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Technical Information

TechnoSim DA100113- 01

MassCare Part Number MC-06471T

A pin-compatible, functionally equivalent replacement for Digital to Analogue Converters used in Singer-Link and Singer-Link-Miles Flight Simulators. Equivalent to Singer-Link Part Number 9000113-01. Can also be used as substitute for MN90116, 2D046, HS34627, MN9695, MN3203, MN370, AD1007160-001, AD2698.

The response of the device is as follows:

Input Code	Output Voltage
0000 _{HEX}	+9.9951VDC
7FFF _{HEX}	0.0000VDC
8000 _{HEX}	-0.0049VDC
FFFF _{HEX}	-10.0000VDC

The specifications for the device are shown on the following page

SPECIFICATION:

- 1 Digital-to-Analogue Converter with internal voltage reference.
- 2 18-pin package. For dimensions see drawing below
- 3 Temperature Range:
 - Operating Range: -25°C to +80°C
 - Storage Range: -55°C to +130°C
4. Performance Characteristics:
 - 4.1 Resolution 12-Bits
 - 4.2 Input Coding: Complimentary Offset Binary
 - 4.3 Logic Levels: "1" Input Level: 2.0VDC Min., 5.5VDC Max.
"0" Input Level: 0.0VDC Min., 0.8VDC Max.
 - 4.4 Linearity Error +/- ¼LSB (typ); +/- ½LSB (max).
 - 4.5 Offset Error: +/- 0.05%FSR (typ); +/- 0.15%FSR (max).
 - 4.6 Power Supply Sensitivity: 0.002% FSR for 10% Voltage swing
 - 4.7 Output Current: 5mA (max).
 - 4.8 Dissipation: 300mW.
 - 4.9 Output Short Circuit Tolerance: Indefinite to Common
 - 4.10 Settling Time: To 0.01% of FSR for FSR change: 5uSec Max.
5. Pin Connections:

- Pin 1 - Bit 1 (MSB)
- Pin 2 - Bit 2
- Pin 3 - Bit 3
- Pin 4 - Bit 4
- Pin 5 - Bit 5
- Pin 6 - Bit 6
- Pin 7 - Gain Adjust
- Pin 8 - Offset Adjust
- Pin 9 - +15VDC Supply
- Pin 10 - -15VDC Supply
- Pin 11 - Ground
- Pin 12 - V Out
- Pin 13 - BIT 7
- Pin 14 - BIT 8
- Pin 15 - BIT 9
- Pin 16 - BIT 10
- Pin 17 - BIT 11
- Pin 18 - BIT 12 (LSB)

