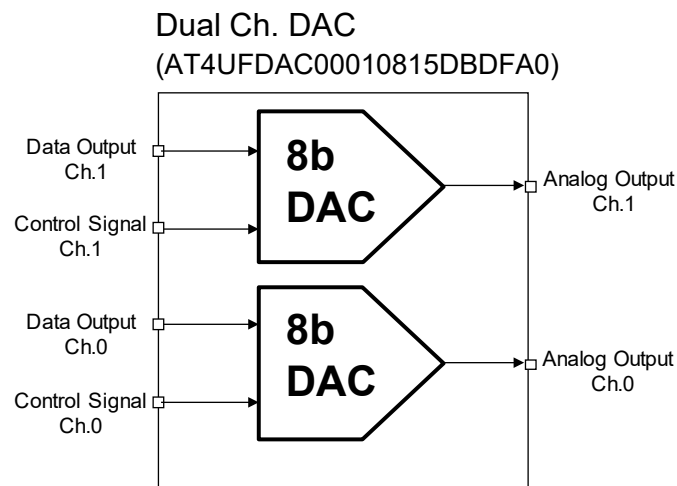


## Data Converter Datasheet

# Dual Channel 8b D/A Converter

### Overview

A Dual Channel 8b D/A converter is provided with TSMC T40ULP+ESF3 wafer process. It is voltage output D/A Converter, with supporting the wide supply range from 1.62 to 3.63V. It was employed the novel architecture. It enhances the linearity and reduces the current consumption.



### Technology

- TSMC T40ULP+ESF3
- Available metallization technologies :7lm4x1z1u, DACs use only 4x1z metals.

### Key Features

- 8b resolution
- Dual Channel
- Ultra low Current consumption.
- 30us conversion time with 1pF capacitive load
- Excellent Linearity
- suitable for the reference voltage generator for the comparators

### Electrical characteristics

Item	Unit	Spec			Remark
		MIN	TYP	MAX	
Power Supply for VCCA	V	1.62	-	3.63	
Temperature	degree-C	-40	25	125	
Output Range	V	0	-	AVCC	
Conversion time	us	-	-	30	1pF load. no resistive load
Integral Non-Linearity (INL)	LSB	-1	-	+1	VCCA > 2.7V
Differential Non-Linearity (DNL)	LSB	-1	-	+1	
Absolute Error	LSB	-2	-	+2	
Current consumption	uA	-	2.5	4.0	
Stand-by Current	uA	-	0.04	0.6	
Area	mm2	0.018			size on Si

*\*This IP is contract design IP. Please contact for detail.*