



博昊科技有限公司
BOUGH TECHNOLOGY LIMITED

Room629,F Building,Digital Silicon Valley Industrial Park, HengPing Road,
HengGang Street, LongGang District, ShenZhen,China.
Tel:+86 755 2891 8311. Fax:+86 755 2891 9311. www.bough.com.cn

BG557

Bluetooth portable charger

Specification

Ver:10

HK OFFICE	Unit513,Lakeside 1,Bldg.15,No.8 Science Park West Avenue, Hong Kong Science Park, New Territories.,Hong Kong
	TEL: +852 3595 1823 Fax:+852 2661 9845



博昊科技有限公司
BOUGH TECHNOLOGY LIMITED

Room629,F Building,Digital Silicon Valley Industrial Pack, HengPing Road,
HengGang Street, LongGang District, ShenZhen,China.
Tel:+86 755 2891 8311. Fax:+86 755 2891 9311. www.bough.com.cn

Table Of Contents

Table Of Contents	2
Version Update	3
DESCRIPTION.....	4
FEATURES	4
Function list.....	5
Button function	5
LED function	5
Module Block Diagram	6
DC CHARACTERISTICS.....	7
Absolute Maximum Ratings	7
Recommended Operating Conditions.....	7
Typical Power Condition	7
Bluetooth Characteristics.....	7
Audio Characteristics	8
Module Size.....	9

Bough Technology LTD.



博昊科技有限公司
BOUGH TECHNOLOGY LIMITED

Room629,F Building,Digital Silicon Valley Industrial Park, HengPing Road,
HengGang Street, LongGang District, ShenZhen,China.
Tel:+86 755 2891 8311. Fax:+86 755 2891 9311. www.bough.com.cn

Version Update

Item	Version	Date	Description
1	V01	Dec05,2017	The First Version
2	V02	Jan03,2017	Change Module Size
3	V03	Jan20, 2018	The third Version

Bough Technology LTD.



博昊科技有限公司

BOUGH TECHNOLOGY LIMITED

Room629,F Building,Digital Silicon Valley Industrial Park, HengPing Road,
HengGang Street, LongGang District, ShenZhen,China.
Tel:+86 755 2891 8311. Fax:+86 755 2891 9311. www.bough.com.cn

DESCRIPTION

The BG557 bluetooth portable charger is a highly integrated single-chip Bluetooth multimedia device. It integrates Bluetooth transceiver, FM receiver, SD-card interface, USB OTG, and high performance audio peripheral. The BG557 cache based architecture enables it is fully programmable with any application, that it may be used for control and multimedia hybrid application, BG557 using the control chip BK3254NF.

FEATURES

- Operation voltage from 2.8V to 5.2V
- Bluetooth 2.1+EDR compliant
- -90dBm sensitivity for 1Mbps mode and 5dB transmit power
- USB2.0 host and device
- Integrated 90dB SNR ADC and stereo DAC
- Bluetooth A2DP,AVRCP and HFP profile
- Bluetooth portable charger.
- Soft power off.

Bough Technology LTD.



博昊科技有限公司

BOUGH TECHNOLOGY LIMITED

Room629,F Building,Digital Silicon Valley Industrial Park, HengPing Road,
HengGang Street, LongGang District, ShenZhen,China.
Tel:+86 755 2891 8311. Fax:+86 755 2891 9311. www.bough.com.cn

Function list

- Answer the phone
- Bluetooth plays music.
- The remote picture
- Intelligent charging
- Power indicator

Button function

- Button 1: turn on/turn off, play and pause music.
- Button 2: previous song/the volume down
- Button 3: next song/ the volume up
- Button 4: photograph

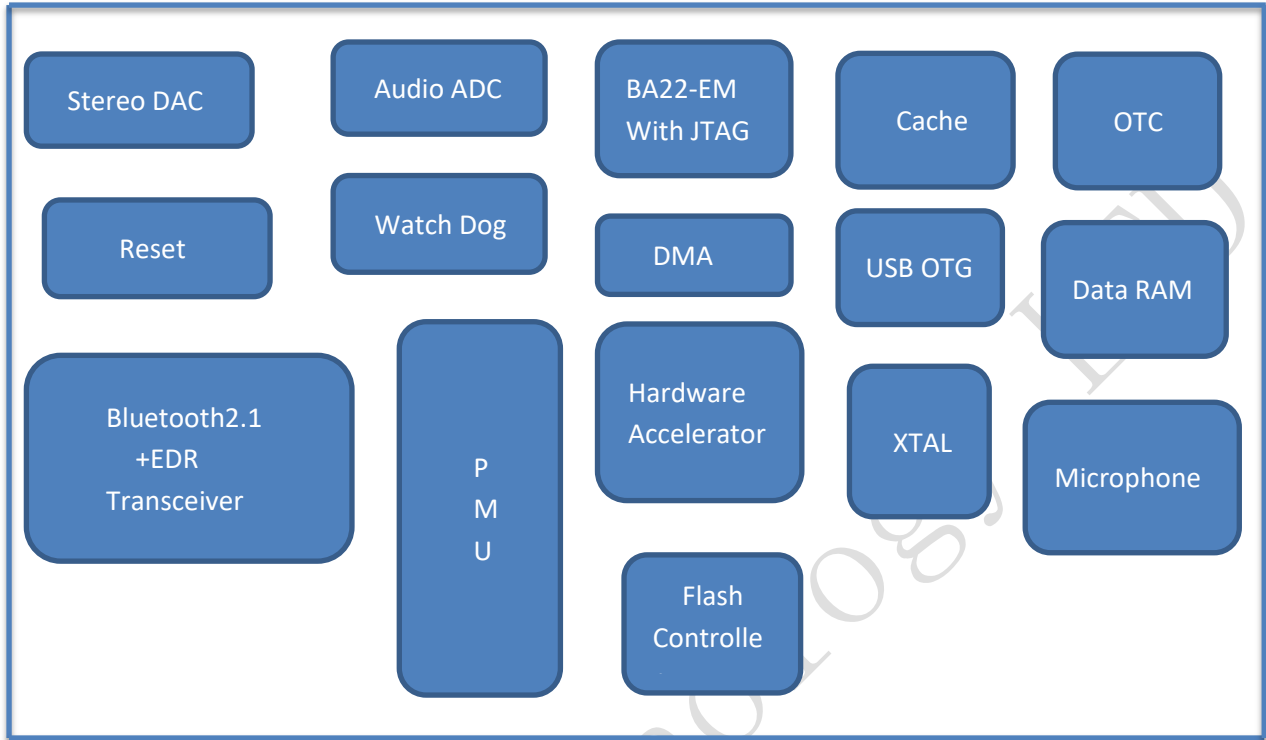
LED function

The four led indicator power.

- LED1 on : 25% electricity
- LED2 on : 50% electricity
- LED3 on :75% electricity
- LED4 on : 95% electricity



Module Block Diagram





博昊科技有限公司
BOUGH TECHNOLOGY LIMITED

Room629,F Building,Digital Silicon Valley Industrial Park, HengPing Road,
HengGang Street, LongGang District, ShenZhen,China.
Tel:+86 755 2891 8311. Fax:+86 755 2891 9311. www.bough.com.cn

DC CHARACTERISTICS

Absolute Maximum Ratings

PARAMETER	DESCRIPTION	MIN	TYP	MAX	UNIT
VCCBAT	Battery regulator supply voltage	-0.3	3.3	5.5	V
PRX	RX input power	-	10	-	dBm
VCCIO	IO interface voltage	-0.3	2.8	4.2	V

Recommended Operating Conditions

PARAMETER	DESCRIPTION	MIN	TYP	MAX	UNIT
VCCBAT	Battery regulator supply voltage	2.8	4.2	5.5	V
VCCIO	IO interface voltage	1.8	-	3.6	V

Typical Power Condition

STATE	DESCRIPTION	MIN	TYP	MAX	UNIT
Shut down	Software shut down,wake up from GPIO	-	30	-	uA
Bluetooth Idle-Sniff	Idle state at Sniff mode	-	3	-	mA
Active (A2DP)	3DH1	-	45	-	mA
Active (HFP)	HV1	-	50	-	mA
Turn off	The static current	-	300	-	uA

Bluetooth Characteristics

PARAMETER	Condition	MIN	TYP	MAX	UNIT
Operate Frequency	2402-2480	2402		2480	MHZ
RXSENS-1Mbps	BER=0.001		-90		dBm
RXSENS-2Mbps	BER=0.0001		-92		dBm
RXSENS-3Mbps	BER=0.0001		-84		dBm
Maximum received signal	BER=0.001	0			dBm
Maximum RF transmit power			5		dBm
RF Power Control Range		30			dB



博昊科技有限公司
BOUGH TECHNOLOGY LIMITED

Room629,F Building,Digital Silicon Valley Industrial Park, HengPing Road,
HengGang Street, LongGang District, ShenZhen,China.
Tel:+86 755 2891 8311. Fax:+86 755 2891 9311. www.bough.com.cn

Audio Characteristics

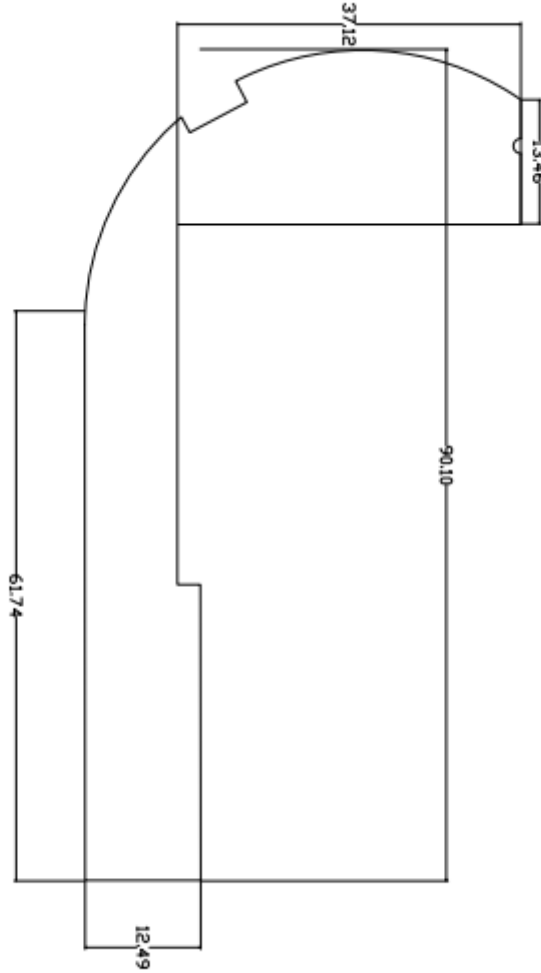
Parameter	Condition	MIN	TYP	MAX	UNIT
DAC Output Amplitude	Single-end Output			1	Vrms
DAC Noise Floor	@600ohm loading		-89		dBm
DAC Dynamic Range	1KHZ Sine wave		90		dB
DAC SNDR	Single-end@1.0Vrms		75		dB
DAC Sample Rate		8		48	KHZ
ADC SNDR	1KHZ Sine wave		96		dB
ADC Sample Rate		8		16	KHZ



博昊科技有限公司
BOUGH TECHNOLOGY LIMITED

Room629,F Building,Digital Silicon Valley Industrial Park, HengPing Road,
HengGang Street, LongGang District, ShenZhen,China.
Tel:+86 755 2891 8311. Fax:+86 755 2891 9311. www.bough.com.cn

Module Size



Bough

LTD.