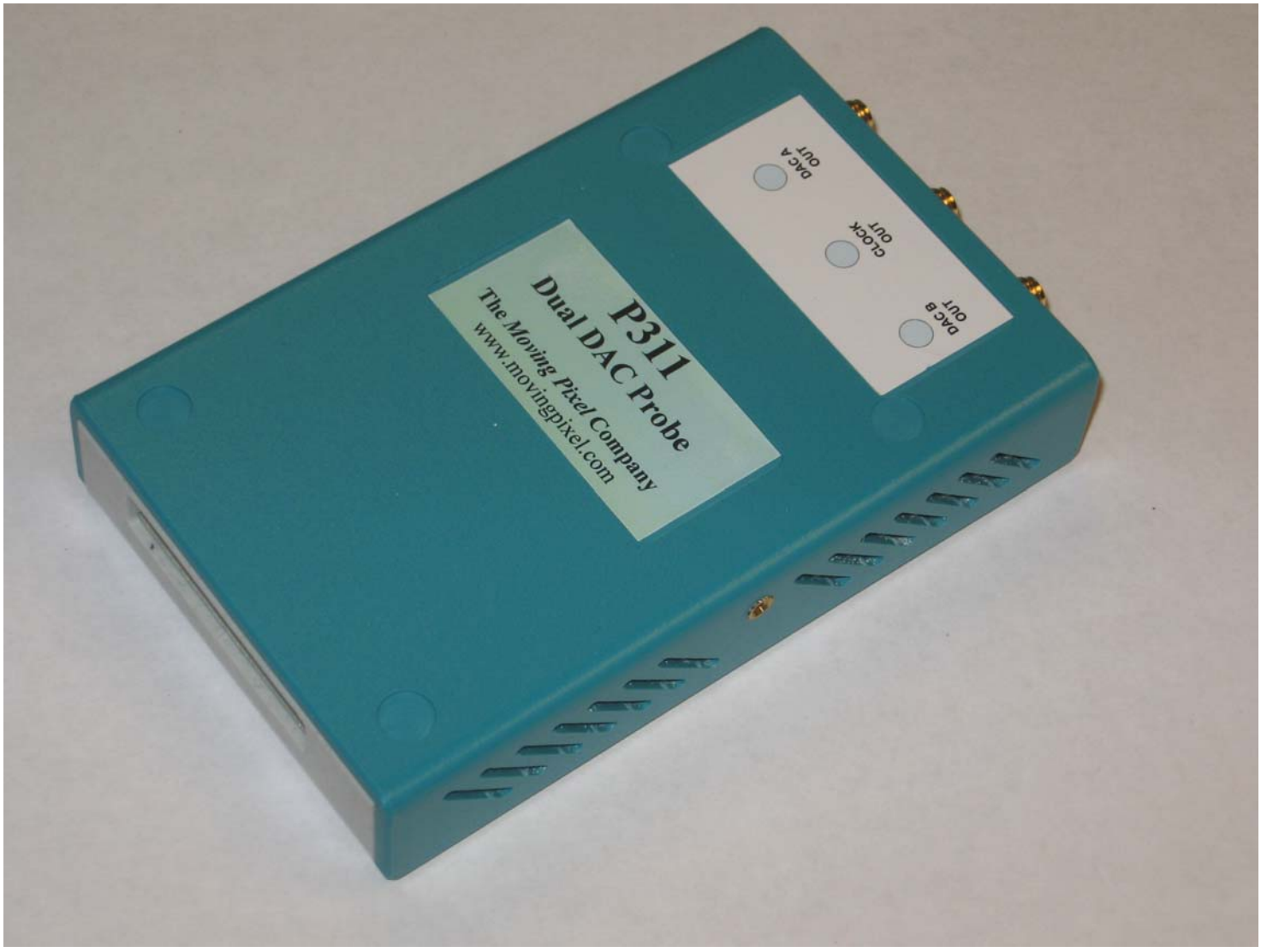
# P311
## Data Sheet and User Manual

PG3A Pattern Generator
P311 – Dual Digital – Analog Converter (DAC) Probe
August 2008 - Rev 1.2



**PG3A Pattern Generator**
**P311 – Dual DAC probe**

## 1.0 General:

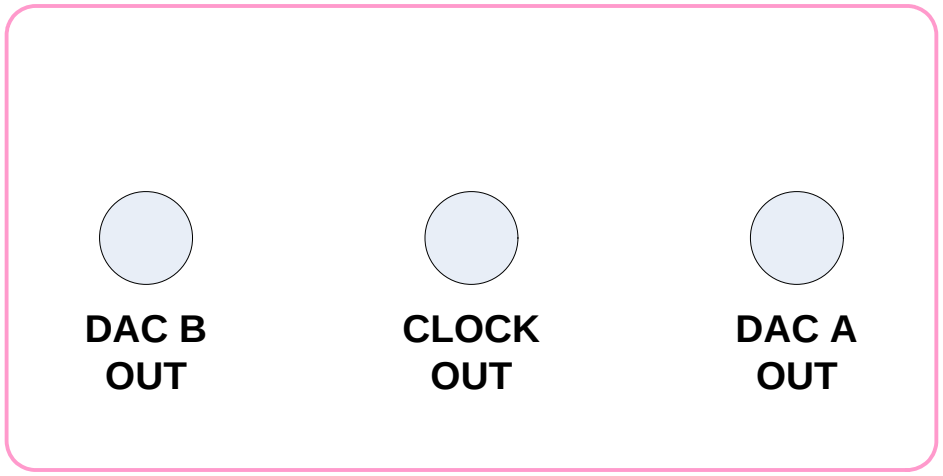
The P311 probe features two analog DAC outputs. These can be used simultaneously as two 8-bit DACs or as a single 14-bit DAC. A sample rate of up to 300 MSPS is supported. Analog reconstruction filters are provided for each output. The filters are each switchable between 4 different bandwidths. In addition a CLK output is provided for triggering purposes. Bipolar and Unipolar operation is supported.

## 2.0 Requirements:

The P311 probe works with all current PG3AMod and PG3ACab models. The instrument firmware must be V1.2 or higher. The PGApp software must be V2.0.010 or higher. Updated versions of the instrument firmware and the PGApp software can be freely downloaded from the PG3A website: www.movingpixel.com/PG3A.html.

## 3.0 Connections

The connections to the probe are shown on a label on the probe.
This is a view looking down on the top of the probe of the connectors as they exit the front of the probe.




**SMA Connectors**

| | |
|---|---|
| DAC A OUT | DAC A analog output, 50 Ω |
| DAC B OUT | DAC A analog output, 50 Ω |
| CLOCK OUT | Sample Clock output, 50 Ω |

## 4.0 Electrical specification for the P311 probe

| Characteristic | Specification | Notes |
|---|---|---|
| Maximum sample rate | 300 MSPS | |
| | | |
| DAC output unipolar levels | 0V to 1 V | 50 Ω load |
| DAC output bipolar levels | -0.5 V to +0.5 V | 50 Ω load |
| DAC output impedance | 50 Ω | nominal |
| | | |
| Reconstruction Filters | 300 kHz, 3 MHz, 30 MHz, 100 MHz | nominal –3dB points |
| | | |
| Clock output | Vlo = 740 mV<br>Vhi = 1140 mV | 50 Ω load, levels approximate |
| Clock output impedance | 50 Ω | nominal |
| | | |
| Weight | ~150 grams | approximate |
| Overall Dimensions | Length: 130 mm, Width 80 mm, Height: 27 mm | approximate |