Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	3.6	V
Power dissipation	Pd	500*	mW
Operating temperature range	Topr	−25 ~ 75	°C
Storage temperature range	Tstg	−50 ~ 125	°C

*Derating is done at 5mW/°C for operation above Ta=25°C.

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Supply voltage	V_{CC}	1	1.25	3	V	—

Electrical Characteristics (Ta=25°C, V_{CC}=1.25V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Quiescent current	I_Q	0.5	3	5	mA	—
Input impedance	Z_{IN}	360	540	720	Ω	f_{IN}=1kHz
Input gain	G_V	30	37	—	dB	V_{IN}=0.5mV
Channel balance	CB	—	—	2	dB	V_{IN}=0.5mV
MPX maximum output voltage	V_{OM}	200	—	—	mV p-p	THD≦3%
MPX 38kHz leakage	V_{OO}	—	1	—	mV	Quiescent condition
Pilot output voltage	V_{OP}	460	580	—	mV p-p	No-load
Channel separation	Sep	25	45	—	dB	with standard demodulator
Equivalent input noise voltage	V_{NIN}	—	1	—	μV rms	IHF-A at 38kHz stop
RF maximum output voltage	V_{OSC}	350	600	—	mV	—

Test Circuit and Application Example

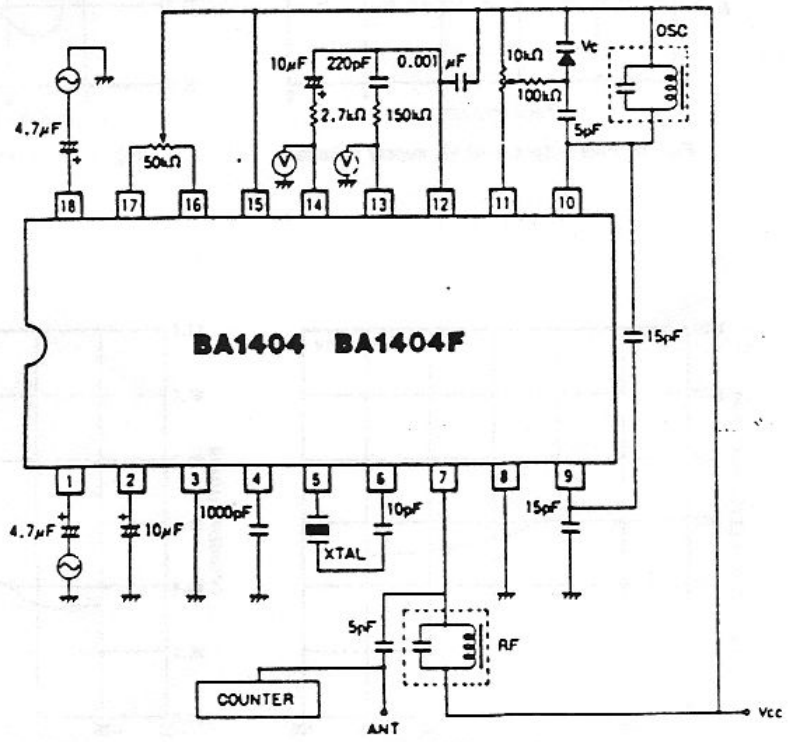

Fig. 4

Coil data (OSC, RF common)

Bobbin	ø5mm with ferrite core
Coil	ø0.5mm enamel wire
Numbers of turns	2.25 turns
Capacity	47pF

Precautions

1. To match the frequency response of the transmitter with the FM broadcast receiver, use a pre-emphasis network with a time constant of 50 μs at the input of the AF amplifier. Use the following circuit and components:

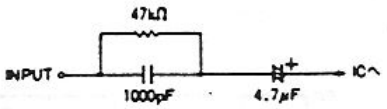

Fig. 5

2. When synthesizing a composite signal from the stereo modulator output with pilot signal, channel separation may deteriorate unless the two signals are in-phase. Note this point if you change the constants of the external components connected to pins 12, 13, and/or 14.

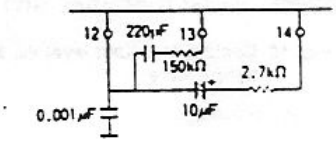

Fig. 6