

**PM5316**

**SPECTRA-4X155 DEVICE DRIVER**

**RELEASE NOTES**

**PROPRIETARY AND CONFIDENTIAL**

**RELEASED**

**ISSUE 2: DECEMBER, 2001**

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## Contacting PMC-Sierra

PMC-Sierra  
8555 Baxter Place  
Burnaby, BC Canada V5A 4V7

Tel: +1-604-415-6000  
Fax: +1-604-415-6200

Document Information: [document@pmc-sierra.com](mailto:document@pmc-sierra.com)  
Corporate Information: [info@pmc-sierra.com](mailto:info@pmc-sierra.com)  
Technical Support: [apps@pmc-sierra.com](mailto:apps@pmc-sierra.com)  
Web Site: <http://www.pmc-sierra.com>

## REVISION HISTORY

<b>Issue No.</b>	<b>Issue Date</b>	<b>Details of Change</b>
1	December 2000	Document created
2	December 2001	Updated for production release

## 1 ABOUT THIS RELEASE

This is the rel-1.0 release of the PM5316 (SPECTRA-4X155) device driver. Rel-1.0 is intended for use with PM5316 Revision A SPECTRA-4X155 devices. The rel-1.0 release is functionally complete and has been tested by PMC-Sierra as described in Section 4 below.

## 2 WHAT'S INCLUDED IN THIS RELEASE

This rel-1.0 release of the SPECTRA-4X155 driver includes the following files:

<b>Directory</b>	<b>Filename</b>	<b>File Version</b>
/src	spe4x155_api1.c	1.11
	spe4x155_api2.c	1.22
	spe4x155_hw.c	1.7
	spe4x155_isr.c	1.14
	spe4x155_prof.c	1.4
	spe4x155_rtos.c	1.5
	spe4x155_stat.c	1.12
	spe4x155_util.c	1.18
/inc	spe4x155_api.h	1.9
	spe4x155_defs.h	1.12
	spe4x155_err.h	1.5
	spe4x155_fns.h	1.9
	spe4x155_hw.h	1.6

Directory	Filename	File Version
/inc	spe4x155_rtos.h	1.5
	spe4x155_strs.h	1.14
	spe4x155_typs.h	1.6
/example	spe4x155_app.h	1.4
	spe4x155_debug.h	1.5
	spe4x155_app.c	1.10
	spe4x155_debug.c	1.6
/	Makefile	1.6
/	software.lic	n/a
/	spe4x155_relnotes_r2.pdf (this file)	n/a

**Notes:**

1. spe4x155\_app.c, spe4x155\_app.h contain example callback function implementation and example code.
2. spe4x155\_debug.c, spe4x155\_debug.h contain an example debugging task that reports register accesses to the device.

### 3 INSTALLATION

Please perform the following steps to install the PM5316 (SPECTRA-4X155) device driver in your system.

- Unzip the release zip file, and install the files and its directory structure under your local drive. Modify the directory variable names in the `Makefile`, if necessary, to reflect your actual driver and directory names.
- Modify `spe4x155_typs.h`, `spe4x155_hw.h` and `spe4x155_rtos.h` as per your system's characteristics. Also, modify/implement the hardware and RTOS dependent functions in `spe4x155_hw.c` and `spe4x155_rtos.c`. Please refer to Section 8 of the SPECTRA-4x155 driver manual (PMC-2001693, Issue 2), Porting the SPECTRA-4x155 driver, for detailed instructions on porting the driver to your specific environment.
- Set up compile switches or other environment variables in the `Makefile`. Please refer to the `Makefile` for a detailed description of the available compile switches.
- Compile the source files and build the SPECTRA-4x155 driver using your make utility.
- Link the SPECTRA-4x155 driver to your application code.

### 4 TESTING STATUS OF THIS RELEASE

All SPECTRA-4X155 device driver Application Programming Interface (API) functions have been tested in-house. Testing was performed using the PM5316 on a proprietary PMC-Sierra, Inc. validation platform running VxWorks™ RTOS. The following driver functionality was simulated and verified at the register level:

- `spe4x155RINGLineAISControl()`
- `spe4x155RINGLineRDIControl()`
- `spe4x155IOMapSlot()`
- Receive path overhead ILLPTR event
- Transmit path overhead pointer events (ESE, REI, INVNDF, NPJI, PPJI, ILLJREQ, and ILLPTR)

As of the publication date of this document, there are no known bugs in this release. However, the customer is advised to consult our web site (<http://www.pmc-sierra.com>) for any relevant errata that may have been issued subsequent to the publication of this document.

## 5 WHAT'S NEW IN THIS RELEASE?

### **rel-1.0: Production release for the PM5316 device driver.**

The following bugs have been fixed:

- API function `spe4x155LOHWriteK1K2` (in file `spe4x155_api2.c`) does not transmit the K1 and K2 values programmed in reg 0x186, 0x187
- API function `spe4x155TPOHInsertPAIS` (in file `spe4x155_api2.c`) does not insert PATH AIS in the Tx stream
- API function `spe4x155SOHWriteZ0` (in file `spe4x155_api2.c`) does not insert Z0 byte in the Tx stream

The following constant definition modifications have been made in file `spe4x155_defs.h`:

- 0157H RASE Receive Z1/S1 (`SPE4X155_REG_BASE_RX_Z1_S1`): the upper four bits of the register were marked reserved.
- 113FH Alarm Override: this register was removed.
- 1186H TTPS Path Transmit Control (`SPE4X155_REG_TTPS_PATH_TX_CTRL`): bit 1 was marked reserved.