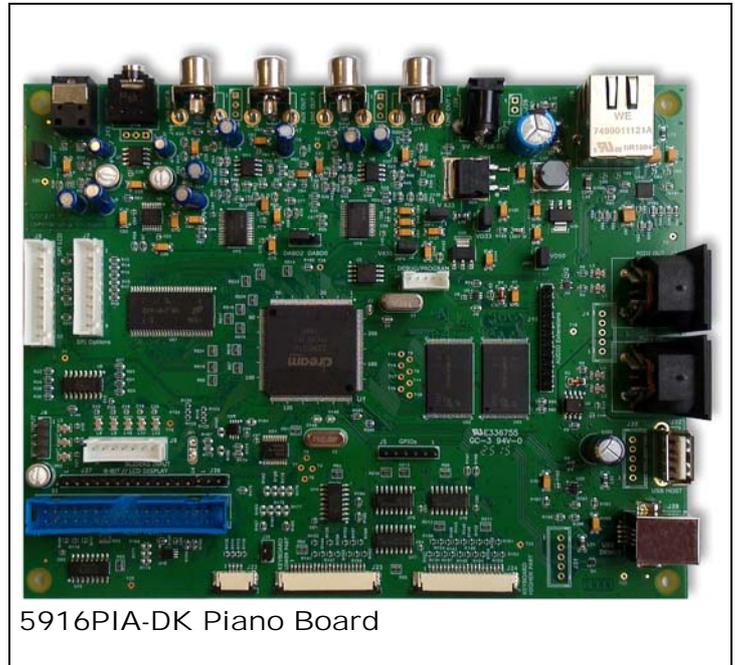


# 5916PIA-C-PDK Product Development Kit

5916PIA-C-PDK is a Product Development Kit for high range digital piano applications, based the flagship of DREAM SAM5000 series IC's, the SAM5916. It includes an evaluation/development board 5916PIA-DK, an example panel board (5000PIFP-DK), the development software (SamVS-C) with complete firmware example, which can be used as it is or adapted to requested specifications, and MIDI Control tools.

5916PIA-DK example firmware offers the following main features:

- 30 sounds selectable from panel (110MByte for 17 HQ sounds)
- Full GM sound bank 14MByte
- 256 voices max with effects, 64 parts
- 3-contact keyed scanning
- 5 Reverb+ 6 Modulation effects
- 5 Dynamic curves
- 3 Demo songs
- Metronome (8 signatures + 10 drum rhythms) with volume
- 8-track, 4-song sequencer
- Registrations: 18 Factory + 18 User
- 3 pedals (4-level damper)
- 7 Temperaments with Root note setting
- Tune, Transpose
- Dual, Split, 4-Hands modes
- USB HOST
  - (Play SMF0/1 & MP3, Save, Load SMF0)
  - Firmware and sound bank load & update from bootloader
- USB MIDI (to host)
- Production Test



5916PIA-DK board can be run in three modes

**Bootloader Mode:**

In this safe fail mode you can load main firmware, in serial 8Mbit Nor Flash. You can also load demo, rhythms, sound banks, and more in 16Gbit NAND Flash memory.

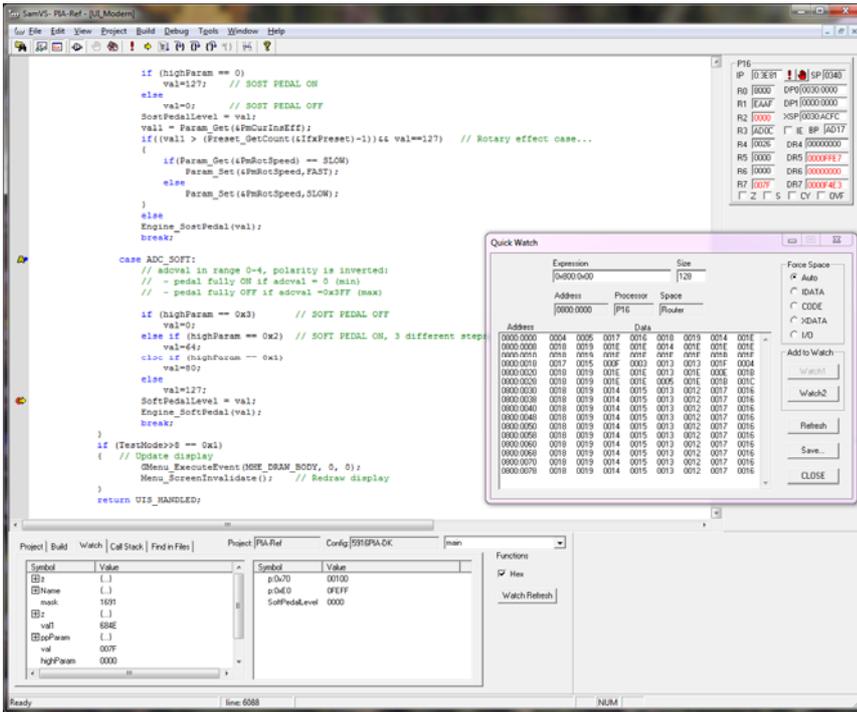
**Stand Alone Mode:**

Connect a standard piano keyboard and the 5000PIFP-DK Front panel to the 5916PIA-DK board to get the Dream example piano product.

**Debug Mode:**

Create your own piano product from the Dream example. Connect the 5916PIA-DK board to PC with the 5000DBG-IF interface. Edit and debug your code with SamVS-C software.





### SamVS-C

SAMVS-C is an integrated development environment with C-Compiler, with following new features:

- Project oriented (multi file compilation)
- C-/Assembler source level debugging with go, step into, step out, run to cursor, run to breakpoint etc.
- Programming errors can be easily found by double click on compiler output messages
- Library based/ DREAM provide ready to use libraries like MIDI and Effects
- A system library allows complete access to all low level IC pottions like I/O ports

### 5916PIA Control

5916PIA Control is a MIDI controller made of graphical tools for real time edition of parameters (Effects, PEQ, Velocity curves, Temperaments, Program definition,...) and screen captures.

