

Prinzipschaltbild:

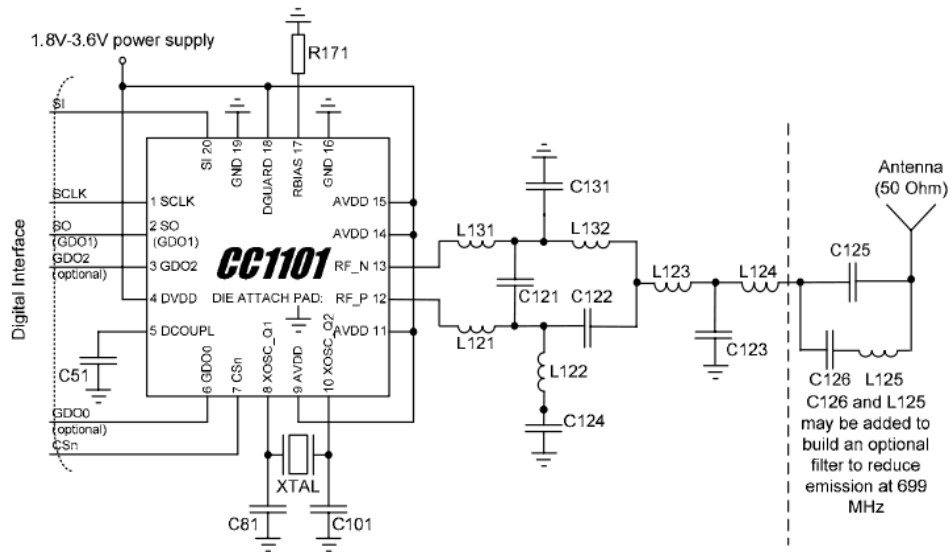
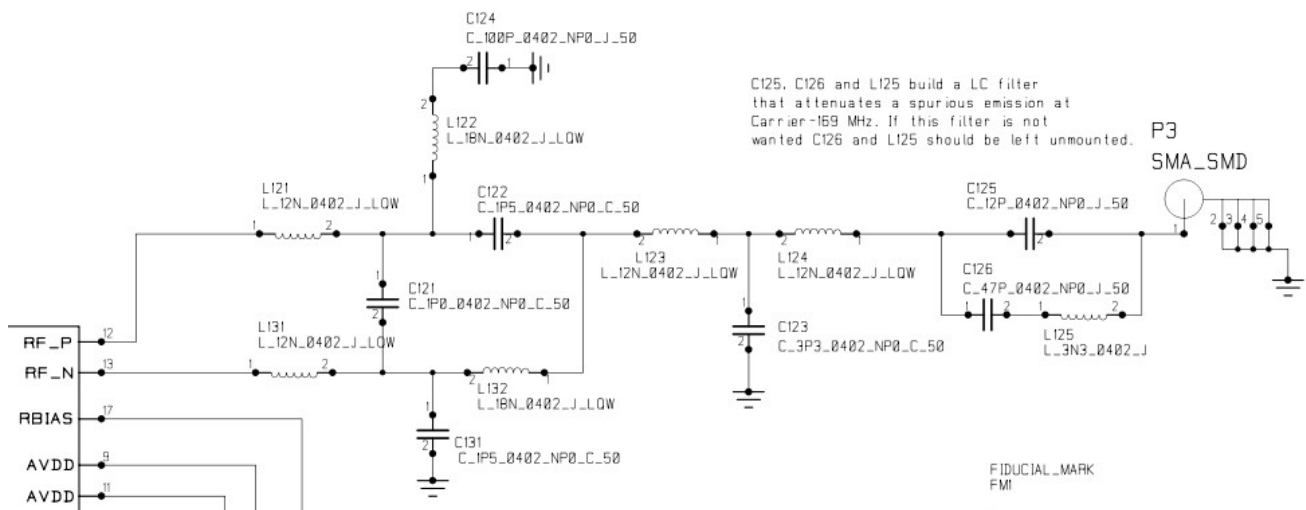


Figure 9: Typical Application and Evaluation Circuit 868/915 MHz (excluding supply decoupling capacitors)

Schematic:

Wire Wound inductors have been used in the balun and LC filter. Murata LOW15A series



Bauteilwerte für 868Mhz in der 3ten Spalte:

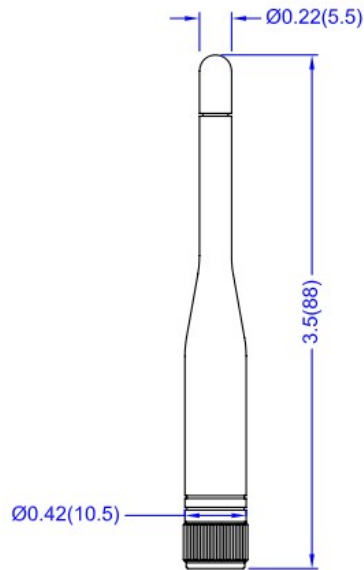
Component	Value at 315MHz	Value at 433MHz	Value at 868/915MHz	Manufacturer
C51	100 nF ± 10%, 0402 X5R			Murata GRM1555C series
C81	27 pF ± 5%, 0402 NP0			Murata GRM1555C series
C101	27 pF ± 5%, 0402 NP0			Murata GRM1555C series
C121	6.8 pF ± 0.5 pF, 0402 NP0	3.9 pF ± 0.25 pF, 0402 NP0	1.0 pF ± 0.25 pF, 0402 NP0	Murata GRM1555C series
C122	12 pF ± 5%, 0402 NP0	8.2 pF ± 0.5 pF, 0402 NP0	1.5 pF ± 0.25 pF, 0402 NP0	Murata GRM1555C series
C123	6.8 pF ± 0.5 pF, 0402 NP0	5.6 pF ± 0.5 pF, 0402 NP0	3.3 pF ± 0.25 pF, 0402 NP0	Murata GRM1555C series
C124	220 pF ± 5%, 0402 NP0	220 pF ± 5%, 0402 NP0	100 pF ± 5%, 0402 NP0	Murata GRM1555C series
C125	220 pF ± 5%, 0402 NP0	220 pF ± 5%, 0402 NP0	12 pF ± 5%, 0402 NP0	Murata GRM1555C series
C126			47 pF ± 5%, 0402 NP0	Murata GRM1555C series
C131	6.8 pF ± 0.5 pF, 0402 NP0	3.9 pF ± 0.25 pF, 0402 NP0	1.5 pF ± 0.25 pF, 0402 NP0	Murata GRM1555C series
L121	33 nH ± 5%, 0402 monolithic	27 nH ± 5%, 0402 monolithic	12 nH ± 5%, 0402 monolithic	Murata LQG15HS series (315/433 MHz) Murata LQW15xx series (868/915 MHz)
L122	18 nH ± 5%, 0402 monolithic	22 nH ± 5%, 0402 monolithic	18 nH ± 5%, 0402 monolithic	Murata LQG15HS series (315/433 MHz) Murata LQW15xx series (868/915 MHz)
L123	33 nH ± 5%, 0402 monolithic	27 nH ± 5%, 0402 monolithic	12 nH ± 5%, 0402 monolithic	Murata LQG15HS series (315/433 MHz) Murata LQW15xx series (868/915 MHz)
L124			12 nH ± 5%, 0402 monolithic	Murata LQG15HS series (315/433 MHz) Murata LQW15xx series (868/915 MHz)
L125			3.3 nH ± 5%, 0402 monolithic	Murata LQG15HS series (315/433 MHz) Murata LQW15xx series (868/915 MHz)
L131	33 nH ± 5%, 0402 monolithic	27 nH ± 5%, 0402 monolithic	12 nH ± 5%, 0402 monolithic	Murata LQG15HS series (315/433 MHz) Murata LQW15xx series (868/915 MHz)
L132			18 nH ± 5%, 0402 monolithic	Murata LQG15HS series (315/433 MHz) Murata LQW15xx series (868/915 MHz)
R171	56 kΩ ± 1%, 0402	Koa RK73 series		
XTAL	26.0 MHz surface mount crystal			NDK, AT-41CD2

Table 21: Bill Of Materials for the Application Circuit

Antenna aus dem Referenz-Design von Texas Instruments:

Series Part Numbers

Connector Code -XX-	Description	P / N
AM	SMA Plug	S331AM-868
AH	SMA Plug Reverse Polarity	S331AH-868



Electrical Properties:

Frequency Range: 867~869 MHz
 Impedance: 50Ω nominal
 VSWR: <2.0:1
 Gain: 1 dBi
 Radiation: Omni
 Polarization: Vertical
 Wave: 1/4 wave

Mechanical Properties:

Connector: SMA type
 Material: Polyurethane(Black)
 Whip: Brass with black chrome plating
 Connector: Brass with black chrome plating
 Operation Temp.: -20°C to $+65^{\circ}\text{C}$
 Storage Temp.: -30°C to $+75^{\circ}\text{C}$

Connector Interface



This is a RoHS compliant product.

TITLE	European ISM Band Straight Antenna -331 Model	Rev. Date	05/12/06	SHEET	1 of 1
UNIT	DWG. NO.	S331XX-868			
in.(mm)	NEARSON				
SCALE					
none					