

USB Type-C Analog Audio Switch With Protection Function

FEATURES

- Power Supply V_{CC}: 2.7V to 5.5V
- USB High-Speed (480Mbps) Switch
 - SDD₂₁ -3dB Bandwidth: 950MHz
 - 3Ω R_{ON} Typical
- Audio Switch
 - Negative Rail Capability: -3V to +3V
 - THD+N = -108dB; 1V_{RMS}, f = 20Hz to 20KHz, 32Ω Load
 - 0.9Ω R_{ON} Typical
- High Voltage Protection
 - 20V DC Tolerance on Connector Side Pins
 - Over Voltage Protection: V_{TH} = 5V(Typ.)
- OMTP and CTIA Pinout Support
- Support Audio Sense Path
- 25-Ball WLCSP Package (2.24mm x 2.28mm)

GENERAL DESCRIPTIONS

The ASW5480 is a high performance USB Type-C port Multimedia switch which supports analog audio headsets. ASW5480 allows the sharing of a common USB Type-C port to pass USB2.0 signal, analog audio, sideband use wires and analog microphone signal. ASW5480 also supports high voltage on SBU port and USB port on USB Type-C receptacle side.

APPLICATIONS

- Mobile Phone
- Tablet
- Notebook PC
- Media Player

BLOCK DIAGRAM

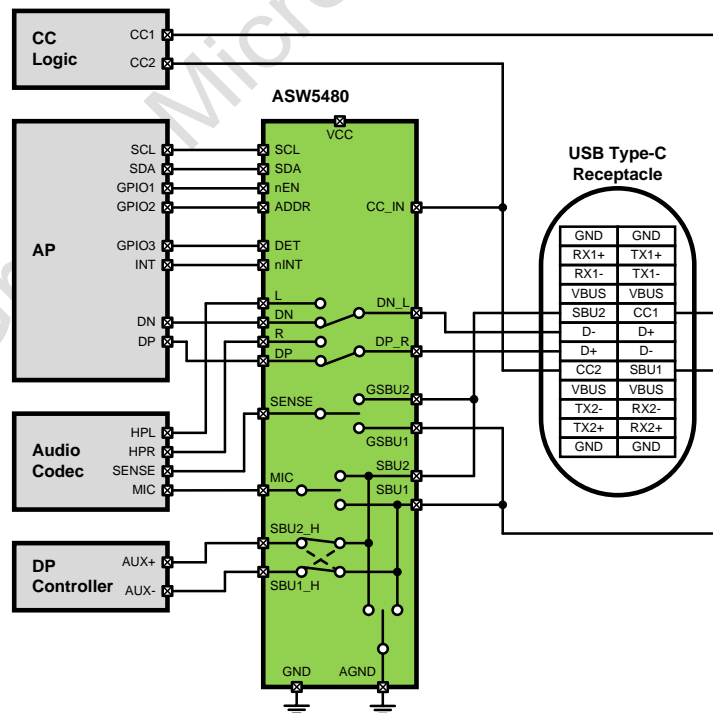


Figure 1, Block Diagram

PIN DIAGRAM

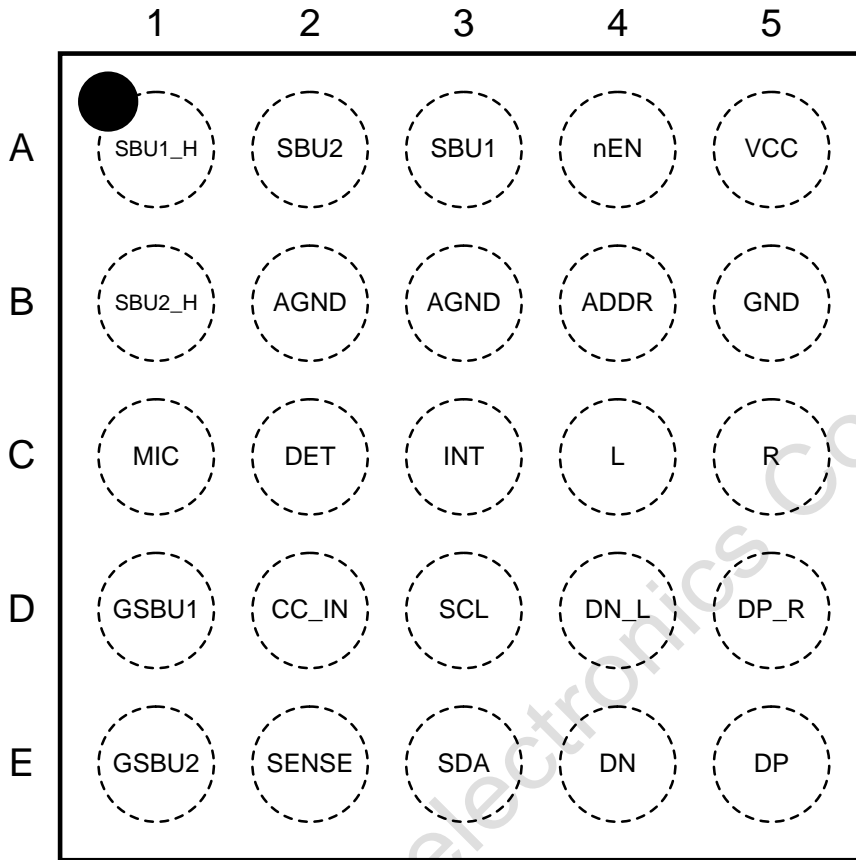


Figure 2, Pin Diagram (Top View)

PIN DESCRIPTIONS

No.	PIN No.	PIN NAME	TYPE	DESCRIPTIONS
1	A5	VCC	Power	Power Supply (2.7V to 5.5V)
2	B5	GND	Ground	Chip Ground
3	D5	DP_R	I/O	USB/Audio Common Connector
4	D4	DN_L	I/O	USB/Audio Common Connector
5	E5	DP	I/O	USB Data (Differential +)
6	E4	DN	I/O	USB Data (Differential -)
7	C5	R	I/O	Audio Right Channel
8	C4	L	I/O	Audio Left Channel
9	A3	SBU1	I/O	Sideband Use Wire 1
10	A2	SBU2	I/O	Sideband Use Wire 2
11	C1	MIC	I/O	Microphone Signal
12	B2	AGND	Ground	Audio Signal Ground
13	B3	AGND	Ground	Audio Signal Ground
14	E2	SENSE	I/O	Audio Ground Reference Output
15	C3	nINT	O	I ² C Interrupt Output, Active Low (Open Drain)
16	D2	CC_IN	I	Audio Accessory Attachment Detection Input
17	D1	GSBU1	I/O	Audio Sense Path 1 to Headset Jack GND
18	E1	GSBU2	I/O	Audio Sense Path 2 to Headset Jack GND
19	C2	DET	O	Push-Pull Output. When CC_IN > 1.5V, DET is Low and CC_IN < 1.2V, DET is High
20	D3	SCL	I	I ² C Clock
21	E3	SDA	I/O	I ² C Data
22	B1	SBU2_H	I/O	Host Side Sideband Use Wire 2
23	A1	SBU1_H	I/O	Host Side Sideband Use Wire 1
24	A4	nEN	I	Chip Enable, Active Low, Internal Pull-Down by 470kΩ
25	B4	ADDR	I	I ² C Slave Address Pin