{0x300A, 0xFF},
{0x300B, 0xFF},
{0x30EB, 0x05},
{0x30EB, 0x09},
{0x0114, 0x03},
{0x0128, 0x00},
{0x012A, 0x18},
{0x012B, 0x00},
/* Bank A Settings */
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```
{0x0157, 0x00},
{0x015A, 0x08},
{0x015B, 0x8F},
{0x0160, 0x07},
{0x0161, 0x5E},
{0x0162, 0x0D},
{0x0163, 0x78},
{0x0164, 0x00},
{0x0165, 0x00},
{0x0166, 0x0C},
{0x0167, 0xCF},
{0x0168, 0x01},
{0x0169, 0x36},
{0x016A, 0x08},
{0x016B, 0x6B},
{0x016C, 0x0C},
{0x016D, 0xD0},
{0x016E, 0x07},
{0x016F, 0x36},
{0x0170, 0x01},
{0x0171, 0x01},
{0x0174, 0x00},
{0x0175, 0x00},
{0x018C, 0x0A},
{0x018D, 0x0A},
/* Bank B Settings */
{0x0257, 0x00},
{0x025A, 0x08},
{0x025B, 0x8F},
{0x0260, 0x07},
{0x0261, 0x5E},
{0x0262, 0x0D},
{0x0263, 0x78},
{0x0264, 0x00},
{0x0265, 0x00},
{0x0266, 0x0C},
{0x0267, 0xCF},
{0x0268, 0x01},
{0x0269, 0x36},
{0x026A, 0x08},
{0x026B, 0x6B},
{0x026C, 0x0C},
{0x026D, 0xD0},
{0x026E, 0x07},
{0x026F, 0x36},
{0x0270, 0x01},
{0x0271, 0x01},
{0x0274, 0x00},
{0x0275, 0x00},
{0x028C, 0x0A},
{0x028D, 0x0A},
/* clock setting */
{0x0301, 0x05},
{0x0303, 0x01},
{0x0304, 0x03},
{0x0305, 0x03},
{0x0306, 0x00},
{0x0307, 0x57},
{0x0309, 0x0A},
{0x030B, 0x01},
{0x030C, 0x00},
{0x030D, 0x5A},
{0x455E, 0x00},
{0x471E, 0x4B},
{0x4767, 0x0F},
{0x4750, 0x14},
{0x4540, 0x00},
{0x47B4, 0x14},
{0x4713, 0x30},
{0x478B, 0x10},
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{0x478F, 0x10},
{0x4793, 0x10},
{0x4797, 0x0E},
{0x479B, 0x0E},
/* stream on */
{0x0100, 0x01},
{IMX219_TABLE_WAIT_MS, IMX219_WAIT_MS},
{IMX219_TABLE_END, 0x00}
};
static struct imx219_reg mode_1640x1232[] = {
/* software reset */
{0x0103, 0x01},
/* global settings */
{0x30EB, 0x05},
{0x30EB, 0x0C},
{0x300A, 0xFF},
{0x300B, 0xFF},
{0x30EB, 0x05},
{0x30EB, 0x09},
{0x0114, 0x03},
{0x0128, 0x00},
{0x012A, 0x18},
{0x012B, 0x00},
/* Bank A Settings */
{0x0157, 0x00},
{0x015A, 0x08},
{0x015B, 0x8F},
{0x0160, 0x0A},
{0x0161, 0x83},
{0x0162, 0x0D},
{0x0163, 0x78},
{0x0164, 0x00},
{0x0165, 0x00},
{0x0166, 0x0C},
{0x0167, 0xCF},
{0x0168, 0x00},
{0x0169, 0xB0},
{0x016A, 0x09},
{0x016B, 0x9F},
{0x016C, 0x06},
{0x016D, 0x68},
{0x016E, 0x04},
{0x016F, 0xD0},
{0x0170, 0x01},
{0x0171, 0x01},
{0x0174, 0x01},
{0x0175, 0x01},
{0x018C, 0x0A},
{0x018D, 0x0A},
/* Bank B Settings */
{0x0257, 0x00},
{0x025A, 0x08},
{0x025B, 0x8F},
{0x0260, 0x0A},
{0x0261, 0x83},
{0x0262, 0x0D},
{0x0263, 0x78},
{0x0264, 0x00},
{0x0265, 0x00},
{0x0266, 0x0C},
{0x0267, 0xCF},
{0x0268, 0x00},
{0x0269, 0xB0},
{0x026A, 0x09},
{0x026B, 0x9F},
{0x026C, 0x06},
{0x026D, 0x68},
{0x026E, 0x04},
{0x026F, 0xD0},
{0x0270, 0x01},
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```
{0x0271, 0x01},
{0x0274, 0x01},
{0x0275, 0x01},
{0x028C, 0x0A},
{0x028D, 0x0A},
/* clock setting */
{0x0301, 0x05},
{0x0303, 0x01},
{0x0304, 0x03},
{0x0305, 0x03},
{0x0306, 0x00},
{0x0307, 0x57},
{0x0309, 0x0A},
{0x030B, 0x01},
{0x030C, 0x00},
{0x030D, 0x5A},
{0x455E, 0x00},
{0x471E, 0x4B},
{0x4767, 0x0F},
{0x4750, 0x14},
{0x4540, 0x00},
{0x47B4, 0x14},
{0x4713, 0x30},
{0x478B, 0x10},
{0x478F, 0x10},
{0x4793, 0x10},
{0x4797, 0x0E},
{0x479B, 0x0E},
/* stream on */
{0x0100, 0x01},
{IMX219_TABLE_WAIT_MS, IMX219_WAIT_MS},
{IMX219_TABLE_END, 0x00}
};
```

```
static struct imx219_reg mode_1280x720[] = {
/* software reset */
{0x0103, 0x01},
/* global settings */
{0x30EB, 0x05},
{0x30EB, 0x0C},
{0x300A, 0xFF},
{0x300B, 0xFF},
{0x30EB, 0x05},
{0x30EB, 0x09},
{0x0114, 0x03},
{0x0128, 0x00},
{0x012A, 0x18},
{0x012B, 0x00},
/* Bank A Settings */
{0x0160, 0x02},
{0x0161, 0x8C},
{0x0162, 0x0D},
{0x0163, 0xE8},
{0x0164, 0x01},
{0x0165, 0x68},
{0x0166, 0x0B},
{0x0167, 0x67},
{0x0168, 0x02},
{0x0169, 0x00},
{0x016A, 0x07},
{0x016B, 0x9F},
{0x016C, 0x05},
{0x016D, 0x00},
{0x016E, 0x02},
{0x016F, 0xD0},
{0x0170, 0x01},
{0x0171, 0x01},
{0x0174, 0x03},
{0x0175, 0x03},
{0x018C, 0x0A},
```

```
{0x018D, 0x0A},
/* Bank B Settings */
{0x0260, 0x02},
{0x0261, 0x8C},
{0x0262, 0x0D},
{0x0263, 0xE8},
{0x0264, 0x01},
{0x0265, 0x68},
{0x0266, 0x0B},
{0x0267, 0x67},
{0x0268, 0x02},
{0x0269, 0x00},
{0x026A, 0x07},
{0x026B, 0x9F},
{0x026C, 0x05},
{0x026D, 0x00},
{0x026E, 0x02},
{0x026F, 0xD0},
{0x0270, 0x01},
{0x0271, 0x01},
{0x0274, 0x03},
{0x0275, 0x03},
{0x028C, 0x0A},
{0x028D, 0x0A},
/* clock setting */
{0x0301, 0x05},
{0x0303, 0x01},
{0x0304, 0x03},
{0x0305, 0x03},
{0x0306, 0x00},
{0x0307, 0x57},
{0x0309, 0x0A},
{0x030B, 0x01},
{0x030C, 0x00},
{0x030D, 0x5A},
{0x455E, 0x00},
{0x471E, 0x4B},
{0x4767, 0x0F},
{0x4750, 0x14},
{0x4540, 0x00},
{0x47B4, 0x14},
{0x4713, 0x30},
{0x478B, 0x10},
{0x478F, 0x10},
{0x4793, 0x10},
{0x4797, 0x0E},
{0x479B, 0x0E},
/* stream on */
{0x0100, 0x01},
{IMX219_TABLE_WAIT_MS, IMX219_WAIT_MS},
{IMX219_TABLE_END, 0x00}
};

enum {
    IMX219_MODE_3280x2460,
    IMX219_MODE_3280x1846,
    IMX219_MODE_1640x1232,
    IMX219_MODE_1280x720,
};

static struct imx219_reg *mode_table[] = {
    [IMX219_MODE_3280x2460] = mode_3280x2460,
    [IMX219_MODE_3280x1846] = mode_3280x1846,
    [IMX219_MODE_1640x1232] = mode_1640x1232,
    [IMX219_MODE_1280x720] = mode_1280x720,
};

#endif
```