



RBL (Remove Before Launch)

MICROSAT SIZED RBL FOR OVERENGINEERED APPLICATIONS



SUMMARY

The RBL (Remove Before Launch) is a mechanically simple, minimalistic and very solid, CNC machined, sturdy and thick device with very few failure points. They are mechanically actuated by loaded compression springs and have contacts made of solid Beryllium Copper alloy 2mm thick for extreme redundancy. Contact between plates has an area of XXXXX mm² and a hard casing made of PEEK.

FEATURES

- Extremely simple and reliable design
- Beryllium Copper 2mm thick plates actuated by compression springs
- Very low part count
- Sturdy, thick and over-engineered design that works every time, all the time
- Very high electrical and thermal loads supported
- Mechanically minimalistic, compression spring operated
- Custom configurable choice of mechanical mating and screws
- Designed for MicroSat (>50kg) applications, missions and requirements.
- Manufactured according to NASA and ESA space standards and materials.
- Repetitive functional and performance tests provided with documentation.

PERFORMANCE AND PRODUCT PROPERTIES

- **Weight (w/o RBL key):** 101 grams
- **Conductive surface contact area:** 200 mm²
- **Dimensions (LxWxH):** 53.10mm x 49.00mm x 25.4mm
- **Interface Flatness:** +/- 0.01mm
- **Operating Temperature:** -100C to +200C
- **Power rating:**
 - 0V to 200V
 - 0A to 100A
- **Connector:** Harwin M80-5000000M1-06-PM1-00-000
- **Interface:** Mates with
 - Harwin M80-263F106-00-00
 - Harwin M80-263F206-00-00
 - Harwin M80-263F306-00-00

MATERIALS

- Only TML and CVCM < 1% materials used, NASA and ESA approved.
- Contact material: BeCu CNS 17200 Y1/2
- Casing: PEEK (customizable color, normally cream color)
- Compression spring: SS 316

TESTING

All antennas are provided with tests reports regarding:

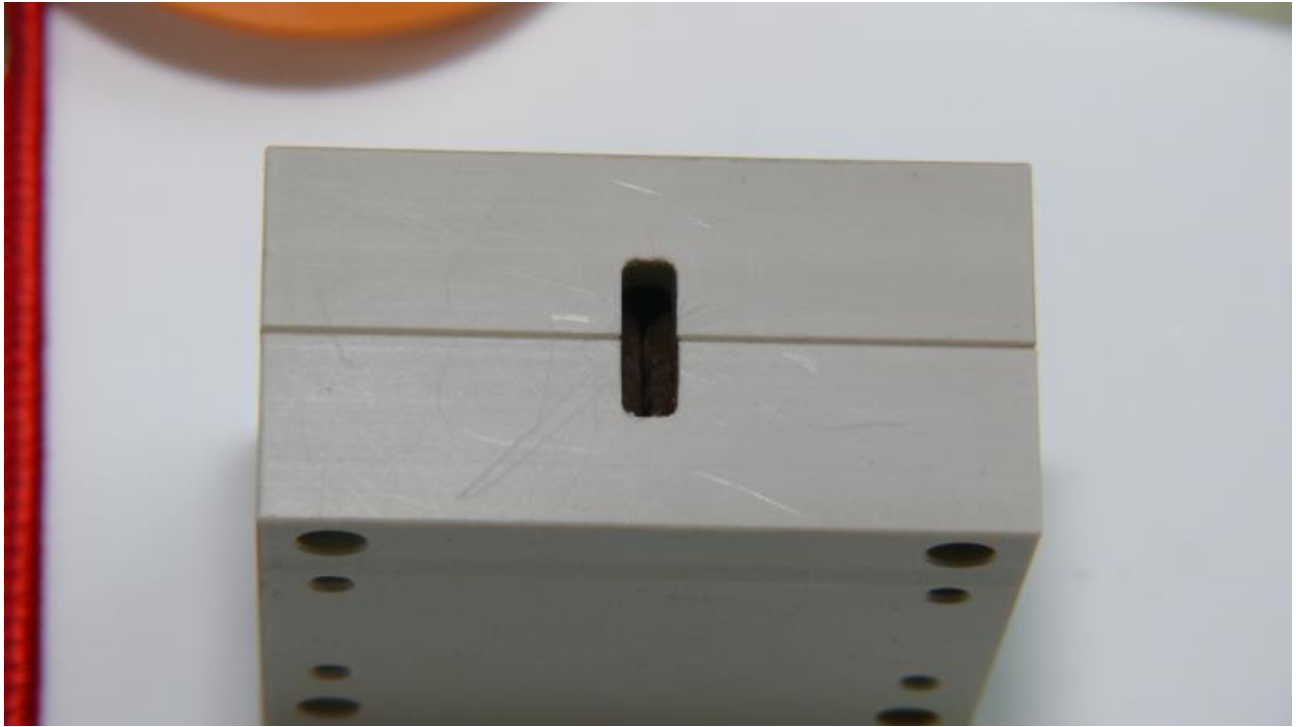
- Thermal Bake out (10E-5 mbar @ 50C for 72 hours)
- Full vibration test for Falcon 9, Electron, Soyuz, Dnepr and Long March 2D

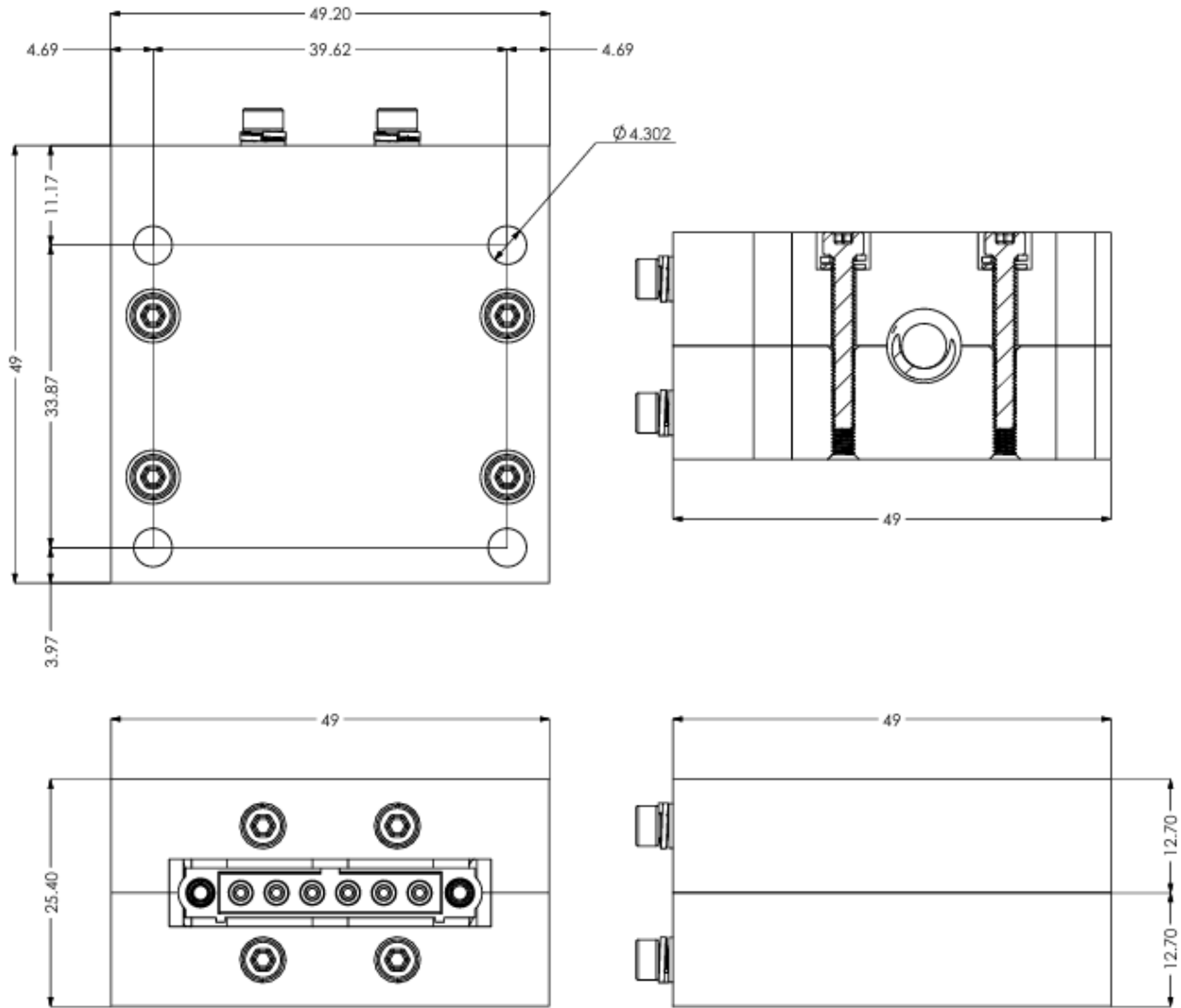
Test	QT	AT
Functional	✓	✓
Vibration		✓
Thermal Cycling		✓
Thermal Vacuum		✓
Repeatability (100 times)	✓	✓

AVAILABILITY AND LEAD TIME

- 8 weeks







NAME	SIGNATURE	DATE		TITLE: MODEL DIMENSIONS		
DRAWN	JND			EXA COLOSSUS L2 REMOVE BEFORE FLIGHT		
CHKD	RNB		MATERIAL:			A4
APPVD	RNB		PEEK			
MFG	JND		BeCu UNS C17200			
Q.A	RNB		WGHT:	SCALE:	SHEET 1 OF 1	