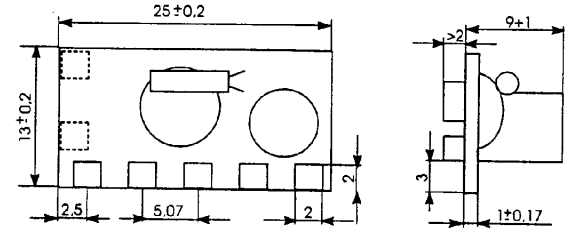
HKW Elektronik GmbH

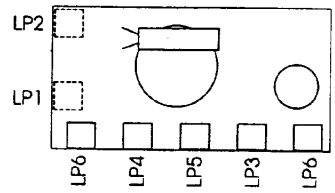
Empfangsmodul **EM1 DCF**

Together with the ferrite antenna, the receiver module forms a complete receiver unit for the German time signal transmitter (DCF 77).

DIMENSIONS



CONNECTION CONFIGURATION PLAN

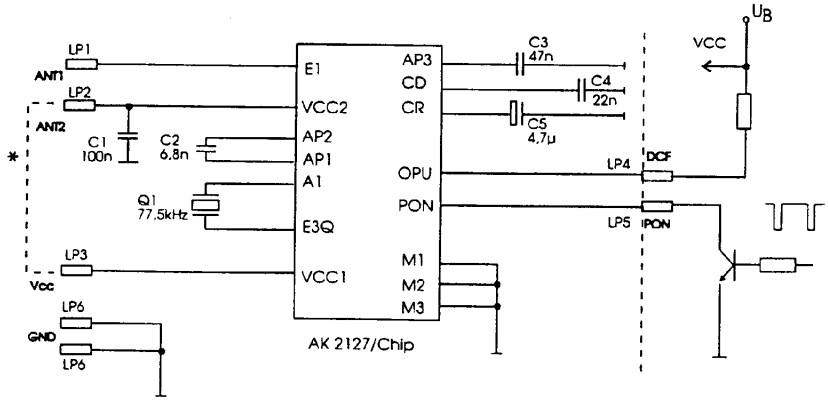


SPECIFICATION

Receiver Carrier Frequency	77.5 kHz
Nominal Operating Voltage [U_B]	*1.5 or 3 V
Operating Voltage Range [U_B]	*1.2 - 3.5 V
Current Consumption at 3V	< 0.7 mA
Switching Voltage [U_{PON}] for "active" state	0 V
Switching Voltage [U_{PON}] for "stand by" state	U_B or open
Allowed Range of [U_{PON}]	$0 V \le U_{PON} \le U_B$
Switching Current I_{PON} [U_{PON} = 0V]	< 50 µA
Quiescent Current „Stand by" mode [U_{PON}= U_B]	< 1 µA
Operating Temperature Range	0 - 50 °C
Build-up time	< 3 sec
Receiver Sensitivity a) using a generator supply b) using an antenna and supposing an interference-free reception antenna: l = 60 mm, d = 10 mm, C = 2.2 nF	 < 1 µV < 30 µV/m
Output current, open collector npn	< 15 µA
max. Output Voltage	5.25 V
Output Level at 100% 77.5kHz-Carrier	U_B
Output Level at 25% 77.5kHz-Carrier	0 V
Output Pulse Duration if: Transmitter Pulse Duration: 100 ms 200 ms	 80 - 130ms 170 - 230ms

LP1 - Antenna
LP2 - Antenna
LP3 - $+U_B$
LP4 - DCF
LP5 - PON
LP6 - GND

APPLICATION CIRCUITRY



* applying an operating voltage U_B < 2.2 V a connection is needed between LP2 and LP3

ORDER NUMBER : EM1 DCF - Art.-Nr.: FBD01010