TDA9935HW:

Dual 14-Bits DAC, Up to 160 MHz, 2x Interpolating

Product Feature Sheet

Features

- Dual 14-bit resolution
- Spurious-Free Dynamic Range (SFDR) = 80 dBc at 2.5 MHz
- Input data rate up to 80 MHz
- 2 x interpolation filter
- Output data rate up to 160 MHz
- Single 3.3 V power supply
- Low noise capacitor-free integrated Phase-Locked Loup (PLL)
- Low power dissipation
- HTQFP80 package
- Ambient temperature from -40 °C to +85 °C

Typical Applications

- Broadband wireless systems
- Digital radio links
- Cellular base stations
- Instrumentation
- Cable modem
- Cable Modem Termination System (CMTS)/Data Over Cable Service Interface Specification (DOCSIS)

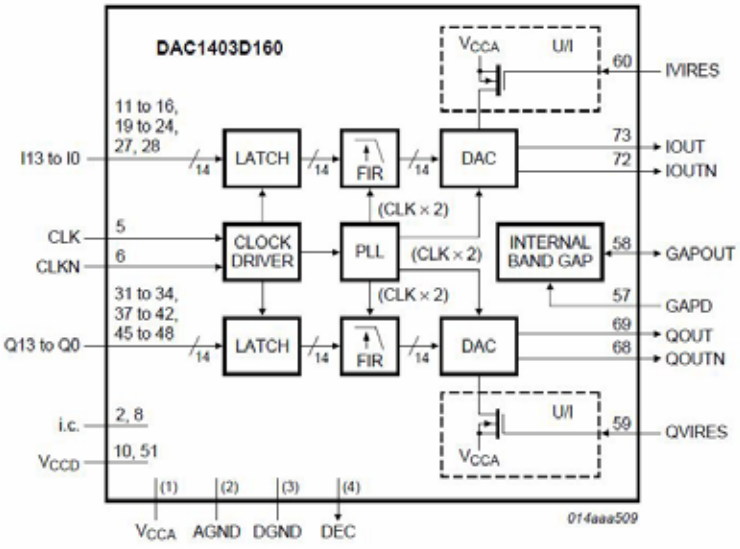
Device Overview

The TDA9935HW is optimized to reduce architecture complexity and overall system cost. It leads to dynamic performance in multi-carrier support, because of its direct IF conversion capabilities. With an internal sampling rate of up to 160 MHz, DAC1403D160 is an extremely competitive solution for broadband wireless systems transmitters, as well as a wide range of applications.

Absolute Maximum Ratings:

Digital Supply Voltage	-0.3 V to +3.9 V
Analog Supply Voltage	-0.3 V to +3.9 V
Supply Voltage Difference	-150 mV to +150 mV
Input Voltage (pins Qn and In referenced to DGND)	-0.3 V to V_{CCD} +0.3 V
Input Voltage (pins IVIRES, QVIRES and GAPD referenced to AGND)	-0.3 V to V_{CCA} +0.3 V
Input Voltage (pins CLK and CLKN referenced to AGND)	-0.3 V to V_{CCA} +0.3 V
Output Voltage (IOUT, IOUTN, QOUT and QOUTN referenced to AGND)	-0.3 V to V_{CCA} +0.3 V
Storage Temperature	-55 °C to +150 °C
Ambient Temperature	-45 °C to +85 °C
Junction Temperature	125 °C

Block Diagram



(1) Pins 1, 3, 61, 65, 76 and 80.

(2) Pins 4, 7, 62, 64, 66, 67, 70, 71, 74, 75, 77 and 79.

(3) Pins 9, 17, 25, 29, 30, 35, 44, 49, 50, 52, 53, 54, 55 and 56.

(4) Pins 18, 26, 36, 43, 63 and 78.

Information subject to change without notice