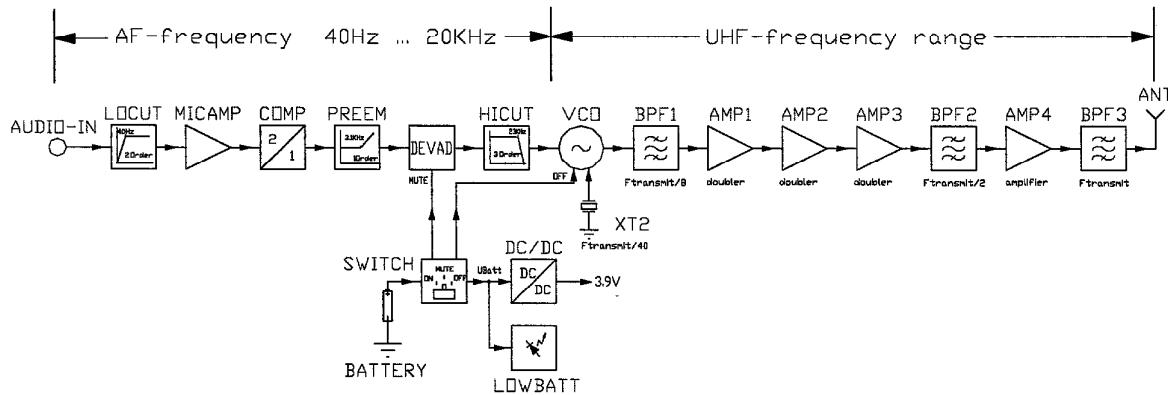


Block Schematics

Audio part:

The MICAMP is built as a part of the SA575- integrated circuit with a gain of 10.8dB. It also forms the LOCUT filter at 30 Hz. Then the signal is fed to the COMPressor, where the dynamic of the amplitude is reduced to its half value, expressed in dB. This compressor is built with the integrated circuit SA575 from Philips. In the feedback loop of the amplifier (Pin 12 and 14) there is the variable gain cell connected, which controls the amplifier-gain. The variable gain cell is controlled by the rectifier (input = Pin 16). C216 smoothes the rectified signal and defines the so called time constant of the compressor. R208-R210-C208-C209 build the DC path in the feedback loop.

The second amplifier is used to build the PREEMphasis circuit, which boosts the higher frequencies with an time constant of 50usec and a fixed gain of 9,8dB at the lower frequencies.

The DEVIation ADjustment is done with the potentiometer R217. At an input level of 300mV/1kHz for the Snap-On-Transmitter (SO) and the Microfone-Pen (MP) or 1050mV/1kHz for the Guitar-Bug (GB), the deviation is adjusted to 15kHz (13,5kHz for the Spain Sets), which is the nominal modulation. In MUTE-position of switch SW201, the signal is shorted here.

T201 with the additional parts form the HICUT filter at app. 25 kHz/3rd order. Via C102-R104 the signal modulates the crystal controlled oscillator.

RF part:

The UHF Signal is generated by a crystal controlled oscillator CCO and multiplier amplifier stages (AMP1, AMP2, AMP3).

The fifth harmonic of the CCO is filtered by BPF1, after 3 doubler stages the RF-signal is filtered by BPF2. After the output amplifier AMP4 the signal is filtered by BFP2.

SETCode	Transmitter Frequency	Crystall Frequency
US54	710,400MHz	17,7600MHz
US58	734,600MHz	18,3650MHz
KR3	745,650MHz	18,6412MHz
KR4	750,900MHz	18,7725MHz
EU62	802,525MHz	20,0631MHz
EU63	812,800MHz	20,3200MHz
SP1	848,750MHz	21,2188MHz
SP2	851,750MHz	21,2938MHz
UK69A	854,900MHz	21,3725MHz
UK69B	858,200MHz	21,4550MHz
ISM1	863,100MHz	21,5775MHz
ISM2	864,375MHz	21,6094MHz

Power supply:

The internal voltage of 3,7V is generated from 1 AAA size batteries with a DC/DC converter.

U202 controls the low battery indication (LED-D201) and in low-battery-condition the DCDC-converter is switched off.