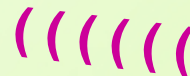
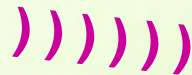


Fly Hi-Fi

Bluetooth Stereo Audio System



Why Bluetooth Stereo?

- Bluetooth is into mobile devices
 - Notebook PC
 - PDA
 - Mobile phone
 - Mp3 player
- MP3 audio is popular
- Bluetooth A2DP(Advance Audio Distribution Profile) is mature
- No extra cost in existing BT devices with A2DP

Bluetooth multimedia software

- IVT BlueSoleil for Windows/WinCE



- Widcomm(Broadcom) BTW for Windows



- i-TECH MSI BluePlayer for Nokia S60 series



Bluetooth Stereo Devices (1)

- Motorola
 - E680i (Tx)
 - Mobile phone
 - DC800 (Tx/Rx)
 - BT Stereo Transceiver
 - HT820 (Rx)
 - BT Stereo headset



Bluetooth Stereo Devices (2)

- Jazz
 - JS2302 (Rx)
 - 2.1 Ch Speaker

- Funtwist
 - D-chord 800 (Tx)
 - Bluetooth MP3 Player



Fly Hi-Fi Benefit!

- A2DP is embedded in Bluetooth TX devices
- Most of A2DP RX devices are headsets
- No existing BT stereo with amplifier in Market place
- Class 1 ensure audio streaming quality

Fly Hi-Fi Introduction

- Bluetooth technology
 - Bluetooth V1.2 compliant
 - A2DP (Audio Advance Distribution Profile) supported
 - Class.1 for long range & interference avoided
- Stereo audio transceiver
 - Transmitter
 - A2DP USB Dongle (BSD-52)
 - Stereo line input transmitter (BST-53)
 - Receiver
 - Bluetooth stereo 40Wrms amplifier with one AUX input (BSR-52)
 - Stereo line output receiver (BSR-53)

Fly Hi-Fi Transmitter

- A2DP USB Dongle (BSD-52)
 - USB 2.0 full speed
 - USB speaker emulation
 - Auto pairing
 - Class.1

- Stereo line input transmitter (BST-53)
 - A2DP stereo audio transmission
 - RCA or phone jack input
 - Auto pairing
 - Class.1



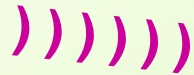
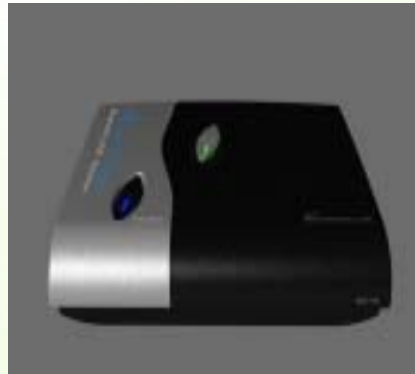
Fly Hi-Fi Receiver

- Bluetooth stereo amplifier (BSR-52)
 - BT class.1
 - 47Wrms Class-D amplifier
 - Volume/Bass/Treble adjustment
 - L/R output balance adjustment
 - Loudness supported
 - Subwoofer out supported
 - Remote control
 - A2DP stereo audio receiving
 - AUX input (direct amplifier)

- Stereo line output receiver (BSR-53)
 - BT class.1
 - RCA or phone jack output
 - A2DP stereo audio receiving



Fly Hi-Fi Application



40 Wrms Amplifier for PC

BSR-52



BSD-52 +



+

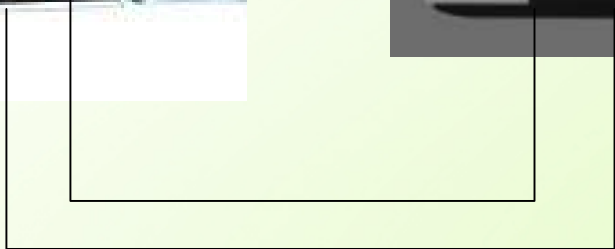
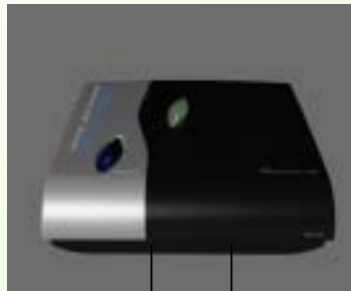


Bluetooth Stereo Audio Transceiver for Active Speaker

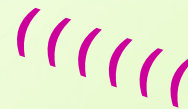
Active Speaker



BSR-53



+ BSD-52



or



BST-53

40 Wrms Amplifier for Audio Line-out Devices



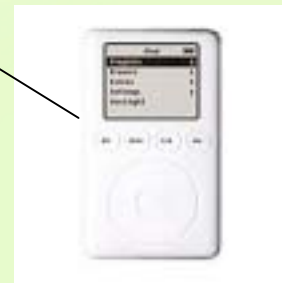
BSR-52



AUX IN



**Portable Devices
RCA Jack in**

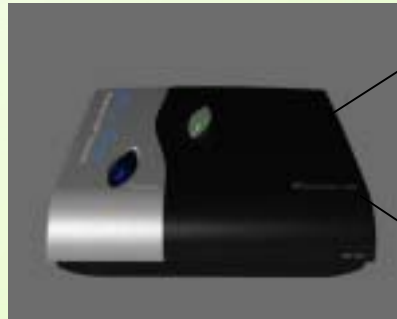


Wireless Speakers for Audio Line-out System

BSR-52



BST-53



**Audio System
RCA Line-in
/ Phone Jack**



Bluetooth Playback Amplifier for A2DP Supported



BSR-52



Motorola
E680i

A2DP Profile



HP
h6365



NB with Bluetooth

IVT or BTW
A2DP supported

Bluetooth RF Module Spec



Bluetooth RF module Parameter (1)

- Bluetooth V1.2 compliant
- Adaptive Frequency Hopping (AFH)
- A2DP(Audio Advance Distribution Profile)
- 2.400~2.4835GHz unlicensed ISM band
- FHSS (Frequency Hopping Spread Spectrum)
- GFSK modulation



Bluetooth RF module Parameter (2)

- Class 1 power class
- RF Sensitivity : -84 dBm (Max) with 0.1% BER
- Output power : 15.5 dBm (Max)
- Antenna internal embedded
- Up to 100m (limited condition)



Bluetooth RF module Parameter (1)

- Profiles: HFP, HSP, AVRCP
- Interface : GPIO, SPI, PCM
- DC supply: 3.3 V
- Dimension 45mm * 26.5mm



BSR-52 Audio Parameter

- Output power
 - 23.5W x2 @ 1k Hz, 10% THD, 4ohm
 - 14.5W x2 @ 1k Hz, 0.1% THD, 4ohm
- Frequency Response
 - 20 Hz~20k Hz @ L/R
 - 20 Hz~150 Hz @ Sub-woofer
- SNR
 - 90 dB with A-weighted

BSR-53 Audio Parameter

- Output : 1 Vrms maximum
- Frequency Response : 20Hz~20kHz
- SNR : 92 dB