

AN7204

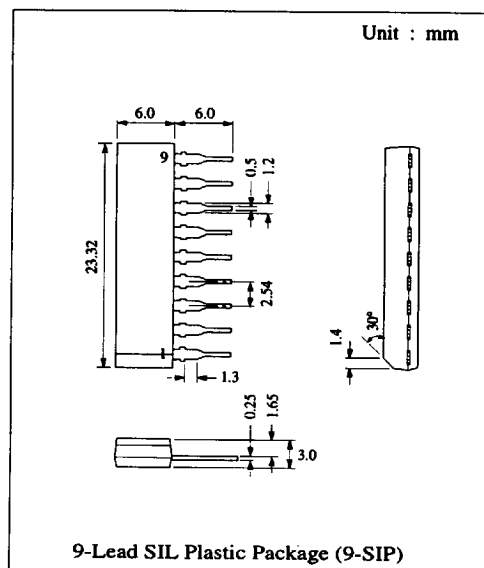
FM Front-end IC for Radio, Radio Cassette Recorder

■ Description

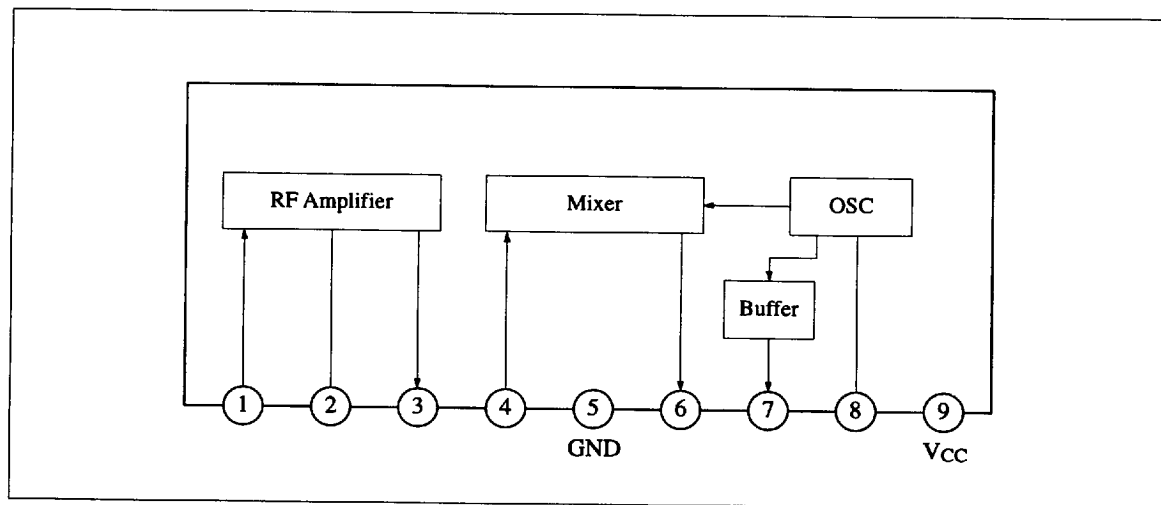
The AN7204 is a monolithic FM front-end IC for PLL synthesizer which is most suitable for 5V operation radio/radio cassette recorder. It can configure a high sensitivity synthesizer tuner in combination with AM-FM-IF + MPX IC (AN7238) available for DTS.

■ Features

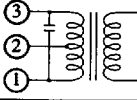
- PLL synthesizer OSC buffer built-in
- Good Intermodulation characteristics
- High receiving sensitivity
- TV band receiving is possible (Max. $f = 220\text{MHz}$)
- Operating supply voltage range: $V_{CC} = 2.7\text{V} \sim 7\text{V}$



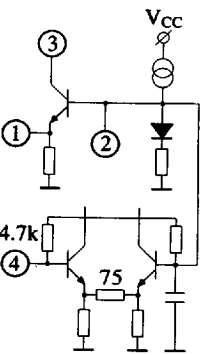
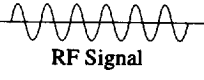
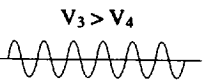
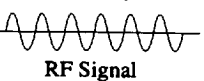
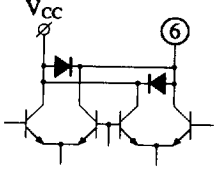
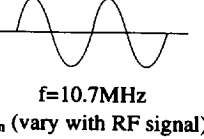
■ Block Diagram



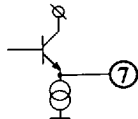
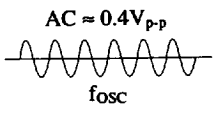
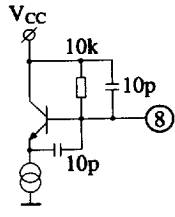
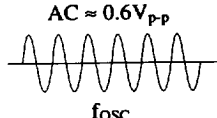
■ Coil Specifications

Symbol	Use, Freq.	Type No.	Maker	Connection Diagram	Number of Turns	L Value/ C Value	Unloaded Q
T ₁	FM Quad Coil 10.7MHz	IFT-41K9	MITSUMI		①...② 7T ②...③ 4T ④...⑥ 2T	110pF	100
L ₁	RF Coil	-	ŌE INDUSTRY		4T Space Winding	0.102μH f=25.2MHz	77 f=25.2MHz
L ₂	OSC Coil	-	ŌE INDUSTRY		3T Space Winding	0.086μH f=25.2MHz	73 f=25.2MHz

■ Pin Descriptions

Pin No.	Pin Name	DC Voltage	I/O Impedance	Equivalent Circuit	Waveform
1	RF IN	1.1V	Several 10Ω		
2	RF Pass-con.	1.8V	2.7kΩ		
3	RF OUT	1.1V	High		
4	Mixer IN	1.8V	Several kΩ		
5	GND	0V			
6	Mixer OUT	5V	High		

■ Pin Descriptions (Continue)

Pin No.	Pin Name	DC Voltage	I/O Impedance	Equivalent Circuit	Waveform
7	OSC Buffer OUT	3.6V	Several 10Ω		
8	OSC	4.9V	→		
9	Vcc	5V			

Signal levels of Pin 1, 3, 4 and 6 are in proportion to size of RF signals which are input to antenna.

■ Characteristics Curve

