Wireless Audio Link IC BH1416F

The BH1416F is a FM stereo transmitter IC that transmits simple configuration. The IC consists of a stereo modulator for generating stereo composite signals and a FM transmitter for broadcasting a FM signal on the air. The stereo modulator generates a composite signal which consists of the MAIN, SUB, and pilot signal from a 38kHz oscillator. The FM transmitter radiates FM wave on the air by modulating the carrier signal with a composite signal.

Applications

Wireless speakers, Personal computer(sound board), Game machine, CD changer, Car TV, Car navigation

Features

- 1) It is possible to improve the timbre because it has the pre-emphasis circuit, limiter circuit, and the low-pass filter circuit.
- 2) Built-in pilot-tone system FM stereo modulator circuit.
- 3) The transmission frequency is stable because it has a PLL system FM transmitter circuit.
- 4) PLL controls data input in parallel (4bits, 14ch).

● Absolute maximum ratings (Ta = 25°C, In measurement circuit.)

Parameter	Symbol	Limits	Unit	Conditions	
Supply voltage	Vcc	+7.0	V	Pin8,12	
Date input voltage	VIN-D	-0.3 to Vcc+0.3	V	Pin15,16,17,18	
Phase comparator output voltage	Vout-p	-0.3 to Vcc+0.3	V	Pin7	
Power dissipation	Pd	450 [*]	mW		
Storage temperature	Tstg	-55 to +125	°C		

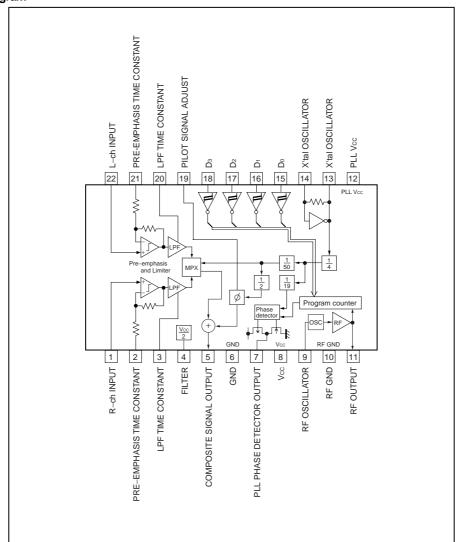
^{*} Derating : 4.5mW/°C for operation above Ta=25°C.

■Recommended operating conditions (Ta = 25°C)

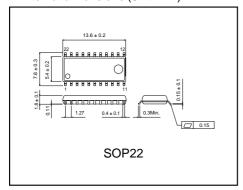
Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Operating supply voltage	Vcc	4.0	_	6.0	V	Pin8,12
Operating temperature	Topr	-40	-	+85	°C	
Audio input level	VIN-A	-	-	-10	dBV	Pin1,22
Audio input frequency band	fin-a	20	-	15k	Hz	Pin1,22
Pre-emphasis time constant set up range	t pre	_	_	155	μsec	Pin2,21
Transmission frequency(200kHz step)	fтх	76.8 88.0	_	78.0 89.2	MHz	Pin9,11
Control terminal "H" level input voltage	ViH	0.8Vcc	_	Vcc	V	Pin15,16,17,18
Control terminal "L" level input voltage	VIL	GND	_	0.2Vcc	V	Pin15,16,17,18



●Block diagram



●External dimensions (Unit: mm)



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