

apm8282 Bluetooth Audio Module



GENERAL DESCRIPTION

apm8282 is a fully compliant Bluetooth v2.0+EDR system module for data and voice communication. It integrated BC5-MM, RF matching circuit, crystal and Flash memory into a surface mount module with a compact size of 11×13×1.9mm.

The specified profiles and firmware are pre-loaded into the built-in flash memory of apm8282 for Bluetooth audio transmission and receiving. It can be easily embedded into portable multimedia and audio systems for Bluetooth wireless communication. The pre-tested module reduces the customer development risk and cost greatly.

FEATURES

- Compact size module: 64-pin surface mount module with a size of 11×13×1.9mm
- Integrate Bluetooth chip, RF matching circuit, crystal and Flash memory on a single module.
- Fully compliant with Bluetooth V2.0+EDR spec.
- Support up to 18 (16 digital and 2 analogue)

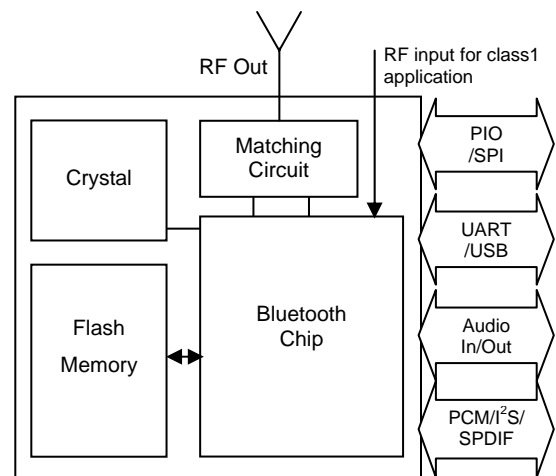
programmable I/O terminals.

- Internal 16-bit stereo audio CODEC with -95dB SNR for DAC
- Support PCM/I²S/SPDIF interface
- USB and UART with Dual Port Bypass Mode to 4Mbits/s
- Support firmware upgrade.
- Class2 RF output power: < +4 dBm
- Receiver sensitivity: -86dBm @0.1%BER

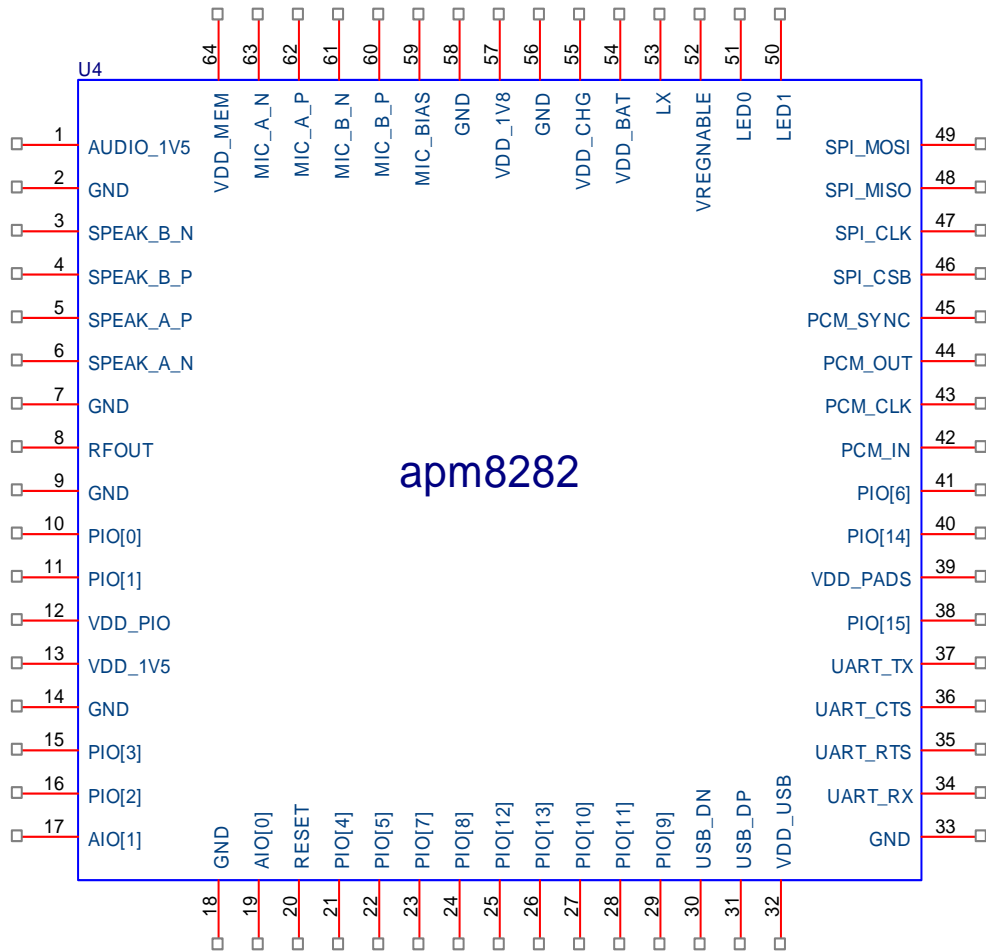
APPLICATION

- High Quality Stereo Wireless Headsets
- High Quality Mono Headsets
- Hands-Free Car kits
- Wireless Speaker
- VOIP Handsets
- Analogue and USB Multimedia Dongles
- Bluetooth-Enabled Automotive Wireless Gateway

BLOCK DIAGRAM



PIN ASSIGNMENT (TOP VIEW)



ABSOLUTE MAXIMUM RATING

Description		Min.	Typ.	Max.	Units
Storage Temperature		-40	-	+125	°C
Supply Voltage: AUDIO_1V5, VDD_1V5		-0.4	-	1.65	Volt
Supply Voltage: VDD_PADS, VDD_PIO, VDD_MEM and VDD_USB		-0.4	-	3.6	Volt
Supply Voltage:	VDD_1V8	-0.4	-	2.7	Volt
	VREGENABLE	-0.4	-	5.6	Volt
	VDD_BAT, LED[0], LED[1]	-0.4	-	4.4	Volt
	VDD_CHG	-0.4	-	6.5	Volt

RECOMMENDED OPERATING CONDITION

Description	Min.	Typ.	Max.	Units
Operating temperature	-40	-	+85	°C
Guaranteed RF performance range	-25	-	+85	°C
Supply Voltage: VDD_1V5	1.42	-	1.57	Volt
Supply Voltage: VDD_1V8	1.7	-	1.9	Volt
Supply Voltage: VDD_PADS, VDD_PIO, VDD_MEM and VDD_USB	-0.4	3.3	3.6	Volt

MECHANICAL SPECIFICATION

Dimension	11×13×1.9mm
Weight	TBD
Pinout	65pin
Antenna	External single antenna support (Pin 8)