

# Quick Start

## DEMO AD0801 Demonstration Board for ADC0801S040

Rev. 0.1 — 24 July 2008

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### Document information

Info	Content
<b>Keywords</b>	DEMO AD0801, BSX0046-1, Demonstration board, ADC, Converter, ADC0801S040
<b>Abstract</b>	This document describes how to use the demonstration board DEMO AD0801 for the analog-to-digital converter ADC0801S040.
<b>Overview</b>	



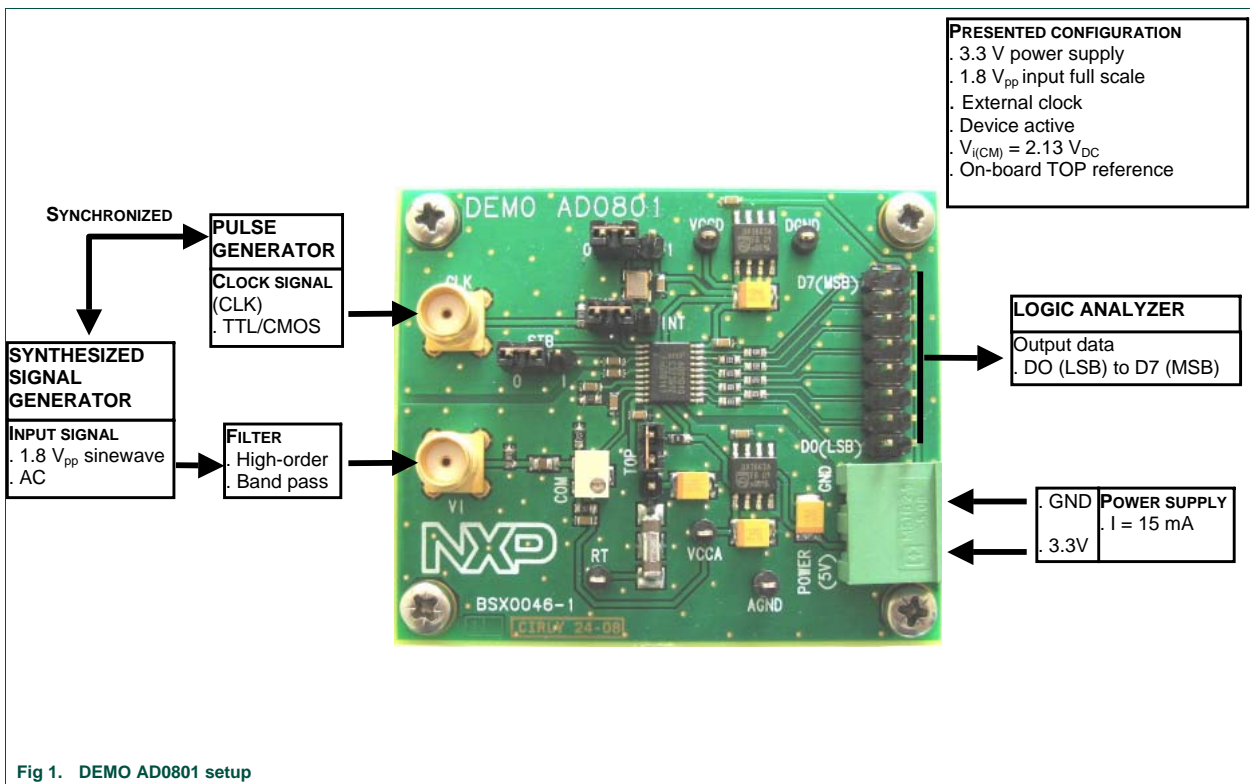
### Revision history

Rev	Date	Description
0.1	20080624	Initial version.

## 1. Quick start

### 1.1 Setup overview

Figure Fig 1 presents the connections to measure DEMO AD0801.



## 1.2 Power supply

The board is powered with a single 3.3 V<sub>DC</sub> power supply. Two power supply regulators are used to supply all the 3.3V circuitry on the board.

**Table 1. General power supply**

Name	Function	View
J3	Green connector – Power supply 3.3 V <sub>DC</sub> / 15 mA.	
TP1	VCCD test point – Digital power supply	
TP2	DGND test point – Digital ground	
TP3	VCCA test point – Analog power supply	
TP4	AGND test point – Analogground	

## 1.3 DC voltage adjustments

**Table 2. DC voltage adjustments**

Name	Function	View
P1	COM trimmer – Input signal DC offset adjustment	
TP5	RT connector – External TOP reference adjustment (typ 3.3V V)	
ST4	TOP switch – Selection between external and on-board TOP reference	

## 1.4 Input signals (IN, CLK)







To ensure a good evaluation of the device, the input signal and the input clock must be synchronized together.

Moreover, the input frequency ( $F_i$ , MHz) and the clock frequency ( $F_{clk}$ , Mps) should follow the formula:

$$\frac{F_i}{F_{clk}} = \frac{M}{N}$$

,where M is an odd number of period and N is the number of samples.

**Table 3. Input signals**

Name	Function	View
J2	VI connector – Analog input signal (50Ω matching)	
J2	CLK connector – Clock input signal (50Ω matching)	
ST2	Switch – Selection between external or on-board clock	
	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  External clock         </div> <div style="text-align: center;">  On-board clock         </div> </div>	
ST1	EN switch – On-board oscillator activation	
	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  Oscillator OFF         </div> <div style="text-align: center;">  Oscillator ON         </div> </div>	
ST3	STB switch – Selection between stand-by or active device	
	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  Device active         </div> <div style="text-align: center;">  Stand-by         </div> </div>	

## 1.5 Output signals (D0 to D7)

**Table 4. Output signals**

Name	Function	View
J4	Array connector – ADC digital output (D0 to D7)	

## 2. Example

### 2.1 Setup example

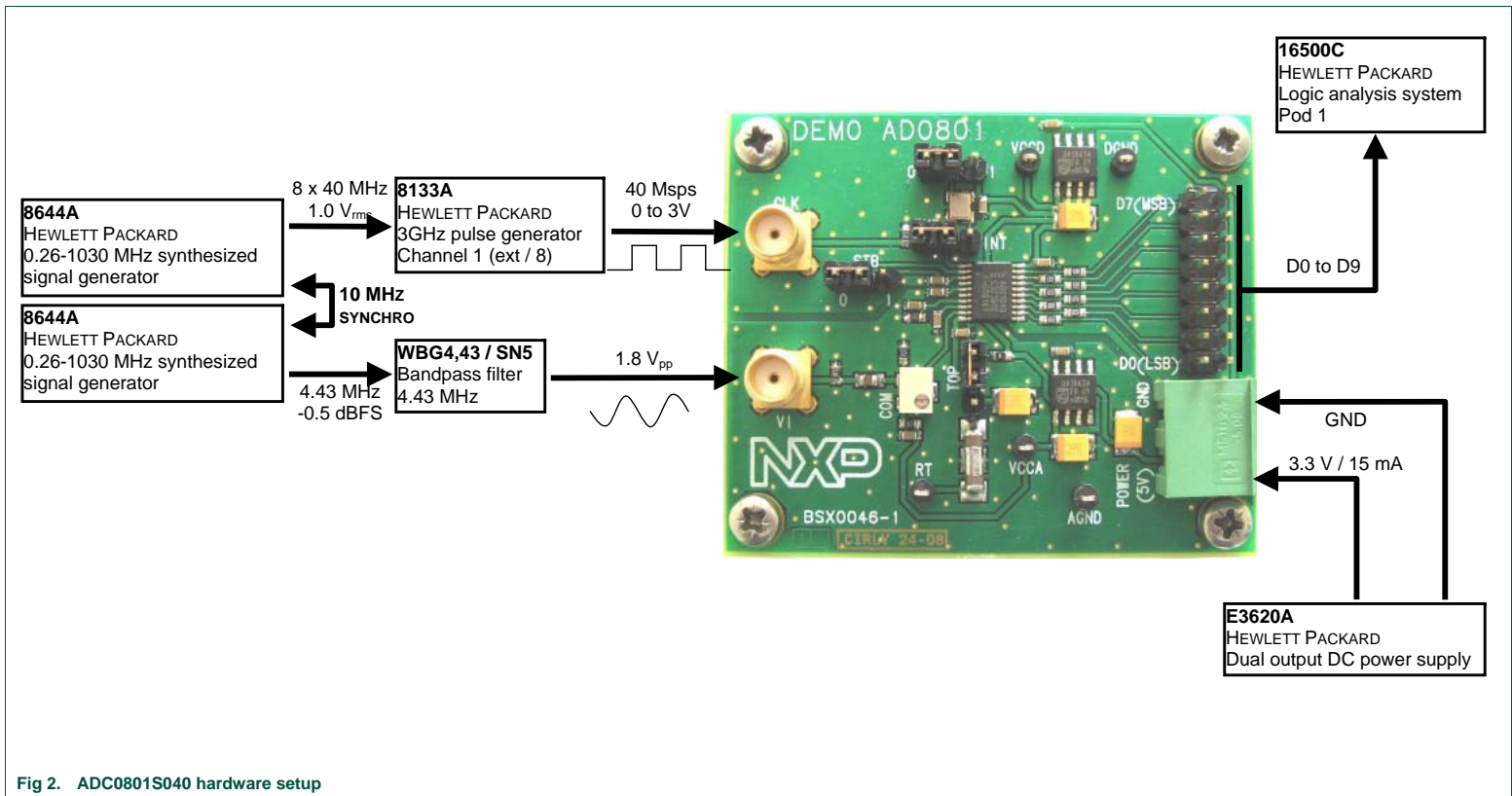


Fig 2. ADC0801S040 hardware setup