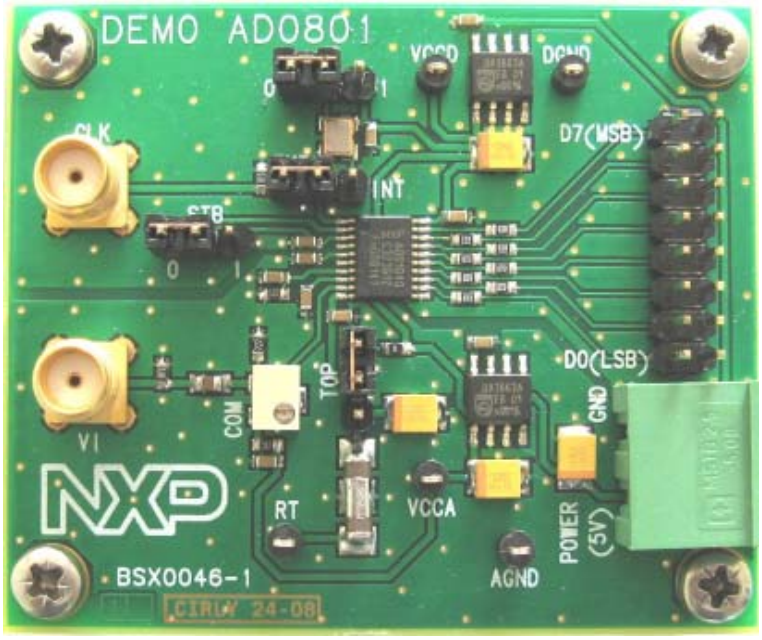
Quick Start

DEMO AD0801 Demonstration Board for ADC0801S040

Rev. 0.1 — 24 July 2008 **Quick Start**

Document information

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

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.

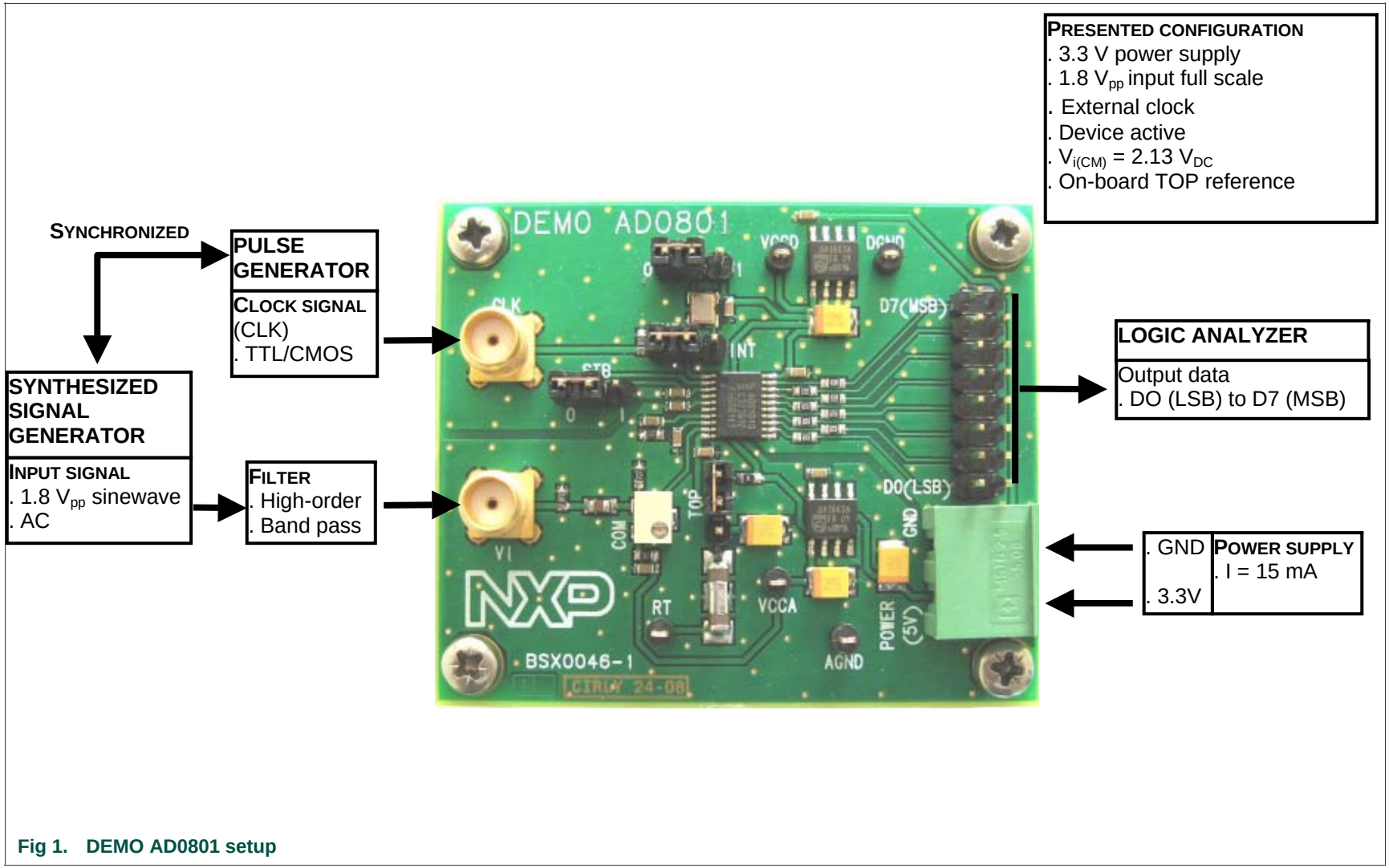
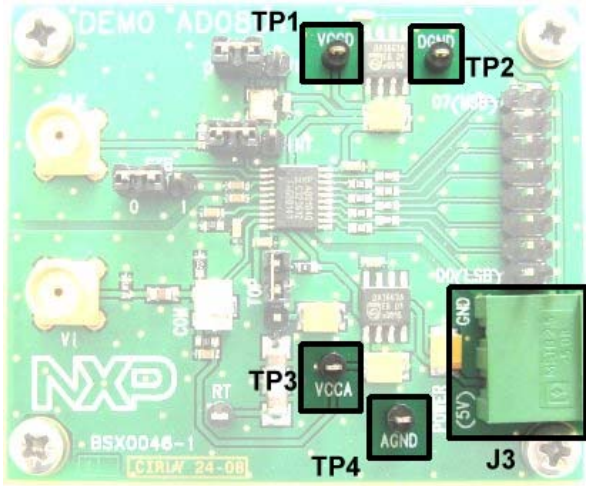


Fig 1. DEMO AD0801 setup

1.2 Power supply

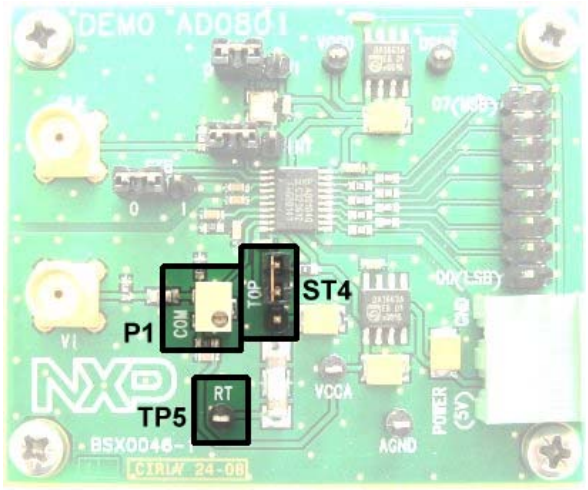
The board is powered with a single 3.3 V_{DC} power supply. Two power supply regulators are used to supply all the 3.3V circuitry on the board.

Table 1. General power supply

Name	Function	View
J3	Green connector – Power supply 3.3 V_{DC} / 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)

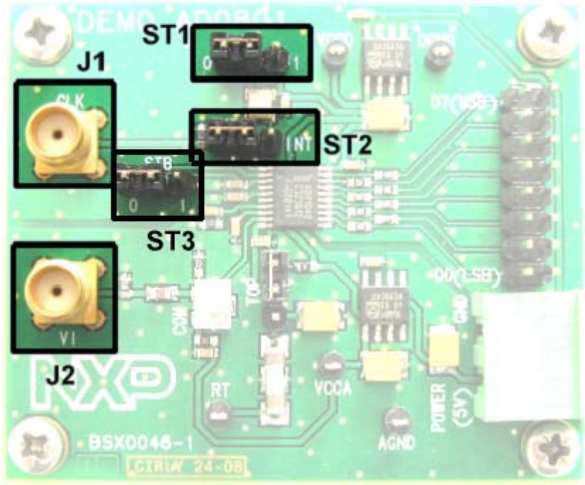
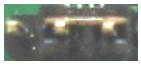
To ensure a good evaluation of the device, the input signal and the input clock must be synchronized together.

Moreover, the input frequency (Fi, MHz) and the clock frequency (Fclk, Msps) should follow the formula:

$$\frac{Fi}{Fclk} = \frac{M}{N}$$

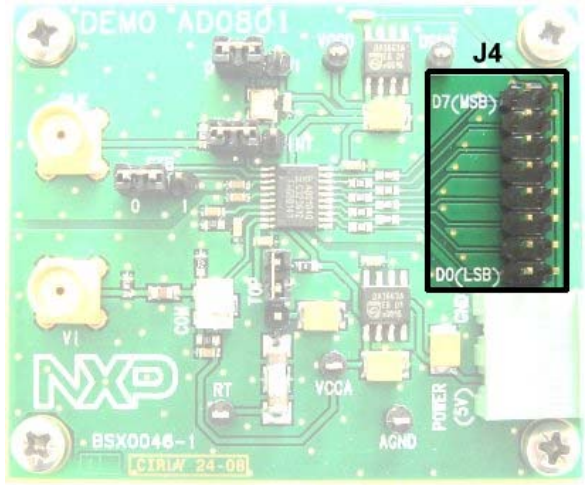
,where M is an odd number of period and N is the number of samples.

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	
	 External clock	 On-board clock
ST1	EN switch – On-board oscillator activation	
	 Oscillator OFF	 Oscillator ON
ST3	STB switch – Selection between stand-by or active device	
	 Device active	 Stand-by

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

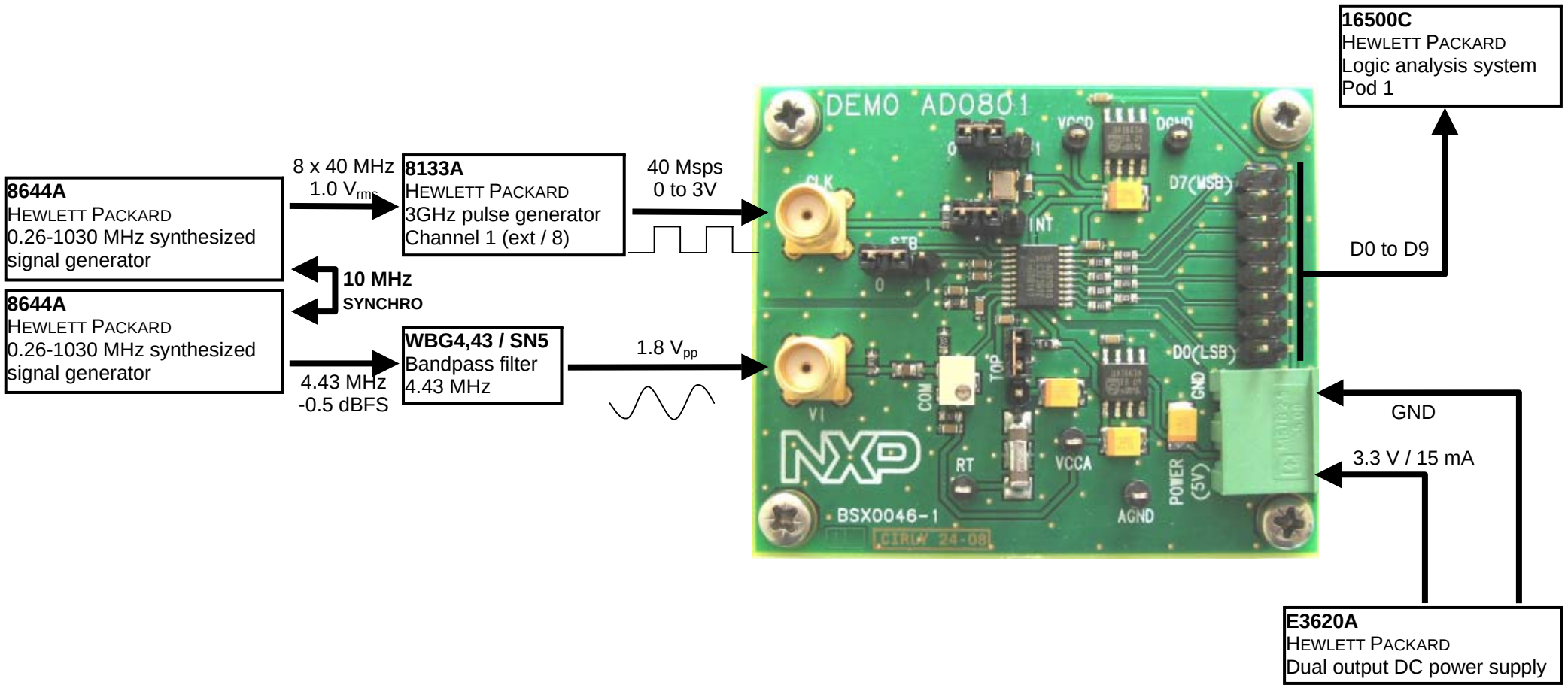


Fig 2. ADC0801S040 hardware setup