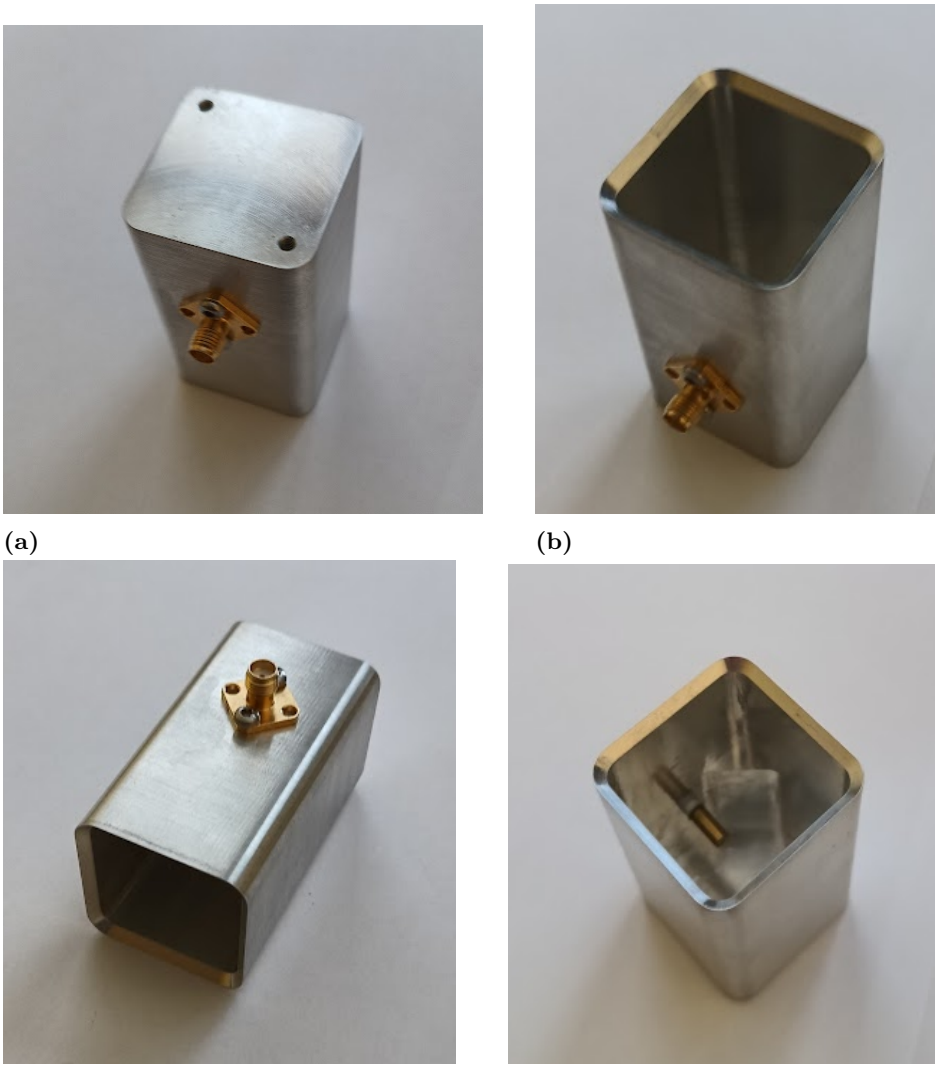
Antenna design
P-108-061/10G/W6E

All mounting screws and SMA connectors are permanently fixed using LOCTITE 270 threadlocking adhesive. LOCTITE 270 is threadlocking Adhesive is high strength, permanent locking and suitable for all metal threaded assemblies.

Before mounting the antenna in the assembly, the antenna matching must be verified on the VNA (Vector Network Analyzer).

Prototype photos



(a) **(b)** **(c)** **(d)**

Figure 1: Antenna prototype photos

Mechanical drawings

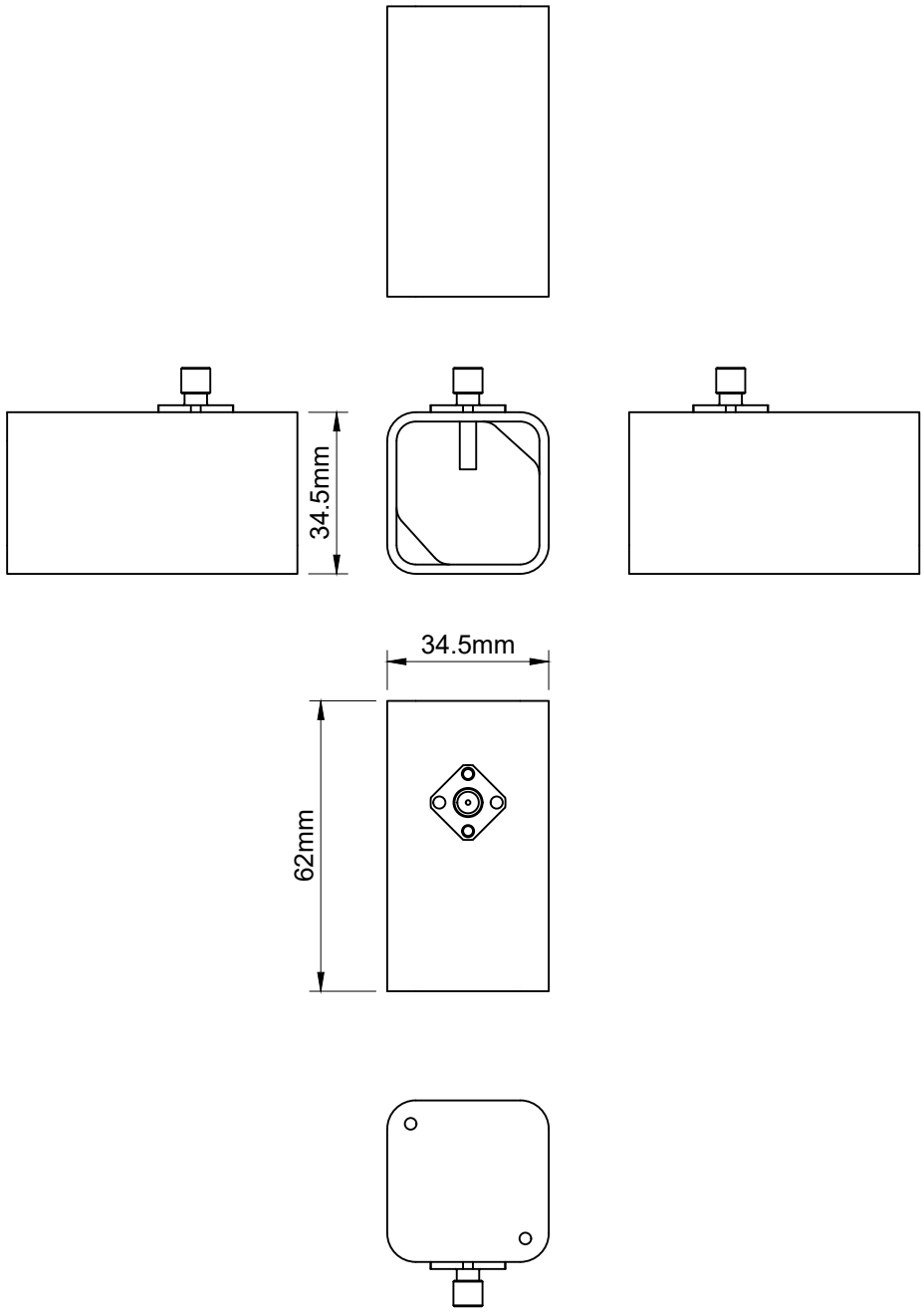


Figure 2: Antenna mechanical drawing

Antenna material

Antenna body - milled from **Aluminum Aloy AW-7075**, surface finish **Alodine** (Chemical film/Conversion)

Inner pin of the connector - turned from **Brass C27400**

Antenna verification

The antenna prototypes were verified by measurements in an independent laboratory, see antenna report, file *P-108-061-W6E-Antenna_*datasheet.*pdf* _

Each manufactured antenna must be verified on a Vector Network Analyzer (VNA).

The antenna is connected to the VNA by RF coaxial cable with frequency range 18GHz. The VNA must be calibrated according to the manufacturer's instructions.

Antenna matching must be better than -16dB in the frequency range 5.925 GHz to 7.125 GHz.

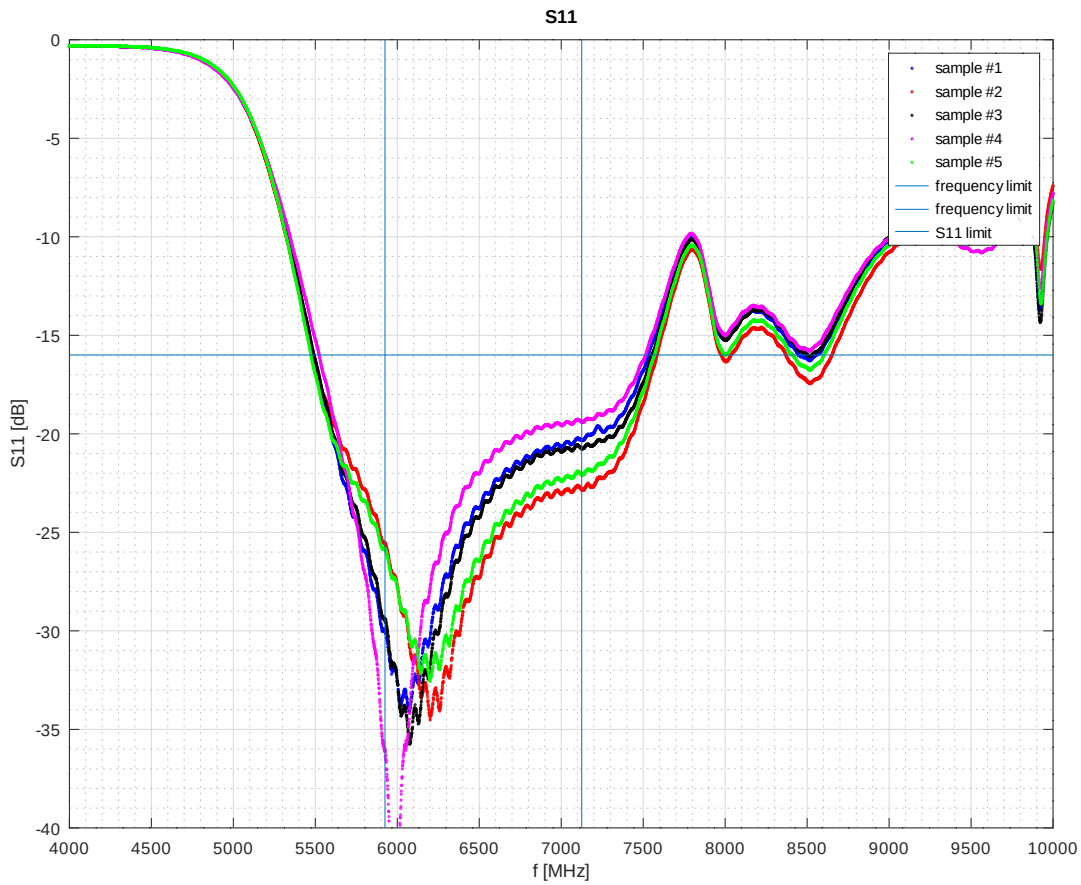


Figure 3: Antenna matching verification, sample nr. 1 to 5