



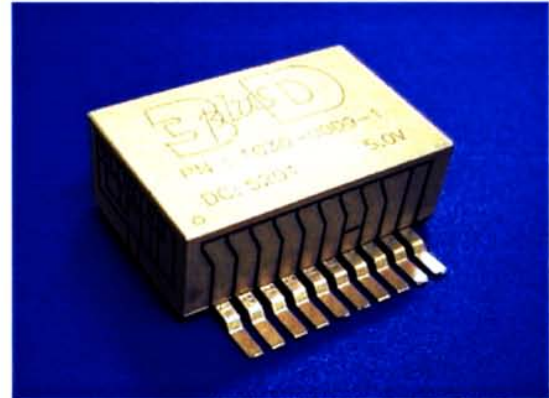
Hi-Rel DC/DC CONVERTER

Single output, 4W Power

PMDD04028SXXX

Features

- 28VDC input
- Output Voltage : 3,3V – 5V – 12V
- Undervoltage lockout
- Inhibition function
- Synchronisation function
- Adjustable output
- Output regulation 0 to 100% load
- Permanent output current limitation
- Galvanic isolation 500VDC
- Integrated LC filter
- SMD mounting



- **ESA/CNES Qualified for space applications**
- Radiation tolerance : 50krad
- Ionising dose and heavy ions characterised

General Description

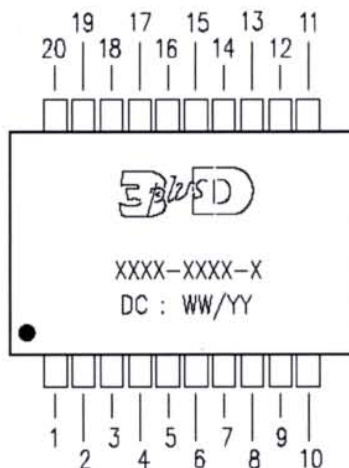
The 3D Converter is a high performance, light weight and low profile 4W SMD DC/DC Converter designed for space applications.

These modules use a high frequency fixed switching technic at 330kHz providing excellent reliability, low noise characteristics, high power density and a low profile package.

All the modules are designed with LC network filters to minimize reflected input current ripple and output voltage ripple. They include a soft-start, a permanent output current limitation and an inhibit function to ensure efficient module protection.

The DC/DC converter is packaged through 3D PLUS MCM-V technology, ESA/CNES qualified for space applications.

Pin assignment



1	VR	11	SENS
2	IC	12	TRIM
3	VO	13	VS_ERR
4	VO	14	T2_1
5	GSS_ERR	15	ON/OFF
6	GO	16	S10
7	VI	17	SYNC
8	COMP	18	GI
9	SWITCH	19	GI
10	BASE	20	SENS



Hi-Rel DC/DC CONVERTER

Single output, 4W Power
PMDD04028SXXX

Technical features

General Specification :

Isolation voltage input/output :	500VDC
Switching frequency :	330kHz fixed
Synchronisation range :	330kHz to 400kHz
Cube material :	Epoxy resin Ni+Au plated
Output programming :	Laser Etching
Weight :	20g
Start up :	Soft start
UVLO threshold :	19V
Output protection :	Permanent current limitation
Inhibition function :	Low level logic open collector
Operating temperature range :	-40°C to +85°C
MTBF :	NA

Input Specification :

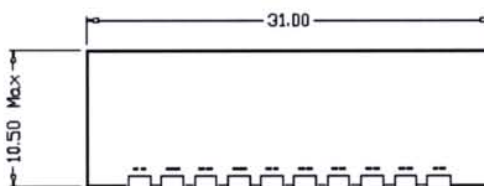
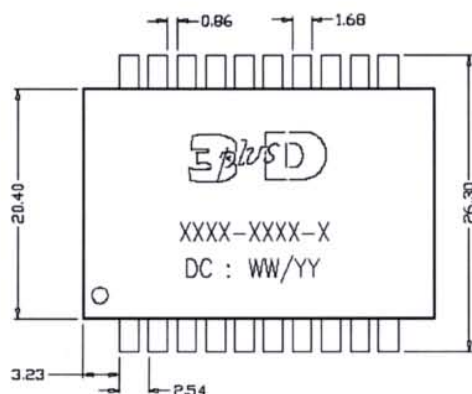
Nominal input voltage :	28V
Reflected ripple current :	60mA _{pp} max

Output Specification :

Set point accuracy :	± 2% max at 75% load
Line regulation :	± 1%
Load regulation :	± 1% max, 0% to full load
Ripple output voltage :	25mV _{pp} for 5V0
Efficiency :	70% min for 5V0

Input voltage range	Product ending code XXX	Nom. output voltage	Max. output current	Output voltage trim range
22V to 37V	3V3	3.3V	1.2A	2.5V to 4V
	005	5.0V	0.8A	3.5V to 6V
	012	12.0V	0.33A	8.5V to 14V

Mechanical drawing



Main Sales Office

FRANCE	3D PLUS 641, rue Hélène Boucher ZI. 78532 BUC Cedex	Tel : 33 (0)1 30 83 26 50	Fax : 33 (0)1 39 56 25 89	Web : www.3d-plus.com e-mail : sales@3d-plus.com
North America	3 D PLUS USA, Inc. 2570 Eldorado Parkway, Suite 150 McKinney, TX 75070	Tel : (1) 214 733-8505	Tel : (1) 214733-8506	e-mail : jquinn@3d-plususa.com