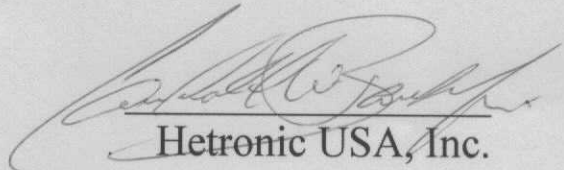


LV-1

Operation Manual

Version 1.0

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Technical Data Power Module LV-1

RF Power:	max. 100mW (20dBm)
Current consumption:	max. 50mA (+/- 10%)
Power supply:	+ 10 dBm +/- 3dBm
Frequency band:	458 MHz

Description Power Module LV-1

The RF signal, which is about to be amplified, is connected to connector 1 on the LV-1 power module. The input and output impedance is 50 ohm.

The driver (MSA 1105) works linear. The necessary supply voltage (operating voltage) is generating at the fixed voltage regulator and reaches the driver over resistors R1 and R2.

The following low pass filter, existing of C3, C4, L1, L2, C6, serves as a suppression of spurious harmonic and as adaptation to the input resistor of the power amplifier V2 (MRF 581).

There is no current draw over Dr1, R3, and L4 in the passive state (on RF signal on connector 1) because the transistor works in C-mode.

The amplified RF signal reaches the output connector 2 over L5, L6, C13, and L7.

The filter on the outside, consisting of L5, C11, L6, C13 and L7, serves as suppression of spacious harmonic and as adjustment to 50ohm output impedance.

The power supplies for the power amplifier come through capacitor 1.5 nF, whereas an opening of 2.2mm in the new silver housing is necessary. In a distance of 2.5mm the ground connection can be found.

Operation for the LV-1

The primary operation for the LV-1 is to amplify a CDP-02 signal 100mW.