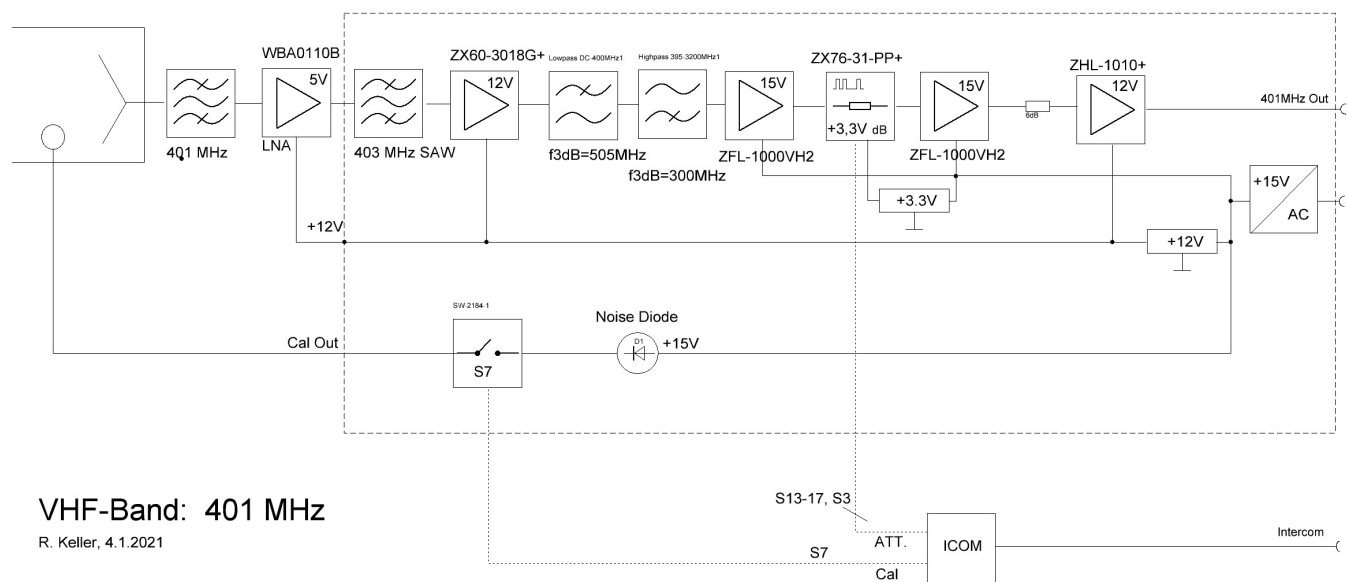


Technical Documentation of 74cm 401.5 MHz Receiver (P740mm)

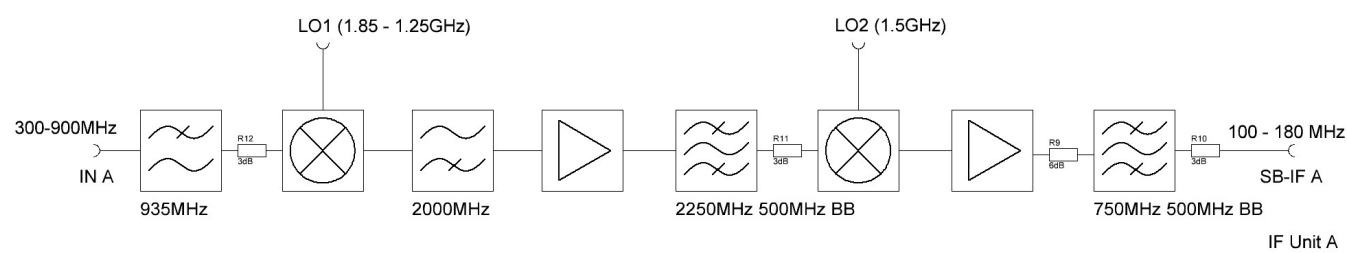
|                      |                                          |
|----------------------|------------------------------------------|
| Type                 | HBT LNA, unclooled                       |
| Channels             | 1                                        |
| Tsys                 | 150K (Trec=100K)                         |
| RF Frequency Range   | 400 MHz - 405 MHz                        |
| Band Width RF Filter | 401.5 MHz / BW 5 MHz                     |
| Polarization         | RHC                                      |
| Calibration          | Noise Diode                              |
| Feed                 | Helix in a short circular waveguide stub |
| Output               | 400 - 405 MHz                            |

Block Diagram

Receiver



IF Converter



Comments

This receiver is a straightforward 401.5 MHz receiver with a very low bandwidth of <5 MHz and no down conversion. This receiver is specially designed for Mars lander missions to directly detect the

telemetry signal of 401.5 MHz of the landing vehicle during the descent and landing phase of the mission. For continuum and VLBI measurements an analog converter module to an IF of 500 MHz to 1000 MHz is available.

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