

2. Pin assignment & Description

Pin No.	Pin name	Description
1	R-ch INPUT	It cuts DC with the capacitor and it inputs R-ch audio signal.
2	Pre-emphasis time constant	It connects a capacitor for the time constant of pre-emphasis.
3	LPF time constant	This is 15kHz LPF.
4	Filter	It is a ripple filter for the reference voltage of the audio part.
5	Composite signal output	It connects to the FM modulator.
6	GND	GND
7	PLL phase detector output	It connects to the PLL LPF circuit.
8	VCC	Power supply terminal
9	RF Oscillator	This is the base terminal of the colpitts oscillator.
10	RF GND	RF GND
11	RF output	It connects to the antenna through BPF.
12	PLL VCC	PLL power supply terminal
13	X'tal Oscillator	It connects a 7.6MHz crystal oscillator.
14	X'tal Oscillator	It connects a 7.6MHz crystal oscillator.
15	Chip enable(/CS)	The terminal to make high level in serial data input.
16	Clock(SLK)	The clock which takes data and synchronization in serial data input.
17	Data(SDA)	The input terminal of the serial data which is forwarded from the controller.
18	Audio Mute	$0.8VCC \leq \text{Pin18} : \text{Mute ON}$ $0.2VCC \geq \text{Pin18} : \text{Mute OFF}$
19	Pilot signal adjust	Pilot signal adjust terminal
20	LPF time constant	This is 15kHz LPF.
21	Pre-emphasis time constant	It connects a capacitor for the time constant of pre-emphasis.
22	L-ch INPUT	It cuts DC with the capacitor and it inputs L-ch audio signal.

3. Explanation for Terminal Function

3-1 Pre-emphasis Circuit

1	<p>R-ch audio source input terminal</p> <p>It cuts DC with the capacitor and it inputs R-ch audio signal.</p>	
22	<p>L-ch audio source input terminal</p> <p>It cuts DC with the capacitor and it inputs L-ch audio signal.</p>	
2,21	<p>Pre-emphasis time constant terminal</p> <p>It connects a capacitor for the time constant of pre-emphasis.</p> <p>$\tau = 22.7k \times C$</p>	

3-2 LPF Circuit

3,20	<p>LPF time constant terminal</p> <p>This is 15kHz LPF.</p> <p>It connects a 150pF capacitor.</p>	
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3-3 Ripple Filter of Power Supply

4	<p>Filter terminal</p> <p>It is a ripple filter for the reference voltage of the audio part.</p>	
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3-4 Modulation Rate Adjust

<p>5</p>	<p>Composite signal output terminal It connects to the FM modulator.</p>	
<p>6</p>	<p>GND</p>	

3-5 PLL Loop Filter

<p>7</p>	<p>PLL phase detector output terminal It connects to the PLL LPF circuit.</p>	
<p>8</p>	<p>Power supply terminal</p>	

3-6 VCO

<p>9</p>	<p>RF oscillator terminal</p> <p>This is the base terminal of the colpitts oscillator.</p> <p>It connects time constant of the oscillation.</p>	
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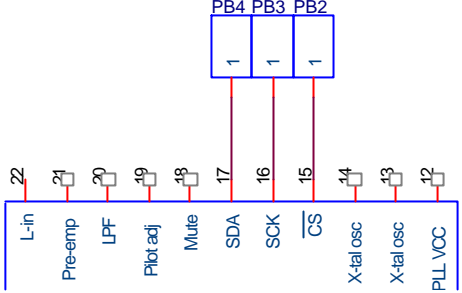
3-7 RF Output

<p>10</p>	<p>RF GND</p>	
<p>11</p>	<p>RF transmission output terminal</p> <p>It connects to the antenna through BPF.</p>	
<p>12</p>	<p>PLL power supply terminal</p>	

3-8 X'tal Oscillator

<p>13,14</p>	<p>X'tal oscillator terminal</p> <p>It connects a 7.6MHz crystal oscillator.</p>	
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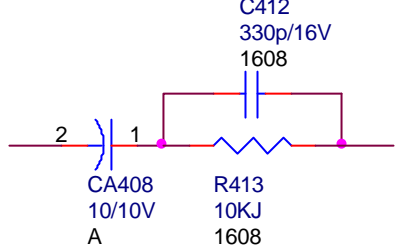
3-9 Input of the Serial Data

15	<p>Chip enable terminal</p> <p>The terminal to make high level in serial data input.</p>	
16	<p>Clock input terminal</p> <p>The clock which takes data and synchronization in serial data input.</p>	
17	<p>Data input terminal</p> <p>The input terminal of the serial data which is forwarded from the controller.</p>	

3-10 Audio Mute

18	<p>Audio mute terminal</p> <p>$0.8V_{CC} \leq \text{Pin18} : \text{Mute ON}$ $0.2V_{CC} \geq \text{Pin18} : \text{Mute OFF}$</p>
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3-11 Separation Adjust

19	<p>Pilot signal adjust terminal</p>	
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