

블루투스 300W D Class Stereo 오디오 앰프

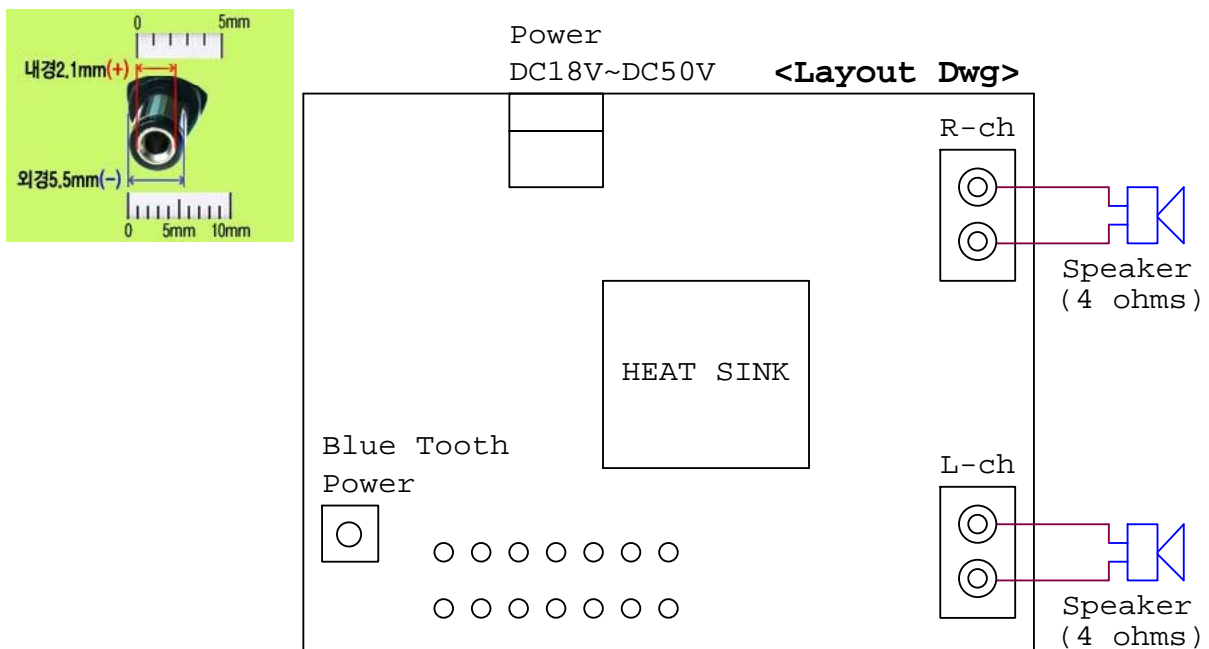
A. Model : 블루투스 300W BTL Stereo 오디오 앰프 (5630 BT)

B. 제품 설명

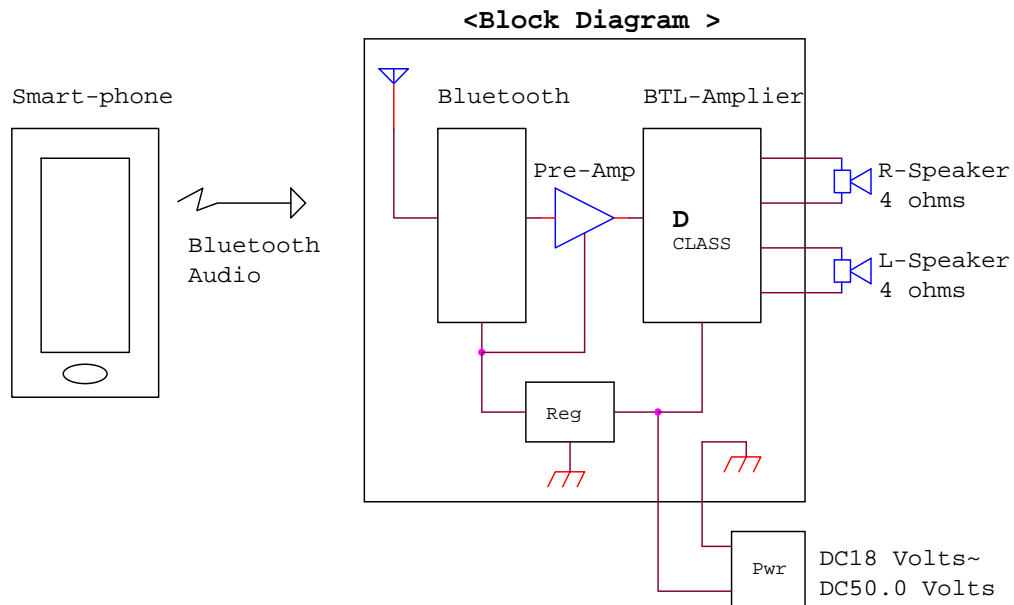
1. 블루투스 300W 오디오 앰프 (5630 BT) 는 저 잡음 프리 앰프 와 SVR 이 보드내에 일체형 실장 된 HiFi D Class 300W 출력의 오디오 앰프로 고급 음질 오디오 앰프에 적합하다.
2. Pre-Amplifier 실장(증폭 Gain 45 dB) 설계로 광 범위 응용 적용이 쉽고, **음량을 조절할 수 있는 SVR 이 실장 되어 폭 넓게 음원 소스를 결합하여 사용할 수 있다.**

C. 제품 사양

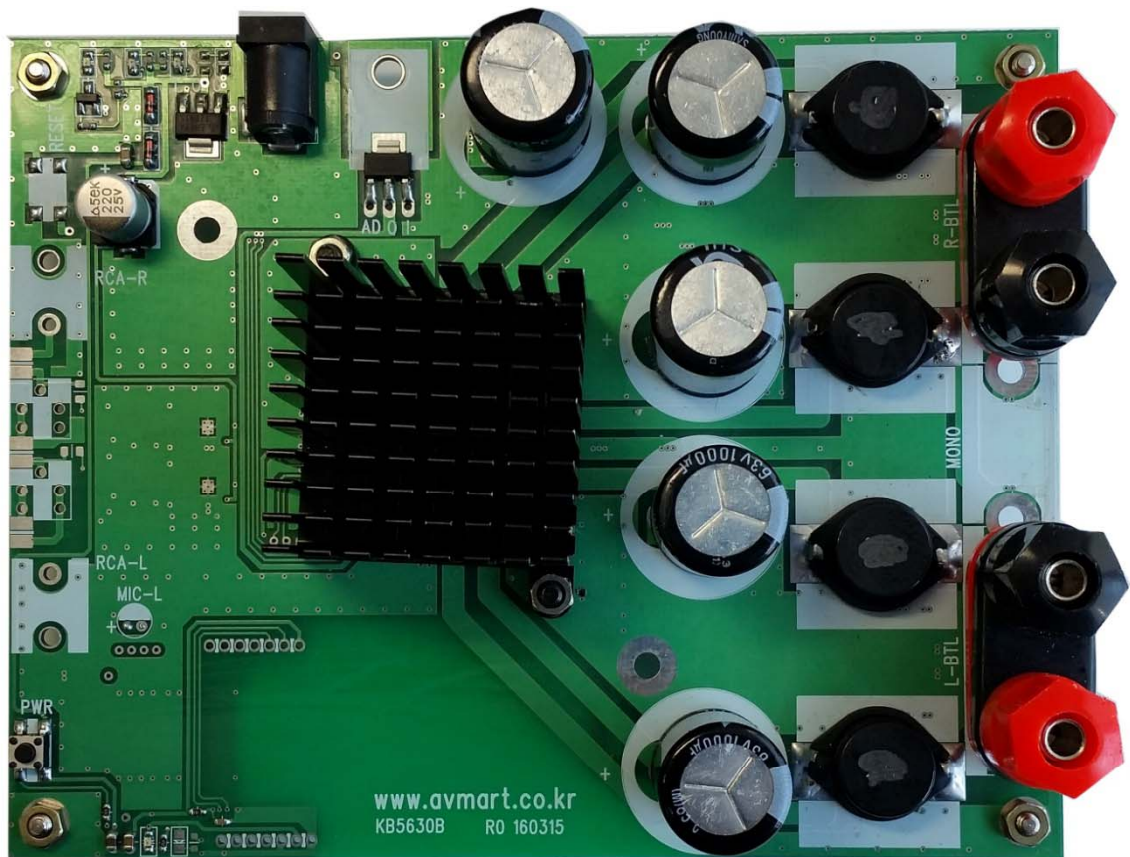
1. 전원 (전원 전압이 DC18 Volts 일 경우 최대 출력이 낮아져 40Watt 수준으로 동작 됨).
*. 최소 DC18Volts/ 3A ~ 최대 DC50 Volts / 10A
2. 스피커 :
*. 임피던스 : 2 ohms~8.0 ohms (4 ohms 사용을 권장 한다).
- 3 . Over load 보호 회로 가 Chip IC 내부에 실장 되어 보다 더 안전하게 사용 된다.
(참고 : Impulse 충격 입력 또는 Over Load 에 따른 일시적 무동작 상태는 (Led 6 ,7 켜짐) 전원을 끄고 다시 전원 입력하면 IC 기능이 회복되어 정상적으로 동작 된다).
4. 구성 (Board Size : 140 * 110 * 33 mm, 전원 단자 의 내경이 플러스 임)



5 . Block Diagram



6. 실물 사진



D Bluetooth

1. General specification : Ver 4

2. Key Features For Bluetooth Module

Bluetooth V4.0 + EDR compliant

Bluetooth solution for mono and stereo audio solutions.

Integrated DSP, stereo codec .

Class 2 – range up to 30 meters.

Industrial temperature range from -10°C to $+85^{\circ}\text{C}$

Low power consumption

Supported Bluetooth profiles : HFPV1.6 , A2DP1.2 , AVRCP1.4

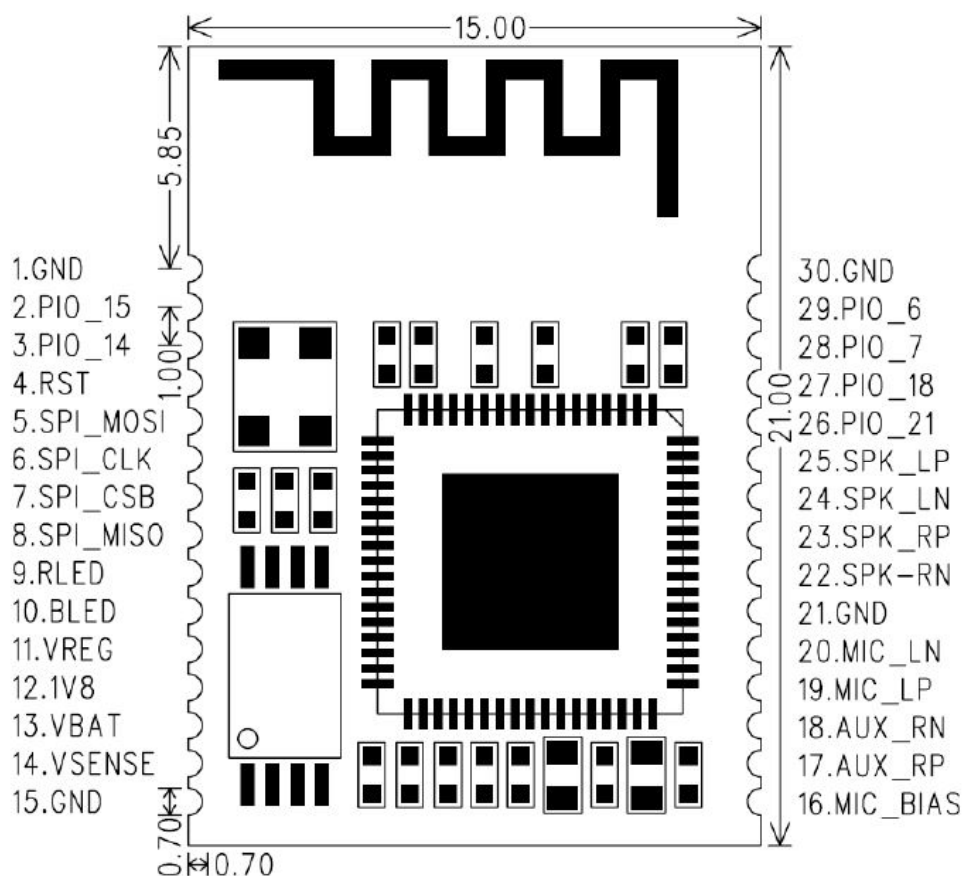
3. Applications

High quality stereo headsets

High quality mono headsets

Bluetooth speakers .

4. Pin Definition



5. Pin Function Described

Pin NO.	Pin definition	Input / Output	Pin a description of
1	GND	VSS	Ground pot
2	PIO_14	Bi-Directional	F / F
3	PIO_5	Bi-Directional	MUTE
4	RST	CMOS input	Internal pull-up Reset if low
5	SPI_MOSI	CMOS input	Serial peripheral interface data input
6	SPI_CLK	CMOS input	Serial peripheral interface data clock
7	SPI_CSB	CMOS input	Chip select for serial peripheral interface, Active low
8	SPI_MISO	CMOS input	Serial peripheral interface data Output
9	RED	Output	Pick up Red led, instructions, bluetooth related working state
10	BLED	Output	Pick up Blue led, instructions, bluetooth related working state
11	VREG	Input	MFB
12	1 V 8	Output	1.8V output
13	VBAT	Input	Lithium battery interface
14	VCHG	Input	Charging interface
15	GND	VSS	Ground pot
16	MIC_BIAS	Output	The microphone power output terminal
17	MIC_RP	Input	The Right channel microphone input the difference
18	MIC_RN	Input	The Right channel microphone input the difference negative
19	MIC_LP	Input	The Left channel microphone input the difference
20	MIC_LN	Input	The Left channel microphone input the difference negative
21	GND	VSS	Ground pot
22	SPK_RN	Output	The Right channel audio differential Output the negative
23	SPK_RP	Output	The right channel audio differential Output is terminal
24	SPK_LN	Output	The left channel audio differential output Is negative
25	SPK_LP	Output	The left channel audio differential output Is terminal
26	PIO_13	Bi-Directional	Play
27	PIO_11	Bi-Directional	Vol-
28	PIO_12	Bi-Directional	Vol+
29	PIO_9	Bi-Directional	Back
30	GND	Bi-Directional	Ground pot

6. Electrical Characteristic

6-1. Recommend Using Conditions

Operating Conditions	Minimum	Typical value	Maximum	Unit
Operating temperature	-10	-	85	°C
Current peak	0	-	50	mA
VBAT	+3.0	+3.7	+4.5	V

6-2. Stereo Encoder

Parameter	Condition		Minimum	Typical	Maximum	Unit
Resolution			–	–	16	Bits
Input Sample Rate, Sample			8	–	44.1	KHz
Signal to Noise Radio, SNR(a)	Fin = 1Khz B/W = 20Hz–20KHz A-Weighted THD+N< 1% 150m Vpk–pk	8KHz	–	79	–	dB
		11.025KHz	–	77	–	dB
		16KHz	–	76	–	dB
		22.050KHz	–	76	–	dB
		32KHz	–	75	–	dB
		44.1KHz	–	75	–	dB
Digital Gain	Digital Gain Resolution =1/32dB		–24	–	21.5	dB
Analogue Gain	Analogue Gain Resolution =3dB		–	–	42	dB
Input full scale at maximum gain (differential)			–	4	–	mV
Input full scale at maximum gain (differential)			–	800	–	mV
3dB Bandwidth			–	20	–	KHZ
Microphone made input impedance			–	6	–	Ω
THD+N(microphone input @ 30mV rms input			–	0.04	–	%

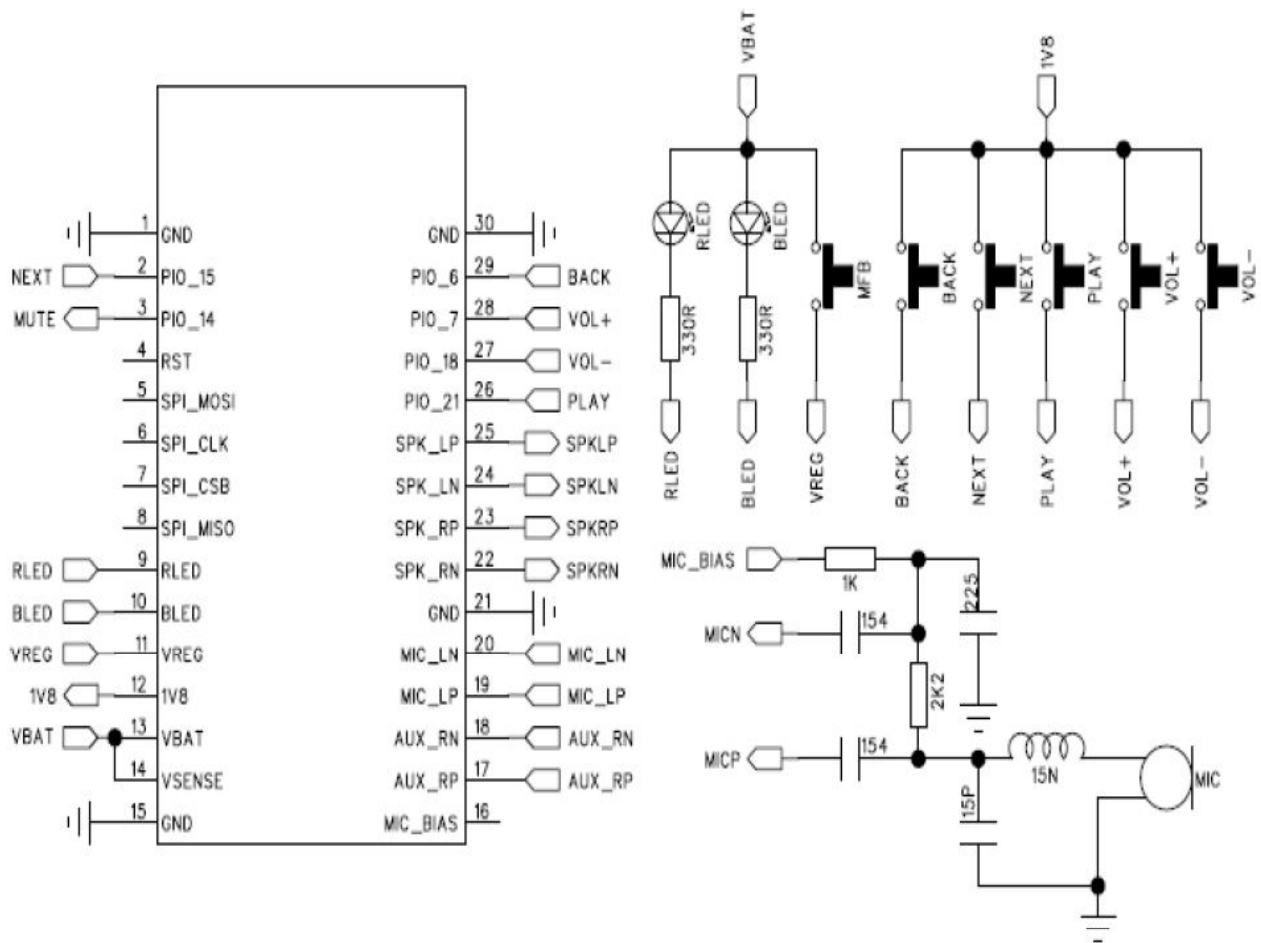
(a)Improved SNR performance can be achieved at the expense of current consumption .See Optimizing BlueCore5-Multimedia ADC Performance Application Note details.

6-3. Stereo Decoder

Parameter	Condition	Minimum		Typical	MaXimum	Unit
Resolution		–		–	16	Bits
Input Sample		8		–	48	KHz
Signal to Noise Radio, SNR	Fin=1Khz B/W=20Hz–20KHz A-Weighted 32KTHD + N < 0.01%	8KHz	–	95	–	dB
		11.025	–	95	–	dB
		16KH	–	95	–	dB
		22.050	–	95	–	dB
		H	–	95	–	dB
		44.1KH	–	95	–	dB
Digital Gain	Digital Gain	–24	–	21.5	–	dB
Analogue Gain	Analogue Gain	0	–	–21	–	dB
Output voltage full-scale swing(differential)(a)			–	750	–	mV
Allow load	Resistive	16(8)		–	O.C	Ω
Allow load	Capactive	–		–	500	pF
THD+N 100KΩ load			–	–	0.01	%
THD+N 16Ω load			–	–	0.1	%
SNR (Load =16Ω, 0dBFS input relative to digital Silence)			–	95	–	dB

(a)Any combination of gain (digital and/or analogue)and input signal which results in the output signal level exceeding the minimum or maximum signal level (analogue or digital)could result in distortion.

8. Typical Application Circuit



참고사항: 본 제품은 Program 이 mask되어 있는 version 입니다.(Mask Version)

E. 기타

1 : Main 오디오 앰프에 적용된 IC 규격 : TAS5630 / TI 사.

2 : 본 제품은 성능 향상을 위하여 Running Change 되어질 수 있다.

3 : 연락처.

◆ Home Page : www.avmart.co.kr

◆ E - mail : kbell@k-bell.co.kr

◆ 전화 : 02 - 6443 - 4703

◆ F A X : 02 - 6443 - 4700

◆ 주소 : 서울 금천구 가산동 345-90, 한라시그마밸리 703호