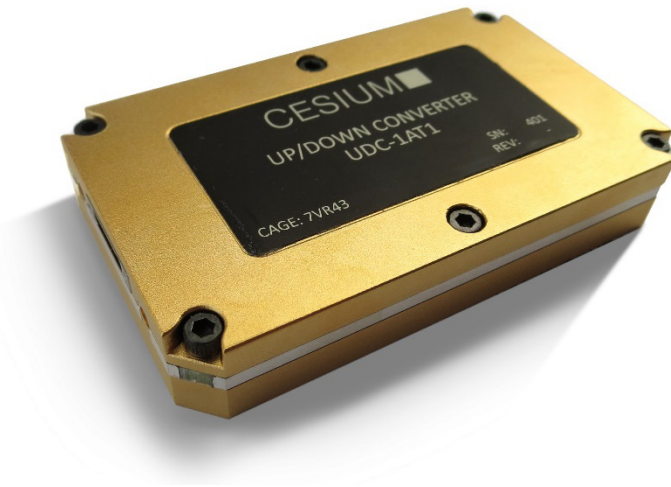


## UP/ DOWN CONVERTER

UDC-1AT1



A wideband up/down converter designed to operate in Low Earth Orbit (LEO) environments with an on-board frequency synthesizer and low power consumption all in a credit-card-sized footprint. The module supports time division up- and down-conversion with 1GHz of instantaneous bandwidth and offers the ability to combine IF channels for further flexibility.

The Cesium UDC-1AT1 includes a high-precision clock for LO generation; the module can provide this clock as a reference for other modules, or lock to an external system reference.

Use as a stand-alone up/down converter or combine with other Cesium modules for a complete Ka-band communication solution.

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## 1. RF SPECIFICATIONS:

RF Range:	24.5 to 29.5 GHz
IF Range:	4.4 to 5.5 GHz
Max IBW:	1 GHz
Small Signal Gain:	25 dB
Dynamic Range:	30 dB
Up-Conversion Channel	
Max Output RF Power:	>5 dBm
Noise Figure:	<10 dB
Down-Conversion Channel	
Max Output IF Power:	-10 dBm
Noise Figure:	<5 dB

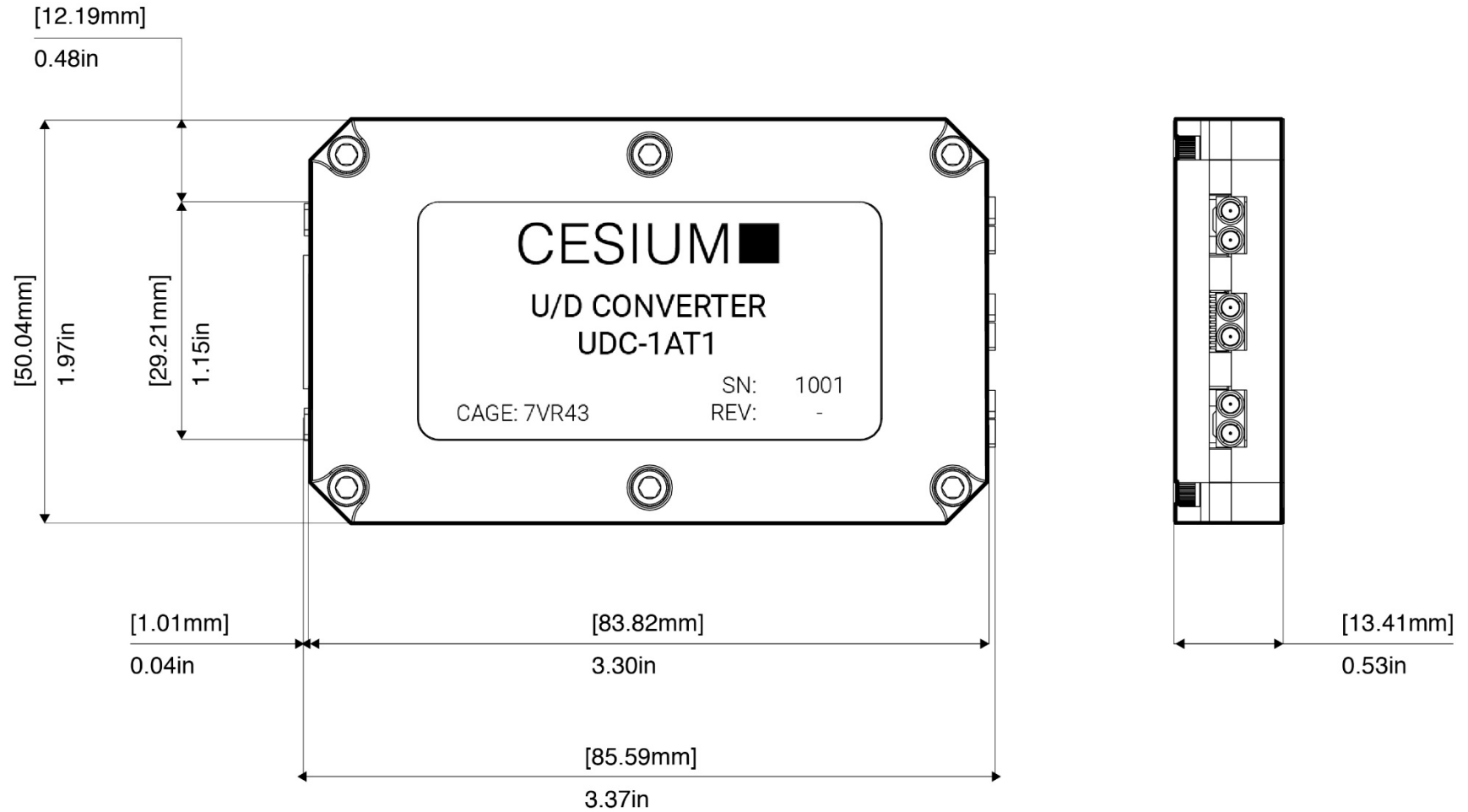
## 2. KEY FEATURES:

- Compact 50mm x 84mm x 13mm packaged form-factor
- Wide conversion range
- On-board synthesizer
- <100ppb built-in time reference
- Reference input/output ports
- Suitable for both military and commercial applications on LEO satellites and airborne platforms
- Digital interface: RS-485
- Designed and tested for LEO radiation
- Thermal pillars bring heat to flat surface

## 3. PRODUCT SPECIFICATIONS:

DC Input Voltage:	7 to 15 Vdc
Baseplate Operating Temperature:	-24 to +61 °C
Mass:	100 g

### 4. MECHANICAL VIEW:



# CESIUM

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